GAME CHANGER?
PLANNING FOR JUST AND SUSTAINABLE URBAN REGIONS

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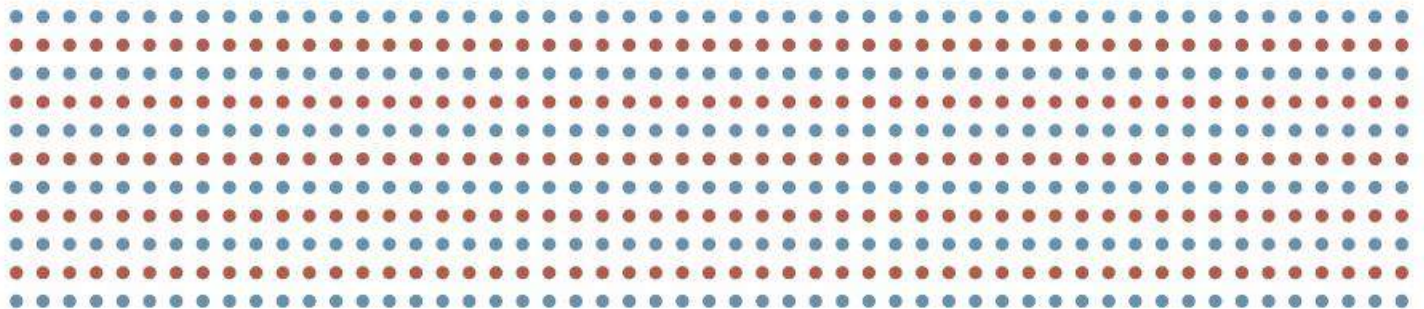
Table of contents

Track 02: Markets 104

Track 03: Law 131

Track 04: Borders 162

Track 06: Governance 283

Track 07: Environment And Climate......................... 357

Track 08: Public Space 433

Track 09: Inclusion.. 484

Track 10: Education 538

Track 11: Housing 563

Track 12: Futuring.. 606

Track 13: Theories 656

Track 14: Policy Mobility 697

Track 15: Histories... 724

Track 16: Networks And Data 749

Track 17: Risks 790

Track 18: Actor Constellations 837

Meetings...877

International Events..878

French Cuisine.. 880

Special Session 883

Round Tables 957

Online Sessions 1028

List of authors 1095

Track 01: Postgrowth

Postgrowth - Planning for other worlds and different development models

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Keywords: risks, alternative visions, dreamscapes, development model, post-growth, post-growth economy, doughnut economy, common good economy

The current IPCC report clarifies that the window for achieving the necessary transformation and transition towards a climate-resilient development closes. At the same time, doubts about the justice, sustainability and future viability of our growth model are growing in the IPCC and the current report 'Earth for All' for the Club of Rome (September 2022).

Attempts such as the Global Agenda 2030 or the EU's Green Deal to combine ecological and social aspects aim for appropriate economic growth while decoupling economic growth and environmental destruction.

The so-called post-growth economy, the doughnut economy, the common good economy and similar concepts attempt to show alternatives to the conventional growth model that can enrich urban and spatial planning.

We need climate-resilient development to achieve social sustainability goals and sustainable urban and regional development.

We welcome theoretical, methodological, and empirical contributions that address the following questions (and more):.

- How can ideas from the post-growth debate help to understand current crises and find answers?

- Which social and economic risks areassociated with this?

For this track, we invite – academic or practice - papers reflecting on related issues, mobilising facts and figures, bringing examples to the discussion, and tracing out potential future states of things from all corners of the globe.

In addition, we invite papers that start 'dreaming' again. It is not a dream that builds castles in the clouds, a leisurely and idle exercise of compensatory nature. The educated dreaming (docta spes, Ernst Bloch) is bound to "teach desire, to desire better, to desire more, and above all to desire differently" (Thompson, 1977, p. 330).

Such a dreamscape of desires may provide the disruptive force that breaks through cultured routines and establishes other worlds and different development models.

(Beyond) Post-Growth Planning

Instituting Post-Growth Planning: Urban-Rural-Industrial Conflicts In The Amsterdam City-Region

Federico Savini (University Of Amsterdam)

Post-growth planning has been defined as a practice and a new planning regulatory framework that puts care (for land and communities), sufficiency, well-being, and autonomy at its center. Within post-growth planning scholarship, the key argument is that planning needs to indent the consolidated ideology of growth at many levels, from the regulatory frameworks that govern land use and value to the deeper worldviews and ideologies that motivate planning practitioners. Yet, scholars have hardly explained how these values, worldviews, and new regulatory frameworks come about. This is what I define as the problem of instituting post-growth planning, namely the challenge to create public support, political legitimacy, and institutional capacity to produce frameworks, regulations, and procedures for post-growth planning. In my paper, I will argue that this process includes both a deconstruction and a reconstruction of the institutional apparatus of planning, starting from processes of interruption of planned (future) growth and the undoing of established planning rules. This deconstruction is sided by an active practice of reconstructing new social norms and institutions, which is an active socio-political struggle for the careful management of land and its socio-ecological valorization. In the paper, I will conceptualize this double 'movement' of post-growth planning and trace the contestation of existing planning frameworks and the institution of new planning norms. To do so I will discuss the example of the Lutkemeerpolder, 100 hectares of land situated at the boundary between the city, countryside, and airport in the South-West fringe of the Amsterdam city-region. Today, the polder is the site where existing planning frameworks are contested by grassroots political movements, motivated by new post-growth policy frameworks (i.e.. the 'doughnut city' framework recently approved by the Amsterdam administration). For 20 years, the area has been developed as a key site for the economic growth of the city, a logistical hub providing jobs related to smart logistics and airport traffic. At the same time, the area is recognized as the last fertile soil of the city, with significant ecological, social, and historical value. It has become the struggle of a vibrant, committed, and organized advocacy community that tries to protect it. By tracing the history of this planning project, I will show the dialectic way in which post-growth planning emerges as a real-life alternative to existing (growth-led) planning processes.

Conflicting Interests Between Local Governments And The European Target Of No Net Land Take

Simona R Gradinaru (Swiss Federal Research Institute Wsl), **Monica Paraschiv** (National Meteorological Administration, Romania), **Cristian Ioan Ioja** (Centre For Environmental Research And Impact Studies, University Of Bucharest, Romania), **Jasper van Vliet** (Institute For Environmental Studies, Vrije Universiteit Amsterdam, The Netherlands.)

Urban expansion is taking place at a high rate in Europe, with conversion of agricultural land, forest and other land use into built-up areas (Van Vliet, 2019). To halt this process, the European Union set a "No Net Land Take by 2050" target in 2011 (NNLT). Despite this policy, land take continues to occur in Europe, with studies suggesting that local decision-making is playing a major role in land-use conversions (Götze and Hartmann, 2021). In this study, we investigate how local decision-making influences land take, specifically by analysing the use of urban growth boundaries (UGBs) by Romanian local governments. UGBs delineate areas within designated boundaries which can be used for urban development, while areas outside these boundaries are left for agriculture or preserved in their natural state. Existing studies show that changes of UGBs allows further expansion of built spaces, or at least remove the restrictions to do so. However, it remains unclear what drives local governments (which are ultimately responsible for their implementation) to change them.

A mixed-method approach was adopted, combining analysis of UGB changes over the past decade in all Romanian cities (N = 319) with a survey among representatives of local governments involved in land-use decision-making (N = 91 cities). Using statistical analysis we also tested six hypotheses regarding factors potentially influencing UGB dynamics, pertaining to dynamics of built-up areas, demographics, nature protection city size and financial independence of municipalities.

Results showed that many cities have expanded their UGBs, even in municipalities with population loss and sufficient undeveloped land within their UGBs. This oversupply of undeveloped land, describing the situation when there are many unused plots of building land but rezoning new building land in land-use plans continues, is similar to the ones observed in Austria (Humer 2018) and Belgium (Shahab et al., 2021). This indicates that Romanian local governments` decisions conflict with the NNLT target set at the European level.

Hypothesis testing showed that population dynamics and the extent of nature conservation areas contribute to UGB changes, though these explain just a small fraction of all UGB changes. The survey indicated a wide range of motivations among decision-makers regarding changing UGBs, including cities' competitiveness and decisions about the long-term vision for development. Findings also indicate that the use of UGBs in Romania follows what Viallon et al. (2019) calls "diversion in implementation of land-use policy instruments", i.e., a situation where a policy instrument is enforced but fails to achieve the intended policy objectives.

Our study contributes to discussions of diverging perspectives of local and central governments regarding land take and built-up containment; and brings important nuances to the embedded premise that financial incentives are the main factor behind the growth-oriented attitude of urban municipalities. The findings have implications for discussion of how land take, soil sealing and urban sprawl can be avoided, reduced and compensated for in Europe.

Keywords : urban development, Land-use change, Urban growth boundary, Strategic planning, institutional drivers, Romania

An Ideological Critique Of A Degrowth (Circular) Metabolism

Emma Griffith (Universiteit Van Amsterdam), **Federico Savini** (Universiteit Van Amsterdam)

The paper explores a degrowth circular economy, namely a planning program of reducing and reusing urban material flows within cities. To do so, I will question the circular economy (CE) from a perspective of hegemony, ideology, and subjectivity. The paper, thus, aims to conceptualise the relation between institutions and subjectivity in the study of the CE. While the CE is presented as a radical solution to the linear urban economy, critics point out that its current mainstream applications are underpinned by technocratic and ecomodernist ideologies (Genovese and Pansera, 2021). Indeed, mainstream CE approaches are clearly oriented to develop new technologies, regulations, and practices to generate economic value from waste (Savini, 2023). Departing from recent literature on the ideological roots of CE, this paper analyses how such ideologies materialise in the institutions and regulations that govern the material flows of resources and waste within regions, which is their social metabolism. It analyses how social norms about actors' responsibilities, geography, and value of waste and resources are enacted through planning regulations. In so doing, I will reflect on the institutional dimensions that structure hegemony or promote counter-hegemony in the field of the circular economy.

To do so, I will reflect on the relation between subjectivity and materiality. This will allow to shed light on the transformation of the self, and on how hegemony influences subjectivity. In the context of CE, I conceptualize subjectivity as one's perception of the self in relation to materials, such as waste, food, land, water. Self-transformation is increasingly emphasized in the academic literature as necessary to degrowth transitions but remains undertheorized and somewhat 'idealistic'. I will show how different social norms are enacted in the process of defending and contesting particular views of the CE in land development. This move is in line with recent critiques that emphasize that visions of circular cities must include an understanding of how the circular economy is embedded in society (Calisto Friant, Vermeulen and Salomone, 2023; Ziegler et al., 2023).

I exemplify this framework through the case of a fertile land of 100 hectares in the southwest border of Amsterdam which will become the site for a new distribution center: the Lutkemeerpolder. The future of the Lutkemeerpolder is a space of ideological conflict, where an hegemonic view on industrial urban growth is set against a counter-hegemonic practice of agroecological commoning. This case shows how ideologies materialize in the built environment through regulations, and how different subjects contest such approaches to the urban metabolism. The discussion of the case allows to confront two opposite visions of circularity defined by how they assign value and define subjects' relation with materiality, raising important questions for a shift towards a post-growth planning practice.

Keywords : circular economy, degrowth, subjectivity, (counter)hegemony, materiality

Urban Planning In The Post-Growth Era: Insights From World Bank Indicators

XIN LI (Tongji University), **TING YANG** (Tongji University)

In an era where the urgency of transitioning to a climate-resilient development model is highlighted by the current IPCC report, this paper addresses the complex relationship between urban planning, economic growth, and sustainability. Despite significant attention in contemporary policy discourse, particularly in using large-scale data for strategic urban planning, there remains a theoretical gap in understanding the interplay between economic growth, climate change, social justice, and economic sustainability. This gap has led to misconceptions in policy-making and urban planning strategies.

To bridge this gap, this study presents a novel economic growth model, based on an extensive analysis of 921 indicators from the World Bank database. Utilizing advanced statistical techniques, we unravel the complex influences these indicators have on economic growth. Our analysis identifies two primary categories of growth drivers: 'Economic Pattern Dynamic', with a 37.8% influence, and 'Developmental Environmental Dynamics', consisting of eight dynamics and contributing 63.2% influence.

The role of urban planning is critical in harnessing these dynamics to adjust and optimize the way economies grow. This paper proposes a model for urban planning's role, divided into two directions. The first addresses 'Economic Pattern Dynamic', driven by inputs such as material, informational, and energy capitals. The evolution of this dynamic suggests a diminishing role for information capital in the same economic model over time. Only through technological innovation can economic development patterns shift, leading to sustainable economic growth. The second direction optimizes the eight developmental environmental dynamics through urban planning, impacting economic development in two modes: as cost factors and as efficiency enhancers. These evolve in two distinct ways with economic growth, either increasing or decreasing in influence.

Recognizing urban planning's catalytic role, we develop an empirical framework quantifying the relative weights of these drivers and outlining intervention strategies. This framework offers urban planners actionable insights, linking economic indicators to urban policies. The model integrates these influences into a coherent structure for predictive analytics and evidence-based planning, providing different urban planning strategies for various stages of economic development and exploring the significance of adapting to economic evolution.

The empirical model proposes tailored urban planning strategies for different economic development stages, discussing the implications of applying the model in dynamically evolving economic contexts. To establish a robust connection between theoretical constructs and their practical utility, our research meticulously documents the process of transforming data insights into actionable plans. Armed with this economic growth model, urban planners can precisely anticipate the economic impact of their decisions and tailor their initiatives to create environments conducive to prosperity.

This paper concludes by underscoring the transformative potential of data-informed urban planning in reshaping urban economies. It advocates for an integrative approach that blends rigorous data analysis with visionary planning, aiming for a sustainable and inclusive growth. The policy implications of our findings suggest a recalibration of urban planning paradigms, steering them towards not only quantitative growth but also qualitative improvements in living standards, and emphasizing urban planning's strategic leverage in scripting the economic fortunes of cities for balanced and resilient development.

Keywords *: Urban Planning, Post-Growth Era, Economic Growth Model, World Bank Indicators, Sustainable Development*

Beyond Individualism; What's There And How Do We Get To It?

Sophie Sturup (Xi'an Jiaotong-Liverpool University)

We currently face existential challenges which demand radical change to how we live. Taken with the potential transition to sustainable development, this radical change will strike deep into the heart of our ways of being, not just our ways of living. There is an opportunity here to transform what it is to be human. But what would we transform into? Where can we learn these new ways of being? Where are the models that could allow us to capture this transformation?

Individualism has slipped all bounds. So much so that it is no longer possible to speak of community, except perhaps the gated communities of our minds (which we enhance through the use of the internet) (Calthorpe & Fulton, 2001). The private is sacrosanct, impinged only by the individual themselves in pursuit of their own advantage. The vision for a different future, the sustainable development goals, are accused of being co-opted.

Strategic Planning is entrenched in this individualism. Plans cannot talk of choices for the greater good, only in terms of compensation for individuals harmed. Plans cannot talk of limits, unless they are temporary, encompassing strategy for overcoming them with the next technological innovation. Those who cannot speak are blamed for their silence, or at best cared for inside helping everyone. Data driven planning provides justification for incremental improvement while sustaining what already is. There is little or no room to discuss what WE want to sustain.

This paper, presents some preliminary thinking on this topic. It provides a framing of the problem of individualism, as well as the benefits individualism has undoubtedly created. It explores sources of alternatives from older ways of being from communitarianism through to indigenous knowledges. In outlining a research agenda, ideas of possible means to implement such a transformation are explored.

From Post-War Modernisation To The Ideal Of The Future: The Large Housing Estates In The Perspective Of Degrowth.

Izabela MIRONOWICZ (Gdańsk University Of Technology)

Large housing estates built using industrialised technology were, and still are, an important part of the housing stock of many European cities (Rowlands, Musterd and van Kempen, 2009). In the face of wartime devastation and continuing urbanisation, their construction was often the only available way to meet the housing needs of a growing urban population. These estates offered residents a step-change in their living conditions, yet they became the subject of negative narratives (Zupan, 2021).

An in-depth study of the functional and spatial transformations that took place between 1990 and 2020 in six selected large housing estates located in cities of three former 'Eastern Bloc' countries (Brno, Wroclaw, Dresden) has led to interesting conclusions regarding the key urban indicators, the organisation of space and other factors influencing the quality of life in these estates (Porada, 2023).

I deliberately do not conceptualise the location of the case studies as 'post-socialist cities', as I share Hirt's (2016) argument challenging this conceptualisation as not well grounded in the actual evidence.

The results and conclusions of the research on housing estates are examined against the selected postulates of degrowth that relate to cities or urban policies (Cosme, Santos and O'Neill, 2017; Monbiot, 2020; Savini, 2021; Fitzpatrick, Parrique and Cosme, 2022). Degrowth is defined here as the planned and democratic reduction of production and consumption to address environmental and social crises.

I will show that many of the solutions applied in large housing estates can support not only the postulates of degrowth but also other urban policies, such as climate adaptation plans. I argue that large housing estates, in many key solutions, can serve as a model for degrowth transformation in cities.

***Keywords** : degrowth, large housing estates, models of urban transfromation*

Transitions And Sustainable (Post Growth) Development

Energy-Dependent Urban Densification Towards A New Strategic Development Model In Sub-Saharan Africa

Federica Fiacco (City University Of Hong Kong), **Kezala Jere** (The Copperbelt University), **Gianni Talamini** (City University Of Hong Kong)

Sub-Saharan Africa's rapid urbanisation must be understood as integrated into a peculiar culture and serving the needs of a rapidly developing society. Against a rigid and partially outdated urban planning framework, new policy-driven urban development is necessary to achieve sustainable city growth and deal with contextualised factors.

For this purpose, this study looks at the urban setting of Lusaka, the capital of Zambia. It demonstrates that renewable technologies may be used as a tool towards a net zero strategic territorial development, with ongoing horizontal growth finally able to be the cradle for an energy transition towards a different urban development model.

The research proposes a theoretical framework setting on-site energy production as a constraint for urban densification; by capping maximum energy consumption in a building within the maximum amount of energy produced on-site, the morphological dimensions could be controlled: (1) dwellers' density, (2) site coverage, (3) floor area ratio, and (4) number of storeys.

This approach would address urban and energy challenges by controlling horizontal and vertical expansion through clean energy generation. Subsequently, such an energy-driven urban transition would limit the exposure to the risks deriving from rapid urbanisation and climate change, paving the way to a regulated, strategic, and sustainable territorial development model.

This research aims to set up a method of easy implementation for energy-self-sufficient urban areas, guiding the region towards sustainable development. It will be of interest to researchers, policymakers and institutions, and NGOs working for sustainable urban development in Sub-Saharan Africa.

Keywords *: Rapid urbanization, Urban densification, Sustainable urban development, Urban model, Sub-Saharan Africa*

Bringing The 'Foundational Economy' From Theory To Practice In Wales

Stefania Fiorentino (University Of Cambridge), **Sean Lee** (University Of Cambridge)

Within the emerging gamut of heterodox trends in economics and post-growth planning theories to face climate change and the rising global inequalities, we look at the UK and focus on the Foundational Economy (FE). As for the other parallel frameworks, the greatest challenge is represented by turning key theoretical principles into real policy and practice. The Welsh government tried to do so, by embedding FE guidance into the Welsh Economic Action Plan (2017), formally embracing the FE to deliver a long-term, sustainable economy to the whole Welsh region. The FE has since formally entered the Welsh national planning discourse through statutory planning documents, elevating the concept from a conceptual debate to a nationwide spatial and regional development policy content. But great challenges are still found within the daily practices of local governments. We carried out a statistical analysis of key economic data, a detailed content analysis of 689 policy documents at different scales and 11 semi-structured interviews to selected planning representatives, in an attempt to disentangle the policy-makers perceptions of the FE and the other alternative "growth" models as well as to understand and describe the key practical challenges offered to their implementation. We identify two main issues. The first one lies in the fuzzy definition of the FE, its theoretical approach, and the difficulty in measuring any FE contribution trough traditional economic tools and lenses. The second challenge is represented by the current governance structure, and the barriers faced by local governments in innovating practices following FE principles and requirements. The Welsh example confirms that restructuring planning governance and reforming economic policy are two required and synergic efforts for a sustainable and inclusive "alternative-growth" future.

Keywords *: Resilient Rural, foundational economy, Post-Growth Era, Governance Reform*

Redefining Urban Prosperity: A 'Getting Wiser' Approach For Just And Sustainable Urban Development

Javier Martinez (University Of Twente), **Carmen Anthonj** (University Of Twente), **Marija Bockarjova** (University Of Twente)

The existing emphasis on economic growth, measured predominantly through Gross Domestic Product (GDP), as a means to achieve societal well-being, has been broadly deemed problematic. GDP is associated with increasing environmental and social costs asymmetrically distributed among the population and social groups. Economic growth alone is insufficient to guarantee sustainable and inclusive well-being (Rojas, 2019).

The central thesis of our approach argues that increased GDP rarely translate into improved well-being. In this presentation, we introduce the 'Getting WISER' – a development framework to identify the best options for building a high-well-being society that integrates productivity growth with social, economic, and environmental sustainability. Our work aligns with the United Nations' 2030 Agenda for Sustainable Development and The New Urban Agenda (NUA), emphasising the importance of sustainable urban development and management in enhancing the quality of life (UN-Habitat, 2017). A central aspect of our approach is the emphasis on people-centred policies and interventions that value participation, environmental justice, social fairness, and equity. This approach demands integrating context-embedded community knowledge alongside technical or scientific expertise. The co-production and presentation of knowledge on environmental justice and well-being are critical in ensuring that sustainable development efforts are inclusive, leaving no person or place behind. Our objectives are twofold: firstly, to assess how different disadvantaged groups perceive and are impacted by the qualities of the built and natural environment, and secondly, to analyse how these environmental conditions can enhance people's subjective well-being and health, with a focus on urban blue and green spaces.

We will conduct in-depth case studies in the Netherlands and East and West Africa to operationalise the framework. Methods include digital participatory mapping, go-along interviews, and surveys, aiming to understand and quantify the impact of the built and natural environment on subjective well-being (IWG, 2013) and livelihoods (DfID, 1999; Bohle 2009). The study prioritises the voices of residents in deprived neighbourhoods, ethnic minorities, people with disabilities, women, migrants, and refugees. Our research contributes to the discourse on sustainable well-being by highlighting the need for holistic and inclusive urban development policies. By prioritising the experiences and needs of disadvantaged groups and integrating community knowledge with scientific research, we aim to guide policymakers toward more equitable and sustainable urban development strategies, ensuring a high-wellbeing society with tangible improvements in the quality of life for all.

Keywords : sustainable development, well-being, blue and green infrastructure, inclusive urban development, community knowledge integration

Food Beyond Growth. European Territories Of Agri-Food Production Between Patrimonialisation And Sustainability

Matteo Basso (University Iuav Of Venice), **Marta De Marchi** (University Iuav Of Venice), **Giulia Lucertini** (University Iuav Of Venice)

Post-growth has almost always been approached from the perspective of cities, too often forgetting rural areas. Referring to urban areas, research and reflection on this topic have mainly considered issues such as housing, infrastructure, real estate and industrial development. However, also in the light of contemporary global challenges – climate change, energy crisis, access to limited natural resources, demographic and economic transformations –, it is becoming urgent to also look at differently inhabited territories from a post-growth perspective: constellations of conurbations, small towns and villages, rural areas and their agricultural productions.

In Europe, some territories are characterised today by highly specialised and intensive agricultural productions, providing high value-added products that are in high demand and attractive, especially in international markets. These territories – often referred to as agro-industrial (Brenner and Katsikis, 2020) – represent, to all intents and purposes, areas of production of an industrial nature, whose economies call for strong drives towards innovation, optimisation, and almost always outright exploitation in the use of resources.

In the most economically successful cases, the specific productions of these territories have favoured a cascading local development. Not only have some agricultural productions become increasingly profitable over the years, yet also tourism has also exploded in the form of thematic museums and events, landscape itineraries, farm and company visits, overnight stays in villages, etc. In short, local food and wine productions have become the leverage of local development policies: such a "patrimonialisation" process results from the interaction of a plurality of actors operating locally and globally, who carefully select the discursive elements through which a territory and its "typical" products are communicated (Tomé, 2021).

Pro-growth local agendas, however, often clash with the impacts that such processes generate. Market-led intensive agricultural productions, for instance, pay very little attention to the socio-ecological impacts of monocultures (i.e. land-use and landscape modifications, environmental degradation, and public health issues connected to the massive use of chemicals) (Franco et al., 2022); in addition, the host economy may suffer from negative externalities as touristification, and the uncontrolled increase in the value of real estate properties and agricultural land.

The paper aims to bring these three aspects into tension – post-growth, intensive agricultural production, territorial patrimonialisation – by trying to put forward some hypotheses that could rebalance the weights and relationships between economic, social and environmental issues in the rural world, highlighting the risks of the conventional agricultural production model, but also identifying the existing potential. The aim is to try to build future-proof innovative territorial visions and strategies, with a view to circularity and sustainability. This is also highlighted and desired by the EU (2021) in the "Long-term Vision for the EU's Rural Areas - Towards stronger, connected, resilient and prosperous rural areas by 2040".

Empirical evidence derives from the observation of two territories in the Veneto Region (North-Eastern Italy), where some "typical" and economically competitive agri-food products originate: Lusia, where salad and a specific variety of garlic are produced, and Vittorio Veneto in the heart of the globally known Prosecco wine production zone. These products are today particularly important on both the national and international markets and their territories are protected by specific designations of origin. However, after a great and not infrequently deregulated expansion of agricultural productions (Basso, 2019), both contexts suffer today from significant environmental problems, and a generalised socio-economic contraction. The two contexts help us understand that agriculture undoubtedly plays a fundamental role in both food production and territorial development, however, the limits of the current development models also call for a reflection on the need for a new model of growth also in the rural world.

Keywords *: food and wine production, monoculture, patrimonialisation, local development, sustainability*

Towards Post-Growth Cities: The Cultural Politics Of Mobility Transitions In Tower Hamlets, London

Imogen Hamilton-Jones (Lse Cities, London School Of Economics And Political Science)

Post-growth planning is an urgent new paradigm seeking to reorient urban development goals away from economic growth and towards ecological and social well-being. There is a need, however, for this emerging field to pay more attention to the fundamental role of cultural politics in enabling such a shift. In response, our research foregrounds 'the cultural' as a vital site of political struggles over meaning (Korf, 2020) and applies this to the recent backlash against progressive urban mobility initiatives in European cities from Oslo to Berlin to Barcelona. This paper focuses particularly on the recent introduction (and subsequent dismantling) of Low-Traffic Neighbourhoods (LTNs) in Tower Hamlets, London. Whilst LTNs have not been explicitly framed as post-growth urban planning, they contain latent elements of post-growth that challenge the growth-driven hegemony of contemporary urban mobility – for instance, by evoking values, imaginaries and affective relations of commoning and ''alternative hedonism'' (Soper, 2020). This paper analyses emerging findings from ethnographic fieldwork in Tower Hamlets and introduces key discussion questions arising from them. We consider, especially, how post-growth planning might work in practice to help communities to overcome polarisation and to collectively re-politicise and re-imagine urban mobility transitions at neighbourhood level. Finally, we suggest ways in which the contested cultural politics of urban mobility transitions might illuminate the broader political challenges of transforming existing urban spaces and infrastructures towards post-growth futures.

Infrastructure And Resource Management

Narrating Postgrowth Through Infrastructures Of Curatorship

Iulian Barba Lata (Radboud University Nijmegen)

This paper reflects on the possibilities to tackle more effectively an entire host of sustainability concerns and related upscaling questions, albeit on a different note than articulated by incumbent urban agendas. It does so from a speculative and, not least, critical standpoint, whereby a postgrowth orientation in planning is chiefly informed by infrastructures of curatorship. Such infrastructures are further problematized in view of several evocative cases from the Netherlands, to elucidate how the circulation and concoction of heterogeneous ideas and materials provides important clues toward alternative value regimes. The latter can unsettle entrenched ways of dwelling, learning and narrating the city and, as such, to benefit ongoing attempts to re-imagine urban and spatial planning from a postgrowth perspective.

Research On Rural Revitalization Planning From The Perspective Of Ecological Capitalization: Taking Nuanshui Township As An Example

Siwei Peng (Southeast University)

In the context of a long-term urban-rural dual system guided by urban growth, the problem of rural decline has become increasingly prominent. It has become an important issue in China to revitalize the countryside and coordinate the relationship between urban and rural areas in order to achieve Chinese path to modernization. At present, the concept of "realizing ecological value" as an incentive measure for ecological protection has attracted more and more attention from institutions and scholars. However, research on using the value realization of ecological resources to drive rural revitalization is still in a fragmented outlook and conceptual stage, neglecting its potential as a sustainable driving force for urban-rural integration. Research systematically explains the basic logic of ecological capitalization driving rural revitalization, constructs an analytical framework based on the evolution process of "ecological resources ecological assets ecological capital", and proposes planning response strategies. The study takes Nuanshui Township as a typical case for empirical analysis, attempting to avoid the phenomenon of resource curse and alleviate the externalities of ecological resources, aiming to provide possible paths for protecting the ecological environment and realizing the economic value of ecological resources, and to provide reference and support for exploring the construction of rural revitalization path under the theory of ecological capitalization.

Nuanshui Township is located in the western part of Zhungeer Banner, Inner Mongolia Autonomous Region, China, and in the central part of the important coal mine source area in western Inner Mongolia Autonomous Region and northern Shaanxi province. It is a typical resource-based area. Nuanshui Township is a severely exposed area of arsenic sandstone, and this special geological condition is one of the main factors leading to soil erosion and Yellow River flood disasters in China. The long-term coal mining and special geological structure have made Nuanshui Township an important area in China to promote rural revitalization through ecological governance. Since 2009, Nuanshui Township has been designated by the Chinese government as a pilot township for the construction of ecological and natural restoration areas. As of the end of 2021, the ecological afforestation area of the entire township has reached 700000 acres, and the vegetation coverage has reached over 85%. However, the ecological governance of Nuanshui Township has achieved certain results, but the spillover effect of the dividends brought by ecological restoration is not significant. The basic situation of underdeveloped Nuanshui Township has not been fundamentally changed, and some prominent issues such as the separation of people and production, and the separation of people and land have not been resolved. How to activate the value of ecological resources and promote rural revitalization and economic development has become the main problem faced by the township.

Based on the basic logic of ecological capitalization driving rural revitalization and the analytical framework of "ecological resources ecological assets ecological capital", this study proposes three development strategies: high-level protection and restoration, high-quality development and utilization, and efficient organization and governance. The aim is to build Nuanshui Township into a comprehensive national forest park with ecological and geological characteristics in the coal mining area of western Inner Mongolia Autonomous Region and northern Shaanxi province. This plan can provide possible paths and effective support for exploring ecological capitalization to promote rural revitalization.

Post-Growth In Dutch Transport Infrastructure Planning: An Exploration Of Instruments And Practices Within Rijkswaterstaat

Stefan Verweij (University Of Groningen), **Christian Lamker** (University Of Groningen), **Bert De Groot** (University Of Groningen)

Public infrastructures are crucial in attempts to achieve a circular economy and especially net-zero targets for resource uses, such as recently strengthened both on the European level and in the Netherlands. Given the sheer volume of emissions and primary materials attributed to public infrastructures, initiatives of public infrastructure providers are important to achieve sustainability targets. However, the discretionary power and the role of such governmental agencies, as well as the instruments and practices within these agencies, have been less recognized for their potential in contributing to a large socio-economic transformation (Durrant et al., 2023). Therefore, the aim of this paper is to contribute to the development of post-growth thinking in the planning of transport infrastructure.

Public infrastructure providers are tasked with the design, implementation, and maintenance of transport networks. In that way, infrastructure providers promote economic growth. We observe, however, that there is a recent interest within such organizations in developing a different perspective on the relationship between transport networks and economic growth. In the Netherlands, Rijkswaterstaat is the executive organization of the Ministry of Infrastructure and Water Management, which develops and manages national highways and waterways. The organization is committed to a sustainable living environment and works on the development and implementation of instruments that promote sustainability. Rijkswaterstaat has the organizational target to achieve CO2-neutrality and circularity by 2030. The organization already explores and develops policy guidelines and instruments that allow steering on other indicators than those related to economic growth, such as those developed within the frame of Broad Prosperity (see e.g., Gorter & De Ridder, 2022). Broad prosperity (in Dutch: Brede Welvaart) is defined by Statistics Netherlands as concerning "the quality of life here and now and the extent to which this is at the expense of the broad prosperity of later generations or that of people elsewhere in the world" (Centraal Bureau voor de Statistiek, 2022). Furthermore, some planners start exploring what post-growth and de-growth imply for how Rijkswaterstaat can think differently about the development and management of its transport infrastructure networks (see e.g., Poelma & Witting, 2023). As such, Rijkswaterstaat is engaging in a process of redefining the boundaries of the organization's mandate. In our view, this is a major and exciting step for what has historically been a technocratic engineering organization that executes policies developed by the Ministry (Van den Brink, 2009).

The starting point of our study is that circularity and net-zero targets are necessary normative goals, as well as that public infrastructure organizations are key actors in developing, setting, and implementing respective policies. We embark on this endeavor with an explorative case study of Rijkswaterstaat. The research questions are as follows: (1) what policy guidelines and instruments exist within Rijkswaterstaat that could enable the development of post-growth planning, and (2) what roles can planners take to promote post-growth planning in Rijkswaterstaat? In the paper, based on policy instruments literature, we will develop a framework to categorize the different types of policy instruments and their potential effects on achieving post-growth planning, the different roles planners can take, and the perceived barriers and enablers for applying the instruments. Our explorative analysis will enable to better grasp the potential role of public infrastructure providers and their planners to contribute more effectively to reaching net-zero targets and become a key actor in a circular post-growth future.

Keywords *: Public Infrastructure Providers, The Netherlands, Circularity, Post-Growth Planning, Transport Networks*

Resource-Based Inner-City Redevelopment After Corona: Actors, Alliances, And Urban Scenes

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Even before the coronavirus pandemic, urban centers were facing the challenge of adapting. The Corona crisis acted as a magnifying glass on this development. It reinforced ongoing trends that, together with the growth of online retailing and changes in work and leisure patterns, have triggered further profound structural change in city centers. For example, the pandemic in the city of Aachen has increased the vacancy rate in the city center, with negative effects on the surrounding area. At the same time, the city center is of paramount importance for Aachen's vitality, identity, and international appeal.

The ACademy (AC is the city of Aachen's license plate) is a joint project initiative founded in 2021 by an interdisciplinary team from RWTH Aachen University's Built and Lived Environment profile area with an administrative team from the Citizen Dialogue and Urban Development, Planning and Mobility Infrastructure departments under the leadership of the City Management.

The work of the ACademy is based on three interconnected initial theses for the development of Aachen's inner city: 1. new alliances and cooperations - from coexistence to new synergies, 2. inner city vitality in the triad of the perspectives of use "everyday", "special" and "productive" inner city and 3. inner city change requires a change of actors - linking a spatial-functional and a management perspective.

The three initial theses and their interrelationships form the basis for both the ACademy process and the development of a conceptual framework. In the following, the inner city is understood as an interaction of "urban scenes". In short, an "urban scene" is

- an inner-city spatial context that can be experienced by users,

- whose characteristics, as perceived by urban users, are created by the interplay of public urban spaces, buildings, uses, services, people, and atmospheres,

- and therefore has specific qualities and a recognizable profile as well as interdependencies in interaction with the adjacent inner city spaces.

As a format, the ACademy follows the approach of a platform that initiates the development and exchange of knowledge between the university, the city administration and other people, groups, companies, etc. active in the city center. The ACademy enables a learning, cooperation and design process that is open to development and complements ongoing urban planning processes and instruments to inner-city development with low threshold, networked and sub-spatial approaches and impulses.

The ACademy aims to build up new (action) resources and skills for inner city development. A particular challenge in shaping transformation is to gain orientation and to develop and ultimately pursue paths to joint action, even in times of increased uncertainty and complexity. Linking the resources and expertise of various stakeholders plays a particularly important role here. The cooperation between RWTH and the City of Aachen within the framework of the ACademy is a first step and the opening and further development of the ACademy process with many other interested and actively contributing stakeholders - whether merchants, individual committed citizens, responsible persons in public and public welfare-oriented institutions, city politicians and students - is a second step towards increasing the resilience of Aachen's city center.

In addition to this stakeholder and process perspective, the ACademy's interdisciplinary approach examines the potential for use and development in the built and lived space of the inner city. It deliberately interweaves different instruments and management approaches in the city center - from the dormant potential of built spaces to sub-spatial management approaches.

Keywords : *inner-city structural change, city-management, empowerment of actors, urban scene, Aachen*

Territorial Planning And Local Energy Transitions In Italy: Missing Links And Future Prospects

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Faced with far-reaching challenges that call into question their ability to cope with both long-term shifts (climate change) and short-term shocks (financial crises, Covid-19 pandemics, regional conflicts), contemporary societies are placing increasing expectations on planning (Recklen, 2021). In the European Union (EU), this trend is leading to an increasing number of strategies being required at national level - national energy and climate plans, Common Agricultural Policy (CAP) strategic plans, and national recovery and resilience plans are some of the most prominent examples.

This current wave of planning appears to consist mainly of a combination of high-level policy objectives, market-based instruments and public works, with greater variability found in research and innovation policies and support schemes for civil society organisations. However, as the political stakes become increasingly high, the calls to take into account sharp differences in territorial contexts, to address socio-spatial inequalities and to open up decision-making to the co-creation of policy, citizenship and knowledge - all these are becoming weaker (Porter, 2013). Moreover, these trends, fuelled by heavily proceduralised implementation models and highly polarised public discourses, are at odds with the most widely accepted principles and approaches to planning, especially at the local level.

Energy transition planning presents itself as an ideal field to address the resulting frictions, as it exposes the unequal burden on vulnerable groups (all the more so in the context of recurrent fuel price crises), and requires a critical view of policy orientation, as the pursuit of net-zero emissions should remain within local carrying capacity thresholds as safely as within planetary boundaries (Becker et al., 2017).

Using a mixed-methods research design, the present paper starts from a review of recent planning processes in Italy (with contrasting observations from other European countries) that may be relevant for local energy transitions. These include a wide variety of planning procedures and approaches, ranging from municipal spatial plans to Sustainable Energy and Climate Action Plans (SECAP), regional development programmes and landscape strategies.

The evidence is then critically discussed against the background of three idealtypical planning orientations, namely community energy sharing agreements, local action plans for energy cooperation and territorial strategies for energy transitions.

With regard to renewable energy community-building processes, the most interesting observations concern the social and institutional networks involved, whose relationships with dominant energy system actors have gradually shifted from antagonism to assimilation (Magnani & Cittati, 2021). As for energy transition planning, while some practices seem to contribute to mainstreaming climate change mitigation and adaptation into planning culture and practices at the local level, no self-sustaining policy field has yet coalesced around them and integration with other planning strands is lagging (Pietrapertosa et al., 2019). Despite persistent rhetoric on intergenerational equity, concluding remarks suggest that youth are largely marginalised in public policies for energy transitions, while powerful lock-in mechanisms (Kitkou et al., 2015) appear to be responsible for conflicting trajectories in climate change adaptation.

***Keywords** : Renewable Energy Communities, intergenerational equity, spatial planning, climate change adaptation, Energy Transition*

Nature Is (Not) Democratic. Notes For A Community-Based Approach To Natural Resources

Giulia Luciani (University Of Florence)

Setting the scene: the eco-crisis we are dwelling in.

Sixty-two years ago, when Rachel Carson published her book Silent Spring, the environment was not a matter of public and political concern, and the outbreak of environmental awareness she started at the peak of the modern economic growth narrative was fiercely opposed. Since then, one could argue, environmentalism has come a long way: the green paradigm has now become an essential requirement and often a driving force for politics and policies all over the world. Nevertheless, unprecedented ecological disruption is harming territories more seriously than ever, with limitless soil consumption, chemical pollution, alteration of hydrological cycles, annihilation of ecosystems, irreparable loss of biodiversity, and so on. It seems the strategies adopted at a global level have failed to address the problem.

Diving into a key concept: nature as a resource.

The ecological modernization framework which has emerged since the Nineties as a mainstream response to the ecological crisis promises to technologically fix the unbalances and disruptions brought up by the limitless growth paradigm by decoupling wealth production and the use of natural resources. Within this system of thought, where concepts such as the Natural Capital have been introduced, the notion of nature as a resource has even intensified the centuries-long process of objectification and de-politicization of nature. By reproducing logics of hierarchy and domination, well represented by the city-countryside power balance, the mainstream approach denies the relevance of the "forces of reproduction" (Barca, 2020), while hiding the many relations – colonial, class, gender, species relations – which are the root of the current unhealthy relation with nature.

An alternative conceptualisation may help shifting from domination to cooperation logics, exemplified through the rethinking of ecosystems as "ecocommunities" (Bookchin, 2017).

Investigating planning practices: from separation to interaction.

Planning and management of nature oscillate between two opposite poles: a dominant anthropocentric dissipative attitude, updated in its green version to a "sustainable management" model, and an ecocentric conservative attitude, rooted in radical deep ecologies which aspire to a restoration of an ideal original nature. Dominant planning practices tend to adopt a resource-based, techno-centred, and even technocratic approach that results in a radicalisation of the two polarities.

An alternative view, however, can be envisaged by focusing on the intricated coevolutionary relationship between diverse ecological subjects, including humans and non-human entities. The management of local "natural resources", in a cooperative coevolutionary perspective, is not driven by top-down impositions of either sustainable-exploitation or conservation-without-use models but performed by self-organised communities acting within non-hierarchical networks.

Outlining research trajectories: innovative planning tools.

Considerations and reflections developed in this paper aim at outlining a frame of reference for the co-management of nature in the perspective of the urban bioregion approach (Magnaghi, 2014), by defining the conceptual basis and identifying research and practice gaps. The ultimate intention is to reframe the local communities' role as protagonists in the management and design of nature, with a shift of meaning from resource to heritage and common good.

Spatial Planning: Visions And Scales At Stake

European Spatial Visions - Charting New Pathways For A Post-Growth Europe?

Peter Ache (Radboud University)

Europe is confronted with many societal challenges resulting from a so-called "poly-crisis"! The house that humanity needs Mumford (1922) to build as a society demands new ideas towards different futures, to accommodate events like climate change and biodiversity collapse or to end carbon-based capitalism. It requires, as will be suggested in this contribution, the development of a "utopian dreaming capacity". Such a utopian dreaming capacity includes an element of educating desire. Ernst Bloch (1985 (1954), p. 5) calls this "educated hope", but it is also the education of responsibility. Furthermore, planning utopia includes the "creation of hope", following the words of the late John Friedmann (2002).
What we are missing is actually scenario thinking which embarks on more daring outlooks for the European territory. What is missing are informed and challenging outlooks on Europe, preparing the ground to think out of the box(es) and initiate a deeper discussion of where we want to navigate with Europe in terms of our cities and regions!?
This paper starts from a collection of scenario sketches provided by various scholars and practitioners from the field of spatial planning with long experiences regarding European territorial development. Building on their think pieces, it will then discuss potential futures fort he European territory: in search of unknown novelty and unfolding their educated spatial desires for new spatial horizons.

***Keywords** : Scenario thinking, utopian dreaming capacity, vision and strategy, post-growth Europe*

Planning The Post-Growth City: The Urban-Non-Urban Divide And The Problematic Position Of The Bioregion

Johanna Waldenberger (University Of Amsterdam)

This paper problematizes the production and institutionalization of the urban-non-urban divide within growth-dependent economies by analyzing a highly contested development in the periphery of Amsterdam's city-region. Drawing insights from urban political ecology and bioregionalism, I argue that urban degrowth needs to overcome the urban-non-urban divide to localize value chains and envision a regional system of cooperation and sufficiency, embedded in the ecological conditions of a specific region. Decentralization and re-localization are considered key aspects of degrowth transitions to counter the adverse social and environmental consequences of globalization under capitalism (Latouche, 2009). Within urban degrowth scholarship, this concern has been addressed by discussing the most suitable spatial layout for post-growth cities (Xue, 2022). Current degrowth research, however, still maintains an urban-rural division. It either looks at practices of 'rurbanization', namely densification of rural areas, or at local practices within cities. In my paper, I argue that peripheries emerge as the new focal points of post-growth societies, where new structures and metabolic exchanges can form, and where growth-led development is contested. To this end, I explore the notion of bioregionalism from a degrowth perspective. Bioregionalism emphasizes the ecological and social significance of peripheries, while also fostering a reimagined cooperative relationship between urban centers and the natural environment (Fanfani et al., 2022). Bioregionalism thus helps conceptualize and understand urban-non-urban relations around care and sufficiency. I further argue that, to advance a degrowth perspective of the bioregion, we need to question the institutional and political dimensions of urban-non-urban relations. I explore a case study, the Lutkemeerpolder in Amsterdam, to illustrate the conflict between agroecological land use and business development/logistics in a peripheral area. Spanning 100 hectares on the outskirts of Amsterdam, between the city and the airport, the Lutkemeerpolder is the last fertile ground within city limits, serving as (organic) farmland since 1864, providing food, ecosystem services and recreational space. Over the past 20 years, however, the polder has transformed into a key logistics hub for the municipality and the airport, with distribution centers built to ensure the city's economic growth. Despite contestation from various groups, contracts and regulations have rendered the development path-dependent. Tracing the project's history, I show how the urban-non-urban divide is instituted in growth-oriented planning processes. This conflicts with alternative visions of peripheral space use that localize value chains and focus on the socio-ecological value of these spaces. The research contributes to the discourse on urban metabolism, growth dependencies, and the potential of bioregionalism in reshaping urban dynamics.

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Seeing Further, Seeing Brighter : Seeing Bigger. Storytelling For The Grande Porte Des Alpes (The Great Alps Gate) Of The Lyon Metropolis

Baptiste Colin (Evs)

Can future urban models easily get rid of well-established practices? On 29 November 2021, the Metropolis of Lyon launched an urban foresight approach to formulate scenarios for the development and transformation of the "Grande Porte des Alpes" area by 2050. This "historic development territory of the Lyon metropolitan area" covers 1,350 hectares and is home to almost 13,000 jobs. It thus represents a considerable economic and urban challenge, but also poses decisive societal and political challenges: "its evolution potential gives it an essential role to play in the environmental transition of the Lyon Metropolis" (Press kit, July 2022).

This international consultation responds to the "ambition", in the words of the vice-president of the Metropolis for urban and environment affairs, "to ask ourselves what the development of the area should be in 10, 20, 30 years so that the inhabitants can live well there". Those behind the project are stating the urgent need to adapt the urban fabric to contemporary issues and to the primary concern of a human ecology. A virtuous exercise in renouncing trends rooted in a vicious circle of metropolisation that is now decried!

By examining this foresight approach, placed in the broader perspective of the study of such urban production formats (Dixon et al., 2018; 2022), I intend in particular to question the implementation and adaptation markers of the urban model inherited from the twentieth century as a functionalist metropolitan gateway. These suburban polarities are characterized by a juxtaposition of spaces (industrial, commercial, tertiary) conceived as the source of a new urbanity. Criticized for the poor urban quality of such sectorization of activities at the city's margins and the modes of production, mobility and consumption to which they are attached, this "urbanism of sectors" (Mangin, 2004) nevertheless prevailed at the end of the twentieth century and sealed the urban development of city entrances. The geographer Michel Lussault describes the area as a "perfect synthesis of all the obsolescences".

By questioning the temporalities associated with this territory, this paper aims to study the way in which narrative discourses question the future of a strategic economic territory, at the crossroads of the transition between two urban models. The international urban planning consultation launched by the Metropolis provides an opportunity to look ahead to 2050, through the indeterminate writing of structuring scenarios. The production of these different, coexisting, sometimes competing and/or contradictory narratives merits closer attention. The various rhythms (and stages) of production lead to a multiplication of adaptation products and media and, as such, promise to strengthen commitment among stakeholders in the transformation of the area concerned.

While endorsing the outcome of operations carried out over the past decades as a successful planning model in a period of economic growth and regional attractiveness, the current project's promoters tend to present the concerned territory from a sharply contrasting aspect. The overall image that emerges is often negative, yet it also serves to highlight the urgency and potential of post-growth changes. However, the stakeholders involved in the project diverge on the future scenarios that the three teams are working on.

This paper explores how the Porte des Alpes area's development project for 2050 is portrayed in the international urban planning consultation launched with great pomp by the Metropolis of Lyon in the summer of 2022, looking on selected productions to illustrate the oppositional scenarios and projections in the storytelling of the Grande Porte des Alpes development project, and in particular the multi-scalar urban planning narratives that emerged as part of this foresight process, and the narrative mechanisms they produced (Matthey, 2014).

Keywords *: Foresight; Lyon; Discourse*

Rethinking 'Ruhrbanity' – Green-Blue Dreamscapes And Regional Renaturalization In Germany's Former Industrial Heartland In Comparative Perspective

Deike Peters (Soka University Of America)

Within the world of urban-regional spatial development and its accompanying models and theories, the German Ruhr Valley has always occupied a special space. From the late 19th century on, large-scale coal mining and steel production operations created a heavily industrialized, poly-centric landscape where urban, industrial, residential, commercial, recreational, and rural elements became interspersed in ways that were fundamentally different from the typical European city ideal. It became the main inspiration for Tom Sieverts famous concept of the 'In-Between-City' (Zwischenstadt). Dortmund planning scholars once coined the term 'Ruhrbanity' (Ruhrbanität) to capture its essence (Reicher et al. 2011:230). During the industrial decline of the late 20th century, the region was forced to reinvent itself again. The various cities branded themselves as a joint 'Ruhr Metropolis' (Metropole Ruhr) that celebrated its rusty and dusty past rather than deny it. New types of 'landscape parks' were created by turning abandoned industrial monuments and wastelands into new spaces for recreation and culture. Nature was allowed a comeback and ruderal ecologies began to be valued rather than ignored or sanitized. The linchpin megaproject at the heart of this momentous socio-ecological restructuring effort is/was the renaturalization of the Emscher – a river which had been turned into a channelized open sewage canal during the industrial era. This was considered a necessary sacrifice during the coal mining era because ongoing land sinkage made the creation of underground sewage system impossible - but once the mines closed, regional actors began to dream big. In the 30 years from 1992 to 2022, 5.5 billion Euros were spent to build a new underground sewage canal, along with several new pumping stations and wastewater treatment facilities. Today, the river is sewage-free along its entire length of 81km. Regional actors enthusiastically speak of the 'rebirth of the Emscher Valley' as a successful "green-blue infrastructural development" and they emphasize the importance of this "river of reconciliation" for the region's reckoning with its exploitative and extractive past (Berger and Eickelkamp 2022). Given this context, this paper rethinks possible new meanings of the term "Ruhrbanity" at a time when urban-nature relationships are once again being rethought in the terms of degrowth, climate resilience and multi-species justice. My perspective is that of a Ruhr Valley native who doing a comparative study of the ecological restoration of the Emscher river in my original hometown of Dortmund and of the Ballona Creek near my current home in Los Angeles.

***Keywords** : Ruhrbanity , renaturalization, ecological restructuring, industrial nature, landscape park*

Away From The Cities? A Medium-To-Long-Term Investigation Of How Covid-19 Pandemic Has Changed Population Spatial Patterns In Italy

Laura Silva (Paris School Of Economics), **Franco Bonomi Bezzo** , **Fabio Manfredini** , **Viviana Giavarini** , **Carmelo Di Rosa**

The global emergence of COVID-19 has triggered an unprecedented global health emergency, compelling nations to implement drastic measures to curb the virus's spread. These measures often took the shape of non-pharmaceutical interventions, prominently enforced through extensive lockdowns in Italy, marking the first instance of such widespread restrictions on this scale. These actions effectively halted societies worldwide, affecting every facet of social and economic life.

One notable consequence was a speculated shift in internal migration patterns, with reports suggesting a rural revival driven by an exodus from large cities, influenced by preferences for low population density, open spaces, and remote work opportunities. Research on this phenomenon has primarily focused on the early stages of the pandemic, leaving a gap in understanding its long-term effects. Italy, with its significant portion of inner and rural areas, becomes a critical setting for examining evolving urban-rural population trends.

This study addresses this gap by employing a comprehensive approach, combining Facebook/Meta presence data, administrative registry data, and housing market data to analyze short and long-term migration trajectories.

This papers contributes by offering a nuanced perspective on whether the observed changes in migration patterns during the first phases of the pandemics were temporary or indicative of a more enduring trend.

The study finds that the pandemic initiated new residential dynamics persisting beyond its initial stages. Four indicators, including active Facebook users, average rent prices, housing market transactions, and changes in official residency, reveal complex patterns in residential dynamics. Despite an initial trend of people discovering the value of staying and living away from urban centers during the pandemic, a preference for sub-urban rather than extremely rural, areas emerges in permanent relocations.

Contrary to the popular narrative of an urban exodus, the analysis does not provide evidence of massive migration from cities to the countryside, aligning with findings in other countries. The pandemic's impact on remote work flexibility, affordability of housing, access to nature, and the desire for larger spaces may have influenced preferences for areas outside main urban poles. Housing market transactions indicate a pattern of increased interest in buying outside urban centers, potentially as an "exit strategy" rather than a full relocation.

The study has several limitations, including challenges in obtaining reliable measures of individuals' actual locations due to factors like second homes and administrative data inaccuracies. Despite these challenges, the use of multiple indicators from different sources enhances the robustness of the findings.

In conclusion, this work provides a comprehensive assessment of the medium to long-term impact of the COVID-19 pandemic on population dynamics and residential trajectories in Italy. It challenges the narrative of a rural revival or urban exodus, emphasizing the complexity of factors influencing migration patterns.

Keywords *: urban exodus, Covid-19, inner areas, Italy*

Urban Development: Economic And Environmental Considerations And Decision Making

Post-Growth As A Process? Building Housing Movements Toward Diverse Housing Planning: Lessons From Gloucester, Massachusetts, Usa.

Antonio Raciti (Umass Boston)

In contexts such as the US, where growth-led planning is guiding spatial development, envisioning post-growth planning patterns is difficult. Such a challenging task is even more difficult within the realm of housing planning, where planning tools (i.e., zoning, incentives, etc.) have often been used as a fiscal device to increase cities' revenue. In similar contexts, a post-growth horizon of work is often unimaginable even by individuals and groups opposing pro-growth futures. Thus, it should be generated ex-novo if diverse planning is desired. Drawing from the author's engaged work in Massachusetts communities, this paper asks: what housing movements are needed to advance post-growth housing planning? The paper answers this question by using in-depth interviews, community engagement activities, and engaged learning pedagogy experiments designed as part of an ongoing research process focused on how institutions, civic organizations, social groups, and individuals face the housing crisis of major metropolitan areas and enact on their values and believes in fostering other-than-growth paradigm for housing futures.

Several reasons point to the need for planning research to focus on shaping new housing movements. First, post-growth housing planning has proposed models of commoning as potential solutions in search of alternatives beyond the idea of housing as a device for capital accumulation (Savini & Bossuyt, 2022). However, solutions developed along these lines constitute post-growth housing manifestos whose implementation rarely happens in contexts dominated by pro-growth cultures. Second, in such contexts, the housing question is still centered around supply-and-demand mechanisms, which determine YIMBY and NIMBY groups, either favoring or fighting housing development (Teresa, 2022). When this binary drives public opinion, however, it weakens possibilities offered by planning research to collectively work with existing housing movements to advance diverse housing planning.

The paper critically analyzes the proposed implementation of MBTA (Massachusetts Bay Transportation Authority) communities in the State of Massachusetts by examining the City of Gloucester (MA, USA) case. While facing State-led pro-growth housing planning, like the other 176 municipalities in the Metro Boston Area, the Gloucester community has been split in reactions. On the one side, public institutions and non-profit organizations cluster together to push for a pro-growth agenda favoring the construction of MBTA communities as the only solution to address the housing crisis; on the other side, non-organized residents strongly oppose such a pro-growth agenda and advance various ideas on what, why, and how different housing options should be pursued.

The paper shows how the existence of a non-profit industrial complex (Gilmore, 2017) counters possible post-growth agendas in search of alternatives to neoliberal housing policies. Instead, the paper suggests to nuance NYMBY movements' positions through direct citizen engagement as a starting point of engaged research processes able to offer conducive perspectives for post-growth. The paper contributes to the current debate on how social movements might foster post-growth and decommodification of housing discourse (Lima, 2021) and how post-growth processes need to be built while operating in highly conflicting settings whose actors do not necessarily cluster around a post-growth coherent housing agenda as shown in some European cases (Schneider, 2018).

Keywords : Housing planning, Post-Growth Planning, Community Engagement

Sustainability Struggles In Land-Use Planning From A Post-Growth Planning Perspective: Critical Junctures Towards Net Zero

Christian Lamker (University Of Groningen), **Thomas Terfrüchte** (Tu Dortmund University)

Global, regional, and local sustainability agendas regularly address the use of material resources and especially of land for building settlements and infrastructures. More recently, European debates and European Union policy strengthen the requirement to become circular in the mid-term future. The European Soil Strategy 2030 aims towards net zero for additional land use by 2050 and mirrors respective targets, for example, in the German Climate Adaptation Strategy and the national implementation framework for the Sustainable Development Goals (SDGs). Against the background of spreading sustainability goals in land-use planning over the past more than two decades, actual changes fall short of agreed ambitions.

Stronger efforts to achieve circularity in the use of resources and land on the one side go along with emerging debates around post-growth in national and European contexts, culminating in the European Parliament's Beyond Growth Conference in 2023. While major tensions remain between fundamental post-growth critiques and contemporary spatial policies, so is the goal of net zero land consumption (or: circular land-use) compatible with moderate post-growth positions or precautionary post-growth understandings.

In this contribution, we investigate Germany to understand why a long-institutionalised spatial planning system struggles to show and implement realistic measures towards a net zero future. We identify and show examples from the daily use of planning instruments along the scales of land-use planning, from federal to local levels. For example, any move of a household across municipal boundaries generates an additional need to designate land for settlement uses and thus leads to increases in land consumption without changes in number or size of households. By this, we uncover points where growth is inscribed into established tools, models, and instruments. We build upon an understanding of spatial planning as, in principle, being able to transform itself alongside towards a post-growth society. The analysis shows critical junctures where (often unconsciously) growth-oriented pathways materialise.

From understanding the actual realities of planning practice, it becomes possible to uncover what a proclaimed growth-bias (or even growth-obsession) is, and how it unfolds at the micro-level of where planning happens. This includes the evidence-base and modelling tools to work with forecasts of demands and needs for additional land use. The goal and outcome of this contribution is twofold: first, to open post-growth thinking towards planning practices and second, to open options for planning practice to reach stronger sustainability targets.

Keywords *: Post-Growth Planning, Sustainable Development, net zero, land-use planning, Land-Need Modelling*

Closing The Accountability Gap: Benchmarking Companies For Sustainable Urban Land Management

Besmira Dyca (World Benchmarking Alliance), **Hannah Itcovitz** (World Benchmarking Alliance)

In 2015, all UN member states adopted the 2030 Agenda for Sustainable Development. As part of the 17 Goals agreed upon, SDG 11, on Sustainable Cities and Settlements, vowed to make cities and human settlements inclusive, safe, resilient, and sustainable. There is a shared responsibility between public and private sector actors in shaping the urban environment. Benchmarking the progress of the public sector actors on SDG goals is mainstreaming, including several dimensions of sustainability such as annual employment statistics, air quality reports, or initiatives where cities are ranked, i.e., most livable cities, green cities, traffic index and so on. In contrast, private actors are not benchmarked against these indicators, despite being significant players in the urban environment.

In this study, we develop an Urban Benchmark to answer the question of how the world's most influential companies operating in the urban space are affecting sustainable urban land management. Building on Planetary Boundaries and Doughnut Economics frameworks, benchmarking methodology focuses on four measurement areas: 1) Governance, 2) Inclusive Cities, 3) Healthy Cities and 4) Climate Change and Resilience. We assess 300 of the world's most influential companies operating in the urban space, following five keystone criteria. These companies are spread proportionately across the world's regions, focusing on the world's megacities or multiple urban areas that accommodate 10 million residents or more. They cover key industries in the realm of urban transformation: 1) real estate developers and managers, 2) design, engineering and construction companies, 3) urban passenger transport, and 4) energy, water, and waste management utilities.

Findings from this study are expected to shed light on the performance of keystone companies in sustainable urban development practices. Through these findings we seek to feed into global reporting standards for these sectors on the topics assessed to encourage greater transparency. Concurrently, our findings will also highlight sectors and/or regions that are lagging behind in the areas we measure, stirring the focus to where action is needed to achieve SDG11 and other related SDGs. Finally, we identify potential levers of change in companies and translate them into policy recommendations for policy makers to support practices that expedite progress towards more sustainable, inclusive, and resilient cities. At the global level, records and key findings of company performances and their contribution towards making urban areas more sustainable may also inform subsequent discussions on defining the roles and responsibilities of companies in achieving global urban development agendas. This could potentially help in synchronizing the public and private actors' efforts towards making cities more sustainable.

De-Growth Approaches In A Pro-Growth-Oriented Shrinking City. An Oxymoron Or Inevitable Future Path?

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The growth orientation of decision-makers has been considered one of the main hindrances to sustainable transition. This contribution aims to reveal obstacles, which are limiting de-growth approaches in the studied case. In the end, de-contextualized implications for the research agenda on the nexus between urban shrinkage and de-growth are derived. The city of Ostrava provides an interesting case study for such research since the problems caused by shrinkage are known to decision-makers, but ignored, and existing responses to urban shrinkage are purely pro-growth oriented, which causes long-term problems for a sustainable transition. Specifically, we focus on existing discourse as a crucial medium in ignoring de-growth approaches. For our study of this object, a mix of methods including content analysis of policy documents from various scales and discourse analysis of semi-structured interviews with local stakeholders is employed. In this paper, we apply a poststructuralist approach to discourse analysis, known by the acronym WPR (Bacchi and Goodwin, 2016). It has been documented that in the existing paradigm in urban policy and planning, pro-growth approaches are naturalized, while approaches that disrupt the existing paradigm are tabooed (Grossmann et al., 2022). In this context, the WPR approach paying attention to assumptions and unexamined ways of thinking about policy problems represents an advantage over other approaches to discourse analysis as it provides an opportunity to unpack the inner workings of the pro-growth paradigm and opening it up for contestation. In the conclusion, a more nuanced understanding of the nature and reasons causing the neglect of de-growth approaches in Ostrava and beyond is presented.

Keywords *: de-growth, shrinkage, urban planning, Discourse Analysis*

From Howard's Garden City Movement To Zero-Carbon New Towns In The Postgrowth Era: The Case Of New Town Development In The Context Of Carbon Neutrality Of Shanghai

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From Howard's garden city movement to Taylor's concept of satellite cities, and to Saarinen's organic evacuation theory, the development of new towns has been affected by the background of the eras. As the largest metropolis in China, Shanghai's new towns have developed from first-generation bedroom towns to relatively independent satellite towns, and to new regional node towns. Nowadays, in the postgrowth era, sustainability and de-carbonization have become the new themes of urban development. The government announced that Shanghai will achieve carbon neutrality by 2060. At the same time, Shanghai is actively establishing its carbon financial market, trying to achieve carbon neutrality by establishing a connection between the financial market and carbon resources.

Under these conditions, a new generation of new towns emerged. Five new towns built around the main city of Shanghai, namely Jiading New Town, Qingpu New Town, Songjiang New Town, Fengxian New Town, and Nanhui New Town, will serve as the first generation of zero-carbon new towns of Shanghai in the postgrowth era. These five new towns, while inheriting the functions of traditional new towns, also regard sustainable development and de-carbonization as the main themes of new town development. That is, these five new towns will take carbon neutrality and zero carbon output as their initial construction goals.

This article will use 'carbon' as the main narrative element to describe how the five new towns of Shanghai, namely Jiading New Town, Qingpu New Town, Songjiang New Town, Fengxian New Town, and Nanhui New Town, have developed from the aspects of resilient municipal facilities, healthy spatial environment, green buildings and transportation, efficient resource and energy, and smart governance systems to build a new generation of zero-carbon new towns. Among them, many innovative planning and governance measures have been applied to the development of these new towns, such as stipulating the application proportion of rooftop photovoltaics through policies and promoting the use of building energy-saving technologies through measures such as floor area ratio incentives for real estate development companies.

At the same time, this article will introduce how the development of new towns is connected with Shanghai's carbon financial market to achieve the purpose of de-carbonization. For example, each of the five new towns has established a corresponding "new town development company" and been allocated corresponding carbon quotas. This quota can be circulated as a kind of 'currency', and the carbon emissions of the new towns are linked to their carbon quotas. Carbon emissions of departments within the new towns will consume carbon quotas, and carbon emissions exceeding the quotas require quota trading and purchase.

Finally, this article created an evaluation system for five zero-carbon new towns from the aspects of land use, buildings, transportation, ecological environment, municipal facilities, energy, resources, and governance, and evaluated the construction status and carbon reduction effectiveness of the five new towns.

Keywords *: new town, sustainabilty, postgrowth, carbon neutrality, carbon financial market*

Towards A Method For Infrastructure Decision Making From A Post-Growth Perspective

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As infrastructure tends to be heavy in terms of both impacts and investments, decisions in this domain are not to be taken lightly. For making logical, informed and transparent decisions, the dominant appraisal method is cost-benefit analysis (CBA). It is mandated by institutions such as the EU, World Bank and Asian Development Bank, but is also strongly criticised by environmental and social scholars. CBA gauges a project's social desirability or 'sustainability' by translating and aggregating not only the economic but also the ecological and societal impacts into a monetary value, resulting in an easy-to-interpret outcome that helps navigating complex trade-offs.

But it also considers a project desirable or 'sustainable' no matter how severe the environmental or societal damage, as long as sufficient economic growth is generated. Thus, CBA only considers the total net impacts, without taking into account their societal, spatial or temporal distribution or existing socio-spatial inequalities, as it assumes that benefits will eventually trickle down to the disadvantaged (Sen, 2000).

The question is: how to translate a project's effects into an aggregated score for navigating trade-offs between positive and negative impacts, taking into account the existing distribution of benefits and burdens over environment and society in space and time? How can this 'prioritarian appraisal' take into account the pre-existing socio-spatial variegation of needs and boundaries, instead of assuming that overall economic growth will eventually fulfil everyone's needs? In this contribution we therefore report on the development of a novel method for appraisal from a post-growth perspective.

To do so, we first revise appraisal's ethical foundations, as societal desirability is ultimately a question of distributive justice. Current appraisal is rooted in 'total' utilitarianism and uses a linear utility function, i.e., the unit value of an asset (e.g., trees, jobs) is set by generalised standards and remains the same regardless of its scarcity or abundance for specific groups in specific spatio-temporal contexts. As an alternative, we explore the principle of prioritarianism (Adler and Norheim, 2022; Parfit, 1997). Here, the value of a project does not reflect the total absolute increase of assets, but how it affects the relative position of relevant stakeholders, i.e., prioritising the most needy. Mathematically, we translate this in using not a linear but a logarithmic, degressive utility function, where value increases with scarcity and decreases with abundance. While this principle is intuitive for many, and is used in indicators such as the Human Development Index, it has not yet been used in appraisal.

Using a case of airport extension in the Netherlands as an example, we demonstrate the steps of prioritarian appraisal. First, the determination of entities ('stakeholders') between which the social, spatial or temporal distinction is relevant in the scope of the appraisal. Second, the determination and hierarchisation of basic needs the project in question is likely to affect. Third, the determination of stakeholders' initial positions with regard to these basic needs and fourth, how the project proportionally affects these positions. For these steps, data from impact assessments studies can be used. Sixth, the construction of utility functions by taking the natural logarithm of proportional change of the stakeholders' position with regard to their basic needs. These utility functions allows to compare the project's desirability for each individual stakeholder, but can also be aggregated to assess the overall desirability.

Keywords *: appraisal, prioritarianism, decision making, post-growth,, infrastructure*

Urban Development: Economic And Environmental Considerations And Decision Making

Green Building Development And Degrowth: Addressing The Global South Gap

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Climate change has gradually aggravated in the last decades. The recognition that the building industry alone is one of the main contributors to anthropogenic global carbon emissions (Eurostat, 2017) has influenced how cities are planned to be more sustainable, particularly to achieve green buildings.

While a green shift is needed, environmental justice scholars have been calling attention to analysing and confronting the colonial injustice behind the ecological transition that continues to privilege the Global North, under the cost of degradation, exploitation, and violence in the Global South (Escobar, 1998, 2010; Leff, 2001, 2010; Carruthers, 2008; Sultana, 2022). Moreover, it is a call to analyse the implications of green transition beyond the local context by investigating their relations to the Global South (Álvarez and Coolsaet, 2020; Zografos and Robbins, 2020; Hope, 2022; Sultana, 2022).

This paper addresses this issue by concentrating on the literature on green building production in the Global North. The article is the result of a scoping review, based on 72 articles published between 2012 and 2023 related to the critique of the green building transition. It examines how critiques have considered the socio-environmental justice implications of constructing green buildings in the Global North, particularly by utilising material resources from the Global South. The analysis considers investigations developed under different theoretical frameworks (EP, degrowth, urban metabolism, etc.). It commences by examining the existing literature through three dimensions of justice: scalar, social, and environmental. It then outlines that most of the criticism has primarily focused on the socio-environmental justice implications at a small scale, around the project area. At the same time, only a few attempts have been made to analyse on a broader scale. However, none delves deeply into the production chain of these new green buildings in the Global North and their connection with the social and environmental impacts in the Global South caused by the extraction of raw materials. This gap is also evident in the degrowth literature produced on green buildings. Finally, the article concludes by asserting that degrowth as a theoretical framework offers incipient analyses of colonial issues that permeate socio-environmental injustices. However, this vision is not yet reflected adequately in urban studies on green building construction. Degrowth could offer a more compelling analytical and counter-alternative perspective if it considers the Global South and its relationship with the Global North more centrally in its urban approach.

Keywords *: degrowth, extraction, decoloniality, sustainable building, Global South*

Accelerating Transformative Urban Change Through Eco-Social Innovations

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Local communities worldwide are facing multiple crises, spanning cost-of-living challenges, climate change impacts, political instability, health disparities, and spatial inequalities. In response to these multifaceted challenges, the imperative of cultivating a 'wellbeing economy' emphasises that reshaping growth to prioritise human and planetary wellbeing through the integration of environmental, economic, and social sustainability is essential for navigating the complexities of the contemporary urban landscape (Hayden and Dasilva, 2022).

Social innovations for urban sustainability transformations have the potential to leapfrog incremental change and lead to transformative local development. Eco-social innovations offer promising tools to enable on-the-ground action while linking them to democratic decision-making and policy design. However, limited insight into the characterisation and impact of these types of innovations necessitates multi-dimensional learning and extensive social networks (Mason and Büchs, 2023). Understanding how decision-making arrangements (governance) influence the emergence and success of social innovations, that is purposeful social change through deliberate alteration of society and social processes (Moulaert et al., 2023) for realising urban transformations (Suitner and Krisch, 2023) towards a wellbeing economy is thus imperative.

This paper presents two case studies to unravel the intricate dynamics that underpin the relationship between social innovations, governance, and urban sustainability. The research compares urban interventions in large (Vienna, AT) and small (Oxford, UK) cities, representing contrasting welfare models, planning cultures and local political ideologies. The transnational impact of the climate emergency necessitates looking beyond national contexts to share learnings between large and small cities, the latter having often been neglected in urban geography and planning studies (Lamb et al. 2019).

Based on a scoping review systematising eco-social innovations in the cross-disciplinary literatures on urban social innovations and eco-social policy, the paper presents the outcomes of a comprehensive screening process of databases on local and national scales to identify and characterise social innovations for urban sustainability transformations in both cities. The innovations identified encompass community engagement, urban regeneration, and alternative economic development initiatives across various policy domains (e.g., energy, mobility, land-use, social affairs, economy, politics & governance), contributing to both individual and collective welfare.

The results uncover how social innovations can instigate conceptual, process, product, or organisational changes conducive to urban sustainability transformations depending on their respective political-institutional and spatial contextualisation. The research offers a holistic exploration of the potentials of social innovations and governance arrangements in steering urban communities toward a wellbeing economy. By addressing the complex challenges posed by climate change, political instability, and societal inequities, the paper contributes valuable insights to the discourse on sustainability and resilience planning in the face of a rapidly evolving environmental landscape.

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New Visions For Inner Peripheries: Culture-Led Regeneration Practices To Counterbalance Social, Cultural And Environmental Decline

Adriana Galderisi (Università Della Campania Luigi Vanvitelli), **Chiara Pisano** (Università Di Roma La Sapienza), **Giada Limongi** (Università Della Campania Luigi Vanvitelli)

All over Europe, rural and inner areas suffer increasing marginalization: shrinking processes due to a long-term decline phase driven by changes in production, job opportunities, and innovation, lead residents to move towards urban areas, looking for better living conditions. The abandonment of entire villages and the 'deagrarianisation' of these territories induces the loss of a significant social capital, in terms of local cultures and traditions, but also of traditional agro-silvo-pastoral practices that have for long contributed to ensure a biocultural diversity, preserving species and habitats, protecting watersheds, and improving soil health and water quality (Agnoletti and Santoro, 2022).

The depopulation of rural areas represents an important threat to the survival of their relevant environmental and cultural heritage and a key challenge to achieve a more balanced and sustainable development. Since the early Nineties, international documents on sustainable development have underlined the disparities among urban and rural areas and the importance of promoting sustainable rural development to ensure an economic, social, and environmental viability of both regions and cities.

Nevertheless, to reduce territorial and socio-economic imbalances it is important not only to overcome current 'urban-centric' development model but, also, to shift the focus from the marginality to the relevant potentialities of rural areas and inner peripheries, especially in terms of cultural and natural capital.

This contribution focuses on the role of culture in the promotion of regeneration practices in rural areas to overcome "the historical separation between city and countryside as places of production and the transmission of culture and cultural heritage" (Francioni, 2024). The dichotomy between urban and rural areas widens, indeed, not only the socio-economic, but also the cultural gap between citizens. While the concentration of cultural hubs in cities contributes to shape a concept of cultural services capable of attracting young and lively population, rural areas are perceived as bucolic places where living appears unattractive and impractical or a living museum, alternative to frenetic urban life. The cultural dimension of inner areas is often addressed with territorial marketing operations mainly tailored to urban tourism. Adapting urban cultural models makes these territories highly exposed to the risk of trivialization and flattening of local identities. Instead, encouraging a contemporary cultural production based on memories, identities, and traditions allows to complete socio-economic development strategies and provide alternatives to conventional urban growth models. It is worth noting that preserving rural living identities represents a priority for future sustainability of urban and territorial development too, due to the role of rural areas in counterbalancing the already tangible and future effects of the growth models pursued for decades. In detail, the contribution proposes a critical review of best practices, selected within Italian and European networks that bring together culture-led regeneration experiences, to understand if and at what extent current culture-led regeneration practices in inner and rural areas may contribute to generate new "cultural fields", based on new forms of narration that look at the specificities of territories, their historical landscapes and local production, on new relationships between memory and contemporaneity and on new synergies between institutions and inhabitants, with effective participatory governance and community engagement. The critical review of the selected best practices will represent a starting point for identifying: the most relevant themes on which culture-led regeneration are currently framed; the main features of the involved territories, and the relationships among themes and places.

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Experimental Temporality In The Post-Growth City: Assessing The Complex Social Values Produced By Urban Nomads.

Chiara Mazzarella (Tudelft), **Maria Cerreta** (Federico Ii University), **Hilde Remoy** (Tu Delft)

In the dynamic evolution of urban development, nomadic communities, through temporary adaptive reuse, emerge as a transformative force, reshaping abandoned spaces into vibrant and meaningful places. The HORIZON-MSCA-2022-PF-01 NOMAD research project, "Nomad Management of Urban Development - The Complex Value of Temporary Communities," explores the impacts of temporary uses and the pivotal role of urban nomads in urban regeneration processes.

In particular, the NOMAD research focuses on different cases of experimental temporality (Madanipour, 2017). Experimental temporary uses can generate changes in urban services and atmosphere, encompassing social, cultural, and economic factors. But while temporary communities often develop sustainable practices, generate urban values, and serve as subjects of experimentation and research, the values they co-create and co-produce are often not considered in real estate valuation practices and are overlooked in the context of urban regeneration. The NOMAD research is investigating the complex social values (Fusco Girard and Nijkamp, 1997; Cerreta, 2010) that are co-produced by urban nomads through temporary uses, in a perspective where well-being and quality of life are achieved temporarily and without the goal of economic growth.

In this context, this study poses the question: How can we assess the complex social values generated by experimental temporary uses?

Developing temporary adaptive uses, urban nomads constitute communities of practices that play a crucial role in resignifying abandoned spaces by infusing them with social values like mutualism, a sense of belonging, social cohesion, and resource-sharing. According to the duration of temporary occupation and the kind of uses, places produce multiple values, that are social, cultural, economic and environmental, not only for the temporary community and the buildings but also for the surrounding area. The research methodological approach is applied by examining some temporary use experiences, at different scales developed in different time spans. The case comparison draws insights from the comparison of temporary use characteristics, urban services and atmosphere change from significant experiences in Paris, Brussels, and Rotterdam. Quantitative and qualitative data analysis of temporary use processes use information collected directly from involved actors and open-source data. A Social Multi-Criteria Evaluation (Munda, 2004) of similar practices is applied for an ex-post impact assessment that includes multi-criteria and multi-group analysis.

Thus, the investigation aims to unravel the multidimensional values generated by the temporary adaptive reuse by urban communities composed of various actors with different resources. The community use process involves diverse groups of actors, from local communities and public institutions to property owners of unused spaces, urban activists, and citizens. Their collaboration facilitated through agreements and negotiations, impacts the management, use, and life of buildings and surrounding neighbourhoods. Striking a balance between public and private interests, these interactions contribute to creating a more vibrant and inclusive urban environment, albeit with several challenges and issues.

The findings show how experimental temporality holds both potential and paradoxes for a post-growth city and aim to identify useful insights for practitioners and policy-makers.

***Keywords** : temporary use, adaptive reuse, complex social value*

Planning Beyond Growth: A Case Study Of Wellbeing-Oriented Planning In Wales And Cornwall

Karin Holmstrand (Swedish National Road And Transport Research Insitute (Vti) And Royal Institute Of Technology (Kth))

Planning beyond growth, or post-growth planning, has been promoted as both a response to the ongoing sustainability crises (Barry, 2019), and as an adaptation strategy to a future where growth cannot be taken for granted (Crownshaw et al., 2019). Two initiatives that have been launched are Wellbeing Economy Alliance (WEAll) – a network of cities, local governments, businesses and civil society groups across the globe which are committed to transform their economic system to one that is oriented towards wellbeing rather than towards economic growth (Fioramonti et al., 2022) – and the Doughnut Economy – a model displaying the socio-ecologically safe space in which society can operate, defined by an "ecological ceiling" and a "social floor" (Raworth, 2017).

Although an increasing interest in the combination of post-growth ideas and planning, questions concerning the implementation of post-growth models in real-world planning system remain underexplored. This study explores two cases where these initiatives are in use, Wales and Cornwall, in order to analyze to what extent the implementation of post-growth ideas has influenced land-use planning and transport planning in the two places.

The aim of the study is to understand how the application of post-growth initiatives in these two cases has influenced the planning strategies, processes, practices, and culture in the places where they are applied.

The study was carried out by means of a two-step approach. First, a literature review on post-growth planning was performed using the databases Web of Science and Scopus, to explore how the notion of "post-growth" has been framed and to what extent the implementation of post-growth planning has been studied in real-world examples. Second, a case study was carried out focusing on two places in which post-growth models or initiatives have been applied, namely Wales and Cornwall. The case study consisted of a text analysis of the documented planning processes and policies that followed the application of the initiatives.

The case study of Wales and Cornwall performed in this study is a first attempt to analyze how the implementation of wellbeing-oriented initiatives have influenced planning systems at a local and regional scale. One preliminary conclusion is that there are several traces of post-growth ideas in both strategic documents, plans and concrete policies. This is shown, for instance, in key formulations, goal statements and visions that are intended to guide planning processes. However, there is also a need for deeper empirical analyses to understand whether there has been a shift also in actual planning practice and planning culture. A suggestion for future research is to supplement the document analysis with interviews with planning professionals and experts with concrete experience from these planning contexts.

***Keywords** : post-growth,, Well-being, doughnut economics, case studies*

The Social Issues During The De-Danwei Reform In Daqing (In The Northeast Of China) Within The Post-Growth Era

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Since the economic reforms 1978, the Chinese city has undergone a multifaceted urban transformation process. It has shifted from the previous central planning to a "market economy with Chinese characteristics". Unlike advanced areas, the northeast region has gone through a struggling social-economic restructuring since the economic reforms. The region was characterized by the "Northeast Phenomenon". In 2002 the policy of "Northeast Area Revitalization" was first proposed. Since 2011, the economy in the Northeastern region has experienced another downturn, accompanied by significant population loss and imbalances within its industrial structure.

With the emergence of localized shrinkage, China's long-running urbanization under the growth model has reached a turning point. The urban shrinkage has drawn attention from the academia from 2014 onwards. Most studies concerning the post-growth period in Northeast China prioritize spatial changes and slow-paced economic development. However, the fundamental reasons behind the social issues in the northeastern provinces, owing to their relatively underdeveloped status, have received comparatively less scholarly attention. According to Ma and Wu (2005), the consequences of Chinese city restructuring are affected not only by general and global forces but also strongly depend on national and locality-specific factors.

In the past, as a unique organizational structure in China, the danwei system has served as an essential, sometimes the sole instrument to mobilize society and integrate social resources by the state. The overall system is a hierarchical structure characterized by upward dependency and downward control. The de-danwei process witnesses a shift from a singular interest entity to a pluralistic one. In Northeast China, the elements of the danwei system appeared earliest and lasted longest, the power of the danwei system continues to exert impacts on the social development in Northeast China.

Daqing, the largest oil field in China, used to symbolize the most prosperous situation in northeastern China. It underwent an economic boom starting in the 1960s. With the reduction of oil resources and the de-danwei reform, the city entered a period of decline. Due to excessive reliance on petroleum and the lagging effects of the monotonous danwei system, the state-owned companies and bureaucracy still have influences on urban governance and social life. Meanwhile, the Northeast region lagged in its move toward marketization. The study aims to focus on the de-danwei reform in Daqing, looking deeply into the individual's living situation – not only spatial but also social and psychological aspects. The main research question is "How have the lagging effects of the danwei system and the de-danwei reform influenced the social development in Daqing since 2000?" The methods for collecting data include document review, informal interviews, and formal in-depth interviews. The interviewees involve the oil field company employees, government officials, self-organized groups as well as neighborhood committee staff.

Keywords : *de-danwei reform, post-danwei society, urban shrinkage*

Case Studies And Comparative Perspectives

Distribution Characteristics And Influencing Factors Of Invisible Consumption Space: A Case Study Of Nanjing Old City

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With the development of the 5G mobile communication technology and mobile Internet industries in China, urban space and people behavior presented a trend of OMO (online-merge-offline), which has facilitated the creation of new consumption spaces, including the invisible consumption spaces that have recently emerged in metropolitans in China.

Different from traditional consumption spaces on the streets or in shopping malls, the invisible consumption spaces are mainly located in high-rise buildings and rely on online platforms to operate. The invisible consumption spaces mainly include life services, entertainment, leisure, sports and other formats. Consumers obtain information through the online platform and then arrive at the physical space under the guidance of the online map. As game changers, mobile Internet and online platforms complement the visibility and accessibility required for consumption spaces, transforming the invisible spaces with weak publicity in the traditional sense, such as spaces inside high-rise buildings or communities, into urban public spaces.

Taking the Nanjing old city as a case study, by processing consumption space POI data, this paper recognizes a total of 1919 invisible consumption spaces that are not located on the streets or in shopping malls, but connected with online platforms. Through GIS analysis, the distribution of invisible consumption spaces presents characteristics of central agglomeration and multi-polar clustering at the scale of the old city. Although the invisible consumption spaces are operated through online platforms, it indicates that as physical spaces, they are still affected by geographical location. Multi-polar clustering formed by high-rise buildings is a spatial distribution pattern driven by economic factors due to the fact that in the central area the cost of operating a store in a high-rise building is significantly lower than on the street or in a mall. Based on decision tree model, selecting typical central area to analyze the locational factors of invisible consumption spaces, it proposes that the explicit and implicit spatial relationship, space cost, and building management are the main factors influencing space distribution, while commercial and residential buildings are important carriers of spatial clustering.

The production of invisible consumption space originates from the everyday life and consumption practice of grassroots people, which engenders the autonomous spatial adjustment and functional reorganization of existing space and therefore, serves as a catalyst for urban regeneration. This kind of micro and gradual regeneration avoids demolition and construction of buildings, which is more sustainable. This paper argues that the emergence and development of the invisible consumption spaces is a manifestation of the diversification of old city consumption spaces and an important bottom-up regeneration approach in the mobile Internet era. However, it also poses new challenges to urban planning and governance.

Keywords *: invisible consumption space, mobile Internet, distribution characteristics, urban regeneration*

Micro-Intervention As A New Approach For Urban Regeneration In Metropolises: A Case Study In Beijing

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With a deeper focus on climate resilience and sustainability, many metropolises have developed strategies for smart growth. Beijing, a metropolis in the global south, has faced challenges with city dysfunction due to its large population and rapid growth. However, since the implementation of its Master Plan for 2016-2035, Beijing has set a growth cap and is now moving towards a post-growth phase with limited construction and micro-interventions. This study presents three typical cases of micro-intervention urban regeneration in Beijing: No.17 Guangminglou Residence, Wangjing Walk Business District, and Langyuan Vintage Factory. The study examines how the city manages growth limitations while enhancing the quality of the living environment. It is based on our long-term collaboration with the Beijing municipal government and interviews with over 200 cases since 2021.

No.17 Guangminglou Residence is a three-story multi-family apartment building located within Beijing's second ring road. Constructed in the 1960s, the building had partially cracked by 2020. Instead of demolishing the building and relocating the residents, as was done in the 2000s, the current approach is to restore it to its original state. The unit type has been improved by adding a single floor, which now provides each household with an individual bathroom instead of the previous arrangement where five households shared one. The project received joint financing from the local government, developer, and residents, all of whom benefited from the appreciation of land value. Through this regeneration process, residents were able to avoid displacement, and there were no increases in traffic or negative environmental impacts on the neighborhood. The intervention was kept to a minimum.

Wangjing Walk was once a dilapidated business district consisting of a 380-meter road and commercial buildings on both sides owned by Vanke and Fangheng. The district was revitalized through collaboration between the local government, enterprises, and tenants. The Wangjing neighborhood authority advocated for the renovation, while Vanke led the repair of the middle road and municipal facilities. Tenants upgraded their storefronts, and Fangheng renovated its façade and interior. Vanke provided targeted business upgrades based on a comprehensive investigation of residences, workers, and tenants. The renovated district is now more inclusive and accessible, offering improved services for the predominantly international demographics of the Wangjing neighborhood.

Langyuan Vintage is an example of a factory regeneration project. Located in the heart of Beijing's CBD, the factory was acquired by Beijing Capital Group in 2009. Rather than demolishing it and building skyscrapers, the developer chose to preserve this low-density industrial park. This space has undergone a transformation through intricate design, enabling it to provide various functions, including theaters, bookstores, zen spaces, cafes, and co-working spaces for the culture and entertainment industries, without the need for extensive development. It has become a favored destination for CBD employees to relax after work.

Micro-interventions to improve the quality of the living environment have become a significant trend in Beijing's urban regeneration. In the future, this trend will continue to expand and contribute to the overall improvement of more neighborhoods, from individual points to entire areas. We are committed to promoting this post-growth urban regeneration movement.

Keywords *: urban regeneration , micro-intervention, smart growth*

Shrinking Without Degrowth: Growth-Oriented Shrinkage In The Case Of Japanese Cities

Sachi Abe (Technische Universität Wien)

Degrowth city or degrowth planning is often confused with shrinking city, though the two concepts have a clear difference. The word "shrinking city" describes the phenomenon of a city shrinking in size, while the word "degrowth city" or "degrowth planning" describes an alternative planning ideology.

Khmara and Kronenberg (2023) provides a distinction between a shrinking city and a degrowth city and acknowledges the usefulness of applying urban degrowth concept to shrinking cities. Schindler (2016) gives the example of Detroit to showcase the possibility of incorporating degrowth concept amidst a city's shrinkage. Though these studies lay out the differences and relations between the two city concepts, there is still a lack of research on why incorporating degrowth concept is inherently necessary for shrinking cities. Compact city is one of the concepts often endorsed when countering city shrinkage. By condensing the socio-economic infrastructure to the city centre and increasing its density, a compact city aims to maintain a high quality of living, limit environmental impact from urban sprawl, and reduce public expenditure. Though being one of the prominent city concepts, Bibri (2020) argues that compact city planning can result in a disproportional focus on economic benefits, sidelining environmental and social improvements. This study highlighted the case of Swedish cities, but the same argument can be applied to Japanese compact city planning.

Japan is one of the leading countries in its aging and declining population: 29% of the population was over 65 years old in 2023, and the total population is expected to halve in the next 100 years. In 2014, a governmental report brought attention to the acute shrinkage of Japanese cities by declaring that 49.8% of Japanese municipalities will become "potentially extinct" by 2040 (Masuda, 2014). As a countermeasure for future shrinkage, many cities have incorporated the concept of compact city into their spatial planning agendas. Toyama, for example, is a city of 410,000 people that adopted compact city planning in 2005. The city's initiative is regarded as a successful case, with increases in the use of public transport, city centre population, and real estate value (Onodera, 2023).

The objectives of compact city in Japanese cities focus heavily on economic benefits such as decrease in public expenditure and increase in real estate value. Though social and environmental aspects such as walkability, mixed land use, and CO_2 reduction are mentioned, they are oftentimes overlooked or simply not measured when discussing the outcomes of these city plans.

This paper will adopt a descriptive case study method to analyze compact city planning in two Japanese mid-sized cities: Toyama and Kumamoto. By studying their official documents and secondary sources as well as conducting interviews, the paper will analyze the narratives behind the adoption of compact city planning and how their results were measured. The paper will then discuss the limits of compact city planning when endorsing a growth-oriented view and argue the necessity of incorporating postgrowth planning perspective to achieve social and environmental sustainability in shrinking cities.

Keywords *: Shrinking city, Degrowth, Postgrowth, Compact city , Japan*

Tokyo. The Opportunities Of Shrinkange And Post-Growth.

Marcela Maria Riva de Monti (Universidad Politécnica De Madrid)

The city, as a system that moves energy and information, faces an uncertain future. Therefore, planning activities have to incorporate the capacity of cities to adapt to transformations, to propose versatile urban models and flexible forms of urban action, which allow reorienting decisions to adapt to new contexts.

The "three arrows"Abenomics policies, aimed for the geopolitical rebranding of the country, were designed to tackle the consequences of the "lost decade" as well as the demographic challenges faced by the country (Hausman and Wieland, 2015). As a consequence of these policies Tokyo started to attract population.

Therefore the central area of the city experienced a revival of activities. Due the brown fields made vacant by the dismantling of the former inner-city industrial sites, privatization of national companies and relocation of government offices, the flexibilization of planning laws, the foreign investment in real estate, the new housing demand and the 2020-2021 Olympic games, major urban regeneration projects were developed and extensive area of the city were reshaped with big plot and massive buildings.

Nonetheless, the urban fabric of Tokyo is characterized a highly atomized land partition. These small plots of the Edo-Tokyo cannot be re-built within the economic logic mentioned above, therefore remain vacant. These simultaneous processes are differentiating zones of growth and degrowth, resulting in co-occurrence of two antagonistic realities in the same city. While some central areas of the city are revived with large scale projects, at the smaller scale vacant plots unable to be incorporated into development sites triggering a site-specific process of spongification.

The goal of this investigation is to look into the consequences of applying centralization policies in the atomized (none central) Tokyo neighbourhoods.

Tokyo Olympics In The Mature Context Of Late Capitalism

Raphael Languillon (University Of Geneva)

Designated three times to host the Summer Olympics in 1940, 1964 and 2020, Tokyo is a city whose development is historically linked to the Olympics. Despite their recurrence, Olympic Games had different impacts on Tokyo according to each session and each context. If Tokyo 1964 appeared to be a true turnaround for the host city at a time Japan was experiencing a high growth rate, Tokyo 2020's meaning for the city is still unclear, especially because Tokyo has been becoming since the 2000s what Japanese people call a "mature city" – a developmental stage related to late capitalism in post-growth context.

After having faced an unprecedent bubble effect based on a strong land and real estate speculation in the 1980s, and a decade of restructuring after the bubble burst in the 1990s, Tokyo's development benefited from 2002 Urban Renaissance Special Measure Law in the 2000s and completely changed its urban profile, with a huge verticalization and densification of its centers' built-up environments. In 2013, with the city's 2002 urban renaissance policy seemingly having reached its limit, Tokyo won its bid to stage the 2020 Olympics. The city plan was modified, with Olympic clusters replacing the special zones of urban redevelopment. The way the Olympics' agenda meets the ending agenda of the Urban Renaissance leads to ask the question of any continuity between the two trends and their cumulative effect on Tokyo restructuring as a mature and post-growth city.

In this presentation, we formulate the hypothesis that the highly selective, centrally concentrated nature of urban renaissance and Olympic infrastructures has created a two-tier city in Tokyo, provoking debate over what David Harvey calls the "spatial fix", i.e. the temporary spatial solutions adopted by capitalists to save their assets from a downward spiral in values. This paper will examine the assumed continuity between the 2000s (urban renaissance) and the 2010s (Olympic development) and discuss the pertinence of the term "spatial fix" in Tokyo. It will formulate the idea of an "event fix" to debate the uneven development associated with the Olympics and their specific destructive consequences in the case of a mature and post-growth global city.

Keywords : Tokyo, Olympic Games, Urban renaissance, real estate, spatial fix

Spatial Distribution And Functional Configuration Of Industry 4.0 Enterprises: A Case Study Of Germany

Zhiqiang WU (Tongji University), **Shuang ZHAO** (Tongji University), **Weipeng DENG** (The University Of Hong Kong), **Tianhua ZHU** (Shanghai Academy Of Social Sciences), **Tianren YANG** (The University Of Hong Kong), **Zeyin CHEN** (Tongji University)

The intersection of industrialization and urbanization has long been a driving force behind the development of urban industrial spaces. As technology and innovation continue to evolve, cities have adapted to accommodate various industries, shaping new spatial configurations alongside population growth and improved infrastructure.

Today, the fourth industrial revolution, propelled by disruptive technologies such as artificial intelligence, big data, additive manufacturing, and quantum computing, is reshaping our world. In this era of Industry 4.0, urban spaces must respond to the ongoing technological revolution.

This research delves into the spatial distribution characteristics of Industry 4.0 cities in Germany, exploring their relationships with Industry 4.0 enterprises and surrounding functional facilities. The aim is to establish a model for industrial spatial function configuration, providing insights for the development of urban industrial spaces.

The study primarily addresses two questions:

1. What spatial distribution characteristics do Germany's Industry 4.0 enterprises exhibit?

2. What patterns emerge in the industrial spatial function configuration of German Industry 4.0 enterprises?

To answer these questions, the research examines Germany's Industry 4.0 enterprise distribution from various dimensions, evaluating distribution status, density, and key locations across different cities.

The city of Stuttgart is selected as a focal point, investigating its Industry 4.0 enterprises alongside ten categories of urban industrial space functional elements. A quantitative analysis, utilizing multi-factor urban Point of Interest (POI) data, reveals correlations and characteristics among these factors, leading to the identification of functional configuration patterns for Industry 4.0 enterprises.

The distribution of Industry 4.0 enterprises in urban spaces exhibits distinct characteristics: they tend to cluster in major cities, particularly in city centers, while their presence is relatively limited in other areas, with a focus on industrial parks. These enterprises have close functional relationships within urban environments, particularly with higher education institutions, research organizations, logistics and warehousing areas, and industrial parks. They emphasize the "research and development (R&D) + production" paradigm, relying on research outcomes and striving for large-scale applications.

Regarding the allocation of functional facilities, the study identifies two key patterns: distance gradient and correlation. The distance gradient pattern reveals that the number of Points of Interest (POIs) around these enterprises varies with distance, showing five trends. Residential functions increase with distance, while others decrease. The correlation pattern indicates that Industry 4.0 enterprises have the weakest correlation with residential functions but the strongest correlation with cultural, sports, dining, and commercial and retail functions.

The findings of this study offer valuable references for the rational, scientific, and efficient planning and policymaking of industrial space construction in new cities and urban regenerations worldwide. By enhancing urban industrial spaces, we aim to facilitate future industrial planning, enhance the quality and efficiency of urban industrial areas, attract exceptional enterprises and talent, and promote the sustainable development of cities.

Track 02: Markets

Markets - Planning for property markets, Financialization, and Private Actors

Chairs:

- Matthieu Gimat, Université Paris 1 Panthéon-Sorbonne

- Tuna Tasan Kok, University of Amsterdam

- Petra Samaha, Sciences Po Paris

Keywords: Financialisation, financial actors, adaptive planning strategies, property-led planning, property developers and investors, property-led urban development coalitions

In the context of rising housing prices during the last decades, public actors found new ways to use planning to regulate property markets, for instance, by imposing affordable housing in new residential developments through inclusionary housing programs. At the same time, planning has been seen as a way to promote growth in property markets, notably by encouraging projects amenable to international capital or secure real estate values in increasingly volatile markets. With the growing interest of financial actors (such as sovereign wealth funds, pension funds, insurers, and investment trusts) for real estate, the regulatory capacity of planning is particularly under scrutiny as these actors' strategies have been linked to increasing rents, evictions, and rapid social change. The growing size of their portfolios also makes these actors central for implementing rehabilitation and urban renewal policies, which are essential to bringing carbon emissions to net zero. This track seeks to explore the intersections of planning, governance, and property studies, with a specific emphasis on critical perspectives that examine how planning systems, including regulations, grapple with the challenges posed by financialisation in contemporary urban environments. However, within planning scholarship, there is untapped potential for further exploration of property actors, their strategies, and their relative positions in relation to regulations. We welcome theoretical, methodological, and empirical contributions that address the following key themes.

Public Planning Mechanisms and Financialisation: Papers in this category should investigate how public planning mechanisms and institutions respond to cities' financialisation. We encourage critical examinations of regulatory frameworks, policy responses, and their implications for urban development.

Emerging Adaptive Planning Strategies: This theme seeks to explore the innovative and adaptive planning strategies that are emerging in response to the challenges posed by property-led planning and financialisation. Contributions should illuminate novel approaches, tools, and practices that planners employ.

Relational Dynamics among Public, Private, and Community Actors: While our primary goal is to shed light on lesser-known actors, such as property developers and investors, and their relational positions within urban planning coalitions, we also invite abstracts that delve into the complex relationships among public sector actors, private developers, and local communities in the context of property-led urban developments. This theme encourages in-depth analyses of power dynamics, collaborative efforts, and conflicts among these key stakeholders.

Gender Balances in Property Coalitions: Specifically, we are interested in studies that investigate gender dynamics within property-led urban development coalitions. How do gender imbalances influence decision-making processes and outcomes in urban development projects?

Global Perspectives: We encourage submissions that offer insights from low and middle-income countries, exploring how they experience similar financialisation trends in urban development. Comparative studies and cross-cultural perspectives are particularly welcome.

Social Values

Low-Income Housing Development In A Hot Market: Do Developers Use Local Housing Plans In California?

Paavo Monkkonen (Ucla / Sciences Po)

State law requires local governments in California to make plans that can accommodate new low-income housing development every eight years, by developing lists of specific sites that are apt for new housing projects. These sites are not reserved for low-income housing, and affordable housing developers must acquire them on the market. Existing research suggests that these sites mostly go undeveloped (Kapur et al., 2021). Since 2021, however, the state of California has more aggressively implemented this planning mandate for housing than ever before, by assigning local governments larger targets for new housing, creating new rules for site selection, and scrutinizing plans more closely (Monkkonen et al., 2023). This paper seeks to assess the impacts of these reforms on affordable housing development. We ask how low-income housing developers select sites, whether they pay attention to housing plans, and why or why not. Using in-depth interviews of 20 large affordable housing developers in Los Angeles County, we describe both their approach to selecting and acquiring sites for new housing projects as well their understanding and utilization of new housing plans. Better understanding the relationship of this fundamental actor in housing production to a highly visible and politically contentious planning process will inform both our knowledge about how affordable housing development occurs in the United States, as well as how planners can better work within housing markets to improve the production of housing for low-income households.

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Keywords : Housing developers, Affordable housing, Housing plans, California

Real Estate For The Public Good. A Problematisation Of The Public Value Of Real Estate Management By Philanthropic Organisations.

Francesco Campagnari (Ecole Des Hautes Etudes En Sciences Sociales)

This contribution focuses on philanthropic organisations and their management of real estate assets. While scholarship has often framed philanthropic organisations as actors using their resources for the «public good» (Anheier, 2001), others have instead adopted a more critical approach, highlighting the need to inquire the influence of philanthropic institutions on urban governance (Fuentenebro and Acuto, 2022).The contribution aims to further understand philanthropic organisations by problematizing the public value of their actions. It means avoiding assuming a priori that their operations have a public utility and considering that these operations are seen as publicly relevant and legitimate by some involved actors. The contribution explores the social processes of evaluation, critique, and judgment about what makes the actions of philanthropic organisations publicly relevant, by which we mean, following Dewey (1927), actions that affect not only the involved actors but also a wider community. In particular, the contribution focuses on the management of real estate assets by philanthropic institutions – hitherto scarcely explored. These assets are interesting because some of these institutions, like the Italian Banking Foundations, can use them both to directly pursue social goals (e.g. offering low-cost spaces or restoring built heritage) and to generate revenue (e.g. generating revenue by renting these spaces) (Leardini, Rossi and Todesco, 2010). Exploring how they are managed and claimed to be publicly relevant can shed new light on how these organisations act and how their public relevance is built and sustained.The contribution presents the case of the transformation of the former industrial complex of the Magazzini Generali in Verona, Italy, by the Cariverona Foundation. Initially planned in the '90s by the Municipality of Verona to become a cultural district, the area was then sold to Cariverona to implement this project. Over the last 20 years, though, Cariverona diverted the project on the basis of considerations of economic sustainability, creating a financial and commercial district, from which to acquire revenue.Exploring the iterative phases of planning, implementation and public representation of this project in a public arena (Cefaï, 2016), the contribution shows that the courses of action of philanthropic organisations and their associated public utility are not autonomously defined, but they result from broader planning and public processes influenced by other actors. The contribution argues that the management of real estate by philanthropic actors can be influenced by their economic needs. It further claims that these reorientations can be legitimized through a recalibration of the arguments of the public benefits associated with the projects and through the publicisation and problematisation of the economic sustainability of these actors.

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Unpacking The Complexities Of Social Value Integration In Amsterdam'S Planning And Property Development Landscape

Nagwa Kady (University Of Amsterdam), **Sara Özogul** (University Of Groningen)

The property sector is increasingly recognizing the importance of social value, yet its integration into urban development practices in planning remains limited. The elusive nature of social value, shaped by diverse actors with varying motivations, is exacerbated by the absence of defined goals and objectives. This complexity results in the loss of social value in translation in property development processes, but more so, due to the entrepreneurialism of governments that rely on the private sector to achieve their objectives. This paper diverges from dominant market-driven and entrepreneurial governance narratives, focusing on the actions and interactions of public and private sector actors as pivotal players in contemporary property development. While planning encompasses physical and non-physical attributes that generate social value at different spatial scales (Vigar et al., 2020), the abstract process of perceiving, defining, and translating social values into actual projects persists. To address this, we developed a framework based on Adam and Tiesdell's (2012) representation of real estate production processes and Jain et al.'s (2020) framework of social value creation. Our framework centers on three aspects: perception, implementation, and operation, which we use to trace social values through the various phases of development in four case studies in Amsterdam. Perception involves how project development actors differently interpret social value concepts which in turn leads to implementation challenges. The implementation phase focuses on the negotiations between public and private actors, dependent on their collaboration and resource acquisition to realize social value objectives. The operation phase emphasizes project maintenance, particularly concerning intangible social values. Through the framework, we identified several key challenges, namely, the shifting influence and motivation of actors as processes intensify, complicating the consistent prioritization of social value. Furthermore, the unregulated nature of social value, coupled with competing priorities such as financial gain, contributes to an ambiguous and inconsistent value-creation process.

Keywords : Urban planning, Social value, Property development, Entrepreneurialism

Eviction & Displacement

Evictions And Housing Policies In Italy

Alessandra Esposito (Sapienza)

In Italy, the access to adequate housing is currently reduced for large segments of the population, in particular for young people and immigrants belonging to the lower classes (Bank of Italy 2019) and for women and racialised or queer subjectivities, since they often have "lower and more precarious incomes'' (Olcuire 2023, 77). Moreover, the effects of the commodification and financialisation of housing are also increasingly felt by the middle class (Filandri and Olagnero 2014, Filandri et al. 2020). The trend of evictions testifies the Italians' dwelling difficulties: it has risen from 40 thousand evictions issued in 2001 to more than 60 thousand in 2016 (Bank of Italy, 2019, 20). Tenants' unions and housing movements have denounced this worsening scenario, calling for a new season of public policies in defence of the right to dwell, but their demands remain largely unheeded. The existence of a long-lasting dwelling problem in much of Italy's urban contexts is also testified by the long list of municipalities defined by law as territories with 'high housing tension' . Large metropolitan areas but also small and medium-sized cities appear in the list, reflecting the widespread nature of the problem. Nevertheless, this condition is due to a fictitious shortage of housing space, since Italy has a surplus of housing stock over the resident population and high rates of empty properties (Gentili & Hoekstra 2019). Therefore, the point is the affordability of existing residential stock and under what conditions the residential landlords make it available, when they do. The intervention proposes an original empirical analysis based on historical series of data on evictions (from 1983 to 2023); it highlights the increase of evictions for morosity in all Italian cities and discusses the institutional answer to the issue. If evictions in general are the most visible form of housing stress (Olagnero 1998), evictions for morosity are a specific snapshot of dramatic housing distress due to unaffordable housing costs. With regards to the institutional answer, the speech will focus on social housing policies interpreted as a mechanism of further financialisation and privatisation of the Italian real estate market, unsuitable to respond to the social problem of dwelling.

Keywords *: eviction, property market, social housing*

Neighborhood Transformation. A Case Of Gastronomic Displacement. Market Forces And Place Identity

Cecilia Giusti (Texas A&M University)

How a city is being transformed due to market forces in a developing country? How do city planning authorities deal with private actors to ensure people's lives improve? This proposal deals with these questions int the context of a mega city experiencing growth in South America's Peru.

The Santa Cruz neighborhood, in Lima, Peru can be traced to the 1900s when a small portion of one big Hacienda was partitioned, subdivided in small lots, and sold to former slaves (Orrego Penagos 2013). It evolved into basic housing units, concentrating woodshops, car mechanics, basic services, and alike, a "typical" low-income mostly black neighborhood. It coexisted in an otherwise upscale area that took advantage of cheap labor nearby, not a rare phenomenon in South American cities. This reality changed in the early 2000s when affluent investors identified Santa Cruz as cheap land for business; interestingly, the first investors were high-end "eclectic" restaurants. Nowadays Santa Cruz has become a gastronomic hub and a dynamic economic area in the city of Lima (Matt and Garcia 2019; Aguirre Sosa et. al. 2023). With new investment, land prices increased, resulting in forced displacement of the local population; legal actions for evictions, repossessing of land, and active protests by local residents and advocate grassroots organizations, are now happening (Claux 2022). Given the complexity of the Megacity of Lima, and the mixing of racial and cultural realities to this gentrification phenomenon, this case study reflects more nuances worth studying. How do residents react to the change in the character -and value- of their neighborhood? How are planning officials supporting -if at all- local residents? Or big investments? Through detailed review of city documents and local interviews, this paper aims at bringing lessons on how this process has been (mis)managed. We find continuous contradictions between the neighborhood "attractiveness" and historic marginalized populations. Who has the right to the City and how market forces redefine such a question is at the core of our research.

Keywords : land markets, neighborhood identity, Displacement

Urban Planning Coalitions: Partnering For (And Against) Displacement In Venice

Laura Colini (Università Iuav Di Venezia It), **Laura Fregolent** (Università Iuav Di Venezia It)

The urban life of Venice is chronically undertreat: the number of tourists accommodation has outnumbered the residents, touristisation and short term rentals have contributed to raise rents and housing prices, displacing former inhabitants (Salerno, 2023) desertifying services. Venice is transforming itself into a haven for wealthy and affluent individuals (Butler and Lees, 2006), subject to transnational gentrification dynamics (Siegler and Wachsmuth, 2020), and real estate tourist led financialisation (Wijburg et al 2023) involving depopulation, expulsion of weaker social strata, and hoarding of prime sites for property speculation. These persistent issues rely on urban land and housing ownership, coalitions of stakeholders, significantly impacting equity, democracy, and law.

Through interviews, this paper examines the interactions and relationships between several governance coalitions involving public, corporate, and community actors in the speculative redevelopment for transnational tourist and culture oriented gentrification of a former patriarchal complex in the old city of Venice. After WWII, the ancient Patriarch premises were occupied by military and migrant families, and later refurbished by the residents. This was feasible through short-term leasing agreements that were extended for a period of almost 50 years with the Italian State property agency (Demanio). Under these agreements, the Demanio ensured that the premises were maintained to the minimal standards, while the municipality retained ownership of the land. Interviews with residents reveal that the Demanio conducted only little repairs throughout the years, and as a result, the tenants themselves took responsibility for the premises, treating them as if they were their own, for approximately two generations. In this narrative, the state, municipality, and tenants collectively establish a distinctive ownership structure, a form of "Governance Property" (Gregory, 2012),which lacks complete formalisation of the right to occupy the premises. In 2013, a national legislation was enacted that permitted local governments to undertake the redevelopment of State-owned asset, provided that they adhered to the objectives of promoting the public good. The technicians of the municipal staff proposed transforming the premises into public housing, but this opportunity to formalise the tenants' status was not taken advantage of. Instead, in 2022, the alignment of two multistakeholder coalitions enabled the redevelopment for market and tourist-oriented speculation.

We argue that this decision to pursue redevelopment was facilitated by a minimum of three circumstances. Initially, the State and municipality implemented the strategy of "waiting for" (Ay & Penpecioglu, 2023) lucrative prospects, without considering the formalisation of renters' rights. Furthermore, this can be achieved through the establishment of two interconnected alliances: an informal and discoursive one among politicians focused on culture and State-led development to stimulate economic investments in historic Italian cities, and a formalised public-private partnership between governmental institutions and a real estate investor to execute a high-end revitalization initiative for former Patriarchate. Furthermore, the secreted agreement between the PPP (State agency, municipality, and real estate developer) was made feasible due to the incorporation of the principles of energy-efficient co-habitation, art & culture, and co-working space under the guise of serving the "public good" as required in the national law. The proposed plan would have resulted in the displacement of the residents from the former patriarchal complex and the subsequent transformation of the area into another example of transnational gentrification in Venice. Nevertheless, a coalition led by the community successfully asserted their rights to co-ownership and opposed the redevelopment project, effectively putting a halt to it (Basso et al. 2023). In conclusion, we address the question how the interconnected examination of legislation, multiple stakeholders coalitions, and various geometries of multi-scalar governance might offer fresh insights and intellectual tools for comprehending the evolving dynamics of rent seeking in historical cities.

Keywords : State, property market, multistakeholder coalition, Housing, planning regulations

Integrating Devalorized Social Housing Neighbourhoods To The Property Market: A Contribution To The Study Of The French Urban Renewal Policy Through An Urban Political Economy Lens

Pauline Gali (Université Jean Monnet - Saint-Etienne)

Since the early 2000s in France, many social housing neighbourhoods, mostly built between the 1950s and the 1970s, have been the target of a substantial urban renewal policy (known as "rénovation urbaine"), led by a state agency established for this purpose in 2004. This urban renewal policy aims at addressing some of the problems which have been pointed out since the late 1970s in the "grands ensembles" neighbourhoods, spanning over more than 20 years of the so-called "politique de la ville", which involved special actions and funds for these areas. The latter are regarded as affected by social, economic and spatial issues, that the urban renewal policy intends to tackle through the extensive demolition of social housing estates and the rebuilding of a diversified housing tenure, intended to attract a different – whiter, richer – population into these previously deprived and degraded areas (Lelévrier, 2023).

While the material and social effects of this policy have been studied by many authors, there is a need for further exploration into how urban renewal projects alter the urban production mode of these social housing neighbourhoods. Drawing on an urban political economy framework, I consider that the current French urban renewal policy involves the creation of diverse urban rents in areas that were going through devalorization and degradation processes. As it transforms the social housing supply and incorporates private housing in these neighbourhoods, this policy can be seen as integrating to the property market areas that have been for decades out of reach for private developers. From that point of view, this policy can be compared with urban renewal programs implemented in the United States, whose goal relies in taking advantage of degradation processes and of the formation of rent gaps to extract urban value in poor and racialized neighbourhoods (Smith, 1996; Weber, 2002).

In this contribution, I will first demonstrate that the current urban renewal policy in France uses terms and forms of action on the housing supply, on the urban development and on the social tenure which date back to the 1980s-1990s "politique de la ville". Nonetheless, despite some ideological and operational continuity, the current urban renewal policy has introduced a totally new principle of intervention in these areas, predicated on the contribution of property developers to the housing diversification. Through archival research focused on a "grand ensemble" neighbourhood of Saint-Etienne, I will discuss how the very notion of housing and social diversification has evolved, since the 2000s, enhancing the shift towards the opening of public housing areas to private real estate operators.

Subsequently, this contribution brings to light the production of land rents through the urban renewal process within two different territorial contexts: a dynamic property market in Alfortville, in the Paris region, and a less attractive area in the post-industrial town of Saint-Etienne. Drawing on a graduate and PhD research based on the analysis of planning documents and semi-structured interviews with professionals involved in these urban renewal projects, I will insist on the mechanisms which contribute to create successive rents on former publicly owned lands, starting from the demolition of social housing estates and then through the sale (and resale) of a new private housing offer.

***Keywords** : Urban renewal, housing, property market, urban rent , grands ensembles*

Negotiating With Developers

Beyond Confrontation: The Evolution Of Planning Through Negotiated Real Estate Development

Xiaozhou Wang , Lin Wang

Discussions of real estate development often focus on describing developers, participants and outcomes, and the process is often seen as a "development game" where planners and developers are in opposition. In contrast to the traditional "top-down" planning approach, this study takes the entire process of equal negotiated planning process between the government and real estate developers, as a case study. By analyzing the reasons for negotiation failure, the aim is to use this as a research basis for expanding negotiated planning process to the field of statutory planning. This article takes the new development project of Changxing Island International Fishing Harbor Cultural and Tourism Town in Shanghai as an example. As a real estate investor, the researcher participated in the entire process of game negotiation with the local government. The Chinese real estate market uses the rate of cash flow returning to positive as an indicator of corporate profitability: the more area available for sale, the faster the rate of cash flow returning to positive. Local policies require developers to maintain a minimum percentage of commercial assets that cannot be sold but can only be operated, resulting in a lack of residential product and an oversupply of commercial product. The inability to change this "one-size-fits-all" policy was the root cause of the failed negotiations, resulting in negative investment returns for developers. While developers are often considered to pursue the maximization of their own private interests, planning conditions that balance the interests of all parties can still create outstanding comprehensive value for the local community. By extending negotiated planning, which in China operates more at the non-statutory planning, into the statutory planning arena, the planning process will shift from opposition to an equal dialogue mechanism that progressively harmonizes consensus.

Keywords : Negotiated Planning, Non-Statutory Planning, Real Estate Developer

Transferrable Development Rights And Its Impact On Densities And Housing Supply In Mumbai

Husain Vaghjipurwala (Hafencity University)

The concept of Tradable Rights in Land originates in property law as applied to geographical space where land ownership is considered a bundle of rights, the components of which can be treated separately, e.g. Development rights, air rights or mineral rights etc. (Renard, 2007). This allows the formation of a marketplace for the components of Land, in our case development rights, which can be exchanged between landowners/beneficiaries in one geographic area and developers who want to build greater intensities/densities in another. Such Transferrable Development Rights are a shift away from publicly funded, regulatory, and bureaucratic approaches to planning and toward incentive-driven, entrepreneurial placemaking (Linkous 2016)

In the case of Mumbai, such development rights are offered as incentives in terms of extra Floorspace (Floor Space Index) with their values linked to the land values. Such TDRs are increasingly being viewed as a panacea for its urban problems – obtaining land for public purposes, providing housing to slum dwellers, redevelopment of inner-city neighborhoods etc. By aligning its planning goals, which has historically been through a regulation of building heights, with a market led mechanism of FSI and transferable development rights, the city has ensured the financialization of its urban policy. Issar (Issar 2022) uses archival research and interviews with policy experts to trace this shift, bringing forth its complex implications for urban development and social goals in Mumbai. In a similar vein, Yang and Chang,(Yang and Chang 2018) investigate the impact of such Transferrable development rights in Taipei post 2006, highlighting its effects on the property prices, dispossession and social antagonism.

This research analyses the interconnected components of the urban policy which are Housing supply, Densities and Transferrable Development Rights, using historical Primary Data on Transfers and building permits (1991 - 2021) obtained from the city authority (MCGM). With the help of GIS and empirical analysis the study exposes the spatial flows and patterns of density (FSI) and housing units across the city. The analysis shows that, contrary to some intentions for the alignment of the city's planning vision, market led planning has created its own submarket whereby TDRs have been received in areas with an already higher land value and higher built area potential. As more built-up space is being consumed by ever fewer people, the research demonstrates the geographic signature of the competing aims of a financialized urban policy viz., Decongestion of the city versus adequate housing.

Keywords : Transferrable Development Rights, Financialization, Urban Policy, Density, Housing supply

Fallacies And Revisions: Evaluation Of Economic Benefits Of Development Rights Transfer And Density Bonus –17th And 69th Neighborhoods In Shanghai Hongkou Historic Conservation Districts Regeneration As The Case

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Transfer of Development Rights and Density Bonus (TDR&DB) is often vaguely and implicitly used as a financial compensation tool to achieve a comprehensive cost-benefit balance in the regeneration of Shanghai's historic conservation areas. However, this is a misinterpretation and deviation of the effect of TDR&DB. This paper takes the 17th and 69th neighbourhoods in Hongkou District as an example, explains the constraints on the cost-benefit of regeneration, analyses the market mechanism of TDR&DB, and evaluates the economic benefits of TDR&DB in detail using the land value allocation rate method and the revenue reduction method. The study concludes that: 1) Local governments often have a false illusion of FAR when applying TDR&DB, they should restrain their urge to increase FAR and restore the basic attributes of public interest orientation of TDR&DB. They should explore the shift from the land expropriation model to the rights conversion model to reduce the cost of urban regeneration; 2) The idea of cost-benefit balance has obscured the essence and value of TDR, the essence of TDR is to realise the efficient use of total spatial resources through the dynamic adjustment of development rights. This provides a new way for the introduction of this system in our country; 3) market players can obtain more economic benefits by using TDR&DB, and they should make more "special public contributions" to regional development. It is suggested to introduce the concepts of "incentive coefficient" and "incentive amount" to accurately evaluate the "special public contributions"; 4) the TDR&DB should take into account their external effects on the surrounding areas, and further research should be conducted to quantify and evaluate the external effects of the receiving sites, so as to promote the practical application of TDR&DB. The above conclusions can provide useful guidance for the construction of a sustainable urban regeneration mechanism in China.

Fresh Cash For Empty Coffers? Changing Developer Obligations In Antwerp, Belgium.

Chris den Heijer (University Of Antwerp), **Tom Coppens**

In response to persistent austerity, local governments are actively exploring innovative financing strategies for public infrastructure investments. Notably, public value capture (PVC) techniques have gained prominence, with a specific focus on developer obligation (DO) policies. Unlike direct approaches targeting property value increases, DOs operate as indirect modes of value capture. DOs traditionally require in-kind or financial compensation for costs incurred by authorities but caused by private development projects (Alterman, 2012). However, in regions such as the UK, the Netherlands, and Flanders, DOs are now utilized to generate new financial revenue streams that are not necessarily linked to mitigating project externalities. Recent research frames this evolving landscape of value capture tools against the backdrop of financialization processes and neoliberal influences in planning practices. Concerns have been raised, particularly in the Anglosphere, on the financial instrumentalization and calculative shifts of value capture. It is argued that these trends have led planning systems to prioritize inflating property values over preserving socio-spatially integral development, exposing governments to heightened risks (Bloom, 2023, Purcell and Ward, 2022, Catney and Henneberry, 2019).

Limited research has examined the longitudinal evolution of DOs within the context of financialization processes, especially at the local level. Our contribution therefore focuses on the "Urban Development Cost" (UDC) introduced in 2016 in Antwerp, Belgium. The UDC, a local policy guideline, aimed to optimize DO approaches to augment the private sector's contributions to public space. Framing the UDC within financialization processes, our article seeks to contribute to two questions: Why do local governments adopt modified DO policies? And how do these changes affect planning and development practices?

Drawing on policy documentation and in-depth interviews with key stakeholders, the analysis reveals that the UDC emerged opportunistically to fulfil financial and political-ideological agendas. Seizing a legal vacuum in DO legislation at the regional level, the UDC emerged as a preferred tool to address budget deficits. Politically and ideologically, the choice for the UDC was motivated by the city government's reluctance to increase general taxes, the potential to generate discretionary revenues, the possibility of exploiting loopholes in regional DO legislation, and finally, the opportunity to avoid democratic control. Respondents raise concern over the UDC, citing the political haggling over UDC funds, diminished democratic control, depoliticization of fund allocation, power imbalances in negotiations with developers, and limited transparency.

Through these results, we argue that the financialization of value capture techniques extends to the local level, and that it involves more than just repurposing value capture techniques and subjecting them to calculative practices. Financialization, in the UDC case, also carries a political dimension, with local actors seeking to consolidate discretionary power through a "politics of earmarking" (Pacewicz, 2016). We caution against the by-products of such practices, including diminished democratic quality, allocative inequity, and questionable legitimacy. Our article calls for further research into how internal dynamics within local governments contribute to financialization processes of value capture and their implications for legitimacy.

Keywords *: Financialization, Developer obligations, Value Capture*

Governing Housing Markets

The Netherlands: A Radical Departure From Neoliberal And Financialized Housing Policies?

Jannes van Loon (Woningbouwersnl)

A significant body of literature has extensively documented the transition towards more market-oriented, neoliberal, and frequently financialized systems of housing production. This transition has often depicted market actors as influential entities capable of shaping policies and laws in their favor. Numerous case studies have exemplified the Netherlands as a primary illustration of this phenomenon, demonstrating the sequential neoliberalization of housing production during the 1990s followed by financialization in the 2000s (Aalbers et al., 2021).

From the postwar reconstruction period until the 1980s, housing corporations and state agencies spearheaded housing production through a centralized spatial planning system. However, starting from the 1990s, real estate development corporations and investors have ascended, introducing a more market-oriented approach primarily focused on housing for higher and middle-income groups.

Nevertheless, as spatial planning decentralized during the same period, municipalities gained the ability to 'reshape' dominant tendencies of financialization and neoliberalization. Amsterdam stands out as an intriguing case, boasting an attractive housing investment market that has fostered a vibrant, internationalized landscape of real estate investors (Taşan-Kok et al., 2021). Despite this, the local council maintains high social and sustainability goals. Leveraging its extensive land holdings and planning authority, the municipality of Amsterdam successfully steered financialization forces towards facilitating local housing policy objectives, resulting in 80% of all new housing being designated for low and middle-income households.

Moreover, at the national level, sentiment against financialization processes, particularly real estate investors, has shifted dramatically. There has been a recent radical policy shift away from neoliberal and financialized housing policies towards centralized, state-led initiatives aimed at boosting housing production, particularly for low and middle-income households. However, this shift presents challenges within a housing production system where local government bodies wield significant power and often harbor conflicting housing policies.

This paper examines these contradictions: to what extent is it feasible for the central government to enact radical shifts in housing policies within a decentralized spatial system? Furthermore, to what extent is it financially viable to transition from a housing production system primarily financed by market actors to one predominantly funded by housing associations and state agencies? Alternatively, is it feasible to enact policy changes while shifting the financial burden onto market actors?

Social Value Creation Or Empty Promise? Unpacking The Polycentric Regulatory Strategies Of Housing Governance In Amsterdam

Sara Özogul (University Of Groningen), **Nagwa Kady** (University Of Amsterdam), **Tuna Tasan-Kok** (University Of Amsterdam)

Heightened political concerns surrounding housing are intricately tied to intensified regulatory efforts employed by states to oversee activities and processes within residential property markets. This has resulted in the emergence of complex, multilayered, and fragmented governance structures. Concurrently, discussions on housing as a fundamental social value are experiencing a resurgence, notably intertwined with Mazzacuto's (2018) influential critique, challenging the prevalent understanding of value creation predominantly in economic and financial terms. This paper examines housing governance and its pivotal role in safeguarding social value. Our analysis focuses on three specific regulatory strategies—indirect, multifaceted, and hybrid (Black, 2008)—to illuminate the dispersed nature of contemporary regulatory powers within residential property markets. Empirically, our attention is directed to the Metropolitan Region Amsterdam, where we argue that polycentric regulatory strategies have abstracted the social value of housing in both substantive and procedural dimensions. Indirect strategies are evident in the proliferation of non-binding regulations, offering greater flexibility to property industry actors. Multifaceted regulatory strategies reveal conflicting targets and diverse approaches, ranging from restrictive measures to stimulating property actors' behaviour. And hybrid strategies underscore collaborative regulatory endeavours, involving public entities, including planners, and financial actors from the property industry. This confluence of factors underscores a dynamic regulatory environment that leans toward lacking specificity and clear public sector strategies for both fostering housing as a social value and effectively managing residential property production, as well as blurred lines between state and property market actors. As such, our analysis contributes to the field of regulatory governance within the realms of planning and housing production, and addresses challenges posed by the financialization of contemporary urban environments in terms of relational dynamics among public and private entities.

Keywords *: property market, regulations, governance*

The Institutional Levels Of Housing Market Regulation: Spatial Selectivity Of Fiscal Policy And The Local Governance Systems In France

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In recent years, the field of tax geography has experienced significant advancements (Tapp & Kay, 2019). While numerous studies have explored the impact of tax policies on real estate production, much of the existing research has focused on global, national, or local scales, overlooking the examination of inter-scale relationships. This research seeks to address this gap by exploring how local governance and development systems can mitigate or redirect the effects of a spatially selective national tax policy on urban development. This paper analyses the local effects of a French tax exemption scheme for household rental investment. Created in 1984 and progressively extended from mid-1990s, this program (known as the "Pinel" scheme since 2015) now holds a pivotal role in the regulation of private housing development in France (Pollard, 2023). Tax subsidies under the "Pinel" have concerned almost half of the dwellings sold by developers and around one third of new multifamily homes. The considerable scope of these subsidies has led French researchers to adopt the term "fiscalisation" instead of "financialisation" to describe the financing dynamics of housing in France.

Since 2009, this fiscal support has been characterized by spatial selectivity: initially available to all French municipalities, only 6% met the eligibility criteria by 2022. The transformative moment in this gradual restriction occurred with the 2018 Finance Law reform, rendering 1,100 previously attractive municipalities ineligible to developers. At the national scale, this change resulted in reduced residential development in the affected councils and a deceleration in the growth of purchase prices for rental housing (Lei, 2023).

This research shows that the local repercussions of these fiscal measures on urban development are intricately tied to local governance and development strategies. To achieve this goal, a comparative study is conducted focusing on two medium-sized French cities: Angers and Clermont-Ferrand. Both cities experienced a loss of access to tax incentives in 2018, impacting a significant part of their territories.

The study of each case follows a structured three-stage approach. Initially, the characteristics of the two local governance systems are delineated using public data, including local and national regulatory documents, as well as statistics on local land markets. Despite the significant similarity in socio-demographic aspects between the two cities, their development strategies diverge. Angers pursues municipal entrepreneurialism to attract private developers, while Clermont-Ferrand adopts managerialism to sustain social housing associations.

The subsequent stage involves quantifying the impact of the 2018 reform on local real estate development, employing private statistical data concerning dwellings sold by private developers. The analysis reveals that, in both areas, the 2018 reform led to a concentration of private property development in city centres, accompanied by accelerated price increases.

The final stage involves investigating the response of local systems to this transformation through a series of interviews (n=15) with public and private actors in both regions. In Angers, the incentives introduced under the guise of a supply-side policy heightened developer interest, thereby prolonging the effects of the national policy. In contrast, Clermont-Ferrand's implementation of restrictive measures meant that investor households had to bear a portion of the financing burden for social housing production, diverting some anticipated effects of the national policy.

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Centripetal Policies And Housing Inaccessibility: The Portuguese Case

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Like other European countries, Portugal is undergoing a severe housing affordability crisis, which started with a sudden growth of housing prices in its two metropolitan areas – Lisbon and Porto.

Based on statistical and GIS analysis, the paper will demonstrate that such growth correlates with a shift in property market dynamics that followed the 2007-08 Global Financial Crisis: real estate investment is now intensely concentrated in the main urban centres, contrasting with the diffusely distributed investment of previous decades.

Two main sets of factors caused this shift, namely: (1) international context – housing financialisation, interest rates, the use of real estate as safe-haven assets, changes in the tourism sector (Madden and Marcuse, 2016) – and (2) national policies related to housing, urban rehabilitation and investment attraction. The paper will focus on the latter, analysing such policies and showing how they promoted investment concentration and with what consequences.

In the post-crisis period, we must identify two phases regarding domestic policies.

In the first phase (2008-2015), the Government (led by a centre-right wing party under an international bailout programme) set the goal of the economy's reactivation through the liberalisation and incentive of the private property market. This led to a profound legislative reform based on: the liberalisation of the housing rental market and tourism accommodation; the promotion of urban renewal through new planning tools, tax benefits, public funding and deregulation of construction requirements; the attraction of foreign investment through tax benefits and a citizenship-by-investment programme. This reform promoted the concentration of investment in high-standard property in the country's main urban centres, contributing to the price rise and a housing affordability crisis (Travasso et al., 2020; Antunes and Seixas, 2020).

In the second phase (2017-2023), the Government (now led by a centre-left wing party) reacted to the housing crisis by creating new policies based on public investment for housing destined for the middle and lower classes (Jorge, 2022). Although intended for the whole country, we will demonstrate that the public money associated with these policies is being tendentially concentrated, once again, in the main urban centres – because there is where the problem is more evident, but also because their local governments are the ones that have the human and technical resources needed to apply for the new housing programmes (Jorge, 2024).

The two phases correspond to opposing policies, but both have led to the concentration of investment. We argue that this resource concentration exacerbates the housing problem by creating pressure on property value. It also contributes to abandoning the remaining national territory, worsening inequalities and risking territorial cohesion.

Besides contributing to a better understanding of the factors behind the housing crisis, the paper aims to show that housing policies and property market regulations must be territorialised. To meet their goals, they must be articulated with spatial planning options at regional and national scales (urban structure, housing, activities, transport). Moreover, the territorial distribution of resources and its impact must be taken into account and considered as key to resolving the housing inaccessibility problem.

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Keywords *: Public policies, Property markets, Housing affordability crisis, Spatial planning, Territorial cohesion.*

Tracing Financialization

Tracing Rental Housing Financialization - A Spatio-Temporal Approach

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The increasing relevance of institutional investors on rental housing markets has recently caught the attention of researchers and policymakers alike. Despite producing relevant insights, the literature on (rental-) housing financialization has traditionally been lacking comprehensive quantitative evidence. Drawing on arguments from both theoretical and applied contributions, we thus propose a quantitative approach to empirically capture housing financialization as a spatio-temporal process. Therefore, data concerning juristical owners, built structures, as well as company activities and ownership chains needs to be assembled and merged. We then derive several measures of rental housing financializaton from these data. To exemplify the value of the proposition, we draw on the case Vienna after the 2008 financial crisis. It can be shown that there has indeed been a significant increase of financialized ownership in rental housing featuring a pronounced spatial pattern, despite the city's longstanding tradition of decommodified housing provision. This is perceived as a particular challenge for future urban planning.

The Rise Of Corporate Landlords In Latin America: The Case Of Santiago, Chile.

Andrea Urbina (Cornell University)

Since the 2008 financial crisis, a significant shift has occurred in the global housing market. This change is particularly evident in the transformation of the economic structure of the housing market, marked by the increasing influence of financial actors in the residential sector (Aalbers, 2016). In the past years, the tenure patterns of the Latin-American population have tended to move towards the rental market, changing the traditional relationship between finance and housing through homeownership. Indeed, studies on housing financialization in Latin America have been historically focused on homeownership and the mechanism involved in the process: mortgage system (Rolnik, 2013; Santana Rivas, 2020), debts and securitization (Pereira, 2017; Reyes, 2020). In recent years, real estate and financial business interests have moved into the rental housing market. In Santiago, Chile, these real estate changes have been tied to transformations of city centers, leading to the emergence of dense high-rise housing developments via models of verticalization that attract young families and migrants. The incorporation of new actors, particularly "corporate landlords" in the region, is creating important shifts in the expansion and structure of housing patterns, establishing new practices and financial mechanisms. Institutional financial actors, such as investment funds, insurance companies, and family firms, are increasing their investment portfolios by owning and managing residential buildings, turning them into financial capital assets, transforming the understanding of housing as a social space to an instrument for profitmaking (Madden & Marcuse, 2016). With more than 130 buildings, this model represents 3% of the housing market in Santiago and is projected to increase 65% in the next two years, expanding a multifamily high-rise model in downtown areas of the city.

Drawing upon a multi-methods approach - that includes thirteen interviews with landlords, the analysis of financial and regulatory documents and the collection of building permits – this paper looks at corporate landlords' ownership typologies and the financial strategies that are transforming the housing market in Santiago. The article's central question is: How are corporate landlords shaping and transforming real estate dynamics and the housing market in Santiago? This research aims to 1) identify the ownership of corporate landlords in Santiago, 2) analyze the differences in ownership, investment strategies, and management, and 3) identify the location of corporate landlords in the city. The study focused on those buildings only owned by one landlord (100% universal ownership) for rent by international financial corporations, real estate investment funds (FII), insurance companies, and real estate companies. The analysis is centered on characterizing these landlords, elucidating their financial mechanisms, and the main socio-urban characteristics of the model entering the rental market in Chile. This paper argues that corporate landlords are changing the Latin American real estate dynamics by expanding new ownership strategies and bringing new financial mechanisms into the rental housing market, primarily through investment funds, creating a verticalization process bridging the ownership with the rental operation. The incorporation of investment funds, particularly in the residential rental market, has marked a new era for the residential housing market in Chile, shifting housing into a service, managing large volumes of units for rent (Rolnik et al., 2022). The latter demands more ownership transparency.

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Towards A Framework Of 'Augmented Entrepreneurialism': Investigating The State's Divergent Responses To Businesses In Public Private Partnership Projects In The Transport Sector In India

Champaka Rajagopal (Urban School, Sciencespo, Paris)

In this paper, I traverse diverse theoretical positions on the entrepreneurial state. The purpose is to explore the nature of embedding of the liberalized state with the private sector across stages of its evolution. I focus on the state's adoption of Public Private Partnerships (PPP), a mechanism structured as a company with no political representation. Transport infrastructure projects in modernisation of airports and national highways serve as cases.

Contrary to traditional scholarly perspectives of the neo-liberal state which withdraws from its societal accountabilities, in transport sector PPP projects, I observed that public and private parties are legally bound through multiple contracts spanning 20-30 years. The public party contributes land. The private sector finances project implementation through debt and equity contributions, while operating the project, to avail return on investments. The public party regulates the same businesses that it facilitates.

Given unclear institutional boundaries, I examine state-business relationships in three distinct spheres of evolution of the PPP project cycle. At the macro level of policy (1990s), a bold Ministry of Finance initiated several policy reforms to remove entry barriers for domestic and international corporations to invest in public infrastructure projects (Pant and Srivastava, 2015; Kennedy, 2014). Markets evolved (2000-15) through oligopolistic relations between politicians and businesses, which gradually incorporated an array of recurring consultants who occupied the project cycle. A bold, collusive state at the policy level displays risk averseness in project contract implementation stages (2016 onwards), in both sectors. Still driven by delegation and control as opposed to partnership in project construction and operations public and private parties are often entrenched in litigation, project delays and cost escalations. Risk laden outcomes of contractual governance often result in state led loan waivers for insolvent or bankrupt private companies and banks, causing losses to all, public, private parties and the taxpayer. To what extent is this debt ridden, risk-averse state an entrepreneurial one?

In response, this paper re-opens the question of the entrepreneurial state in India. I draw on debates stemming from state spaces and firm theory. At the macro level of policy, debates on business and politics in India (Jaffrelot, et al, 2019) and the theory of state rescaling (Sood and Kennedy, 2023; Kennedy, 2014) provide insights on opaque nexus between political and business elite. At the meso-level of market consolidation, some innovation scholars throw light on how bold entrepreneurial state's policy interventions are central to evolution of competitive and collaborative markets (Mazzucato, 2020), while others emphasise institutional variety and significance of democratically driven innovation in societal interest (Papaioannou, 2019). At the micro level, the theory of incomplete contracts (Hart, 2003), offers crucial insights on how the production of residual control rights in long term incomplete contracts causes public and private parties to behave in self-interest as opposed to public-interest.

Given the profound risks, to conclude, I propose the need for a wider framework of 'Augmented Entrepreneurialism', while urging scholars and practitioners to advocate structural reforms of state-business relations in ways that integrate democratic oversight more systematically.

Keywords : Entrepreneurial state, Public Private Partnerships, PPP Project cycle

Navigating Urban Peripheries: The Governance Challenges Of High-Risk Real Estate Investments In France

Kevin Poisson (Université Paris-Cité)

This paper presents an in-depth exploration of commercial real estate investments in France's urban peripheries, focusing on high-return, high-risk strategies, particularly in the context of value-added and opportunistic investments. By integrating methodologies from quantitative geography and political economy, this research uncovers the complex network of opaque corporate transactions, demonstrating the interconnectedness between global investors and local real estate dynamics (Sassen, 2001; Christophers, 2023). The study covers a comprehensive geographical scope across France, identifying the unique characteristics and tactics of investors engaged in these high-stakes ventures.

Central to this investigation is the concept of the "investment bet" in real estate, a precarious venture with significant urban and governance implications. The research probes into scenarios where such investments fail due to economic downturns, managerial oversights, or external factors, leading to substantial urban challenges. These failures often result in the socialization of losses, while gains remain privatized, a phenomenon increasingly evident in urban development projects (Goulding et al., 2023). This dichotomy presents a critical governance challenge for local authorities, who are tasked with addressing the fallout from failed speculative investments in the commercial real estate sector.

The paper extends its analysis to the specific actions undertaken by local governments in France to mitigate the impacts of property vacancies and financial distress in the commercial real estate market. This includes a detailed examination of opportunistic investment strategies during market contractions and the role of key players such as foreign vulture real estate funds in shaping these dynamics (Aalbers, 2016 ; Beswick et al., 2015). The study also delves into the regulatory landscape and market segmentation, providing a nuanced understanding of the urban consequences of failed opportunistic investments.

This paper contributes to the field of urban studies and real estate investment, particularly in the context of financialization and its impact on urban governance and development. It presents a comprehensive examination of the challenges and strategies employed by local governments in response to the growing influence of global financial actors in the urban real estate market. Through this research, we gain a deeper understanding of the intricacies of property markets, the implications of high-risk investments, and the vital role of governance in navigating these complex landscapes.

***Keywords** : Real estate investment funds, market peripheries, local government, urban governance, investment strategies*

The Financialization Of Logistics Real Estate In The Italian Hinterland. Unpacking The New Logistics Regime Behind Assetized Warehouses

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The 'financialization' of land expands in all countries where real estate is negotiated as financial assets, products, and commodities. The academic debate, against the backdrop of the financial geography framework (Aalbers 2020), mainly focuses on the role of financialization in large-scale urban development projects (Guironnet, Attuyer and Halbert, 2016) and global cities as property assets with many influential works over the last thirty years.

However, another less evident sector of real estate is experiencing its absorption into the financial sphere. Logistics facilities, key to the functioning of global supply chains, are exponentially growing in Europe's service-oriented economies, and have caught the attention of global capital. With a 7% year-on-year increase in investments in 2023, Italy is a major target of investments in logistics and Europe's leader. This sector of real estate is increasingly financialized, with most new developments being developed as assets for international investment funds. As these warehouses are often developed with a build-to-rent strategy, financial actors have a strong stake in the management of properties. .

In Italy, this thirst for logistics development poses a challenge to planning. Early evidence shows that regional planning seems ineffective, and the power to plan logistics development ultimately lies with metropolitan authorities and municipalities (Savini 2013). The large greenfield plots needed for ever-expanding warehouses are found in suburban outskirts, which often welcome logistics to earn revenue and provide jobs in economically struggling areas while failing to address the larger territorial organization of this sector. As they become sought-after locations, municipalities adapt to market forces, for example by raising their planning fees or outright banning new logistics developments, in a bid to halt land consumption.

We investigate this trend through the study of some hotspots of logistics development in the 'logistics hinterlands' scattered across Italy. We use both quantitative methods, such as spatial and socio-economic data, and qualitative methods, such as semi-structured interviews. Our research exposes, much like in other European cases (Nefs and Daamen 2023), the growing influence of finance in the governance of logistics and the power geometries among financial actors, logistics operators and the government at different scales.

Our aim is to read these dynamics as a 'logistics regime' (Stone 1993), tracking the agency of fund managers, developers and real estate agencies who connect global capital with local investment opportunities.

Ultimately, we ask whether their pervasive power over the construction and management of logistics facilities, as well as their capital, leads to a partial privatization of logistics governance

Keywords *: financialization, hinterland logistics, logistics regime*

Public-Private Dialogue In The Cultural Reuse Of Historical And Architectural Heritage: The Example Of The Carmine Monastery In Italy

Emanuele Garda (University Of Bergamo), **Marta Rodeschini** (University Of Bergamo)

The paper wants to present and analyze an example of the application of the Special Public Private Partnership (SPPP) as a specific instrument introduced by the Italian legislation to favor the reuse of immovable cultural heritage for cultural purposes, thanks to the definition of "alliances" between public bodies and private subjects.

The case study analyzed concerns the process of reuse for cultural purposes of the former Monastero del Carmine, a complex structure of particular historical and architectural value located in the historical center of the city of Bergamo (Italy).

Built starting from the second half of the 14th century, the former Monastery experienced a long phase of decay and abandonment from the 18th century until the second half of the 20th century when, with the transfer of ownership to the municipal administration, some structural and functional recovery works were started. In the gradual reuse of this important place for the city, the theater company of the Teatro tascabile di Bergamo - Accademia delle Forme Sceniche (TTB) played a significant role.

To achieve the objective of this paper and to better investigate the case study, in addition to the analysis of the technical-administrative documentation concerning the complex process of reuse of the building (in particular since the arrival of TTB), it was decided to conduct a series of semi-structured interviews with key informants. Specifically, various subjects were involved who, with different roles, interests and responsibilities, participated, directly or indirectly, in the reuse process of the Ex Monastery and, in particular, in the application of the Special Public Private Partnership. The interviewees were selected to ensure a certain diversity in their belonging to different professional categories (e.g. the promoters of the TTB process, the external collaborators who subsequently managed the development of the project and the redevelopment works of the building, the members of the association that provided consultancy for the application of the Special Public Private Partnership, the referents of the Municipality of Bergamo who were involved in the management of relations with the TTB and the private companies that financed, and continue to support, the project).

Each interview (lasting between 45 and 60 minutes), starting from a framework of questions previously sent to the subjects and grouped according to specific themes, was carefully transcribed and then analyzed. The analysis and interpretation, based on codes and categories derived from the adoption of an inductive approach, thus brought out themes of interest directly from the collected data.

The contribution intends to present and critically analyze the application of the SPPP in the reuse process of the former Monastero del Carmine, emphasizing:

The meanings given to the theme of culture in the context of the decisions taken and consequent of the interventions implemented;

The conditionings determined by the various actors directly or indirectly involved in the initiative (concerning role, purpose, professional background, etc.);

The importance, in this particular context, of phased planning and the activation of permanent and temporary projects;

How the SPPP can be adapted to the historical, architectural, and locational characteristics of the former Monastery;

The benefits and criticalities that emerged in all phases for applying an "conceptual" and general tool to a complex context.

In the analyses conducted, particular attention was paid to the complex's historical importance and architectural complexity to understand what role these played in the building's reuse for cultural purposes. The contribution therefore aims to provide an example of public-private collaboration, highlighting both the potential and the most critical aspects, to promote reflection on new models of governance of the disused cultural heritage, in Italy, but not only.

Keywords *: Public-private Partnership, Abandoned place , Cultural Heritage, Restoration , Common good*

The State/Financialization Nexus

The Re-Emergence Of Public Purchase Of Land In The Paris Region: Encouraging Financialized Urban Redevelopment As A Fix For Municipalities' Funding Gaps?

Theo Bendahan (Laboratoire Techniques Territoires Et Société, Université Gustave Eiffel, Paris)

This contribution interrogates the recent re-emergence of state-led land acquisition practices in the Paris region, most notably evidenced by the rise of a dedicated, publicly-owned land agency, and highlights their potential contribution to the financialization of urban redevelopment. In the past decade, a growing body of research has drawn attention to the key role played by governments in "creating and maintaining the conditions for urban assets to be traded as financial commodities on capital markets", for example through providing permissive "socio-regulatory infrastructures" or through enhancing the profitability of investment into the built environment (Halbert and Attuyer, 2017). Overall, most studies have however tended to focus on a supposedly "minimal, hands-off role for the state in financialization", while consequently less attention has been drawn to the ways in which more direct forms of intervention on land markets, on the part of both national and local public organisations, may actively construct new frontiers for the anchoring of finance capital into the built environment (Beswick and Penny, 2018).

The present paper seeks to contribute to this growing literature on the "financialization/state nexus" (Ibid.) by illustrating how the active purchase of land by state actors, while officially presented as a way to contain land prices and bolster the production of affordable housing, might simultaneously contribute to the financialization of urban redevelopment. Whereas public land acquisition by the central state had known a relative decline in France since the 1980s, such practices have experienced a significant revival in the Paris region since the late 2000s, namely through the creation of a tax-funded land agency known as the Etablissement public foncier d'Île-de-France (EPFIF). Focusing more specifically on the intervention of this organisation in the suburban municipality of Fontenay-sous-Bois from 2011 to 2022, the paper demonstrates how the territorial power-building of this new state land agency partly relies upon its ability to sell back some of its acquired land assets to financialised property developers. In turn, it also shows how the growing interdependencies emerging between developers and public land authorities have been instrumentalised by the municipality in order to maximise the extraction of land value uplifts, in an attempt to "fix" local investment gaps resulting from a decline in funding from the central state. Ultimately, some of the urban forms emerging from this renewed public intervention on land markets – monofunctional office space – tend to reflect the priorities of financial investors and asset management companies, at the expense the socio-spatial objectives initially defined by the municipal authority (Guironnet, 2016).

The contribution draws on a previous graduate research, conducted while working as a project officer at the aforementioned public land agency in 2022. Its methodology has relied on participant observation, mapping and spatial analysis, as well as on the extensive study of primary sources (such as legal texts, internal reports, financial sheets and notarial deeds). 4 semi-structured interviews with professionals within the land agency and at the municipality of Fontenay-sous-Bois have also been conducted. On a theoretical level, the paper hopes to draw attention to the active contribution of land policies to the emergence of renewed public-private growth coalitions, which revolve around rent maximisation and extraction in a context of centrally-imposed austerity policies and budgetary cuts (Adisson et al., 2023).

Keywords *: Property rights, land policy, financialization, urban political economy, Public land purchase*

Urban Policy Financialization In Mega-Projects. The Case Of Milano Innovation District

Alberto Bortolotti (Politecnico Di Milano)

Urban mega-projects are key policy instruments (Salet, 2007; Flyvbjerg, 2014) for connecting financial and real estate markets through the financialization of large-scale strategic lands and the 'deterritorialization' of actors, decisions, and strategies. In that sense, such projects can be seen as 'levers' capable of welding the objectives of the financial market to the real estate industry, particularly by converting land-value capital into financial capital following the logic of business plans tailored by property developers and their investors. Moreover, urban mega-projects are underpinned by the role exercised by local governments in enabling the financialization techniques (Tasan-Kok & Ozogul, 2021) that tailor property business plans forging masterplans (Tasan-Kok, 2010). Milano is currently characterized by multiple large-scale operations pursued by global developers and investors. Among these, the Australian developer Lendlease is pursuing the renewal mega-project of the former EXPO site, named Milano Innovation District (MIND). This article aims to problematize the MIND exemplary case study treating such an urban mega-project as an urban policy itself by reconstructing its spatial development through interviews, field observations, desk analysis, and generalizing the outcomes of this in-depth analysis. Particularly, this article frames the deterritorialization practices through which pursuing urban policy (and planning) financialization, building up on the financialization academic literature, and intertwining real estate and spatial planning fields (Fainstein, 2008; Salvini & Aalbers, 2016). Thus, this article discusses the role of (state) strategic planning in addressing urban development and policies, arguing that financialization depowered the capacity of spatial planning to recapture land value and rebalance urban rent. In essence, the financialization techniques for collecting capital and delivering urban mega-projects have deterritorialized the governance of urban transformations, compromising the spatial government led by public authorities through the decrease of strategic planning practices and the goverace of such operations through public procurement techniques and legal contracts which enhance new codes of capital and market dependence (Raco & Brill, 2022).

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State-Led Financialization: Implications For Urban Studies

Luciana Royer (University Of Sao Paulo)

It is known that financialization is a multi-scalar phenomenon and process with implications for state institutions that both influence and are influenced by financial dominance. The incorporation of investor logic in the formulation and implementation of urban public policies, from both the supply and demand perspectives, is one of the constitutive features of a state-led financialization. However, before impacting the formulation and implementation of public policies, the so-called state-led financialization established constitutional guarantees for creditor payments, the imposition of spending ceilings for social policies and state financing, and profound changes in the functioning of the state itself.

In the realm of housing and urban public policies, the most visible aspect of this state-led financialization occurred through changes in the credit and financial structure of these policies and programs. Therefore, analyses of real estate financing systems are necessary to understand them considering their alignment with accumulation patterns expressed in the global system. Overcoming this gap requires analyzing from the implicit political assumptions in its theoretical framework and the results of its implementation.

In this context, financial discourse emerges as a neutral discourse, asserting that a financialized model, when structured on balanced foundations, would be capable of supporting any public policy. Changes made by national governments affecting transaction costs in the real estate market, creating a secure business environment for private investment, mitigating so-called market failures, and substantially reducing economic inefficiencies in real estate were conducted in several countries based on the diagnosis of a so-called entrepreneurial state.

This is not simply about new normative provisions regarding housing and real estate financing. What state-led financialization achieved was the replacement of a financing model based on extensive state participation with a "market-oriented" financing model that aimed to elevate the market to a central position in the system.

In the case of the real estate sector, building institutions for the market meant reorienting existing institutions and establishing new arrangements that allowed the private sector to take a leading role. From the perspective of the World Bank, the construction of new financial arrangements for the system should begin with a new source of funding. The process of globalization, which connected financial markets in real time, would be the driving force behind the real estate sector.

In this context, various financial instruments were developed, notably those aimed at raising funds for the real estate sector. However, in emerging countries, a series of institutional barriers hindered the introduction of these new financial arrangements, including the securitization process. For instance, there was a lack of stable regulatory frameworks capable of offering minimum guarantees to private investors and little attractiveness of traditional securities for primary fundraising. Additionally, the mortgage market has always been very limited in these countries, with little risk segmentation and little attractiveness compared to safer and much more profitable investments, such as government debt securities and so-called fixed-income funds. It was essential for the state to structure the markets, create investment rules, stimulate the demand of public and private agents, and, above all, implement an institutional environment capable of instilling confidence in investors.

From this perspective, what can be understood as state-led financialization sought to ensure conditions for the emergence of primary and secondary mortgage markets that included housing financing in the process of financial market liberalization. State intervention in this context facilitated the provision of guarantees for bonds issued by private agents, promoted liquidity through government purchases, and provided incentives for the issuance of real estate-based or property-backed securities (especially through tax breaks, impacting public budgets).

Keywords *: state-led financialization, housing, real estate financing*

Planning, Land Markets And The State: The Financialized Politics Of Land Value Capture

Edward Shepherd (Cardiff University), **Tim White** (Cardiff University)

While 'planning' and 'the market' are often framed as being in autonomous opposition, they are in fact deeply entangled. Indeed, the varying articulations of planning regulation across different historical and geographical contexts can be viewed, in part, as a function of differing ideas regarding the proper integration of planning and development land markets (Shepherd & Wargent, 2023).

Nowhere in planning is this ambiguous relationship between planning and the market more starkly revealed than in land value capture, the policy mechanism that redistributes the value created by the development of land. This land value flows into private pockets, but also into public infrastructure such as schools and healthcare facilities and, in some places, supports the provision of desperately needed inclusionary housing. The volume and direction of these value flows are regulated by the distribution of power in the state-market-private property nexus. Land value capture is therefore arguably the field in which planning must most directly confront the logic of land markets and the institutional power of market actors.

Although contemporary mainstream policy discussion tends to be technocratic and occupied with utilitarian questions concerning how best to use land values to fund infrastructure (OECD et al., 2022), at its core land value capture is intimately connected with highly contested issues concerning the relationship between the power of property ownership, equality, justice and the common good. At the heart of this is the contested concept of development land value and its connection with theories of rent (Stratford, 2023).

In England, the technical characteristics of this policy area create challenging conditions for the governance and regulation of development land value. However, they also help to de-politicise this policy area (Foye, 2022), focusing discussion on details of policy design rather than principle. However, the deep politics of development land value cannot be contained. They periodically erupt, creating pressure for policy adjustment that state actors struggle to manage. This paper empirically examines the most recent political ruptures in England in the context of the intensifying housing crisis and the use of land value capture to fund inclusionary housing.

Via policy analysis and interviews with policy experts, think tanks, community groups, politicians and property professionals, the analysis unpicks the varying ideological perspectives and power relations that structure land value capture policy and contribute to its frequent dynamic instability and adjustment. We explore how ideology, statecraft and technical expertise have been deployed by private, public and community actors in struggles over the regulation of development land value.

By doing so the paper empirically examines the political and ideological drivers for the fundamental ambivalence of this area of policy (Helbrecht & Weber-Newth, 2018). The paper concludes that by focusing on the division of the spoils of development, contemporary English land value capture policy represents the financialization of urban politics.

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Track 03: Law

LAW - Planning and legal procedures for land-use and transport policies

Chairs:

- Rachelle Alterman, Technion University, Israel

- Florence Lerique, Université Bordeaux Montaigne

- Tristan Claus, KU Leuven

Keywords: Spatial planning law, land use; land policy, property rights, housing regulations, development control, participation in planning procedures; governance of spatial planning; land-value capture; frugal use of land resources

When grounded in laws and regulations, spatial planning intervenes in the allocation and distribution of land and development. It thereby intervenes to a lesser or greater extent in private property rights or market expectations, from regulating what may or may not be built on specific parcels of land down to outright expropriation. Research questions range from procedural-administrative processes, through substantive planning goals and their expression in land use regulation, and all the way into the global environmental arena. Can the laws and institutions that govern planning meet the challenges posed by climate change, sustainability, demographic changes and increasing economic and political uncertainties?

This track aims to provide a platform for sharing research on any topic that connects planning and law with property rights. Examples of topic areas:

Statutory (regulatory) planning systems and instruments: What are the challenges within a given country, or comparatively.

Governance structures and procedures: How does planning law structure the relationships between central governmental control, local government, markets, and non-governmental organisations?

Legitimacy of planning interventions: How does the law frame public participation, stakeholder involvement, lobbyism, and dispute resolution;

Regulatory instruments of spatial planning: How well do instruments work, such as local statutory plans, land use plans, building permits, expropriation, compensation,

regulation of agricultural land, open space and natural resources, heritage-building regulation,

Land value capture through agreements with developers, developer obligations, land readjustment, taxation of land values (betterment tax, etc.), transfer of development rights, expropriation, compensation,

Theory of property rights: How to deal with tensions between public and private rights and responsibilities (i.e. with land for public services, customary collective or private rights).

How can planning law contribute to the environment and climate change challenges: Sobriety (frugal use of land) for the compact city, permeability of the soil, cleaning of contaminated land, etc.?

Contributions may look at the general theory of planning and law or investigate particular issues, focusing either on a particular country or cross-nationally. Since legal and planning systems vary greatly from country to country, authors should make the terms they use as transparent as possible.

Legal Frameworks And Land Use Planning

Government Agencies' Objections To Municipal Land-Use Plans

Knut Boge (Norwegian University Of Life Sciences)

Similarly, as in most other countries, the Norwegian land-use planning system has its peculiarities. In the Middle Ages, Norway had a kind of building and land-use legislation governing the width of city streets and alleys to mitigate consequences of fires in closely located wooden buildings. During the first half of the 19th century Norwegian legislators passed particular building acts for Christiania (Oslo), Bergen and Trondheim respectively, and in the second half of the 19th century they also passed building acts for the new cities that evolved near railroad stations. In 1837 Norwegian legislators passed laws about local government. One law for cities and urban municipalities, which since the Middle Ages had had a kind of local government, and one law for rural municipalities. Both the municipalities and legislators representing rural constituencies soon became very powerful political players. The planning and building legislation was characterized by shifting power relations and path dependence (Pierson, 2004). In 1965 Norway got a national Building Act governing building matters and land-use planning in urban and even rural municipalities. The 1965 act became a turning point. First each county had to develop a County Plan, where areas could be locked up for up to 10 years, to prevent other land-uses in the municipalities than laid out in the County Plan. The County Plan had to be ratified by the Ministry of Local Government. Second, the 1965 Building Act also facilitated Regional Plans, to coordinate development of important infrastructures or land-uses in two or more municipalities. Third, each municipality had to develop a General Plan to govern the land-use. This General Plan had to be ratified by the Ministry of Local Government. Even the General Plan could lock up areas for up to 10 years. Thus, the 1965 Building Act led to substantially increased demand for planners and planning educations.

The next big thing in Norwegian land-use planning was the 1985 Planning and Building Act (PBA) that governed land-use planning on national, county and municipal level. The popularly elected county and municipal councils respectively governs the counties and municipalities' land-use planning. Both the counties and municipalities had to cooperate and coordinate their land-use plans with other public administrations. The 1985 PBA authorized development of inter-municipal land-use plans. It also permitted private initiation and preparation of detailed zoning plans (Fredricsson and Smas, 2013). The County Land-Use Plans had to be approved by the Government. The Municipal Council was authorized to approve the Municipal Land-Use Plan. However, the county municipality, other municipalities or government agencies affected by a Municipal Land-Use Plan could raise objections. In case of such objections, the Municipal Land-Use Plan had to be approved by the Ministry of the Environment which then governed the land-use planning. Thus, 1985 PBA was almost a textbook example of multilevel governance. Most of the principles instituted by the 1985 PBA were furthered by the 2008 PBA.

This paper investigates government agencies' objections to Municipal Land-Use plans. This topic is highly relevant, because many government agencies have divergent interests that establish hold-up situations that block local land-use or block or delay government level infrastructure projects. Statutory land-use planning is based on public authority with detailed rules for securing democratic legitimacy for the decisions made (Mäntysalo et al., 2011). According to Campbell's (1996; 2016) Planner's Triangle, planners face dilemmas, because they must balance economic development vs. equity and social justice (the property conflict), and economic development vs. environmental protection (the resource conflict). Thus, in some instances coordination and alignment of the government agencies' interests may be far more complicated than aligning the interests of several municipalities.

***Keyword** : Legislation, Land-use planning, Objections, Coordination, Multi-level governance*

Land Readjustment In Braga Municipality - Looking Into The Future, Learning From The Past

Ines Calor (Cegot - Centre Of Studies In Geography And Spatial Planning, University Of Porto - Portugal), **Mateus Magarotto** (Cegot - Centre Of Studies In Geography And Spatial Planning, University Of Porto - Portugal), **Martinho Augusto** (Gipp And University Of Porto)

Land readjustment, a promising but often overlooked method, faces several challenges in Portugal and is often perceived as "theoretically attractive but eternally postponed in practice" (Condessa et al, 2018). Aligned with the principles of the French model (Larsson, 1997), this process searches for the balance between urban expansion and sustainable development, placing the primary responsibility on landowners. Braga, like many rapidly growing cities, faces the imperative to accommodate a growing population while preserving environmental integrity. The tension between these two objectives often manifests in conflicting land use demands and the need for equitable distribution of resources. While the concept of land readjustment holds promise for sustainable development, its implementation encounters hurdles that impact its effectiveness and infrastructure challenges, particularly regarding responsibility for implementation and required financial resources (van der Krabben & Needham, 2008).

The Braga Master Plan, a crucial instrument of municipal territorial management, has been central in the shaping of Braga, addressing challenges such as demographic increase, infrastructure demands, economic development, and landscape preservation. The current plan, published in 2015, already incorporates land readjustment tools, mandatory by national law. However, with few exceptions, the municipality was unable to promote successful land readjustment.

The ongoing deep revision of the Braga Master requires a reconsideration of territorial management options, particularly concerning land readjustment. The new version of the plan aims to be innovative in Portugal, overcoming challenges observed in previous cases in Braga Municipality and similar international contexts. Concurrently, the streamlining of execution processes, with defined timelines, financial allocations, accountability measures, and charges imposed in the municipality's financial instruments, signifies a move towards responsible planning, departing from decades of operational inefficiencies in spatial planning.

This paper focuses on enhancing the effectiveness of the upcoming Braga Master Plan to facilitate sustainable development, primarily by optimizing the efficacy of land readjustment initiatives.

The methodology is rooted in the analysis of three land readjustment cases in Braga Municipality. Leveraging the authors' collaboration with this institution, the factors influencing the success and failure of land adjustment initiatives are analysed. Specific process indicators aid in measuring the implementation of various program activities, including inputs, activities, outputs, and expected outcomes. Through a literature review, a comparison with other international systems is conducted to explore new possibilities for overcoming setbacks.

The analysis reveals that the primary constraints in Braga cases relate to fragmented land ownership, impeding agreements; legal and regulatory complexity causing uncertainty and delays; financial constraints due to the socioeconomic structure of landowners and local authorities; stakeholder resistance stemming from an intrinsic "sense of ownership"; and infrastructure challenges, coupled with responsibility for implementation and required financial resources. Ensuring transparent, legally sound land transactions aligned with the Plan's objectives becomes challenging.

Conclusions point out that while land readjustment holds immense potential for transforming urban landscapes and fostering sustainable development in Portugal, overcoming these challenges is paramount. Addressing fragmented land ownership, streamlining regulatory processes, securing funding, and fostering community support are essential steps towards successful land readjustment projects in the country. In addition, strengthening the legal bases governing land readjustment is imperative to promote investor and community confidence.

Enhancing Urban Development Through Legal And Land Readjustment Amendments: Identifying German Urban District Requirements

Laura Mato Julcamoro (Technical University Of Darmstadt)

The requirements of urban districts have evolved, necessitating legal adaptations for efficiency. Recognizing this, Germany is in the process of amendment of its Building Code (Bundesministerium für Wohnen, Stadtentwicklung und Bauwesen, 2023). In addition, the German Building Code stipulates developing inner rather than outer areas of urban districts in its first paragraph. Furthermore, the shift towards resource-efficient, resilient urban areas introduces new challenges in reorganizing ownership and tenure structures. Implementing infrastructure like local heating networks, wastewater reuse plants, and providing affordable housing are part of these challenges (Linke and Mato Julcamoro, 2023).

Land readjustment (LR), a tool in the German Building Code, reorganizes ownership and tenure structures in line with binding land-use plans, ensuring equitable distribution of burdens and benefits among the affected property owners. The new urban development requirements call for adjustments to LR for sustainable, legal application. Analyzing international LR mechanisms helps evaluate their suitability for enhancing German regulations. Another eminent challenge is that past law amendments - partly made without specialist knowledge - have impacted negatively the effectiveness of such instruments (Stefani, 2023). For instance, changes in real estate transfer tax regulation affected LR (Brunzel and Krusenotto, 2023, p. 96), underlining the need for informed political decisions. This study employs expert interviews to develop action options for political decision-making, aiming to strengthen and enhance instrument usage.

To meet all mentioned challenges, a systematic approach is proposed, which is going to be developed in general and then tested using the example of LR. The developed procedure is as follows: (1) identifying German urban district requirements, (2) elaborating general LR mechanisms, (3) examining suitable mechanisms to meet the previously identified requirements, (4) examine the feasibility of adequate mechanism, and (5) documentation of recommended actions. The process starts with identifying land management needs in urban districts, using literature reviews and expert interviews. This includes experts from urban planning, valuation, and LR, with additional inputs from electricity, heat supply, telecommunications, municipal water, and environmental management. An initial survey at the annual meeting of the LR committees (AGUA) of North Rhine-Westphalia (October 2023) supported this expanded expert selection.

Summarized this study focuses on gathering and analyzing expert-knowledge and suggestions for urban development requirements. It then compares these insights with literature-discussed urban requirements, assessing their relevance and practicality. This article specifically addresses the elements of step (1): selecting experts, formulating interview guidelines, conducting interviews, and analyzing the findings.

Keywords *: Land Readjustment , German Building Code Amendment, Resilient Urban Development, Expert Involvement*

From Discretion To Selective Regulation – The Case Of English Land Use Planning

Andreas Schulze Baing (The University Of Manchester)

While the statutory planning system in many countries is regulatory, using zoning tools or other types of regulation, the system in England has historically been using a discretionary approach, using case-by-case planning applications/permissions (Booth, 1995). This had influence on planning reforms in many other countries, be it the influence of discretion and development-oriented planning in Dutch planning (Janssen-Jansen and Woltjer, 2010) or the introduction of the Urban Development Contract in the German system in the 1990s.

The recent years have seen though a growing political debate in England about the merits of introducing more regulatory certainty into the English planning system (Schulze Bäing and Webb, 2020). The three broad zones for growth, renewal and protection, proposed in a government white paper in 2020 would have been a game changer for statutory land use planning in England, and would have radically changed the existing system of development management (MHCLG, 2020). This proposal met with a range of criticism following its publication (Inch and Tait, 2020), and it seems that for the time being these reform plans have been shelved, and the forces of path dependency ensure the existing system largely continues.

While it remains to be seen if some of the reform elements of the white paper will reappear, this proposed paper discusses the extent to which some regulatory elements have already been introduced over recent decades into the discretionary English system. The paper explores how these are used in practice, using Greater Manchester as a case study.

The paper starts by providing an overview of these tools, namely:

Site-specific policies in local plans,

Neighbourhood plans,

Strategic Regeneration Frameworks,

Strategic Housing Land Availability Assessments,

Permission in principle in brownfield registers.

Strictly speaking, only the permission in principle is a regulatory tool, but arguably also the other tools provide more certainty. The paper assesses the extent to which these tools are used in the districts of Greater Manchester, to then discuss the strengths and weaknesses of this approach compared to more comprehensive traditional zoning tools. One concern is that these tools tend to favour providing certainty for certain land uses, in particular housing, perhaps providing less opportunity for other land uses to be considered in the planning and decision-making process. Another concern is that some of these tools might not offer the same amount of political engagement that would be applied to a regulatory zoning tool.

***Keywords** : planning reform, Land Use Planning, regulation, discretion, England*

'Operational Landscapes' Of Logistics And Evidence For Governing Spatial Effects

Fulvio Adobati (University Of Bergamo), **Mario Paris** (University Of Bergamo)

Over the last decades in Europe the consumption and production practices in Europe radically changed, the shift accelerated during and beyond the pandemic crisis. Direct impacts include a growing demand for logistics services and space to accommodate and support these functions. Logistics operators choose locations with a sectorial logic that permeates the organization of the system at different scales: At the large scale, there is a densification of logistics platforms and warehouses along infrastructures, forming specialized clusters connected to primary corridors for national and continental flows, and contributing to the definition of a specific operational landscape. A second step concerns the location close to the densest urban areas of hubs dedicated to the last mile. It seems necessary to broaden the current readings of the phenomenon, often resting on econometric and managerial dimensions that leave out the deep connection with the characters of the territories and the existing production spinnerets, and to explore the impacts that logistics settlements have in the territory. This renovated knowledge, will help administrators, civil servants and academics to reflect on the friction between the regional/global dimension of flows with the aim of trying to reconnect these and other sectorial instances within a broader design of territory and its governance.

The spatial context of reference of the present work (which moves from an ongoing study by the authors commissioned by the Province of Bergamo) is the Milanese urban region, with particular reference to the corridor of the plain between Milan, Bergamo and Brescia, which sees a dynamic settlement corridor along the recently (2014) opened highway. This is a complex and highly dynamic space with similarities to other European industrialized areas (Luxembourg, Germany and the Netherlands).

The settlement process of logistics lack of a integrated governance and, currently, there are no planning tools to regulate it. The revision of the regional toolbox of the Lombardy Region (integration of the Regional Territorial Plan) is underway to recover a decision-making balance between the regional, provincial and municipal levels, which today favors the municipal level.

The objective of this paper is the recognition of spatial scenarios of the logistic, bridging a new understanding of the logistics system with the current and potential governance tools. The goal is finding a new balance among spatial scales of settlement processes with the institutional scales of territorial government.

Lacking of a defined protocol from regional or national institutions, we point out three themes for the debate. They should help the definition of original forms of governance for the logistic. Our expected result is the definition of an operational model for the local administrations and an integrated evaluation able to representing common ground for negotiation of the different administrative levels and economic actors involved. The themes are:

- Definition. We want to frame what is meant by 'logistics' from the point of view of urban-territorial regulation, and more generally of the governance of the phenomena of territorialization of logistics settlements;

- Procedures of authorization and regulation in settlement processes. We clarify the role of the actors involved and the critical nodes of supra-local government, with special reference to the role of the different institutional levels (and the available urban planning tools);

- Evaluation: a proper assessment of the territorial externalities, positive and negative (socio-economic, landscape-environmental, infrastructural), produced by logistics settlements is a necessary step to make conscious governance choices in the sector. Therefore, we established a methodology of assessment, where we clarify who are the subjects called upon to carry it out and, what is their capacity to influence choices.

***Keywords** : transport & logistics, spatial planning, city regions*

Urban Regeneration And Renewal

The Twists And Turns Of Planning Permission: Questioning The Management Of Diffuse Urban Development In French Metropolises

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While the French planning system has already been studied in urban studies, the application of the norm at the level of individual authorization has never been fully grasped by scientific research. And yet, the study of discretionary power and the street-level bureaucracy has already been the subject of several studies in the sociology of public action (Belorgey, 2012). However, there is a lack of research on the implementation of urban public policies in diffuse urban planning on an operational scale. This question ties in with the need to observe the application of regulations concerning soft densification (Dunnning, Hickman and While, 2020).

Following recent research looking at this street-level bureaucracy of urban planning (Lieto 2021 ; Lindblad 2020), this paper is part of a doctoral research project on the front-line planners in French cities. This research calls on ethnographic survey methods, involving observation of services, documentary analysis and semi-structured interviews (Dubois, 2012). It also claims a comparative approach between two French cities. The challenge is to study two territories with a single urban planning document for a multiplicity of autonomous political actors (municipalities).

In responding to this communication, we wanted to shed some light on the behind-the-scenes aspects of the creation of individual building rights, when the local urban development plan is implemented through the drafting of a building permit. Indeed, in a context of ecological production of the city, our research demonstrates the new role taken on by the instruction of town planning authorizations. It is no longer simply the administrative validation chamber for local urban planning standards, but has become a veritable repository for public policies governing housing production. Considering environmental, architectural and technical matters, this administrative procedure is taking a major role in conducting urban public action in metropolitan cities. We will therefore draw on our observations of several French municipal and metropolitan departments to illustrate the changes in this declaratory procedure, which has a long history in European law.

Keywords : planning law, building permits, public ethnography, Street-Level Bureaucracy, local urban plan

Multi-Planning Integration: Construction And Progress Of China'S National Territory Spatial Planning System

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Spatial planning is the effective control and scientific management of the national territory within the jurisdiction of a country or region government, which is crucial for achieving a balance between development and protection. This study reviews the origins and progress of China's national territory spatial planning (NTSP) reform that began in 2019, summarizes the challenges and problems, and proposes the focus of the next step of NTSP reform, in order to provide reference for achieving sustainable development of China's NTSP.

The important measure of China's NTSP reform is multi-planning integration. In 2019, China integrated the major function-oriented zone planning, land use planning, urban-rural planning, and other spatial planning that were previously managed by different departments into a unified NTSP, which was managed by a unified department, namely the Ministry of Natural Resources. The entire NTSP system is divided into five levels and three categories. The five levels correspond to China's administrative management system and are divided into five levels, namely national, provincial, municipal, county and township level. The three categories refer to the planning types being divided into overall planning, detailed planning, and relevant special planning.

This unified NTSP aims to make overall arrangements for the development and protection of national spatial space in the whole area, all elements, and the whole process, including "mountains, waters, forests, fields, lakes, grasses, sands, and ice", both on land and in the ocean, urban and rural areas, and above and underground. Its starting point is to respond to the requirements of ecological civilization construction, change the previous emphasis on development and neglect of resource protection, and guide the sustainable development of national spatial resources. At the same time, the government has clarified the legal status of spatial planning reform from a legislative perspective, revised the Land Management Law, and established principles for the preparation requirements and legal effectiveness of NTSP. This is the largest planning reform in China in recent decades, which has made innovations in planning concepts, technical methods, and management systems.

The reform of China's NTSP has been ongoing since 2019, and the planning process is nearing completion. The overall plans of 31 provincial-level NTSP in mainland China have all been submitted to the State Council, of which 14 have been approved. More than 90% of the 350 municipal-level and 2220 county-level overall plans formulated nationwide have been submitted to the approval authorities, and more than half have completed the review process. In this process, NTSP has implemented measures such as delineating three control lines: ecological protection red lines, farmland protection red lines, and urban development boundaries. Establishing insurmountable red lines for various regions in adjusting economic structure, planning industrial development, and promoting urbanization, forming a statutory blueprint for national spatial development and protection. At the same time, the government has also conducted systematic explorations in planning approval, implementation supervision, technical standards, regulations and policies, etc.

Although significant progress has been made in China's NTSP, there is still a certain gap between the concept and reality in practice, and many problems have arisen, which to some extent affects the effectiveness of the territorial spatial planning system.

***Keywords** : National territory spatial planning (NTSP), Spatial planning, Land use, Space governance, China*

The Implementation Of Urban Densification: A Spatial-Temporal Analysis Of Local Densification Projects In Swiss Cities

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Spatial planning is context sensitive because development projects are tailored to the distinct place and time. This research investigates the content and trends of real densification proposals in Swiss cities over time and space. It rests on an extensive data collection effort to create a novel dataset consisting of around 1500 local densification ballots in all of the 162 Swiss cities from 2008 to 2020. We utilized diverse sources like official ballot booklets, municipal documents, and newspaper archives and categorized them according to a strict coding system that includes information such as the type of infrastructure, the cost of the project, involved actors, the type of planning instruments, or the degree of participation.

This extensive dataset allows us to examine how and whether the spatial planning (projects) have changed over time and space in the context of urban densification. We engage in three types of analyses. First, we will conduct a temporal analysis. Our time frame includes observations before and after 2013 which marks the revision of the Swiss Federal Planning Act that mandates the densification of urban areas. This allows us to analyze whether the densification paradigm has manifested itself in concrete densification projects. Second, we compare densification patterns in different urban settlement types because polycentric and multilingual Switzerland offers a rich diversity of cities, ranging from small towns to regional centers, agglomeration municipalities, and big cities. We can also observe interesting regional differences that may stem from variations in political systems and cultures, economic and demographic growth dynamics, or resources dedicated to spatial planning. And third, we can analyze variations in public support for densification projects across different Swiss cities and see what characteristics of a densification project are more likely to enhance public support for densification.

Overall, this paper allows us to get a novel and very comprehensive understanding of spatial planning through an analysis of actual existing densification proposals. Therefore, this analysis brings us a bit closer to a systematic analysis and evaluation of spatial planning and densification implementation. The findings have implications beyond the Swiss context, offering insights for urban development and densification strategies, how they change over time and space, and how densification can be implemented with public support.

Keywords : urban planning, densification projects, voting behavior analysis

Navigating Complexity: Exploring Land Planning And Management Challenges In Morocco

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This paper explores the complexities of land management in Morocco, focusing on the shortcomings of its land tenure system and the difficulties arising from planning techniques. It examines legal, institutional, and operational frameworks, revealing how inadequate consideration of land characteristics during planning leads to significant implementation constraints. This paper delves into the legal and governance shortcomings, the programming of land across various planning levels - national sectoral, strategic territorial, and urban - and the financial and legislative challenges affecting land mobilisation. It assesses the current urban policy to underscore the gaps in land resource optimisation. Finally, this paper identifies sustainable land use practices and proposes strategies to revitalise land management in Morocco, drawing from international standards to suggest improvements.

Keywords : land governance, planning processes, urban policy

Planning For Cultural Justice: Equality And Cultural Supply In The Metropolitan Space

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Questions of justice are key issues in public discourse, academic research, and policy planning. Such questions are also pertinent to participation in the field of culture and art, which is considered a fundamental right, a central determinant of well-being, and an essential form of participation in the democratic public sphere. While art and culture are progressively being recognized as integral components of urban economic development and planning (Matthews and Gadaloff, 2022), several scholars concerned with regional and local development challenges have proposed basic principles of spatial-social justice (e.g., Abreu et al. 2023). However, the research on the normative aspects of spatial differences in art and culture is relatively limited and lacks a clear formulation of cultural justice. While this is consistent with broader trends in geography and elsewhere (for example, urban studies and planning) that theorize how just a place is (e.g., Israel and Frenkel, 2020), given that the majority pay less attention to what constitutes the right (i.e., the just), making their work lack normativity, deeper theorization in the domain of artistic creation is long overdue.

Given this challenge, we argue for a broader and normative theoretical framework that explores cultural justice and operationalizes it in a socio-spatial setting. The framework bases on an original normative concept that specifies cultural justice with relation to culture and art consumption. The paper's theoretical development is grounded on a juxtaposition of Sen's capabilities and functioning approach (Sen, 1992) and Fraser's distributive and recognitive justice approach (Fraser and Honneth, 2003) which are applied to the cultural field. The theoretical framework distinguishes between four dimensions of cultural justice - Rights, Availability, Encounter and Connection, and lays the ground for examining cultural inequality in a way applicable also to the spatial dimension. The present investigation concentrates on one dimension that regards Availability which is the distributive aspect of cultural capabilities.

The paper's empirical application of this framework is based on data collected through online web scraping of performances and cultural events from ticketing websites in Israel's central metropolitan region between 2015-2020. We use additional data from the Israel's Central Bureau of Statistics of socio-demographic characteristics of the population, such as educational level, socio-economic level, age groups, etc., at the level of spatial cells (urban sub-districts).

We conduct a spatial analysis of the populations and environment's characteristics and estimate regression models to examine the relationship between the amount and types of cultural offerings and the characteristics of the socio-environments which these cultural events serve. The results of the models show the forms that the spatial inequality in cultural offerings takes and how it connects to questions of cultural justice in the metropolitan scale. The study presents a new perspective to the differences in urban cultural availability and, therefore, to cultural injustices' contemplations. Beyond its theoretical contribution, the paper's conclusions have implications for cultural policy at the municipal and national levels. Oftentimes, mayors, planners, and politicians adhere to normative ideas that promote a neoliberal belief, wherein regional or urban development is seen as a means for generating wealth rather than fostering human well-being. Cultural justice, as defined here, enables a return to the primary concepts of equality of opportunity, by considering not only the economic progress of cities and regions, but also how they uphold individual freedoms.

Public Spaces And Participatory Processes

Privately Owned Public Spaces As A Challenge To Public Transparency

Liat Eisen (The New School), **Rachelle Alterman** (Israel Inst Of Technology; Neaman Research Institute For National Policy)

This paper analyses one of the less visible modes of urban design and action: The role of privately owned public spaces (known as POPS in NYC). Behind this phenomenon – quickly growing in recent years – is a sophisticated moulding of the legal and economic context to creating POPs in specific location with specific urban function and design. The empirical research is a comparison of POPS in New York City and Tel Aviv - two geographically distanced locations, with very different legal frameworks. The comparative analysis shows both commonalities and differences in the legal instruments used and their impacts on the urban environments – both negative and positive.

The tendency of governments to transfer the responsibility for the supply of public services to the private sector has become a widespread phenomenon in neoliberal cities in recent decades. This tendency raises deep theoretical questions. This study questions the validity of this approach and the potential impacts on democracy and capitalism. By examining the POPS in NYC and Tel Aviv, the study explores the urban design and social implications of the shift in involvement of the public sector. There are implications for the public awareness of the restrictions entailed by POPS. They reshape the relationship between urban design and the public's right to the city. The findings of this study contribute to the ongoing debate about the commodification of urban public space and the consequences of public-private partnership in urban development.

The empirical research focused on specific POP sites selected as case studies in each city. The comparative method was kept similar and encompassed three stages: 1) the legal framework: identification of the land-use regulations affecting the site, search for the private public contract relationship (or interviews for missing information) and attempt to understand the financial aspects (if available). 2) site visits to experience the architectural, urban design and environmental ambiance of each case study, with a special eye on issues of maintenance and access 3) interviews with passers by (or residents) using a semi-open schedule, to gauge their understanding of the access rules or restrictions and their overall assessment of the site's function.

The findings illuminate many fine-grain issues which one could not hypothesize in advance. Different legal-financial and management configurations deliver a variety of on-the-ground situations. There were often tensions between the private interests of keeping the public as much restrained as possible, but the degrees and solutions differ. One overriding finding is shared by both NYC and Tel Aviv: The difficulties encountered by the municipality in coping with the dynamics of the new urban "creatures" that POPS constitute. The usual regulatory and service provision modes of municipalities are not created in advance for the challenges that each POP may present. The most significant difference between the two cities is the learning curve: NYC's experience with POPS dates back to the 1960s. There were many problems along the way. This became a challenging of adjusting the tools from time to time. NYC also benefited from a "gift" rarely available to municipalities: Eminent scholars (White 1980; Kayden, 2000) researched the POPS legal and urban design processes and delivered crucial findings that helped the city to accelerate its learning. Tel Aviv started experimenting with ad hoc POPS in the 2000's. The research findings have been shared with Tel Aviv, and we hope that this will accelerate its learning process. One of our recommendations was to establish a dedicated department to monitor and survey POPs to develop a sustainable policy for the future.

Keywords *: private-public agreement, privately owned public spaces, land-use regulation, zoning incentives*

Finding Meaning In Invited Spaces: An Analysis Of Institutionalised Participatory Processes In Infrastructure Planning In The National Capital Territory Of Delhi, India

Nikita John (Alu Freiburg)

The Indian government signed on to the Sustainable Development Goals in 2015, which acknowledges participation and its role in planning for climate change mitigation in Goals 11 and 16. Literature about participation in urban planning popularly showcases the issues regarding the exclusion of poor sections of society and the work of civil society organisations in this gap. However, less literature provides an overview of the participatory processes that connect the local government with the growing urban middle-class population, allowing better social inclusion in plans while simultaneously being pro-poor.

The Indian government recently also acknowledged the lack of public participation in urban planning processes in a report by the NITI Aayog (2021), corroborating scientific literature on the urban population's indifference towards governance issues. With the increasing education rates and earnings, there is reason to revisit the invited spaces provided to the Indian urbanite and better understand if public engagement could help supplement the limited state capacity, moving away from India's technocratic planning past.

Invited spaces, as coined by Cornwall (2002), are those (institutional, legal, organisational, political and policy) spaces that allow for non-parliamentarian participation. Intending to make existing invited spaces for participation count (Kumar, 2016), this contribution analyses the institutionalised participatory processes in infrastructure planning in the National Capital Territory of Delhi, India.

In the context of Delhi NCT, this paper analyses all identified instances inviting public participation in strategic and other infrastructure plan documents created by current programmes or laws. While there is the occurrence of public participation on paper, it does not necessarily contribute to sustainability or ensure legitimacy in planning. To that end, this contribution identifies how participation in these invited spaces impacts planning decisions and creates meaning using the concepts of participatory democracy. This results in participation in each space described based on authority, power, participants, communication, and decision modes (Fung, 2006). The developed results are to be used as the basis to explore if and how the use of invited spaces could ensure meaningful participation and bring to the surface mitigation efforts that could be a game changer in urban infrastructure planning in India.

Keywords *: capacity building, citizen engagement, participative democracy, sustainable development*

What Do We Know About Cooperative Housing: Comparative Analysis Of The Legal Frameworks In Five Countries

Efrat Aviram Vas (Technion), **Rachelle Alterman** (Technion, Haifa)

Most of us know something about cooperative housing. But in fact, we know little, because cooperative housing in reality may imply a variety of forms of housing tenure, management, demographics, what exactly is sharing and shared, who and when is eligible, etc.

A frequent assumption that may turn out wrong is that coop housing is a form of affordable housing. However, the crux of coop housing is the legal format with a special type of tenure and institutional modes that rely on inter-personal cooperation as defined by legislation.

In fact, coop housing may not be affordable. And, realistically, the institutional format that created the coop housing may or may not create intensive social cooperation and a sense of community.

It is undeniable that housing tenure matters. Among the various formats of housing tenure, cooperative housing has not received as much research attention as it merits. Cooperative housing was a dominant tenure form within Soviet and communist regimes. Since 1990, in these countries, coop housing has been partially replaced by extensive privatization.

Today, the distinctions from related terms, such as collaborative housing or cohousing, are not always clear. Legally, coop housing clearly differs from condominiums. The latter mode of tenure, where each household owns its apartment, also dictates some degree of cooperation among owners, but the legal-institutional format of coop housing is, at least in theory, more intense in cooperation.

The past 20 years did produce a body of research, with contributions on social, psychological, economic, and architectural aspects[1]. However, as surprising as it may seem, there is little scholarly attention to the legal frameworks for cooperative housing, how (or whether) they work, and what are their implications for the various realms of life (social, economic, place-making, urban life etc.). The dearth of legal research is especially visible on the cross-national level. In fact, we did not find a single systematic comparative investigation of the similarities and differences among legal frameworks. There is no comparative analysis of the implementations and impacts of such differences[2].

This paper is stage two of our research. The first stage, presented in last year's conference, presented the analytical framework developed that enables cross national comparison of the very detailed similarities and differences among the laws and regulations. After all, when it comes to law, "the devil is in the details" indeed. In this paper, we apply the legal scaffolding to the coop housing laws and regulations in five countries: Sweden, England, USA, France, and Israel. The interim findings show significant differences in important details such as the boundaries of the co-owners right to sell their housing unit: Do they need the approval of the other co-owners or not? What does "approval" mean in legal procedure? Are there restrictions on the timing of sale (for example, after residing a minimum quota of years). Are there any rules about the monetary value of the property upon transfer? Another example is the legal status of the "board" or a similar management body, its composition, powers, standing of the members and more. There are many other types of differences, along with similarities.

The many differences discovered may have major impacts on the daily lives and economic assets of members of cooperatives in these countries. Such questions will be the focus on the next stage in our research.

Keywords *: cooperative housing, legal frameworks, comparative research, cross national*

Planning Standards, Spatial Justice, Sense Of Place And Subjective Well-Being: Comparing Five Sub-Regions In Hong Kong

Mee Kam Ng (The Chinese University Of Hong Kong), **Ching Yeung Katherine Li** (The Chinese University Of Hong Kong)

Spatial planning is critical for promoting health and well-being (Barton, 2015, p.13). Our health and well-being are determined by our ability to function positively in our private and social realms (Keys and Haidt, 2003, p.6). Nussbaum (1992, p.222) identifies two thresholds for human functioning: level one capabilities include satisfying basic needs while level two capabilities include opportunities to live a complete human life.

Planning legislation and regulations are fundamental to shaping spaces and places in cities, playing crucial roles in developing people's capabilities. Unless the spatial planning system recognises the needs of different stakeholders, granting them level participatory rights to ensure a fair distribution of facilities to develop their capabilities, producing equitable spaces for people's multifaceted flourishing may be difficult. The disposition of land uses and urban design also affect people's sense of place. Convenient neighbourhoods with decent socio-petal public spaces tend to foster a cognitive and an affective sense of place, which may eventually cumulate to a behavioural sense of place that is 'sacrificial' (Ng et al., 2021). Hence, planning standards can be vital to building spatially just cities.

The Hong Kong Planning Standards and Guidelines (HKPSGs) were first developed by the former British colonial government to facilitate new town development in the 1960s and 70s. Over the years, the HKPSGs have been used to reserve land for socio-economic development and plan implementation across the territory. This paper argues that the HKPSGs have served as a 'one-size-fits-all' tool to perpetuate the spatial disparities bequeathed by the colonial administration. The HKPSGs specify residential densities in the city, perpetuating three distinct urban forms with different population densities — urban areas (36,000 people/km2), new towns (20,000 people/km2), and the rural New Territories (1,100 people/km2) (Ng et al., 2023, p. 91). The spatial disparities are further worsened by the population threshold-driven provision of community facilities, open space, greening, and other necessary amenities.

Through an audit of existing facilities and a survey with responses from over 2,000 participants in five sub-regions in Hong Kong, this paper explores the impacts of the HKPSGs on the built environment, including the aspects of population density and the abundance of necessary facilities and people's consequent sense of place and subjective well-being. We hypothesise that people living in areas with a higher population density will have a weaker sense of place and subjective well-being. We also hypothesise that people living in areas with inadequate community and recreation facilities are less satisfied with their neighbourhoods and thus will have a weaker sense of place and subjective well-being. The research findings have important policy and planning implications.

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A Framework For Analyzing Physical Form Outcomes Of Value Capture Paths Of Regeneration Projects In Residential Historic Areas

Zhiyu PANG (Southeast University)

As "progressive and small scale" has become the mainstream regeneration method for residential historic areas in China, the physical form of these areas is directly affected by the uncertainties in the implementation process of the regeneration projects under the control of planning (Ministry of Housing and Urban-Rural Development, 2021). The implementation of regeneration projects needs to be realized through specific paths of value capture, including the four paths of increasing intensity, changing use, improving quality, and changing property rights (ZHAO et al., 2021).

However, existing literatures have not been able to explain the mechanism of value capture on physical form, in other words, they can only explain whether the project is realized, but not the how the physical form is changed. Although there have been studies that have attempted to bridge the knowledge gap between the two fields of study, such efforts have remained limited to the district/street scale and above (Tennekes et al., 2015), and there is still a lack of attention to the plot/building scale (PANG et al., 2023).

This study intends to build a framework to analyze how the value capture path of residential historic area regeneration projects affects the physical form outcomes. The independent variables of the framework include four parameters: adjusting property rights, changing use, increasing intensity, and improving quality, and the dependent variables of the framework include five parameters: plot form (Bobkova et al., 2021), building type, number of building floors, building density, and setback distance, and the interpretive capability of the framework is verified with the example of the XIAOXIHU historic area in Nanjing, China.

The findings suggest that even the same planning control conditions can produce different physical spatial form outcomes, which can be explained largely by value capture paths. The analytical framework shows promise for probabilistic prediction of spatial form outcomes through a combination of current spatial conditions, planning control requirements, and value capture paths.

Digital Platforms And Technological Impacts

Digital Platforms As Game Changers In Urban Planning And Governance? The Contentious Regulation Of Short-Term Rentals In European Cities And Its Judicialization

Francesca Artioli (Université Paris Est-Créteil, Ecole D'urbanisme De Paris, Lab'urba), **Claire Colomb** (University Of Cambridge), **Thomas Aguilera** (Sciences Po Rennes, Arenes)

Over the past 10 years, many European city governments have started to develop a variety of regulations to manage platform-mediated short-term rentals (STR), a phenomenon that became a contentious public problem. This paper presents some of the results of a research project (2016-2023) that compared the regulation of STR in 12 European cities (Amsterdam, Barcelona, Berlin, Brussels, Lisbon, London, Madrid, Milan, Paris, Prague, Rome, Vienna) and will be the object of a forthcoming book (Aguilera et al. 2024). Combining the comparative sociology of multilevel urban governance, public policies, and the political economy of urban capitalism, we explain how and why local governments – faced with the same global phenomenon – have adopted different modes of regulation, and show the socio-political effects that regulation produces on local governance.

In this paper, we will present two aspects of the forthcoming book. First, we analysed the nature of the emerging regulations in the 12 cities according to ten elements of regulation, from which we created an 'index of regulatory intensity'. We subsequently crossed that index against different institutional, socio-economic and political variables, which led us to identify three ideal-typical 'worlds of STR regulation' in Europe.

Second, we paid particular attention to the activities of digital platforms as new urban actors, policy entrepreneurs, and 'game changers' in planning and housing regulations (and their enforcement), and to the subsequent judicialization and transnational rescaling of local regulatory conflicts at the European Union (EU) level. Different pieces of EU law have been mobilised by various actors in the regulatory conflicts around STR, leading to pressures to modify the existing EU legal framework. In the presentation we will focus in more depth on the case of France and Paris, in the run-up to the Olympic Games, to discuss what digitalisation and 'platformisation' do to the possibility of (local) state regulation of building use and housing.

Ai At The Crossroads Of Climate Adaptation: Navigating Legal, Technical, And Ethical Challenges In Municipal Planning

Lina Irscheid (Albert-Ludwigs-Universität Freiburg)

The impacts of climate change have become increasingly noticeable in recent years. The extreme weather events of the past years were just symptoms of an ongoing crisis that continues to intensify. Storms, heatwaves, heavy rainfall, and other climate-related consequences can jeopardize constitutionally protected interests such as life, health, and property (European Commission, 2021b). The progress of climate change has reached a point where adaptation measures must be implemented to protect the interests of current and future generations (IPCC, 2022). In this regard, municipalities play a central role, as they have a range of legal instruments at their disposal to plan and implement urban adaptation measures. However, implementing adaptation measures can be highly resource-intensive, both in terms of time and finances, as well as in terms of building materials. Therefore, these measures should ideally be long-term to be effective in addressing future challenges. Consequently, the planning of adaptation measures must be based on a comprehensive knowledge foundation. To anticipate future impacts, predictions are needed. The existing calculation methods (physical modeling) presently lack the capability for widespread high-resolution predictions (Briegel et al., 2023). In order to diminish computational intensity, researchers are currently investigating the utilization of Artificial Intelligence (AI) methods to approximate predictions derived from physical modeling (Cheong, Sankaran and Bastani, 2022).

The contribution aims to address the interface between technical innovation and climate adaptation planning. It explores the potential of using AI-based predictions for adapting cities to the consequences of climate change and examines the extent to which incorporating AI calculations into procedures and decisions within control instruments is possible. The contribution evaluates three AI systems that are intended to support municipal administrations in planning adaptation measures in the future. This evaluation requires interdisciplinary excursions into adjacent research areas such as physical measurement technology, biometrics and environmental analysis, environmental meteorology and modeling, physical geography, machine learning, and artificial intelligence.

Decisions of municipal climate adaptation planning are made at the local level and are thus initially subject to national legal requirements. However, the focus of the contribution will be on the proposal of the EU Commission for a law on Artificial Intelligence (AI Act), which will apply directly in the member states after its ratification under Article 288 (2) AEUV. The justification of the AI Act explicitly names climate adaptation planning as a sector where AI systems can bring benefits. The AI Act's justification explicitly mentions fundamental rights from the Charter of Fundamental Rights of the European Union (CFREU) that can typically be restricted in the development and application of AI systems (European Commission, 2021a).

In the contribution, these fundamental rights are introduced and assessed in the context of AI systems for climate adaptation planning. The development of the selected AI systems is used as an opportunity to legally assess the sector-specific risks to Union fundamental rights and the benefits of AI systems in the field of municipal climate adaptation planning. The risk assessment of AI systems for municipal climate adaptation planning can vary significantly on a case-by-case basis, as municipalities are differently affected by climate consequences, requiring individually tailored climate adaptation planning. Nevertheless, based on the abstracted development processes of AI systems, the sector-specific risks of AI systems for municipal climate adaptation planning can be identified.

Against the backdrop of the AI Act and the CFREU, interdisciplinary interfaces are explored, gathering the constitutional balancing material that could be relevant for procedures and decisions within municipal climate adaptation planning. Ethical implications of using AI in climate adaptation law are also critically examined. The contribution thus operates at the interface of digital and ecological transformation, addressing two significant challenges we currently face.

How Land-Based Financing Tools Are Reshaping Land Acquisition Practices In The Expansion Of Public Infrastructure: The Case Of The Grand Paris Express.

Juliette Maulat (Université Paris 1 Panthéon-Sorbonne)

The sale and redevelopment of public land are increasingly being used as tools for financing public policies and urban infrastructure (Artioli, 2021). In the realm of transportation, major public operators such as ports, airports, and railways are increasingly viewing their properties not just for service production but as assets for disposal or development to generate new income (Adisson, 2015). While the use of land as a financing tool is not novel, as demonstrated by examples in Japan (Aveline, 2003), and Hong Kong (Aveline-Dubach and Blandeau, 2019), it is gaining traction among public transport authorities worldwide, in Asia (Bon, 2017), Africa (Bon, 2021), North America (Schorung, 2019), and Europe (Adisson, 2015; O'Brien, Pike, & Tomaney, 2019; Delépine, Maulat, Pedro, forthcoming). Land-based financing tools are being promoted as "alternative" approaches to traditional methods like taxes, loans, and operating income (Peterson, 2009; Suzuki et al., 2013; O'Brien et al., 2019). The proliferation of these financing tools can be attributed to various factors related to sectoral changes, state recompositions (Adisson, 2018), and the increasing financialization of infrastructures (Christophers, 2017; Whiteside, 2019). These processes raise significant questions about their urban and social-spatial impacts, as the pursuit of capital gains may prioritize lucrative programs over issues like affordable housing, public spaces, and new facilities.

Urban research has studied the drivers, tools, and outcomes of the sale and development of public land (Piganiol, 2017; Adisson, 2018; Adisson and Artioli, 2020; Artioli, 2021), but there's been less focus on how land-value-capture strategies affect how public transport authorities buy and control land for infrastructure expansion. The paper aims to address this gap by examining the Grand Paris Express metro project. It investigates how land value capture objectives influence the land-purchase and management practices of the state-owned authority (the Société du Grand Paris) in charge of this mega-project (200 km of new lines, 68 new stations by 2030). For the new metro, SGP is purchasing approximately 500 plots of land in the Paris city-region through mutual agreement, expropriation, or temporary occupation. While these land acquisitions are guided by the SGP's main mission of building the transport project, some of the land is also intended to be developed through joint-development to generate income for the metro and contribute to the housing needs the region.

The paper draws on documentary analysis, press reviews, and interviews with representatives from Société du Grand Paris, the State, local governments, and urban planners. The results are presented in three stages. Firstly, the paper outlines the objectives, resources, and land management practices implemented by the Société du Grand Paris since 2011. It demonstrates how the announcement of new joint-development objectives in 2021 (targeting 1 million m2) signifies a subtle shift in the land acquisition and management strategy, influencing not only the objectives but also the choice of instruments and resources. SGP's strategy is no longer solely focused on the rapid completion of the metro project but also on securing future land development opportunities. This shift affects land management practices, plot selection, volume, location, and tools chosen for land management (including occupancy agreements, acquisitions through agreement, and expropriation). Finally, the study examines the consequences of SGP's land acquisition practices on land values, urban transformations nearby stations, and the relationship between this state agency and local governments. The results contribute to a new research agenda on the links between LVC instruments, urban planning, and city-region governance (O'Brien et al., 2019; Artioli, 2021).

***Keywords** : land-value capture, public land, land acquisition, metro, Paris city-region*

"Grappling With Global Land Administration's Technologies: From The 'Stuff Of Bits' To Sites Of Jurisdictional Encounter"

Ani Landau-Ward (Rmit Dept Sustainability And Urban Planning)

Rapid technological advancements have occurred in the capacity to collect, store, and map information regarding land, use, ownership, and other land relations. Spatial Data Infrastructures, and Geographic Information Systems have been constructed that record, sort, and store multiple forms of land and property data in complex, and often privately owned or managed systems. These are made increasingly interoperable with land law and governance as Land Administration Systems (LAS). Which have become established as a crucial 'public good infrastructure,' and as a key component of economic and social development, and sustainability. Multiple international standards, regulatory instruments, normative agendas, and multilateral agreements have been created to foster their development, standardise their construction, and foster legibility across and within borders. Local land and real property law converge with these ever more sophisticated cartographic and administrative technologies, and in turn, with the aspirational, and regulatory, domains of the international.

Spatial conflicts, land scarcity, housing insecurity, have all also become increasingly foregrounded from the local to the global. From states securing food bowls across borders, to tokenised interests in real property in material, virtual, and even interstellar worlds. The boundaries between law, technology, and political economy have become deeply blurred as value is created and extracted through digitalised systems of interest and analysis in land, and property data, that cross borders, span domains, and bring more phenomena into markets. The politics of ordering and apportioning the spatial, is increasingly caught up in complex webs of finance, culture, and technology. However, the construction of land administration, and information, systems is generally presented as a technical endeavour, concerned simply with identifying, mapping, and recording, a material world whose politics is negotiated elsewhere, in the community, the state, the courthouse, the market. Of creating the artefacts, instruments, databases, and technologies, that provide a foundation from which the politics, and law of land, might be constructed. A basis from which to build the institutional, economic, social, articulation of land politics in the contemporary world.

This often embeds a highly proprietary approach to land, and to land politics, as foundational. Bringing much of the world, and land into possessory view. However, while the foundational (and highly elusive) legal quality of possession (whether of rights, or property, or another interest) has often constituted what we imagine the political to be contested over at all (and has thus provided the grounds for legal dispute), proprietary approaches have also been considered manifestly insufficient as a reasonable basis for moral claims, or concepts of justice. Because, seeking to reduce politics to possessory characteristics embeds as foundational a compromisingly immoral, and ultimately illogical (Hume; Benjamin), accommodation of violence and exclusion as the basis of human sociality. They are, furthermore, at odds with many customary and traditional ontologies of land.

In this paper I argue that Land Administration's production of data and information as sufficient in describing land – alongside its specific cross-jurisdictional and international character as increasingly produced through a realm of international regulation and professional expertise, is contributing to the reduction of politics itself to distribution, and (drawing the scholarship of jurisprudence of jurisdiction) I argue that this in turn introduces a new set responsibilities and accountabilities of those individuals and institutions, who engage in the production of land data systems, and technologies. I also outline a provocation to planners interested in data driven governance, especially where seeking to embed international land governance frameworks in their approaches to land justice.

Property Rights And Regulatory Issues

Collective Sales As A Legal Means Of Singapore's Urban Planning Policy: The Legal Framework, Issues And Solutions

Keang Sood TEO (Faculty Of Law, National University Of Singapore)

The Urban Redevelopment Authority (URA) is the national land use planning and conservation authority regulating and facilitating the physical development of Singapore. The URA seeks to achieve the twin national objectives of better utilisation of scarce prime land resources to meet a growing population and to provide for urban regeneration. Difficulties were encountered prior to 1999 as unanimous consent was required for termination of strata developments. A single recalcitrant unit owner could block a sensible collective sale or even blackmail other unit owners as the price of his co-operation. One or two die-hards may veto an eminently reasonable proposal to dispose of the whole strata development or demand concessions to which they are not entitled. In a strata development of any size, it was highly, if not virtually, impossible to obtain unanimity amongst unit owners. Furthermore, society as a whole has an interest in the termination question for strata developments which have outlived their usefulness as acceptable housing schemes and thus open the way for the creation of slums. In addition, the development potential of the lands in question could not be maximised.

Towards achieving the national objectives noted above, the collective sale regime by majority consent for both landed and non-landed strata developments was thus introduced in 1999 in Singapore's strata title legislation. This paper aims to provide a brief outline of the legal framework governing the collective sale regime. It will also discuss the issues posed by the collective sale regime and the solutions in resolving them. Among others, the paper will consider the following: (i) does the collective sale scheme amount to an erosion of the property rights of unit owners? (ii) the constitutionality of such a scheme (iii) the efficacy of the additional safeguards introduced to protect the rights of minority unit owners (iv) the position of co-owners of a unit (v) the nature of the duties of the collective sale committee in ensuring that the sale transaction is in good faith (vi) circumstances in which a sale transaction will not be approved or allowed (apart from where the transaction is not in good faith) (vii) incentive payments to objecting unit owners by purchaser of strata development and (viii) some possible areas for reform of the collective sale legislation.

Keywords : property rights, land policy

Can Transferable Development Rights Be Applied In The Chinese Context? — A Comparative Study Between China And The United States

Li Wang (Tongji University)

Transferable development rights (TDR) is an innovative land management tool created under the U.S. zoning system and widely applied in the preservation of historical buildings, natural resources, and agriculture land. Chinese scholars, based on China's planning and land management practices, have introduced the TDR and conducted extensive research, advocating for the establishment of a domestic trading market for land development rights. However, there are significant misunderstandings that need clarification. Firstly, the Chinese legal system, based on Continental law, follows the principle of "property rights are statutory.". In China's property rights system, there is no explicit concept of "development rights". Instead, it is implicitly included within the "land use rights" specified in the Civil Code. Therefore, despite academic attempts to draw inspiration from the U.S. legal system and practices, Chinese official documents have never used the term "development rights". Secondly, China adopts the public land ownership system, where urban land belongs to the state, and rural land to collectives. Following a series of regulations, individuals or organizations are entitled to obtain land use rights. The central government strictly controls land development through national spatial planning and annual land use plans, from which quotas for developable purposes are generated. Under certain conditions, these quotas are allowed to be traded between governments. This differs fundamentally from the TDR system in the United States, where land development rights are traded among private landowners. Additionally, although China's regulatory detailed planning draws inspiration from the U.S. zoning system, it differs in nature. Unlike zoning, a legal ordinance which can be consistent and strict, the detailed planning in China serves as a tool for government control over land development, and is subject to continuous modifications influenced by government will and market conditions. As a result, the transfer of floor area ratio (FAR) between land users does not hold practical significance. This article highlights the distinctions by comparing and contrasting the land management systems of China and the United States, under which certain cases have been conducted and will be utilized to illustrate this topic. Despite the concept not seeming to apply in the Chinese context, China's innovative practices in protecting land resources still offer valuable insights for international communities.

Keywords : transferable development rights(TDR), land use regulating, land policy, property rights

The Land Policy Race In India

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This paper traces the changes in land regulations during the last decade, to facilitate the release of land for urban development in the Indian context. Focussing on the emerging changes to land regulations, we illustrate the shifts in the Government of India's approach towards land, moving from a welfarist perspective to one of capturing speculative land value gains. While such shifts are observed in other contexts, the Indian story exemplifies how the regional governments influenced the mobilisation of different legal instruments and have shaped the shifts towards land development models that aid the capture of land value gains for financing urban development and incentivising large developers. Focussing on the evolution of laws including the: Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act of 2013 (RFCTLARR Act) introduced by the Government of India, we discuss the responses by regional governments. We show how implementing the RFCTLARR Act has not been easy as envisaged by the National Government. In response, the regional governments introduced various land pooling and assembly models, which have simultaneously diluted and subverted the implementation of RFCLARR Act at the sub-national level.

The contest is far from over, as the Government of India's Ministry of Urban Development is attempting to enforce new land based fiscal tools through centrally supported schemes for urban development. Consequently, the provincial governments have responded by fast tracking land assembly models, which are now seen as 'alternative' to land acquisitions. Some of these include licensing models, reconstitution/pooling/readjustment models, and negotiation-based models, but the reconstitution/pooling/readjustment models were found to dominate at the regional (sub-national) level. Besides, the 'fit for purpose' design of these models aids the State endorsed spirit of competitive federalism, subscribing to entrepreneurial and speculative models of urban growth. These models are not limited to the process of land assembly, but the regional governments propose to integrate them with the spatial planning tools adding a new language and interpretation to the socialist land use planning discourse in India, raising questions about their implications for socially and environmentally sustainable cities.

We demonstrate the "land policy race" through a comprehensive analysis of policy documents, national and state acts, scheme reports available in the public domain. In this light our paper maps the temporal changes to land regulations from the 1990s and till date. Our paper identifies a significant gap in existing studies on land in Indian context. It seeks to extend debates on urban land development in India through illustrating the interplay of national and sub-national dynamics on the evolution so urban land and planning policies and strategies.

If Court Is Not A Place

Eva Löfgren (University Of Gothenburg)

Since year 2000 the number of places of law courts is steadily dropping in most European countries. Demographic trends, new technical means of transport and communication of court users and an increased specialisation of judges are pointed out as the driving factors, which have created an entirely new judiciary map. The change can be described in terms of fewer but bigger units but may also be viewed as a fundamental questioning of geography as the organising principle, and thereby of the court as a place rooted in and defined by its local context. To fulfil the citizens' right to a fair trial according to the European Convention on Human Rights, CEPEJ points out, the states must set up "a sufficient network of courts" (CEPEJ 2022, p.91). Stressing the relational while omitting locality and distance the institution not only frames a change in geographical distribution but a transformed perception of the law court. With geographer Helga Leitner, "networks span space rather than covering it", which implies that the space in-between is of little importance (Leitner 2003). The court seems now to be defined by its part in the network. This paper addresses the change of the judiciary map and what it entails, by examining the notion of the court as linked to a place. Setting off from three cases of court closings, the paper analyses the debate that preceded and made way for the 21st century Swedish district court reorganisation. Between 2000 and 2010 the number of courts of first instance was halved, creating larger legal territories and larger courts. Building on previous studies on European legal reforms (Mak 2008; Anderson 2011; Branco 2019; Mulcahy and Rowden 2020), the aim is to identify recurrent concepts and discuss how they may have transformed our expectations of the location and character of justice administration. What was expressed or referred to in this debate as to scale, distance and matters of here, there and between? What concepts of place and geography were put to the fore by different actors to enhance or dismantle arguments? The paper is based on a qualitative study of on the one hand official investigations and parliamentary committee reports and on the other the debate that ended with the closing of three Swedish district courts.

Principles And Rules For Spatial Planning Governance And Government In Italy

Carolina Giaimo (Politecnico Di Torino/Dist-Interuniversity Department Of Regional And Urban Studies And Planning)

The paper argues for the need in Italy for a law reforming the planning system as a spatial government activity, which would provide the country with new principles and rules. Consistent with the approach of the Italian Constitution, it is necessary that from these new principles and (few) rules descend regional laws that allow for more effective operations in the respective local municipal systems and the vast metropolitan and regional area.

In Italy, we need a national law that is a frame of reference for regional laws aimed at innovating the order and contents of town planning by offering a repertoire of tools that can be used in the field of the relationship between general and particular interests and between public resources and private investments, as well as in the field of the real estate regime, by allowing decision-making and planning processes based on the cooperative dialogue of institutions, making plans more effective and flexible, favouring an operation consistent with the pursuit of shared objectives and values for the conservation, innovation, transformation and development of the territory and the city.

Furthermore, the paper intends to highlight that the overcoming of the current national town planning law 1150/42 as integrated by Law 765/67 must be oriented towards the definition of principles aimed at introducing at least some substantial innovative features:

- in the planning system and the practices connected to it, such as that of subsidiarity and cooperation between institutions and planning levels in place of the current vertical structure of the hierarchical and sub-ordinate system;

- in rethinking the nature and effectiveness of plan contents (structural and strategic, regulatory, operational);

- in addressing on a concrete and realistic basis issues such as those of the property regime and the environmental sustainability of territorial transformations;

- in redefining the framework of welfare endowments and services, starting from achieving essential levels of services concerning civil and social rights to be guaranteed throughout the national territory and the duties of private and public subjects.

The paper intends to emphasise that in Italy, after the reform of Title V of the Constitution in 2001, the overcoming of the current national spatial planning legislation requires a law of principles and a general method of planning, a law with constitutive characteristics to legislative action by the Regions, capable of enhancing the institutional autonomy and governmental autonomy of the regional and local territory, of valorising differences, of identifying those solutions that are suitable for the specificity and diversity of the territories.

The paper supports and relaunches planning as an activity of territorial government through a plan that can dictate rules not only for the performance of private initiative but also for public policy and concrete actions of the institution responsible for that plan;

it is necessary to move from a plan that exercises public authority (often only formal) to a plan that includes public-private and public-public negotiation transparently and helpfully for the general interest, making it possible to evaluate the usefulness and effectiveness of such negotiations not only based on reaching some 'agreement' but of consistency with the 'structural' contents of the plan (constitutive and foundational) and the operational pursuit of the strategies made explicit.

Keywords *: spatial planning, governance, government*

Climate Change And Environmental Planning

A Comparative Study On Zoning Guidelines For Different Planning Types In China

chenli qian (Tongji University), **Yi Huang** (Tongji University), **Xiao Wu** (Southeast University)

Zoning guidelines are technical methods commonly employed in various types of urban planning, including comprehensive urban design, landscape planning, regulatory detailed planning, and architectural features and styles planning. The purpose of these guidelines is to protect and shape the unique character of urban landscapes, providing control and guidance over the spatial forms of specific urban districts. When different types of zoning guidelines, with their varied control levels and focus areas, are compiled without proper distinction, it can lead to redundancy, lack of coherence, and even contradictions. This, in turn, can result in inefficient planning management.

Comprehensive urban design, a non-statutory plan corresponding to the city master plan stage, involves zoning guidelines for significant cityscape districts. These guidelines are pivotal in the comprehensive urban design phase, bridging the overall structure with the macro control system and guiding the urban design of lower-tier areas.

Landscape planning, a detailed aspect of the urban design section in the city master plan, is also a non-statutory plan. It is usually developed for cities with distinct landscape and style characteristics. Its zoning guidelines, essential for special control areas, provide a basis for planning and management in these areas, interfacing with regulatory detailed planning.

Regulatory detailed planning is a core component of the statutory urban planning system in China. It serves as the main pathway to deepen and implement the results of the master plan and is the direct basis for setting land transfer conditions and guiding lower-tier planning and design. Its zoning guidelines are statutory maps, serving as the primary basis for land transfer, detailed construction planning, and architectural design.

Architectural features and styles planning, as a sector planning focused on architectural style, is based on the master and detailed plans, and is detailed, specific, and targeted. Its zoning guidelines are essentially guidelines for districts with the most important architectural features and styles, providing a basis for urban design, architectural design, and construction management.

This article selects the Comprehensive Urban Design Guidelines of Jurong City, the Cityscape Guidelines for Landscape Planning of Fujian Province, the Statutory Maps for Regulatory Detailed Planning of the Futian District in Shenzhen, and the Cityscape Guidelines for Architectural Features and Styles Planning of Fuzhou City as its research subjects. By differentiating the coverage, control objectives, content, and methods of various types of zoning guidelines, the study aims to define the roles, functions, and interrelationships of these guidelines at different scales. This approach seeks to systematically control urban landscapes in a layered and cumulative manner, addressing different levels systematically.

***Keywords** : zoning guidelines, comprehensive urban design, landscape planning, regulatory detailed planning, architectural features and styles planning*

Spatial Planning To Improve The Liveability Of Rural Areas: A Case From The Netherlands

Pieter Jong (Wageningen University & Research, Delft University Of Technology), **Leonie Van Beek** (Landscape Architect At The Municipality Of Ede)

Planning for just and sustainable urban regions also calls for attention to the interaction between urban and rural regions. City dwellers will often seek refuge outside the city for leisure and recreation. Even though the focus might be on nature and recreational areas, our agricultural area has a great contribution and potential as well. An area created by the age-old land-use interaction and food supply, landscape management and planning is strongly connected to the urban area in function and appearance.

Rural agricultural areas are currently under pressure in Europe, as shown by farmers' protests in several countries, including France, Germany, Belgium and the Netherlands. Changes in European and national policy, ostensibly desired by farmers, are a matter of politics (and thus require a long breath). In the meantime, planners at national, regional and local scales can already start adjusting planning to integrate different functions. Planning that aims at a mix of functions in balance with the social, environmental and spatial quality within the landscape framework has the potential to increase the liveability of the countryside. The main research question in this paper is: which local legal and policy arrangements - in the context of the planning of the physical environment - can be helpful to enhance the spatial quality (including: liveability and sustainability) in rural areas? In this paper we investigate how the local government can create more opportunities for the rural area by planning. We do this through a literature review and a case study. The literature on 'exchange of development rights' and 'trade-offs in planning' mentions possibilities of flexible planning that can also be applied in rural areas. The case study concerns a project of a municipality in the middle of the Netherlands: the municipality of Ede. It has a territory of about 32,000 hectares, including a large rural area with approximately 1,200 agricultural functions and a large part of nature reserve of the Veluwe (Natura 2000 area). This project enables land use plan changes from agricultural (ancillary) functions to residential, whether or not in combination with small-scale functions (business, social, recreational). Three main (planning) objectives are achieved: the actual situation and the land use plan are brought back into line with each other; (latent) environmental gains are achieved; and by allowing new (economic) uses, the rural area is once again offered a future perspective (increasing quality of life). In addition, spatial quality is an important criterion in this project and a conditional part of each initiative. The case study shows that - in order to be effective - different instruments have to be applied side by side. Besides a flexible land use plan, it is necessary, among other things, to organize a communication process and lower the barriers for citizens (both practical and financial). Therefore, the municipality of Ede made an explicit choice to invite citizens to participate in a new planning regime, rather than coercion. At the end of the paper, we formulate a research agenda with possible questions for follow-up research. For example, one question is how the new Environment and Planning Act might affect planning to promote liveability in rural areas.

Keywords : spatial quality, rural agricultural areas, land use plan, trade-offs, institutional arrangements

Illegal Development In Coastal Zones – An International Comparative Perspective Of Countries In The Global North

Ines Calor (Cegot - Centre Of Studies In Geography And Spatial Planning, University Of Porto - Portugal), **Rachelle Alterman** (Technion – Israel Institute Of Technology And Neaman Institute For National Policy Research, Technion)

In recent decades, tourist and recreational activities have brought major financial and social significance to coastal zones, accompanied by escalating property values and demand for development. A recent publication has documented that in the majority of the fifteen Global North studied countries(1), coastal zones benefit from specially high restrictions on planning development (Alterman and Pellach, 2020). Our research hypothesis is that coastal zones, even in advanced-economy countries, encounter higher planning restriction, higher development pressure and equally ineffective enforcement, and thus attract more illegality relative to the general degrees of noncompliance typical of each country.

The motivations for construction along the coast are very different among types of populations and economies. In developing countries or in poor urban areas, location along the coast may reflect an intrinsic need, such as by fishermen or port workers. By contrast, in advanced-economy countries the magnets are the high property values attached to sea view and beach access. There, small infringements of planning laws can be found in summer homes, tourist developments or seasonal commercial services. As argued in our previous research, we defend the use of the term "informality" for the contexts typical of developing-countries, and "illegality" for most infringements (with a few special exceptions) in advanced economies (Calor and Alterman, 2017; Alterman and Calor, 2020). The presentation will provide a framework for cross-national comparative analysis of illegal development in coastal areas, focusing on advanced-economy countries. The research is based on two levels of information: background information on types of coastal-zone illegality and enforcement patterns – based on reports for Global North countries (Alterman and Pellach, 2020) - and an in-depth analysis of four selected countries (Portugal, Israel, Spain and Greece). The case studies will highlight different types of socio-demographic and regulatory contexts and will thus also expose the dilemmas surrounding the use of the terms "informality" and "illegality". In the perspective of a turbulent future affected by climate change and sea-level rise, the lessons learned from our comparison can be relevant to other developed and developing countries as they try to strengthen their coastal preservation policies.

(1)   United Kingdom, The Netherlands, Denmark, Germany, Portugal, Spain, France, Italy, Slovenia, Greece, Malta, Turkey, Israel, Australia, and United States of America

Environmental And Planning Laws For Deeply Uncertain Climate Futures: Are Recent Us And Eu Law Reforms Fit For Purpose?

Alexander Stanley (Hafencity Universität Hamburg), **Martin Wickel** (Hafencity Universität Hamburg)

After several decades of inaction, climate change laws are finally heating up. Public law decision-making processes, including environmental, infrastructure, urban planning and other administrative approvals, will substantially determine how societies respond to climate change. In the US, the 2022 Inflation Reduction Act opened the floodgates on billions of dollars in federal funding. Attention is now shifting to accelerating environmental approval processes, among other legal pathways to decarbonisation in the US. For example, the 2023 Fiscal Responsibility Act included reforms to the US National Environmental Policy Act environmental impact assessment procedures, although these fell short of more radical recent reform proposals debated by Congress. Meanwhile, in the European Union, implementation of the 'European Green Deal' package was severely disrupted by the war in Ukraine. Most prominently, this required emergency regulatory interventions by the EU to expedite approval processes for renewable energy projects and liquefied gas terminals in Member States. At the same time, the EU has continued with various legislative measures in its 'Fit for 55' package to implement a 55% reduction in the bloc's greenhouse gas emissions by 2030, as required by the European Climate Law. One relevant 'Fit for 55' measure was the recent revision to the EU Renewable Energy Directive, which also requires Member States to accelerate renewable energy projects. Here, as an example of related implementation action by Member States, we take the German federal government's amendments to its Renewable Energy Act (EEG – Erneuerbare-Energien-Gesetz) in 2022.

These recent transatlantic legal developments focus attention on existing environmental law approval processes and call into question typical features of environmental governance, including established public participation procedures. This paper critically analyses these parallel legal developments in the US and the EU/Germany, applying comparative law methods. In particular, this paper responds to a recent call to rethink cherished public participatory and procedural rights in environmental law, in the interests of accelerating the energy transition (Ruhl and Salzman 2023). There is a lot that is unknown about the green transition; climate futures are deeply uncertain. In the rush to expedite renewable energy projects, this paper discusses the broader implications of procedural law reforms and aims to identify potential blind spots and unintended consequences. This includes the potential for accelerated procedures to be used by fossil fuel or other 'undesirable' forms of development in future. Further, these reforms to procedural laws substantially override planning laws and policies at local levels, raising justice concerns. If ambitious decarbonisation targets and the global energy transition are to be achieved, further difficult trade-offs and regulatory reforms will be required because of the deep uncertainty of climate futures. Yet we also argue that all is not lost; viable alternative frameworks exist, such as decision-making under deep uncertainty (DMDU), which could be enacted in an appropriately contextualised manner in both the more laissez-faire US and more technocratic EU. In reflecting on plausible law reforms, we ask: How could law better deal with climate change deep uncertainty? How can the legitimacy of and public confidence in the planning system be maintained? How can reforms intended to encourage renewable energy projects be safeguarded against abuse?

Managing And Developing Railway Land In The Face Of Ecological Challenges: Analysing The Implementation Of Railway Easement Regulations In France

Inès DELEPINE (Umr Géographie-Cités)

As part of the research agenda opened by Halpern et al., (2014) on the instrumentation of environmental public action in France, we draw on several observations. Firstly, (i) town planning and public utility easements are instruments of public land policy that "are no longer confined to traditional neighbourhood relations" (Grimonprez, 2012) and can be used by managers to deal with natural (flooding: Fournier et al., 2021) or industrial (Martinais, 2010) risks. Secondly, (ii) research into the land and property activities of transport managers (Adisson, 2015; Magnan, 2016) has paid little attention to the day-to-day management of public property and the roles played by easements affecting land use.

In this paper, we will look at the easements (known as T1 type easements) that apply along the French public railway domain and encumber neighbouring properties, as instruments of public action regulating the relationship between the public authorities and the SNCF (responsible for State land and property). We will use the concept of railway easements arenas to characterise the relationship between the legislature and SNCF, as beneficiaries of these property rights and responsible for the protection, conservation, and use of the public domain. Beyond their technical dimension, we believe that the processes involved in rewriting and regulating railway easements can be analysed as arenas with "variable geometry backstage" (Cefaï, 2016) marked by a series of transactions and interactions. This "regulation" (Martinais, 2010) of easements can then be analysed according to three registers: (i) the starting point leading to the updating of the regulations (ii) the cartographic representation of the easement enabling the perimeter to be (re)defined and (iii) the resulting regulatory transcription (town planning prescriptions, zoning).

Our questions are as follows: (1) How do the railway companies' property units and the legislator legitimise these new delimitations and prerogatives in the eyes of local town-planning stakeholders? (2) How do the issues relating to the ecological and energy transition affect railway easements?

This paper is based on a participant observation (Cifre) carried out within the SNCF's property department on subjects relating to regulatory urban planning and the ecological transition. The research is supplemented by semi-directive interviews and case studies.

Although this research is ongoing, three results can be presented: (1) Successive updates and digitization in IT sytems of these railway easements underline firstly the growing importance of this tool in exchanges between the SNCF and the examining authorities when local planning documents are revised or planning permission is granted in the vicinity of railway tracks. (2) Recent changes in the way these easements have been rewritten (law on the orientation of mobility known as LOM law of 2019, renewable energy decree in 2023) are part of an adjustment to the railway ownership regime, reflecting the growing importance of environmental issues. For example, restrictions on land use in the vicinity of railway tracks have been strengthened by the SNCF's ability to require local residents to prune and clear vegetation. (3) However, some of the rewriting processes highlight the persistence of contradictory injunctions weighing on the public domain, between the principles of protection and the new paradigms of economic development of railway land. Thus, the introduction of derogations near railway tracks means that renewable energies can now be installed. As a result, the tasks assigned to the railway property departments are increasing, with the development of new uses for railway land.

Keywords : railway easement, value, land property, environmental value, environmental public policy, public domain

New Directions In American Planning And Land Use Regulation

Edward Sullivan (Portland State University), **Caleb Huegel** (Willamette University College Of Law)

While American planning had antecedents in Germany and Britain, it acquired its own unique characteristics, rooted in an individualism, that attempted to avoid stifling initiative unless necessary for health and safety reasons, and, at the same time, a nannyish proclivity to mold the human environment to "improve" society. American planning and land use regulation were a product of both the progressive political movement and Social Darwinism. It is not surprising, then, that the template for state planning laws (there is no national planning law in the United States) was one of complete delegation of the power to plan and regulate land to the local government, without any oversight, and with no effective form of judicial review. This template emerged in the 1920s, when Herbert Hoover, the "Great Engineer" and, later, an American President, appointed a committee to recommend enabling legislation that was widely enacted. Under this template, most states did not require planning as a prerequisite to what most people really desired: land use regulation to protect property values.

Beginning in the 1970s, states began to break away from this initial model. This presentation will trace some of the new directions that these states—specifically Oregon—have taken, which include:

Requiring adherence of land use regulations to a plan;

Active and ongoing state legislative participation in land use policymaking in terms of funding, policy development, directions to state agencies, and financial assistance;

Providing a means by which state policies may be implemented "on the ground" in local plans and regulations;

Holding local agencies accountable for that implementation through administrative and judicial sanctions and the withholding of state revenues;

Providing a uniform, speedy, and efficient means of reviewing local plans, regulations, and decisions for consistency with state policy; and

Differentiating policy directions for rural resource and urban growth areas, based on a compact, but adjustable, urban growth boundary.

The presentation will contrast these new methods of planning and land use regulation with those that prevailed in the United States for a century or more and suggest that they have provided a more inclusive process that meets the need for social change and a healthier environment, and that they are the most likely path for state planning programs in the future.

Track 04: Borders

BORDERS - Transboundary planning for sustainability and cohesion

Chairs:

- Alois Humer, University of Vienna

- Thomas Perrin, Research centre TVES-Lille

- Simin Yan, Universität Heidelberg, Geographisches Institut

Keywords: planning systems, regional planning, city regions, soft spaces, planning cultures, EU Cohesion Policy, cross-border cooperation, comparative planning studies, transnational planning, actors, scales, institutional change, policy transition

Current transformation processes towards sustainability and equity that planning seeks to frame require a transboundary perspective on problems and policy responses. While local, regional or national authorities are typically endowed with the mandate for regulatory spatial planning, the existence and importance of planning across administrative borders of jurisdictions is evident. Cross-border regions and large-scale macro-regions are often associated with European spatial planning, but transboundary planning processes also exist within countries at various scales, visible, for example, in the emergence of soft spaces such as city-regions. These transboundary planning processes are especially interesting regarding their governance arrangements, their relationship with statutory planning systems and practices, and their mechanisms for democratic control and participation. Moreover, new planning scales might challenge existing administrative divisions and practices, causing or solving challenges related to policy integration.

This track discusses new planning spaces, formal and informal planning arrangements and comparative perspectives on planning systems, cultures, and practices in Europe and beyond across various scales and borders. We are interested in exploring not only the spatial but also the institutional and practice implications of such new and, at times, 'transitional' planning spaces. Comparative research, including the local, city-regional, regional, national and supra-national levels, is most welcome. Research on planning systems and planning cultures can provide essential insights into ideas, policies and practices – and the role actors play in shaping these – especially when transcending national perspectives and exploring local and regional specificities. Comparative perspectives within and between different country contexts can also reveal processes of policy transfer and policy diffusion and illustrate how planning ideas travel across borders.

We welcome theoretical perspectives, empirical, analytical work, and policy-centred discussions alike. For example, contributions to the Track BORDERS might address the following issues:

- Comparative perspectives on planning systems and planning cultures

- The changing nature and role of borders in spatial planning

- Visions and strategies at the macro-regional or continental level

- Planning across internal and external EU borders

- Drivers for cross-border cooperation and EU integration

- Wicked problems such as climate change as transboundary challenges for planning

- Maritime spatial planning and its linkages and interactions with planning on land

- Processes of international policy transfer and policy diffusion

- Spatial planning in functional regions and soft spaces

- Democratic mechanisms and citizen involvement in non-statutory planning processes

- Instances of rescaling and the resulting processes of institutional change

- Planning beyond territorialism

- Planning practices that cross administrative divisions and sectoral siloes

- The role of city-regions in the sustainability debate and the just and green transition

Regional Planning Culture

Contested Futures: Decoding The Emergence And Evolution Of Diverse Interests In Multi-Scale Networks Of Planning

Susa Eräranta (Aalto University), **Hossam Hewidy** (Aalto University)

The relation between different governing levels of urban and regional planning is complex. The perceived lack of interaction between the different levels (such as transnational, national, regional, city-regional, municipal) may lead to contested interests and value differences that are not explicitly acknowledged in the practice of planning. In the Nordic context, the relationships between the national, regional and local levels are an important niche to explore (Schmitt & Smas, 2018) due to their formal role in translating transnational commitments (EU, Nordic and Baltic agreements) into regional, sub-regional and municipal practice.

In Finland, planning is characterized as being slow and bureaucratic. As a response, procedural changes have been introduced to strengthen the strategic integrative character of spatial planning (Hirvonen-Kantola and Mäntysalo, 2014) by decentralising responsibilities. Civil servants still traditionally act as the guardians of neutral and objective decision-making, but their agency is strongly influenced by planning system and culture (Knieling and Othengrafen, 2015). This plurality of agency and interpretations creates ambiguity in multi-actor processes where interests are continuously contested.

These conflicting interests may, however, also be productive allowing the incoming of new ideas (Pløger, 2018: p. 265). Addressing this potential and using Finland as out touchstone, this research examines how the plural contested interests emergence and evolve in multi-scale (transnational, national, regional, city-regional, municipal) and multi-actor planning processes, and how they start influencing the actual outcomes of such processes. Actor-network theory (ANT) (Latour, 2007; Rydin & Tate, 2016) offers a powerful methodological framework for unpacking the complex interplay of contested interests in multi-actor contexts. Through the case, we examine the structure of the dynamic actor networks in relation to the dynamic interests when planning land use and transportation.

By decoding the heterogeneous interests and their power dynamics among the actors across diverse scales, the research provides nuanced understanding of how planning operates within complex multi-scale networks and how the diverging interests are adjusted to conditions set by the actor network. Through the analysis, the research contributes to the broader understanding of who are the actual game changers in multi-scale planning processes, and thus, how the contested interests emerge and evolve in fragmentary but persistent multi-scale integrative planning contexts amid uncertainty, urgency, agency and societal response, and how these dynamics influence the actual outcomes of such multi-scalar processes of planning.

Keywords : *multi-scale planning, actor network theory, multi-actor network, regional planning*

From Jurisdictional Fragmentation To Regional Integration? A Study On Cross-Border Planning And Governance In Yangtze River Delta, China

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State-power participation is a significant symptom of cross-jurisdictional planning and governance in China (Li and Wu, 2012; Yeh and Chen, 2020). The academic debate on this topic shows a bias towards discussion in a given stage rather than from a historical perspective (Salder, 2020), and towards macro policy-making analyses rather than empirical studies at the local level (Luo and Shen, 2009). Have the objectives, tasks, or approaches to regional planning changed in China? If so, how have these changes been realized at the macro and micro levels? Can we see a recentralization of the state in response to the unregulated urban competition?

Drawing on the historical perspective, we first explore these issues by tracing the recurrent regional plans and related institutionalized experiments in the Yangtze River Delta (YRD). The fact that YRD spans four provincial administrative divisions in China–Shanghai, Jiangsu, Zhejiang, and Anhui–has been a cause of much concern because the socio-economic interdependences constitute a functionally intertwined but politically fragmented region. To capture "who" has carried out "which kind of" collaborative actions "by what" institutional framework since Chinese reform and opening up in 1978, we use the content analysis method to sort through 81 policy records in YRD regional governance, covering plans, agreements, regulations, protocols, and memos. Adopting Dühr's approach (2007), we highlight the comparison of cartographic representations and their continuities and discontinuities in three YRD regional plans approved by the central government.

To gain a detailed understanding of planning implementation and transboundary cooperation at the local level, we conducted field research in three cross-provincial practices: the YRD Eco-Green Integrated Development Demonstration Zone (across Shanghai, Jiangsu, and Zhejiang Provinces), the Jiangning-Bowang Cross-Border Integration Demonstration Area (across Jiangsu and Anhui Provinces), and the Xin'anjiang-Qiandao Lake ecological protection compensation sample region (across Zhejiang and Anhui Provinces). Seventeen key insiders were interviewed regarding three focus groups– politicians, planners, and experts. The results so far indicate that some changes are taking place in the regional development of the YRD:

There is a trend towards diversification of the participants and objectives in regional governance of the YRD. It shifts from a dominant public actor to a multi-actor mix (including political, scientific, and business), and from a single industrial focus to a multifaceted (economic, ecological, and social) integration imperative.

National will consistently play critical roles in facilitating integrated planning and institutional reforms in YRD. With the top-down regional vision of equitable and synergistic development, former peripheral nodes of the governance network have gradually moved closer to the centre and gained privileged priority in emerging areas.

The changing role of the state has documented a difficult path from local competition to regional integration in the YRD. The regional identity among localities has been raised, while bottom-up urban entrepreneurship has continued inter-city competition over crucial resources such as land and fiscal capital.

Planning and governance across borders show a dynamic de- and re-territorialization and/or institutionalization in the YRD case. The governance model in the new era has explicitly experienced profound state rescaling. Arguably, this is not the restoration of early nationalism but a fusion of new and old governance models to consider as a new stage of China's regional integration and governance.

Keywords *: State rescaling, Regional integration, cross-jurisdictional planning and governance, urban entrepreneurship, Yangtze River Delta (YRD), China*

Metropolitan Governance In The European Union. A Classification Of Existing Institutional Models

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In the last 40 years, new territorial configurations have emerged in Europe as a consequence of the consolidation of complex spatial relations between core urban centres and their suburbs. Whereas overall agreement exists on the relevance of these metropolitan phenomena, their conceptual delimitation and governance is subject to debate (Zimmermann et al., 2020). On the one hand, methodologies to define and compare metropolitan spaces have been developed, conceptualising them as characterised by densely inhabited urban cores and less-populated municipalities whose labour market is highly integrated with the cores (Dijkstra et al., 2019). On the other hand, metropolitan areas have become both the scope of and the reason for institutional experimentation. Public authorities across Europe have progressively engaged in the development of strategic visions and plans that tackle metropolitan challenges (i.e. housing, mobility, urban planning, employment, economic development, culture etc.), as a way to guide the integration of different spatial developments and engage public and private actors at different scales, beyond the core city alone (Albrechts et al., 2017). Whereas these metropolitan activities often occur via informal inter-municipal cooperation, which varies through time and in relation to the issues at stake, in a number of European countries dedicated, more or less 'rigid' institutional structures aimed at metropolitan governance structures have been set up.

Various models of metropolitan governance have been identified, that differ greatly in relation to their level of institutionalisation, the distribution of powers, competencies and resources, their internal structure and the actors involved (Salet et al. 2015; ESPON, 2021). The exact nature of metropolitan cooperation is often unique, and different arrangements also depend on the different multi-level regional governance and planning systems that characterise the European continent and their (path-dependent) changing patterns (ESPON, 2018).

Aiming at shedding light on the matter, the proposed contribution draws on the results of the ESPON METRO and COMPASS projects (ESPON 2018, 2021). First, the paper surveys the various institutional models established in the European Union (EU) countries to handle metropolitan governance. Then, it develops a classification pivoted around four variables: (i) the governance model, (ii) the degree of correspondence between the geographical scope of the institutional action and the actual functional phenomena and (iii) the spatial development and planning competences provided to the institution and (iv) the types of instruments they adopt to practice those competences. The results of the analysis constitute a preliminary compass to navigate metropolitan governance in the EU, as well as to reflect on the pros and cons of the institutional models in place in the different contexts.

Keywords *: Metropolisation, Functional Urban Areas, Metropolitan governance, Institutional models, Spatial planning, European Union*

Regional Planning Culture

Planning Cultures In Exchange – Evidence Derived From A Cross-Border Simulation Game

Karina Pallagst (Rptu Kaiserslautern)

Considerable institutional and cultural settings have shaped spatial planning systems with comparable features; however, such systems have been adapted to specific cultural, normative, and spatial conditions. Previous research on planning cultures demonstrates that in view of existing challenges for planning there might be planning cultures that are not constituted by geographic entities (nations, regions, cities), but also by topics framed by specific planning tasks. This could open up a new research field of 'topical planning cultures' (Pallagst et al 2021).

The cross-border context displays different normative regulations, policies, strategies and spatial concepts, and furthermore also beliefs and values regarding spatial planning. This enhances the complexity of planning cultures to a certain extent. In this setting, the exchange of knowledge about different planning practices, processes and instruments of spatial planning will be a core competence of cross border development (Pallagst, Hartz, Caesar 2018). Additional challenges might evolve with specific cross-border instruments, such as spatial development concepts (Caesar, Pallagst 2018), or EU funding with the aim of sustaining territorial cohesion. In this specific context the possibility might occur that a specific cross-border planning cultures will be shaped, based on longstanding experience in cooperation.

Cross border regions offer the possibility to investigate the principles of planning in a comparative mode, thus changes in planning cultures might be detected. The project "Planning Borderlands" investigates cross-border territorial development. Its objective is to analyse the role of planning cultures in the processes of cross-border cooperation in spatial development. Here, we focus on the cross-border spaces along the French-German border in the Greater Region and along the German-Polish border in the Brandenburg-Lebus area. The analysis aims to produce evidence on the differences and similarities between the involved planning cultures as well as the specificities on the cross-border level. One major empirical step of the project was to carry out a simulation game on cross-border cooperation from the perspective of spatial planning in the French-German and German-Polish border areas. The game simulated a fictitious situation in which barriers to cross-border cooperation in the area of spatial development were removed, and practitioners in spatial planning had the chance for an exchange on their respective tasks.

The presentation features research results, in particular of the cross-border simulation game, with the purpose of highlighting opportunities and challenges of cross-border spatial planning along the French-German border and the German-Polish border in a comparative mode.

Keywords : planning cultures, border regions, spatial planning, simulation game

Framing The Socio-Spatial Regeneration Of Fragile Mountain Regions. Insights From The Alta Valtellina Case.

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This contribution derives from collaborative efforts in academic research and teaching at Politecnico di Milano, Department of Architecture and Urban Studies (DAStU), focusing on the socio-spatial regeneration of fragile mountain regions.

In the European context, mountain regions face multiple challenges, including climate and ecological crises, depopulation, abandonment of the built heritage and landscapes, and depletion of natural resources. These challenges often exceed traditional administrative boundaries, institutional levels, and planning and intervention scales. Furthermore, the current spatial planning systems and policy tools frequently struggle to cope with the increasing complexity of these contexts, particularly in anticipation of global climate and societal changes.

Within this framework, our study focuses on Alta Valtellina, a border mountain area between Italy and Switzerland in the Lombard Alps, selected as a pilot case due to the complex interplay between the following conditions: (i) concentration of socio-spatial disparities (between landscape, production, and tourism excellences, on the one hand, and depopulation, shrinkage, and abandonment, on the other) amid a transformative phase connected to the climate crisis; (ii) the overlap of multiple spatial planning tools; (iii) active participation and involvement in multi-level cross-border cooperation initiatives (at national and international levels); (iv) the forthcoming Winter Olympic Games 2026, serving both as a risk to increase fragilities and divides, and as an opportunity to boost a long-term regional development.

This contribution introduces the analytical and project-based methodology tested on the Alta Valtellina region, deriving from our ongoing research and teaching activities. The proposed methodology adopts a cross-scalar, interdisciplinary, and place-based approach, further supported by interaction and engagement with relevant stakeholders and local communities, including cultural associations, municipal administrations, academic experts, and technical professionals.

At the intersection between research and teaching, the proposal considers the multiplicity of challenges for a remote mountain region such as the Alta Valtellina (e.g. abandonment, over-tourism, and climate change) by developing a research-by-design approach. By interplaying urban and regional planning, landscape design, and architectural and urban preservation and management, the contribution aims to spatialize cross-scalar phenomena, dynamics, policies and plans to identify transborder projects of multi-level and multi-dimensional regeneration. A spatial vision for the Alta Valtellina region will be validated through territorial projects for two different nodes set in two small municipalities, presenting heterogeneous conditions although sharing territorial proximity and common characteristics: the municipal area of Sondalo, affected by a long-term process of contraction, and the municipal area of Bormio, a renowned destination challenged by transitions of mountain and ski tourism. Thus, the paper will present some first considerations and suggestions starting from the preliminary outcomes of the abovementioned research-by-design experience, which tackle the main challenges and key issues as posed within the EUSALP framework (e.g. adaptation to climate change; tourism diversification; transitions dynamics of rural landscapes and built environment).

As a result, we point out new spatial interpretative frameworks and strategic projects that capture the complexity of the involved processes, challenging established narratives by applying a multidisciplinary approach that aims to rebuild cross-border relations, cross multiple planning scales, and integrate intangible with physical components.

Given the promising outcomes, the proposed methodology aims to evolve into a transferable and replicable model, offering a comprehensive approach to address the challenges of socio-spatial regeneration in fragile mountain regions.

Study On The Characteristics And Influencing Factors Of Regional Intergovernmental Relationships Network, Based On The Analysis Of 41 Urban Planning Texts

Yin Dou (Tongji University), **Yihao Zhang** (East China Architectural Design Institute)

Regional planning in China is usually formulated by higher-level governments and consists of multiple cities that reflect national strategies from top to bottom. In addition, scholars have conducted a number of studies using big data such as phone signals and investments in regions to obtain dynamic socio-economic networks from bottom to top. However, there is still a lack of perspectives based on local governments at the meso level, which are not only transmitters of higher-level planning, but also aggregators of micro subjects' needs. Competition and co-operation between cities in the context of regional integration have become more intense, which is also reflected in their planning documents. Cities mentioned in planning texts reflect their attractiveness for development in the region. This paper therefore seeks to explore which cities in the Yangtze River Delta (YRD) are more attractive to other cities, what patterns of attention linkages are exhibited, and what factors contribute to this.

This paper extracts the 1,750 relations between 41 cities in the YRD using the texts of their 14th Five-Year Plans. The structure of the network is visualised through social network analysis (SNA) to identify clusters. The results are then interpreted in terms of nodes, networks and texts to find out the features behind them. Correlation analysis with economic and demographic data of the cities and semantic analysis were used to find out the factors affecting this situation.

The results show that there is a clear polarisation in the network, with Tier 1 cities taking most of the attention and forming 4 clusters around them. The results of the semantic analysis show that the demand for outward linkages is concentrated in the areas of industrial investment and transport infrastructure, while the cities that are linked have more innovative and financial resources. Although the indegree of cities has a high correlation with their total economy and population, there are still some exceptions, some developed cities do not receive much attention, while some economically backward cities receive more attention, which suggests that size, administration, and proximity are not the only reasons for cities to attract more attention, and that cities with special functions also play an important role in the region.

The innovation of this study lies in that the use of planning texts from local governments in the region fills the gap in the visualization of intergovernmental relations to a certain extent and facilitates the consideration of the developmental willingness of local governments in the formulation of regional plannings. In addition, it also explores the factors that influence the formation of the relations network, and it was found that economy and distance were the main reasons for connecting to other cities, providing suggestions for the integrated development of cities in the region.

Keywords : regional planning, intergovernmental relations, semantic analysis, social network analysis, Yangtze River Delta (YRD), China

Multi-Scalar Design Experiments In Peri-Urban Areas: Agile Strategies For Long-Term Sustainability - Case Studies: Hasan Awa, Kurdistan, Iran And Lara, Victoria, Australia

Rashed Azizi (Monash University)

ABSTRACT: Based on UN projections, another 2.5 billion people will be housed in the world's urban and peri-urban regions by 2050 (UN, 2019). Urban expansion is the principal mechanism by which cities accommodate this population growth. A recent study indicates that between 1990 and 2014, in a global sample of 200 cities, 23% of the population increase was accommodated through the densification of existing footprints, while 77% occurred in newly expanded areas (Angel et al., 2021). Peri-urban areas, as "sites on the urban periphery into which cities expand," have enormous potential to enhance urban sustainability positively. Still, despite increasing development pressure, few policies address the specific attributes of peri-urban contexts. (Marshall and Dolley, 2019).

Urban expansion in peri-urban areas is often described as a formal/informal conflict regarding actors and an urban/rural confrontation regarding characteristics. However, this transformation is not a simple binary or a linear continuum; they are fluid (Scott et al., 2013). Recognising the inherent fluidity in peri-urban characteristics sets the stage for embracing the concept of agility—a quality that reflects the capacity of a setting with various actors and complex relationships to adapt to long-run changes (Muldoon-Smith and Greenhalgh, 2015). This approach enables the development of flexible, context-specific solutions to harness opportunities and address challenges brought about by transforming peri-urban areas, contributing to more sustainable and adaptive urban development practices. In doing so, this investigation seeks to answer the question: how can the concept of agility be developed to facilitate multi-scalar design thinking and contribute to long-term sustainability in peri-urban areas?

This 'research by design' (Frayling, 1993) investigation leverages comparative mapping of peri-urban conditions to explore the concept of agility and possibilities to 'learn from elsewhere' (Robinson, 2016). It can shed light on hidden spatial and non-spatial knowledge and catalyse collectively redefining our relationship with reality (Gaver et al., 2022). The two cases, Melbourne (Australia) and Sanandaj (Iran), have similarities and extreme differences, struggling with unsustainable urban expansion and a lack of affordable housing. Comparing Melbourne and Sanandaj peri-urban areas will yield lessons for hybrid design strategies to meet contemporary living needs and enhance future development agility. Through an iterative design speculation process, these insights will inform the development of alternative multi-scalar design strategies and tactics challenging current classifications. These design strategies and tactics create an open-ended urban ecosystem between the environment, contemporary lifestyle, and urban design that adapts to dynamic peri-urban transformations. The resulting tactics will be applied in selected peri-urban areas as speculative growth scenarios, fostering adaptability, responding to evolving urban demands and enhancing living quality, sustainability, and equity.

Keywords : Transnational planning, comparative studies, peri-urban areas, Research by design, Adaptive planning and urban design

Looking At Terrestrial And Marine Spatial Planning As A Continuum Through Land-Sea Interactions

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According to various thinkers, the Anthropocene paradigm represents a scenario of large-scale catastrophic change for human societies. Beck (2016) links this to the idea of the metamorphosis of the world. For this author, it is not only a question of considering the negative consequences of the changes that the planet is undergoing, but also the emancipating forces that will allow human societies to rethink some of the central assumptions for decision-making in the face of planetary challenges.

In this sense, if there is one central assumption that needs to be rethought, it is the notion of the land-sea boundary. Following this approach, current policy agendas and academic debates highlight the need to reverse the dichotomous and artificial vision between land and marine spaces and to adopt a holistic and integrative vision in spatial planning that recognises the land-sea continuum (Kidd & Shaw, 2021).

In this context, Marine Spatial Planning is emerging as a key mechanism to achieve more effective planning and management of the human relationship with the sea to mitigate increasing pressures and reverse the accelerating process of degradation of coastal marine ecosystems. Accordingly, the EU has established through the MSP Directive (EC, 2014, Directive 2014/89/EU) that Member States should develop their own MSP policies and cooperate urgently on this crucial issue for sustainable development.

However, as most of the development and use that takes place in the marine environment also has a component or impact on land and vice versa, both the MSP Directive and the literature state the need to consider land-sea interactions in planning as key elements to be managed to move towards an integrated and coherent vision between terrestrial and marine planning.

LSIs correspond to a complex phenomenon involving both natural processes (biogeochemical) at the land-sea interface and interactions of human activities, both on land and at sea, combined with socio-economic variables caused by different uses and activities, such as offshore energy, mariculture, maritime transport, coastal tourism, among others.

For this reason, some conceptual and methodological frameworks have recently been proposed to address some aspects of LSIs in spatial planning. However, a significant body of opinion stresses the need to review and adapt these analytical frameworks to specific contexts in order to find the most appropriate institutional mechanisms for managing LSIs within each particular planning and governance context.

Consequently, this paper seeks to build on existing methodological frameworks (ESPON, 2020; Bocci et al.,2024) and research based on the literature review (Innocenti & Musco, 2023), and to cover under-explored areas of land-sea interactions and how these can contribute to the articulation of terrestrial and marine planning systems, especially those related to the dynamics of socio-economic interactions between uses and activities.

To this end, a double literature review is carried out using the methods of systematic review and snowball approach, focusing on the concept of land-sea interactions in spatial planning. After presenting some of the main findings, the LSI dimension of socio-economic dynamics is further analysed. Finally, its role as a tool for the articulation of land-sea planning systems is discussed in light of the literature and the wider debate on spatial planning challenges.

***Keywords** : Spatial Planning, Marine Spatial Planning, land sea interactions*

The Regeneration Of Urban Waterfronts: Comparative Analysis Of European Case Studies

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Waterfronts are key for implementing sustainable development strategies, especially considering their experienced demographic, urban, and economic growth and the inherent risks they face, notably due to climate change. Simultaneously, they are gaining prominence due to global shifts in urban planning and increased environmental awareness. This shift has led to a re-evaluation of the role of waterfronts prompting the relocation of existing industries, ports and linear infrastructure. This has aroused interests of different urban planning-related actors, both in the public and private sectors.

Growing interests in these territories, together with the increasing concerns for the urban regeneration of degraded areas, notably pushed a series of waterfront redevelopment projects worldwide. Some of the most recent examples can be found in central and northern Europe. Among them, cases in the cities of Amsterdam, Bordeaux, Copenhagen, and Malmo deserve special attention given their proven success.

These European cities have been at the center of emblematic urban planning and management projects, particularly in the regeneration of important part of their urban waterfront industrial and/or port areas, or areas of undefined land use, were converted into residential areas combined with activities in the tertiary and leisure sectors and with significant investments in new mobility and transport systems that have international recognition, including in terms of sustainability.

With that in mind, this research aims to analyze four European cases of waterfront urban regeneration projects located in the cities mentioned above. The analysis intends to identify these projects' critical success factors and compare options/practices, which can prove helpful to other similar applications. Specifically, this case studies analysis is framed within the project "CidadeTejo" (transl. "TagusCity"), which aims to learn from these successful interventions to propose an integrated vision for the territories of the 11 municipalities surrounding the Tagus Estuary, in which similar waterfront redevelopment projects are being planned.

To this end, two methodological steps were carried out. The first consisted of a literature review of each case study to systematize information on certain topics in a standardized form. Six topics of analysis were considered: general aspects of the urban intervention, including main purposes, initiative owners and main actors, time of execution, degree of completion, and financing model; considerations on the concept of waterfront, including territorial scope and physical dimension; information on programmatic content, and results; type of urban operation and relevant planning instruments; information on different thematic areas, such as environment, accessibility and transport, land use planning and urbanism, social aspects, and governance; and the coherency of the intervention with existing spatial planning instruments.

To further enhance knowledge on the case studies, the second methodological step consisted of semi-structured interviews with experts on each project, who have been involved in the project in different stages. Questions were related with intervention triggers, main project actors, land ownership, financing models, main achievements and pitfalls, among others. It was also discussed what were the main challenges faced by the project's coordinating team and what aspects should be taken into consideration and rectified in future operations.

The conducted analyses highlight the unique features of each project. It is interesting to note the different motivations for developing the projects, their urban proposals, and the uses contemplated. Also noteworthy are the different forms of governance used to realize these projects and the different types of funding observed. Finally, despite being considered success cases, the notion of sustainability is interpreted in these case studies in different ways - with different preponderances of the environmental, mobility and financial sustainability dimensions of the intervention.

Keywords : urban planning, waterfronts, urban regeneration, best practices

Cross Border Planning

Cultural Networks In Cross-Border Regions And The National Border Effect – Examples From Three Eu Cross-Border Regions

Anna Growe (Kassel University), **Ahmed Bakry** (Kassel University)

Cross-border regions (CBRs) have been the subject of political science and spatial research in Europe for many years (Decoville and Durand 2021). A central research question is what effects national borders have on border regions. This involves examining whether national borders have a negative border effect on the neighbouring sub-regions of the various nation-states.

This presentation focusses on cross-border cultural interdependencies in European border regions. Cultural networks are recorded based on organisational networks cultural and community centres as well as interdependencies of cultural and community centres with the surrounding population in the three border regions Basque Country (France/Spain), Upper Rhine Region (Germany/France/Switzerland), and Flemish Region (Netherlands/Belgium). Our approach measures cultural networks across borders using a new innovative "extended network model" (EINM) (Bakry and Growe 2022). Results of the cross-border network analysis are presented in the first part of the presentation. In this part of the presentation, the influence of ethnic similarities on both sides of the national border on the development of cultural networks will become clear.

The national borders in the case studies are further conceptualised as potential physical and mental barriers. In order to identify the negative or positive effects (Sohn and Licheron 2018) of national borders on cross-border cultural networks, the national borderlines are reconfigured in different hypothetical geographical positions. In this part of the presentation, it becomes clear that the presence of a common language strongly influences (decreases) the impact of negative effects of national borders.

Keywords : cross-border regions, national border effect, cultural networks, EU, culture and community centres

Cross-Border Cooperation In Poland In Spatial And Organizational Dimensions

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The objective of this study was to identify patterns in the formation of cross-border cooperation in the Polish borderlands, specifically within the context of transborder functional regions. The diverse nature of the analyzed borderlands, influenced by factors such as, among others, the functions of internal and external Schengen zone borders, natural and socio-economic features, allowed for an examination of the impact of conditions on the characteristics of cooperation. Particular attention was given to the spatial distribution of cross-border cooperation, including the influence of distance from the border on its development, as well as the examination of the type structure of beneficiaries and projects. This study also focused on the motivations of organizations for initiating and continuing cooperation, as well as the barriers they face. The analysis encompassed nearly 1600 projects and over 2300 organizations involved in cross-border cooperation programs along Poland's land borders, utilizing the European Territorial Cooperation, European Neighborhood Instrument, and European Neighborhood and Partnership Instrument within two consecutive EU programming periods (2007-2012 and 2014-2020). The study covered borderlands on both sides of the state border, including both Polish and neighboring countries' organizations involved in joint cross-border projects. The research approach utilized both quantitative (statistical analysis of projects and organizations) and qualitative methods (surveys and interviews among organizations) to enable a comparative analysis of the shaping of cooperation in individual borderlands and its change (or stability) over time.

The findings of the study revealed that despite the similar legal and institutional framework of EU programs, cross-border cooperation was not realized in the same manner. The diverse local conditions of cross-border territories had an impact on program implementation, demonstrating that the formation of cooperation is largely dependent on the territorial context. The study enabled the identification of the main motivations and barriers to cooperation, which are universal in nature but displayed variations in the forms of cooperation. Moreover, it showed that the initiation and subsequent maintenance of cross-border relationships is a complex process involving numerous factors, whereas the break-up of cooperation requires individual factors. The study outcomes allowed for the identification of areas characterized by the stability, intensity, and specificity of cooperation, which, given the nature of these cross-border links, could create favorable conditions for the formation of local functional cross-border regions.

***Keywords** : Cross-border cooperation, border region, EU cohesion policy, transborder relations*

Analysing The Transboundary Impact Of Local Cross-Border Cooperation, Multi-Level Governance And Eu Cohesion Policy Influence To Address Fragile Peripheral Areas In Northern Italy

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Planning systems, territorial policies, governance models and administrative structures are alterable and change over the years as they need to be updated and coherent to respond to complex and uncertain challenges, particularly within the urban environment. In this process, a range of concepts and approaches are constantly created, adapted and revised; for example, "From government to governance", the mix of top-down and bottom-up approaches, multi-level governance, social cohesion relevance, integrated regional planning, participatory processes, and cross-border relationships. In the European Union context, there is the pursuit of a more balanced, integrated and assertive territorial development through democratic processes that respect a sustainable energy transition as well as the implementation of innovative strategies that take advantage of the local territorial potential. The supranational level offers its members possibilities for policy changes, transnational planning, and cross-border cooperation through policies, priorities, instruments, mechanisms, tools, and funds. The EU Regional Policy has brought global attention to spatial planning and policy dimensions because of its conceptual contribution but also its means of counterattacking the disparities in terms of economy, opportunities, and income among member states' regions. The cohesion aspect demonstrates the commitment to achieving spatial justice, especially in fragile and peripheral territories. Influenced by multi-level governance, local development projects and the place-based approach, the Italian National Strategy for Inner Areas has emerged as an innovative territorial policy for different reasons. Despite the goals of reducing demographic trends, mitigating depopulation and socioeconomic disparities, and providing better essential services, what is also relevant about the national policy and a subject of analysis is the requirement of cross-border cooperation between assorted municipalities, different levels of government, the private sector and civil society in constructing a local strategy to address fragile peripheral areas. The inner area of Alto Lago di Como e Valli del Lario was selected as a case study to address the local level and the cross-border aspects. This fragile area is located in two provinces (Como and Lecco), covers 32 municipal administrations, borders Switzerland and has Lake Como as the main natural asset for socioeconomic development. This paper aims first to explain and detail the functioning of cross-border relationships between multi-actor governance building a local strategy, second to analyse the transboundary effects of this new arrangement to overcome the current issues, challenges and barriers, and third, to check what is (if any) the strategic approach to interacting with municipalities outside the inner area boundaries. The research method analyses two official documents (national and local) that express the vision, axes, objectives, local development projects, and governance arrangement and functioning. They represent the leading indicators for the analysis outputs. Qualitative methods check the stakeholder engagement sessions and whether this new model has been innovative and coherent in generating a common vision among the inner area's municipalities, translating the territorial opportunities into original projects centred on local needs. From a different perspective, whether the vertical and horizontal dimensions and the accumulation of actors in decision matters have brought institutional implications, additional challenges, barriers and conflicts between public entities and local communities given that the financial budget is limited, it needs to be in line with the EU's thematic objectives, and there are multiple municipalities involved. Finally, the analysis also generates insights about the cross-border firmed, missed and possible planning agreements and arrangements with municipalities inside and outside the inner area limits – which seem, on the one hand, critical to reverse the fragile condition and, on the other hand, a key aspect for establishing long-term strategic territorial planning with positive effects on local, regional and national levels.

Keyword *: cross-border cooperation , transboundary planning impact, fragile peripheral areas, EU cohesion policy, national strategy for inner areas*

The Franco-Spanish Mediterranean Strip : An Opportunity To Turn Applied Research Into Trans-Border Planning

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1. Geographical context
The geographical definition of the territory we aim to treat in our research can be understood through four different types of limits. Two of them, physically equivalent, correspond to the deltas of the Ebro river (South), and the Rhône (North).
Dividing this 600 km. coast line, the Pyrénées come to reach the sea as a physical barrier, and establish, at its watershed, the administrative border between both countries. In its depth, the limits become more diffuse, but can be assimilated to a homogeneous wide shore plain, framed on its background by secondary mountain ranges.
2. Problems and opportunities of the trans-border region
The macro-region we define is inscribed into the European Grouping of Territorial Cooperation named «Eurorégion Pyrénées-Méditerranée». Although this administrative frame has allowed a number of opportunities (VICENTE, 2021), its border still has a lack of porosity, if compared, for example, to those separating France from Germany or Belgium in the North.
A funnel in the European rail network between Perpignan and Montpellier; the distrust of region Occitanie towards the much more dynamic Catalonia (DE KEMMETER, 2024); the mainly agricultural character both sides of the border, and its distance to the metropoles... could give some clues for this slow integration. Concerning teaching and research, regional movement is almost non-existent; no visible cooperation appears, neither, on planning nor urbanism.
3. Disciplinary issues
As architects and planners, we believe that many of our current challenges cannot furthermore be addressed in a classical manner. This is why we consider this transboundary context, with its high quality but also fragile landscapes, an opportunity full of potential, that will help us overcome disciplinary and thematic boundaries.
We propose to update the theories of «Research by Design», to nourish our practice from research and teaching activities (RUST, 2007). In this sense, we are currently mounting a double-degree between our host institutions (ENSAM in Montpellier, ETSAV in Barcelona), meant to start in 2024.
We intend, by enhancing the collaboration between our laboratories, to establish a comparative applied research that will help us to define new forms of mid-density residential urban tissues (in the sense defined by KROPF, 2013). This should allow us to properly respond, both with a local and general approach, to the challenges caused by climate change, or the impact of renewal energies.
4. Themes
We think only this bottom-up approach (that starts on applied architecture and urban design, treated comparatively with a research method) can lead, later on, to the definition of efficient trans-border planning practices and policies, suitable across administrative divisions.
In this sense, we intend to design and build two pilot-project neighbourhoods (one in each country) in a suburban environment, to explore the potential of self-sufficient communities, attending to one of the main strategic axes of the EU green transition policies (MARTÍNEZ, 2023).
Our contribution to this congress wishes to present this cooperation, currently under construction, to a wider scientific audience. In order to get, simultaneously, proper feedback before its impletion, and to contribute to the debate of turning planning into a game changer for more just and sustainable regions.

Keywords *: urban design, cross-border cooperation, Suburban areas, Climate change, Applied research*

Study On Cross-Border Integration And Development In The Hengqin Guangdong-Macao In-Depth Cooperation Zone

Zheng Liu (Tongji University)

This comprehensive study, titled "Research on Cross-Boundary Integration Development in the Hengqin Guangdong-Macao In-Depth Cooperation Zone," explores the intricate dynamics of cross-boundary integration within the Guangdong-Hong Kong-Macao Greater Bay Area. It especially focuses on the Hengqin region's distinct border characteristics, which represent a dual nature of both geographical demarcation and systemic transition. This aspect makes Hengqin a prime example of "cross-boundary, cross-system" integration. The research unfolds across four key sections: the background and rationale for the topic, a thorough literature review, an in-depth examination of the research content and design, and a comprehensive research plan.

In the first section, the study delves into the emergence of cross-boundary regions as pivotal new economic spaces, social network hubs, and institutional reform pilot areas, a development arising from the depths of globalization and regional integration trends. Hengqin's strategic location between Macao and Zhuhai positions it as an essential area in the Guangdong-Hong Kong-Macao Greater Bay Area. Its development transcends traditional urban expansion, exemplifying a strategic move to overcome regional integration challenges. Uniquely, Hengqin navigates the complexities of being at the crossroads of different administrative systems and cultural contexts. This positioning makes it an ideal case study for examining cross-boundary, cross-system integration.

The research aims to address how Hengqin can achieve this intricate integration by focusing on its distinctive characteristics compared to other international cross-boundary cooperation zones. The analysis is multifaceted: examining Hengqin's unique traits, analyzing the stages and nature of its cross-boundary development, evaluating the current level of integration, and deciphering the key dynamics and evolutionary rules of cross-boundary integration. This includes a focus on Hengqin's role as a geographical and systemic bridge, necessitating innovative planning strategies and institutional adaptations to effectively manage its unique dualism.

The theoretical significance of this study lies in enriching the perspective of cross-boundary area studies, particularly focusing on regions like Hengqin that straddle different systems and jurisdictions. It proposes an integrated conceptual framework for understanding and navigating the complexities of such unique areas. On a practical level, the study provides strategic and institutional recommendations for the high-quality development of Hengqin. It summarizes the experiences and lessons learned from Hengqin's position as a cross-boundary, cross-system region, offering insights into managing similar zones elsewhere. The literature review section extensively covers theories on cross-boundary regional integration and global case studies. It emphasizes the role of cross-boundary cooperation zones as special policy spaces and the importance of scale reorganization in regional coordinated development. Methodologies employed include comprehensive literature research, detailed case analysis, robust data analysis, and inductive reasoning, all tailored to the unique characteristics of Hengqin.

In conclusion, the research underscores the inherent challenges of cross-boundary integration development, such as the complexity inherent in such projects, the intricacies of data collection and integration, and the nuances of understanding and embracing multicultural factors. Overall, this study offers an in-depth exploration of the Hengqin Guangdong-Macao In-Depth Cooperation Zone, highlighting its role as a model for global cross-boundary, cross-system regional integration development, and setting a precedent for similar initiatives worldwide.

***Keyword**s : Cross-Boundary Integration, Hengqin Cooperation zone, Regional Synergy, Spatial Governance, Multicultural Dynamics*

Mapping Territorial Fragilities, Cross-Border Cooperation And Resilience In Italian Border Areas. Insights From The 'Italian Borderscapes After 2020' Project

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The paper introduces and discusses initial research findings from the "Italian Borderscapes After 2020" project, a two-year initiative supported by the European Union – NextGenerationEU and the Italian Ministry of University and Research. The project seeks to explore the challenges faced by Italian border areas in the wake of various crises, encompassing socio-economic, humanitarian, ecological, and health-related issues, notably the Covid-19 pandemic.Rather than characterizing these regions only as "border areas" or "peripheries," the paper adopts the term "borderscapes" to address the complex entanglement and "constellations" of spaces, relations, and practices that shape these territories. The main objective is to map, analyze, and comprehend the complex interplay of both existing and emerging re-bordering, de-bordering, and cross-bordering processes along and across Italy's borders, especially before and after the 2020 pandemic.The project focuses on three case studies involving Italian national borders (Italy-France, Italy-Austria, and Italy-Slovenia), providing a comprehensive understanding of the challenges and opportunities faced by cross-border communities and territories. This approach allows for a comparative overview of different border areas, related transboundary dynamics, and cross-border spatial planning frameworks and governance approaches.The intersection between borderscapes and "inner areas" represents a novel field for investigating socio-spatial transitions prompted by pressing social, environmental, and health-related issues in these territories. Thus, Italian borderscapes offer prominent sites to explore the possibility of combining mixed and interdisciplinary methods both in terms of analysis and interpretation of data (ranging from policy analysis, socio-demographic surveying, visual production, and cartographic representation), as well as exploring cross-border, relational development strategies and planning scenarios, grounded into place-based, local development initiatives. This exploration envisions diversified trans-local drivers of resilience.Drawing on the expertise of a multidisciplinary team, including urban planners, geographers, and social scientists, the paper presents the project's early results in the three study areas.

Keywords : borderscapes, territorial fragilities, resilience, cross-border governance and planning, Italian border areas

Economies Of Transboundary Regions

Research And Reflections On Cross-Border Periphery-Core Industrial Linkages In Urban Regions: The Case Of Three Cities Adjacent To Shanghai, China

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Modern urban regions' development has seen a new stage of the deepening and restructuring of the spatial division of labor - functions at the two ends of the value chain have become more concentrated in high-level cities, while manufacturing has been gradually dispersed and relocated to surrounding small(medium)-sized cities, which, in turn, will influence the central cities after the formation of new agglomerations on the periphery. Yet this is not necessarily a spatial gradient of dispersion, as periphery-core linkages across geographical and administrative boundaries may be formed. This phenomenon can be explained by the "urban network externalities" theory - the agglomeration externality from the central city extends outward, while peripheral cities "borrow size" from it, jointly generating externalities through the city network. In this context, small(medium)-sized cities on the periphery of megacities face enormous opportunities and challenges, not only as carriers of their economic activities but also in their important positions in the industrial networks of the larger region.

This study takes the three county-level cities of Kunshan, Taicang, and Jiashan, which are adjacent to Shanghai, as cases. Firstly, it applies the enterprise headquarter-branch data of 2008 and 2018 to build city networks of the Shanghai metropolitan area, and compares the whole picture of the linkages between the central city Shanghai and its surrounding cities; secondly, based on the 144 enterprise questionnaires distributed in October 2018 within the three cities, it explores the specific performance of the industrial connections between the three cities and Shanghai through the statistical analysis; finally, it explains the causes qualitatively, and puts forward the planning advice.

It is found that: a. The links in the city networks between Shanghai and its neighboring county-level cities have increased significantly, especially for the three case cities, whose links to Shanghai are equal to (or even beyond) those to the central cities of each prefecture-level city they belong to and to the capital cities of each province they belong to. b. From the questionnaire data, it can be seen that Shanghai is second only to the cities in the provinces to which the three cities belong in terms of the cities in which they invested in the enterprises surveyed, the cities where the upstream and downstream enterprises are located, and the cities to where they provide productive services, which means that the market forces in the links surpass the geographic and administrative barriers. c. The top reason for enterprises to choose their location is "proximity to Shanghai", followed by "investment promotion preferential policies", meaning that the formation of cross-city industrial linkages is the result of enterprises "voting with their feet" actively. To summarize, although these three cities are relatively low in rank, they have "captured" the flowing resources in the regional city network, developed industrial interactions with Shanghai across boundaries, and realized their elevated economic status in the region.

The main contributions of this study are twofold: a. To provide a reference for the industrial spatial planning and inter-city cooperation in urban regions. b. To guide the industrial development of small(medium)-sized cities on the periphery of megacities.

Keywords : cross-border, periphery-core, industrial linkages, city network, urban regions, Shanghai

Planning As An Action Framework For The Rural Tourism Integration Across Administrative Boundaries: A Comparative Study Based On Shanghai, China And Lombardy Region, Italy

Shuo Han (Tongji University)

Both Shanghai and Lombardy Region are metropolitan district with vast rural areas on the periphery. They provide a solid condition for agricultural development and have natural environments conducive to rural tourism. While the planning systems in Shanghai and Lombardy Metropolitan Region differ, both generally use administrative boundaries as the scope of planning. Due to the spatial characteristics of the contiguous rural areas, this often becomes obstacle for further integrated development.

At the planning level, both regions have explored integration or cooperation mechanism across administrative boundaries. For example, Italy's planning for "soft spaces" has promoted rural tourism to some extent. However, the cross-boundary integration mechanism primarily focuses on major infrastructure planning and land use control, rather than aspects closely related to the tourism, such as the utilization of agricultural landscape resources, landscape guiding, and preservation of cultural heritage. Additionally, the cross-administrative boundary planning integration mechanism tends to be applied only to areas with famous tourist attractions, lacking comprehensive coverage for other areas.

This research paper selects typical cases in Shanghai and Lombardy, identifies and analyzes planning issues related to rural tourism across administrative borders, figures out the existing problems, and proposes strategic suggestions for planning as an action framework. These suggestions aim to promote the regional rural tourism and facilitate its development in a more sustainable, inclusive, and humanistic manner.

Keywords : rural planning, rural revitalization, rural tourism, historical rural landscape, landscape scenarios

Institutional Construction And Spatial Governance Of Export-Oriented Zones From The Perspective Of State Entrepreneurialism: A Case Study Of Pilot Free Trade Zone In China

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Export-oriented zone is a type of special economic region that are more broadly defined in the era of economic globalization. By establishing export-oriented zones, many developing countries participate in global industrial division of labor and initiated regional economic development through some policy measures such as foreign investment and market-oriented reforms, thereby promoting the improvement and innovation of macroeconomic institution. A large number of urban researchers have conducted research on export-oriented zones. Compared to the conceptual framework of urban entrepreneurialism in the context of neoliberalism, the construction of export-oriented zones in southern countries worldwide usually involves breaking through existing national the supervisory system of economic and foreign trade, requiring deep participation of the central government in policy supply and power decentralization, and possessing the characteristics of "planning centrality and market instruments" as described by the concept of state entrepreneurialism. Taking the pilot free trade zone (FTZ) established by China after the global financial crisis as the case study, this article explores the institutional improvement and spatial governance process of export-oriented zones under the leadership of state entrepreneurialism, and conducts an analysis of the Shanghai FTZ, which is the first FTZ established in 2013 in China. It is found that aims to comprehensively deepen reform and expand opening up to the outside world. At the beginning of the approval of the establishment of FTZs set up in different provinces, the central government has imposed restrictions on it from aspects such as strategic positioning and management mode, etc. At the same time, the FTZ in various regions have also formed a series of replicable experiences in practice within the original institutional framework, which are fed back to the central and provincial governments and then promoted to other regions. In terms of spatial governance, the FTZ achieves a more comprehensive form of opening-up through the integration of traditional development zones and the host cities. At the provincial level, the spatial scale of FTZ is constant, while the organization and management of internal sub-zones are relatively flexible. Based on the analysis, this paper discusses the key issues in the process of improving the FTZ system in China, and puts forward relevant planning enlightenment on the governance of the FTZ in combination with international advanced experience.

Administrative Boundary Effects Of Cross-Border Migration Of Manufacturing Firms: A Case Study From The Pearl River Delta In China

Wenbo Xu (Southeast University)

This study, based on the migration trajectories of 468 representative manufacturing leading enterprises in nine prefecture-level cities in the Pearl River Delta region (Shenzhen, Dongguan, Huizhou, Guangzhou, Foshan, Zhaoqing, Zhuhai, Zhongshan, Jiangmen) since 2000, employs spatial econometric and social network analysis techniques to analyze the overall spatial patterns, key migration regions, and typical cases of manufacturing enterprise migration. It attempts to explain whether various administrative boundaries have influenced the relocation and siting choices of enterprises. The study analyzes cross-boundary migration behavior of enterprises at both inter-prefecture-level and intra-prefecture-level levels. The analysis among prefecture-level cities adopted all enterprise samples of the 9 cities, while the analysis within the city only adopted partial enterprise samples of Shenzhen.

The study finds that: (1) Although the urban space in the Pearl River Delta region has developed highly continuously, with material spatial boundaries becoming increasingly blurred, relatively few enterprises choose to migrate across prefecture-level boundaries. Enterprise migration exhibits a significant "boundary wall" effect at the municipal administrative unit level. Instead, within prefecture-level cities, enterprise migration is more frequent. (2) Cross-boundary areas are key regions for enterprise relocation. Enterprises migrate from the central area to the periphery to seek lower production factor costs, but are unwilling to relocate to adjacent cities for even greater cost compression. (3) County and street boundaries within cities do not restrict enterprise migration, allowing enterprises to flow relatively freely within the city.

The study analyzes the reasons for the above spatial phenomena: (1) Under the Local government corporatism model, retaining tax-generating enterprises is key to promoting local economic growth. Governments commonly take multiple measures to retain enterprises, including providing preferential land supply, tax breaks, and infrastructure support. These measures aim to encourage enterprises to establish long-term development in the region. (2) In their development process with localities, enterprises form close social network connections with local production networks. These connections include not only explicit industrial chain and supply chain relationships, but also employee-specific urban localization needs such as education and healthcare. This stable embeddedness is an important reason for reducing enterprise cross-prefecture-level migration. (3) Cross-city migration for enterprises may come with significant uncertainties, especially due to differences in business environments across cities. These differences can result in significant adaptation costs for enterprises in a new city.

Therefore, the study suggests that within China's mega-regions, cross-boundary areas between prefecture-level cities will become new feature regions for the clustering of industrial and innovative factors. Cross-boundary flows of factors will strengthen functional complementarity among cities. It is essential to strengthen research on industrial development in cross-boundary regions and industrial spatial planning.

It should be noted that the enterprise migration data obtained in this study only refer to the relocation processes of enterprise headquarters. The complex relationships between branch offices and headquarters as well as parent-subsidiary relationships were not considered.

***Keywords** : administrative boundary, manufacturing enterprises, cross-boundary migration, dynamic mechanism, Pearl River Delta*

Towards A New Model Of Asian Edge City? Measuring The Functional Evolution Of Towns In Cross Provincial-Border Areas In Metropolitan Shanghai, China.

Zhanyi Luo (Tongji University), **Chen Chen** (Tongji University)

Under the wave of globalization, certain megacities in China are undergoing or have already undergone post-suburbanization. In contrast to the United States, where "edge cities" were primarily driven by market forces and developers, the development of towns on the outskirts of China's metropolises has been largely influenced by the government. Despite China's unique administrative system, which prioritizes resources for the higher-ranking central city, towns on the Shanghai metropolitan area have recently absorbed functional spillovers from the central city, encompassing industry, commerce, public services, and technological functions, and have evolved into new centers with integrated functions. This indicates that the ongoing functional evolution of China's metropolitan edge towns is transcending geographical constraints and has become a valuable experience for China in advancing 'new urbanization', while also offering a new model for the examination of Asian edge cities.

This paper seeks to elucidate the distinctive characteristics of the emergence of towns in China's metropolitan area during the post-suburbanization stage and to investigate the emergence of towns with metropolitan-like functions by delineating the stages of their functional evolution. In order to reveal this process, our study examines towns in the cross-provincial-border areas of Shanghai-Suzhou-Jiaxing as a case study to analyze their functional evolution. We have devised a classification standard and evaluation index system for the functions of the towns and have conducted an analysis by integrating statistical yearbook data from 2008 to 2022 with ArcGIS.

The functional differentiation of the study area can be delineated into two stages: ① The initial stage (from 2008 to 2018) witnessed towns dominated by industrial parks gradually assuming additional functions, with the development of functions surpassing spatial connectivity, yet still being characterized as "subsidiary" and "marginal" in terms of function and space. ② The subsequent stage (commencing in 2018) represents the comprehensive promotion of integrated functioning in towns within the metropolitan area. Following the national adoption of the 'Strategy for integrated development of the Yangtze River Delta' (YD Integrated Development) as a national strategy in 2018, towns in cross-provincial-border areas within the metropolitan region received increased investment attention and resource allocation, leading to further enhancement of the layout of commercial, residential, and public service functions under the adjustment of national policy. These towns have successfully transformed their marginal disadvantage into a resource-accepting advantage, achieving rapid development and, to a certain extent, replacing the metropolitan function.

This study offers insights into understanding the fundamental elements of development in China's metropolitan area during the post-suburbanization stage, as well as examining regional disparities in this transition process to enrich the theoretical study of edge cities or metropolitan areas in the Chinese context.

Keywords *: Metropolitan areas, Cross provincial-border areas, Functional evolution*

Regional And Metropolitan Planning

Conceptualizing City-Regional Spatial Planning In A Fragmented Urban Landscape

Theresia Morandell (Eth Zurich, Eurac Research), **Michael Wicki** (Eth Zurich), **David Kaufmann** (Eth Zurich)

This contribution presents a conceptual framework for studying city-regional integration processes in spatial planning, amidst the ongoing urbanization phenomenon reshaping cities and creating intricate interdependencies with suburban and rural areas as they extend beyond administrative boundaries. This trend, evident across OECD countries, is characterized by institutional fragmentation where various local authorities govern small portions of the urban territory. This results in a fundamental challenge for spatial planning: How to manage growth in a context where the spatial dimension of development no longer aligns with traditional governance structures? In this complex backdrop, the city-region has emerged in both academic and policy discourse as a promising new, intermediate scale for formulating planning policy. This approach aims to address the spatial development of territories that are physically and functionally linked but politically fragmented into multiple administrative jurisdictions (Rodríguez-Pose, 2008).

Our framework offers an analytical tool to study city-regional integration processes in comparative research, identifying key drivers—both positive and negative—that influence the formulation of integrated spatial development policies in city-regional contexts. We synthesize insights from multi-level governance (MLG) (Hooghe & Marks, 2003), metropolitan governance (Zimmermann et al., 2020), and the interplay of hard and soft planning approaches in city-regions (Allmendinger et al., 2015). This diverse literature, while rich in insights on institutional arrangements, policy-making actors, and their interrelations, are rarely consolidated into a unified conceptual framework. The soft space literature helps us perceive the city-region as a flexible planning space where informal strategies supplement formal statutory plans, deemed insufficient for governing dynamic spatial transformations. The metropolitan and multi-level governance literatures, meanwhile, focus on institutional solutions and political dynamics within city-regional governance, highlighting the diffusion of planning powers among various stakeholders across and beyond city boundaries. Integrating these perspectives allow us to identify the constraints and opportunities that shape the adoption of integrated city-regional development policies.

While our primary goal is to establish a theoretical framework, we anchor our conceptual arguments in empirical evidence drawn from ongoing comparative research on city-regional integration in medium-sized European cities. By blending statistical analysis with case study insights, we aim to deepen our understanding of the geographic, socio-economic, demographic, and institutional factors driving city-regional integration initiatives in planning. This multifaceted approach not only advances our theoretical understanding but also provides practical insights for policymakers grappling with the complexities of spatial planning in fragmented urban landscapes.

Keywords : *spatial planning, city-region, metropolitan governance, soft spaces, multi-level governance*

Shanghai Metropolitan Area: A Comparative Analysis Of The Circular Subdivisions Between Shanghai And New York From The Perspective Of Global City-Region

Zhuoxin Li (Tongji University)

As the development of globalization and regionalization enters a new stage, the city has become the main body of resources integration and the basic unit of driving both development and competition, with its spatial form transforming from a single city to an urban region. In 2017, the "Shanghai Master Plan 2017-2035" formally put forward the brand-new objective of building Shanghai into an "excellent global city", meanwhile calling for carrying important national strategies and requirements through metropolitan areas from a regional perspective. Five years from then, the "Spatial Collaborative Plan of Greater Shanghai Metropolitan Area" was officially released to the public. Echoing the master plan, the spatial collaborative plan set its goal as building an "excellent global city region", which will implement China's new dual-circulation development pattern and the national strategy for the integrated regional development of the Yangtze River Delta.

Throughout all the major global cities, as early as the 1920s, New York had become the most urbanized one and begun to compile regional plans and bring them into force under the guidance of the Regional Plan Association, eventually achieving the status of a leading global city and improving regional quality and competitiveness. Now, a century later, in the aspects of geographical location, regional energy level, urban system and industrial structure, remarkable similarities unexpectedly show between New York and Shanghai, both of which play a leading role in their global city-regions and represent their countries in international competition.

Being guided by the objective of building Shanghai into an excellent global city and an excellent global city-region, and taking into account New York's regional planning experience that has been optimized four times and the significant similarities to the Shanghai metropolitan area, this paper takes Shanghai as the research object and New York as the reference object. By dividing both of the metropolitan areas into four circles, and conducting comparative analysis one by one in terms of leadership ability, resource flow and regional collaboration, this paper examines the potential development issues of the Shanghai metropolitan area by identifying the differences in planning strategies and development levels of each circle between the two, and comes up with targeted suggestions for further optimization of Shanghai metropolitan area from the perspective of global city-region.

Keywords : *Metropolitan area, Circle structure, Global city, Global city-region, Regional coordination*

Unveiling The Culturised Practices Of Regional Planning – The Case Of Stockholm, Sweden

Peter Schmitt (Stockholm University), **Lukas Smas** (Stockholm University)

For many years, research has stressed the potential of regional planning to mediate between different issue- and sectoral-based interests. It is argued that the regional scale is appropriate to pursue horizontal and vertical coordination of differently positioned actors in view of the exploitation of land for housing, transport, industry and agriculture versus protection of biological diversity, cultural heritage and climate change adaptation measures, for instance (Frank and Marsden, 2016). Also, regions may offer a 'good spatial fit' to incorporate a number of socio-economic, environmental and functional issues, since they comprise urban, sub-urban and rural areas and their specific challenges and interrelations. As a result, we can observe a resurgent research interest in regional planning with a specific focus on governance, institutional design and on the strategic and practical relevance of regional planning (Lingua and Balz, 2020), which is (still) firmly institutionalised in the majority of European countries (Smas and Schmitt, 2021). However, in Sweden regional planning has traditionally a weak position compared to planning within municipalities. The scope of action of regional planning is limited in legal terms, but also regarding available resources and political backing. Hence, public agencies working with regional planning need to be innovative in identifying and developing its own specific culturized practice of regional planning. The only Swedish region having a long tradition in practicing "statutory" regional planning is Stockholm, with a first regional plan adopted in 1958 and the latest, the eighth one, is from 2018. Since 2019, Stockholm Region has a more pronounced and extended responsibility for regional development and public transport, which we consider as a critical juncture as it increases the need to coordinate these policy areas with the longstanding tradition of regional planning.

In this paper we seek to unpack the scope and current practices of regional planning in Stockholm by exploring regional planning as culturised practices (Othengrafen and Reimer, 2013). To that end, we view culture as an analytical lens (not as a normative or abstract concept) for investigating planning practices in order to reveal underlying convictions and norms, the role of (in)formal actor-network relations, and prevailing traditions that guide planning decisions. We focus specifically on the internal relations between public agencies and politics, but also on external relations with other stakeholders in order to understand the organisational and institutional structures that public planning professionals shape and are shaped by (Purkarthofer, Humer and Mattila, 2021). Drawing on a qualitative research design, our analysis reveals the extent to which regional planning is able to coordinate and integrate different agendas and interests, despite a comparatively vaguely defined legal context and using solely non-binding instruments. More concretely, we investigate four cases in order to assess to what extent regional planning is able to fulfil its above-mentioned roles and expectations to coordinate different interests, agendas and strategies. Two of the four cases focus on the ongoing densification in designated regional urban nodes (regionala stadskärnor), with the overall objective to make Stockholm region 'more' polycentric. The other two cases shed light on strategic measures to promote so-called rural nodes (landsbygdsnoder) as spatial focal points for guaranteeing a certain level of services of general interest within sparsely populated areas. What these two normative concepts, regional urban cores and rural nodes, have in common is that they follow a soft approach in delineating the targeted spaces. Our results show the durability of hegemonic narratives and how underlying ideologies and taken-for-granted beliefs shape regional planning in Stockholm. However, we also unveil how regional planning is indeed able to pursue specific normative goals despite a limited scope of action with regard to policy tools, resources and political backing.

Post-Pandemic Times And Multi-Crises As Game Changers Of Regional Planning Cultures? Observations From The Urban Region Of Vienna

Alois Humer (Austrian Academy Of Sciences), **Anna Kajosaari** (Austrian Academy Of Sciences), **Martina Schorn** (Austrian Academy Of Sciences)

Urban regions are the functional spaces of a society's everyday life, work, mobility, and leisure. Urban centres and hinterland regions are combined through manifold interactions which constantly cross administrative borders and connect different places. Yet, when the Covid-19 pandemic started in Europe in early 2020, much of the societal life came to a halt due to public restrictions and lock-downs. Advantages and amenities of urban regions turned into the opposite. Dense urban areas lost their advantages of diversity, culture, and internationality. The importance of nearby green spaces increased dramatically and private open spaces like gardens or balconies gained value. These radical new conditions of urban living challenged urban planning practice to reflect and reorientate its foundation, say planning culture (Schorn et al. 2021). Over the recent years of a post-pandemic age, multiple new crises impact on the development of urban regions; until energy crisis and above all climate crisis. All of which call for new solutions for urban housing, transport, and development at large.

This contribution will provide multi-methodological empirical insights into the transformation of an urban-regional society by analysing primary data from a large survey (n~2,000) conducted with Public Participation GIS (cf. Korpilo, Kajosaari et al. 2021) in the urban region of Vienna. Additionally, results of secondary statistics of regional residential mobility as well as media analyses complement the empirical basis. Yet, the empirical basis is only the point of departure to reflect the practices of strategic spatial planning in the urban region of Vienna in the recent past years. To do so, a panel of regional planning experts was confronted with the many analytical results and interviewed in how far their planning practices – which may aggregate to a notion of regional planning culture – have changed in the face of the multi-crises conditions. We know from literature that established planning cultures are reluctant to change but there are certain modes and dynamics that can lead to a lasting planning cultural change (Purkarthofer et al. 2021). This contribution will answer, whether the thesis of a changing planning culture in the face of the Covid-19 pandemic and following crises holds true or if the urban regional effects did not alter the planning practices lastingly.
This contribution is financed by the Austrian Science Fund FWF (P-35066-G).

Keywords : Covid-19 pandemic, crises, functional urban region, strategic planning, planning culture

The Planning System At The Level Of Metropolitan Area In China

Runyi Gao (Tongji University), **Hang Li** (Tongji University)

Metropolitan area planning serves as a crucial tool for fostering competitiveness and sustainable development. As urbanization accelerates in China, the establishment of metropolitan areas has become a fundamental and strategic priority. Since 2019, the central state has presented metropolitan areas as a new specific type of spatial entity to establish a coordinated urban system. The current metropolitan area planning is being intensively formulated, but it also faces various challenges, including the coexistence of multiple planning types, overlapping planning contents, and unclear positioning. Compared with the bottom-up planning system in Western context, China's planning system places a stronger emphasis on top-down government control and direction. Therefore, it is essential to systematically analyze and distinguish the types and content of metropolitan area planning to ensure the feasibility of metropolitan area plans from the perspective of the national planning system. This paper reexamines the relationships among development planning, territory spatial planning, regional and specialized planning, and then we establishes an metropolitan area planning system. Furthermore, combining international experience with the specific conditions of China, this article indicates that metropolitan area planning needs to shift from collaborative governance to a national strategy. This paper also emphasizes the transition from coordination among plans to the standardization of planning types, from rigid transmission to dynamic maintenance.

Keywords : metropolitan areas, development plan, spatial planning, regional planning

Sector And Infrastructure Planning

The Role Of Critical Junctures In Land Readjustment Practices: The Japanese Asset Price Bubble (1986–1991) And The German Reunification Process (1990)

Felipe Francisco De Souza (Technische Universität Darmstadt)

The present research study investigates land readjustment practices within the framework of historical institutionalism and critical junctures. Critical junctures focus on changes and the long-term causal effect or historical legacy of these changes. Land readjustment is a legally binding instrument used to reorganize property ownership and increase public spaces. Organized by the government or implementation agencies, land owners are requested to contribute part of their land in exchange for registration and provision of infrastructure. Landowners are willing to bear the project expenses through land contributions driven by various factors, one of which is the probable rise in their net property value followed by the urbanization process. The research focuses on understanding how critical junctures represent game-changing moments in the history of the legally binding instrument, with a specific comparative focus on projects implemented in Frankfurt–Germany and Nagoya–Japan. Indeed, both localities lead the number of projects carried out successfully in the world, with over 200 completed projects each. The study begins with a literature review on the influence of Lex Adickes and its draft version when land readjustment was adapted and transferred to the Japanese planning system through its 1919 Urban Planning Law. Lex Adickes is the common name of the Prussian law of 1902 concerning land readjustment in Frankfurt am Main. The Japanese 1919 Law, in particular, demonstrated similarities to the 1893 draft of the Lex Adickes, but with notable differences due to the incorporation of Japan's traditions in rice field consolidation and the experiences gained from previous laws and regulations. The research question is "How have land readjustment projects performed over time since the enactment of Lex Adickes (1902 Germany) and the Former City Planning Act (1919 Japan) according to several critical junctures (e.g., new national regulations, economic crisis, natural disasters, world wars, etc.) and related variables?" It employs a multi-dimensional methodology, involving a meticulous examination of archival data, including maps, financial records, and textual records, sourced from prominent institutions such as the Frankfurt Institut für Stadtgeschichte and the Nagoya City Archives and Museum. In terms of critical junctures, the core of the study will focus on the collapse of the Japanese Asset Price Bubble (1986–1991) and the economic recession after the German Reunification Process (1990) as case studies. Both economic downturns were identified as a critical juncture, drastically influencing land readjustment strategies. The research statistical analysis indicated that the economic downturns led to prolonged project durations, increased financial burdens on stakeholders, and a notable shift in the proportional ratio of costs and benefits. However, although economic crises can act as catalysts for redefining urban planning practices, countries did answer to them with different approaches and adaptations to new socio-economic realities. In conclusion, this study underscores the importance of understanding land readjustment not as a static model but as a flexible strategy that evolves in response to changing circumstances, echoing the principles of historical institutionalism in urban development. It contributes to the discourse by emphasizing the need for urban planners to recognize and adapt to game-changing events and trends. The research elucidates the significance of learning from both historical precedents and contemporary challenges, thereby equipping planners with the knowledge and tools to navigate the complexities of urban development in an ever-changing world.

Keywords *: Land Readjustment , Lex Adickes, Selective Borrowing, Critical Junctures, Legally Binding Instrument*

River Basin Management And Urban Development: The Challenges And Coordinated Planning Policies Within The Planning System Of China

Mengyuan Jia (Beijing University Of Civil Engineering And Architecture), **Tian Chen** (Tianjin University), **Haoran Zhang** (China Academy Of Urban Planning And Design)

Integrated river basin management (IRBM) is important to promote sustainable development. In China, the transforming spatial planning system has focused on coordinating the relationships between river basin management and urban development, and the boundaries between river basins and administrative regions. This study presents the results of a research project that examined the emerging relationship between the river basin management policies and the urban spatial planning system in China. Using interpretive policy analysis, this research assesses how river basin management and urban development planning are currently structured in China and identifies the contradictions between river basin management and urban development regarding administrative jurisdiction, planning management system, investigation, and analysis methods. Drawing comparisons with practices in the United States, the Netherlands, Australia, and other nations, this study explores collaborative strategies for integrating river basin management within the Chinese planning system. The discussion encompasses plan-making technical methods, planning contents, and planning management approaches, providing insights into optimizing the spatial planning system for sustainable urban development.

Transit-Oriented Development In Asymmetrical Context: Learning From Cross-Border Paradoxes In The Great Geneva.

Flore Guichot (Epfl)

Transit-oriented Development (TOD) is pictured as a pivotal strategy to accommodate growth while ending car dependency in metropolitan areas (Newman and Kenworthy, 2015). However, prevailing TOD research is often embedded in normative and progressive assumptions, failing to address the complexity of the model's impact in asymmetrical city regions (Qviström et al., 2019). Simultaneously, as traditional borders transform within the EU, borders' unconventional social, political, and economic roles are underscored, including in their intricate relationship with transport networks (Offner, 2008). However, border studies' focus on cross-border integration tends to yield an apolitical interpretation of spatial development strategies, overlooking evidence that strategies promoting functional integration of cross-border spaces do not inherently foster equitable or just outcomes (Gumy et al., 2022).

This contribution challenges these gaps in sustainable development discourse by adopting a critical perspective on public transport infrastructure and urbanization development in asymmetrical contexts. Emerging from asymmetric development and socio-economic relations, cross-border regions are paradigmatic examples of such situations. Therefore, the study delves into the tension between metropolization processes and socio-ecological transition objectives by examining the agency of TOD in the cross-border context of the Great Geneva. The research employs a critical lens through the framework of paradoxes to dismantle normative assumptions in current transition-oriented planning strategies.

The analysis centers on the Great Geneva as the primary case study and develops a comparative approach with other European metropolises as mirror cases. Nestled between Switzerland and France, the Great Geneva Agglomeration has set the ecological transition as the linchpin of its cross-border coordination rooted in cross-border infrastructure and development projects. This territory, marked by the asymmetry across the border in financial and institutional capacities, legal framework, and material, social, and economic conditions, provides valuable insights for understanding how new development projects beyond traditional borders comfort or challenge existing socio-spatial and economic dynamics.

The contribution analyzes the current cross-border planning vision alongside socio-economic dynamics, financing tools, legal frameworks, and policy objectives and highlights four paradoxes—the center-periphery paradoxe, the metropolitan paradoxe, the radio-centric paradoxe, and the rural-urban paradoxe. From the regional scale, for each paradox, we analyze an ongoing conflict surrounding infrastructure and development projects and the logic they opposed at the local level. Finally, the comparative perspective with other city regions highlights these paradoxes' specificity and generalizability and the potential means to address them.

As metropolitan regions strive to reach the objectives of the socio-ecological transition, cross-border regions are critical spaces to disentangle the competing rationals behind development projects. This complexity encapsulates the intricate political nature of infrastructure and urbanization projects in the age of transition (McFarlane and Rutherford, 2008). Moving beyond the discourse on whether green boosterism is at play, it becomes crucial to understand these paradoxes, their origins, and implications to break from the ready-made strategies and inform future planning strategies able to promote socially equitable and ecologically sustainable development across asymmetrical city regions.

***Keywords** : Territorial asymmetry, Cross-border cooperation, Transit-oriented Development, socio-ecological transition*

Coordinated Optimization Of Multi-Level Rail Transit Network And Regional Spatial: International Contextual Differences And The Case Of Shanghai

Yuxiao Ma (College Of Architecture And Urban Planning, Tongji University, Shanghai, China), **Jianzhong Huang** (College Of Architecture And Urban Planning Of Tongji University, Zhejiang Urban Governance Study Center), **Qiao Zhang** (Shanghai Tongji Urban Planning And Design Institute Co., Ltd.), **Jing Deng** (Shanghai Tongji Urban Planning And Design Institute Co., Ltd.)

At present, China's urbanization rate has exceeded 60%. With the spillover of the functions of megacities, administrative boundaries tend to be blurred, and cross-domain governance faces challenges. In this context, the Chinese government regards coordinated regional development as an important national strategy. China's major cities, including Shanghai, view metropolitan areas as essential in planning urban development strategies. As a critical network supporting the development of megacities and regions, the goal of rail transit has shifted from supporting urban development to advancing the integration of regional development.

By learning the experience of other megacities worldwide, such as Tokyo, London and Paris, China's megacities, including Shanghai, have been building multi-level rail transit network systems that serve different travel needs. The different spatial scope of rail system services can be divided into four levels: national high-speed railway, intercity railway, urban railway and metro. However, due to differences in city scale, metropolitan area scale and administrative management scope, there are differences in the concept and service scope of rail transit between Shanghai and foreign cities. In other words, China and foreign countries have different understandings of the four types of rail transit mentioned above. For example, in terms of population and spatial scale, the administrative area of Shanghai is close to that of the Tokyo metropolitan area. In contrast, the Shanghai metropolitan area is larger than the Tokyo metropolitan area. Relevant studies have proven that the functional structure of the Shanghai metropolitan area is not a "center-periphery" commuter circle structure, which is different from other metropolitan areas with concentrated and significant centripetal commuting flows. Therefore, the scale and structure of China's metropolitan areas differ from those abroad. Correspondingly, the construction and operation entities of the rail transit system and the existing problems are also different. Understanding this difference is an essential prerequisite for sharing Chinese solutions.

This study aims to discuss the differences and correspondences between China and other countries in concepts related to rail transit from the aspects of spatial scale, spatial structure, and management entities. Based on conceptual analysis, multi-source data analysis is used to put forward the shortcomings and optimization suggestions of the rail transit system in the Shanghai metropolitan area.

After more than 20 years of construction, Shanghai's rail transit operating mileage and passenger volume have continued to increase, and rail transit has become the public transportation mode chosen by most people. The analysis shows that as available construction space decreases and the goal of rail transit planning shifts from providing services to the central city to supporting regional development, the importance of cross-administrative division cooperation increases. Within the Shanghai metropolitan area, different types of rail transit have different network integrity and operating entities, and the rail transit hub system is chaotic. Overall, multi-level rail transit cannot support the development concept of urban areas. The focus of rail transit network planning should shift from passively serving the current urban functions to considering the development goals of the metropolitan area, supporting regional development through rail transit construction and influencing the future regional spatial structure. The inadequate development of the urban railway network stands out as a prominent issue, influenced by various factors. In addition, combined with spatial objectives, optimization suggestions are put forward for intercity railway, metro and rail transit hub systems. At the same time, it is also crucial to clarify the subjects and methods of cross-administrative cooperation in rail transit networks at different levels.

Keywords : Regional integration, Rail transit network, Metropolitan areas, Cross-cultural comparison, Shanghai

Integrated Planning And Implementation Of Megaproject-Megaregion/Associated Urban Development To Improve (Mutual) Success And Sustainability

Chandrima Mukhopadhyay (Na)

It is hypothesized that the integrated planning and implementation of megaproject-associated urban development or mega-region would improve the decision making in megaprojects by restricting scope, and hence, cost and time overrun, and there will be mutual economic, environmental, social and institutional sustainability. A recent study by John Landis (ed. book published in 2021) argues that megaprojects are 'natural fit' for megacities. In terms of components, with the aim of improving decision-making in megaprojects and improving mutual sustainability, the study will look into physical infrastructure and land use, phasing of mutual development in order to account for investment and return, integration of value of the megaproject and associated urban development (e.g. addressing need of vulnerable groups, addressing climate change), integration of stakeholders (megaproject promoter, developer, real estate delivering urban development, industries etc.), and integration of institutions. There are multiple examples of such cases in varied scale. For instance, economic and industrial corridors in India are a prototype, at a very large scale, expanded over four states or subnational boundaries, while Transit Oriented Developments are also a prototype, at a much smaller scale. The proposed project will look into both planning (involving transport and infrastructure planners, and landuse planners) and implementation (involving construction management professionals) stages.
There are two main freight corridors planned in Indian context: the East freight corridor and the West freight corridor. The implementation of the East freight corridor is complete, while approximately 75% of the West freight corridor is implemented so far. Amongst the economic corridors, the basic infrastructures are implemented on the ground. The townships are going to be planned and implemented by the private sector partners. The study will present preliminary findings from an industrial corridor, where freight corridors form the spine, and an economic corridor, especially focussing on the planning stage, investigating how the megaproject and associated megaregional developments are planned to be successful and sustainable.

Transnational Transport Corporations In Global North - Chinese Transnational State Capitalism In Victoria Australia

Xiao Ma (University Of Melbourne), **Yushu Liang** (Nanjing University)

In the contemporary era, the evolving transport sector is establishing a new transport political economy fuelled by investments from diverse global business sectors that have not traditionally been involved in transport supply. International agencies gradually occupy a dominant role in leading transport transitions. Sitting at the intersection of the rise of China as a global power and China's growing role in global transport infrastructure and service provision, the changes in bilateral relations present a critical social, environmental, and geopolitical challenge for both China and Australia.
Within the complexities, though there is a rising number of scholars' works examining China's major infrastructure provision in the Global South (Liu & Lim, 2023), there exists a substantial deficiency in comprehending these Chinese companies in the Global North which has significantly vary institutional context and attitude towards transnational state capitalism (Babic et al. 2020). Meanwhile, there is considerable research on the rise of anti-China sentiment and the diplomatic confrontation between Australia and China (Gill, 2023), there is a notable scarcity of studies that have explored the impacts of geopolitical dynamics on global urban development (Acuto & Rayner, 2016). Taking the transnational provision of transport infrastructure and services as an entry point, this paper answers the question of how these Chinese transnational companies are negotiating across international tensions and local planning systems to deliver transport infrastructure and service in Australian cities in uncertain geopolitical climates. Through policy analysis, and institutional analysis of the 10 semi-structured interviews, we have identified the three institutional layers of transnational state capitalism obstacles in Global North (i.e., formal institutional layer, institutional agency layer and informal institutional layer) and the two transnational corporations' navigating strategy features of political-culture oriented practice and the transnational adaptation prioritised practice.

Specifically, we found that Chinese state-owned and private corporations faced slightly different geopolitical and regulatory challenges but similar local cultural, social and reputational challenges in the host city. The geopolitical tensions between Australia and China hindered the continuous development of transnational transport corporations' operations. There were more frequent enquiries from both State and Federal Governments on Chinese corporations. Simultaneously, the private companies met stricter home country supervision. Regarding the informal institutional layer, the common issue was a mismatch of knowledge and understanding of transport development between Chinese companies and the Australian planning sector. On top of that, the distrust from both local policymakers and the local community sides was an insurmountable obstacle for them.

The unfavourable geopolitical context that was created by the national policymakers from both the home country and the host country couldn't be changed by the transnational agencies, but they were strategically navigating through the difficulties and holding a long-term view waiting for the switch of bilateral relation trend. Their transnational operation was not only an economic business but also aimed to accumulate political and symbolic capital internationally. Both state-owned and private corporations highly value continuous adjustment and technological innovation as the key strategy in the host city so as to pursue acceptance and recognition from both the top and bottom sides of the Global North host context.

Track 05: Mobility

MOBILITY - Planning and change in urban mobility

Chairs:

- Benjamin Buettner, Technical University of Munich

- Patricia Lejoux, CNRS, ENTPE, Université Lyon 2

- Enrica Papa, University of Westminster, London

- Dakota McCarty, Incheon National University, South Korea

Keywords: changes, transport modes, mobility policies, urban models, actors, South, gender, critical studies

Our societies are currently undergoing a series of transitions: ecological, energetic and digital. This context calls for changes in mobility behaviours as well as in transport and urban planning policies. The aim of this track is to question these changes. What changes have already occurred? What changes are coming? This track welcomes contributions on ways of conceptualising, theorising, and empirically examining these changes in different geographical contexts.

Topics to be addressed include, for example:

- Changes in transport modes: what changes in car ownership and use (young people's relationship with cars, peak-car, post-car world, the future of electrification and autonomous vehicles, etc.)? Has the cycling revolution happened (where, how, for whom, etc.)? Will the pedestrian revolution happen (where, how, for whom, etc.)? What is the future of shared mobility?

- Changes in transport and urban planning policies: in recent years, new urban models have been proposed to promote sustainable mobility (Superblocks, the low traffic neighbourhood, 15-minute city, Car-free city, tactical urbanism, etc.). What did that change? What are their limits?

- Changes in mobility policies' design and implementation: new players have emerged in the mobility sector (Uber, Lime, etc.). What changes did they introduce to sustainable mobility management? Are sustainable mobility policies still designed, produced and managed in a top-down fashion? What role for bottom-up actors (diverse social actors, groups and movements) play in shaping sustainable mobility policies?

- Changes in theoretical and methodological approaches: new theoretical approaches have been developed, namely gender studies, global south studies, postcolonial studies, etc. What does it change when we study sustainable

mobility from a gender perspective? From a Southern perspective? What are the benefits and limitations of critical transport studies? What new methodological approaches are implemented to study mobilities?

Car-Free And Post-Car Cities

How To Build A Car-Free Community? For Whom? And What To Expect?

Hue-Tam Jamme (Arizona State University), **Deborah Salon** , **Nicole Corcoran** , **Rababe Saadaoui**

The automobile is a technological invention that revolutionized the way people move, work, shop, and relate to each other. Private car ownership and mass adoption of the car-centric lifestyle, starting in Europe and North America and then expanding to the rest of the world, have led to the most inequitable and unsustainable urban forms, economies, and societies. Reversing these trends is a tremendous challenge. Despite its social, economic, and environmental costs, the private automobile continues to attract people because of its comfort, convenience, and status symbol. Yet, shifting away from automobile dependence is necessary for societies to achieve urban sustainability and livability.

This paper is centered on an in-depth case study of a social experiment called Culdesac Tempe, that is, the first intentionally car-free neighborhood in the United States. Note "car-free" refers here to a way of life that is free of car ownership and private car use. In no way does it designate people or places that are deprived of all car use. Located in one of the most sprawled and car-centric metropolitan areas in the country, that of Phoenix, AZ, Culdesac Tempe proposes a groundbreaking design model for its context, as it includes zero private vehicular parking for residents. The neighborhood is currently under development. Upon completion, by 2025, it should provide housing to approximately 800 residents (renters only).

What are the social determinants of interest in living at Culdesac Tempe? How do these factors relate to anticipated challenges and benefits when living at Culdesac Tempe? And what can we infer from the Culdesac Tempe case about interest in car-free living across urban and suburban contexts throughout the United States?

To address these questions, we assembled a rich dataset including a national survey (N=2,155) and a mix of qualitative and quantitative data collected through research activities with prospective Culdesac residents – interviews, focus groups, seven-day travel diaries and another survey (N=88). We estimated the factors associated with interest in car-free living within a binary logistic regression framework. We drew on content analyses of interview and focus group data to identify individual motivations for adopting a car-free lifestyle and advance a theoretical framework about the relationships between anticipated challenges and benefits when living at Culdesac.

The findings show that people of widely diverse backgrounds are interested in living car-free. The demographic composition of prospective Culdesac residents is nearly similar to that of the broader metropolitan area; and most sociodemographic characteristics are insignificant in the national statistical model. We found surprisingly strong interest in car-free living among US urban and suburban adults: 19% said they are interested in living car-free, while another 41% said maybe one day. Our statistical analysis shows that interest in car-free living is largely dependent on how often the respondent drives now, as well as if they had experiences living car-free in the past. Finally, participants expected important trade-offs between transportation challenges and sociability benefits.

We conclude that due to the diversity of those interested in car-free living, and the positive influence of exposure to car-free living and car-free infrastructure on interest, US urban planners and designers should continue to make significant efforts to meet large and untapped demand for car independent living. Further research is needed to measure the effects of the Culdesac experiment on sustainable urban mobility, livability, and social connectedness.

***Keywords** : mobility, car dependency, mixed-methods research design, case study*

An Alternative Explanation To The Persistence Of The Automobility Paradigm: The Role Of Policy Calibrations In Shaping Policy Change.

Thu Pham (Aalto University)

The persistence of the automobility paradigm is among the top concerns in the discussion on transitioning to sustainable transport. Many studies have identified policy instruments needed to facilitate this transition. However not much is understood about the role of micro-level changes in policy calibrations in shaping instrument preferences during implementation and the pattern of policy change. To contribute to this research gap, this paper examines a case study of transport policies development for sustainable mobility transition in the city of Espoo, Finland. The period from 2013-2023 is selected to study temporal policy change as 2013 marks the city's starting point of sustainable development work and these ten years have seen positive developments in Espoo's transport policies to reduce traffic emissions. Espoo presents an interesting case study as the city set out ambitious traffic emission reduction goal, aspiring to be a model example as Europe's most sustainable city, but retains its appreciations for car uses as a significant part of its future transport network. As such, Espoo's case study would provide us with insightful findings to enrich our understanding on barriers to a paradigmatic change to sustainable mobility.

The paper begins with a review of the literature on the taxonomy of policy components to explain the significance of policy calibrations in shaping policy change. It then discusses key ideas comprising the sustainable mobility paradigm and assesses how these ideas are translated into different policy components over time in the case study. By illustrating how policy changes are concentrated in instrument calibrations, the paper seeks to demonstrates the role of policy calibrations in reinforcing existing direction of change and acting as barriers to a more radical paradigmatic policy change to reduce car traffic volumes.

Keywords *: policy paradigm, policy calibration, policy change, sustainable mobility*

Accessibility Of Local Amenities To Reduce Car Dependency: Obsolete Concept Or Change Yet To Come? The Prague Case.

Jan Bittner (Czech Technical University In Prague)

The sudden transition from central planning to a free market in Eastern Bloc countries caused uncoordinated and deregulated growth followed by sheer car ownership. Extensive suburban areas heavily dependent on cars exploded around larger cities (Stanilov and Sýkora 2014). Nowadays, ongoing climate changes, technological revolution, and planned energetic transition bring entirely new challenges to urban transport planning (Shakibamanesh et al. 2020). Such challenges also draw attention to the question of car dependency in the Czech planning practice. In response, Czech local plans started working with various planning practices to reduce car dependency in suburban areas. One of the most widespread practices constitutes retrofitting of local amenities in suburban residential areas. Since such practice is part of various well-established global urban concepts (New Urbanism, low-traffic neighbourhoods, TOD, 15-minute city, etc.), the relationship between amenities and transport has been well-researched for decades in the USA and Western Europe (Ewing and Cervero 2010; Næss 2022). Thus, solid evidence in various backgrounds supports Western urban transport planning, whereas Czech planning remains to hover "in the dark" without empirical findings concerning specific central European contexts.

This paper aims to present a novel interdisciplinary framework investigating the phenomenon of urban transport based on behavioural aspects of mobility interaction with the built environment in the Czech-specific context. The central research question lies in testing the influence of the accessibility of local amenities on car dependency within the suburbs of Prague. The work utilises an activity-based modelling technique (Ortúzar and Willumsen 2011; Kagho et al. 2020) to quantify individual travel behaviour using geolocated travel diaries. The method is based on regression modelling where total car PMT (person miles travelled) constitute the dependent variable, local amenities accessibility independent variables, and personal socio-economic background plus built environment characteristics control variables (Stoker et al. 2015). Local amenities (independent variables) are considered as kindergarten, primary school, corner shop, GP and dentist, library, community centre, and outdoor/indoor sports ground. The regression outcomes are put into the context of contemporary planning practice in selected case studies.

The work brings much-needed empirical evidence for the assessment of the current Czech planning practice course in times of rapid changes.

Keywords *: car dependency, travel behavior, amenities accessibility, suburbs, Prague*

Urban Planning Impacts In Perceived Accessibility Of Public Transport

Michelangelo Fusi (Università Degli Studi Di Brescia), **Michela Tiboni** (Università Degli Studi Di Brescia)

Integrating urban and transport planning is strongly supported by the literature as the basis for sustainable city planning (Bertolini, le Clercq and Kapoen, 2005). An approach that can be manifest in various ways, from transit-oriented development (TOD) to community involvement in traffic calming measures. A theme shared by both technic disciplines is the transit stop. In the urban planning field, positioning and designing a stop involve aspects such as land uses and settlement structures. In the transportation field, the stop is considered an essential element as it constitutes the interface between the transit service and the users. Consequently, a fully accessible stop makes the service more attractive and usable, resulting in more efficiency. Therefore, it is evident that public transport's accessibility is connected to the intention to use public transport, suggesting that stop accessibility is a key element for a successful transport system.

The term "accessibility" may encompass various interpretations. A potential definition sees it as "the extent to which land use and transportation systems allow activities or destinations to be reached through combinations of transportation modes" (Geurs and Ritsema Van Eck, 2001). This sentence, which recalls the interaction models between accessibility and land use and between land use and mobility, emphasizes mobility. A definition that instead distinguishes accessibility from mobility sees the former as the measure of interaction potential as a function of spatial impedance factors, and the latter as the ability to move or to be moved. In other words, accessibility refers to the potential for mobility, the ease of reaching a destination (Litman, 2011).

Within this framework, public transport can have a fundamental role in ensuring socially and environmentally sustainable accessibility: accessibility to public transport itself therefore acquires a vital importance in the design and evaluation of transport systems (Saif, Zefreh and Torok, 2018). It can be interpreted as access to the public transport system itself, or as access to the destination reached by the systems, or both, and is usually assessed considering objective and measurable factors such as travel times and distance. This approach has the limitation of not capturing the real accessibility perceived by users by not grasping how individuals actually evaluate accessibility (Lättman, Friman and Ollson, 2016). Since aggregate behaviours reflect the individual dimension, an accessibility-oriented approach to sustainable transport systems must consider perception as a fundamental determinant.

Given the importance of accessibility perceived by users and given the role that the stop has in public transport systems, the article proposes to scope the topic by identifying and classifying the factors that, in literature, influence the perception of accessibility to stops, with particular attention to the elements that affect the domain of urban planning. The research aim is to understand how urban design choices can guide the perceived accessibility to public transport, identifying possible new ways of dialogue between urban and transport planning disciplines.

Keywords : Urban Planning, Perceived accessibility, Public Transport, Public Transport Stop

Models, Experiments, And Intra-Metropolitan Difference: Emerging Geographies And Practices Of Infrastructural Reconfiguration For Cycling In Mexico City And Toronto

Thomas van Laake (University Of Manchester)

After decades of marginalization in transportation policy and infrastructure design, a growing consensus on urban cycling as a central element of transitions to sustainable mobility systems has informed efforts by city governments to improve conditions and stimulate modal shift. Nonetheless, and despite widespread reference to 'model' cycling cities, processes of infrastructural reconfiguration for cycling have proven complex and contested. In seeking to overcome institutional inertia, the obdurate material legacies of car-centric transport planning, and entrenched social and political resistance to change, researchers and policymakers alike have increasingly turned to 'experimentation' as a heuristic and method for urban intervention (Bertolini, 2020).

In juxtaposing the increasingly global range of cases of cycling infrastructure implementation with the burgeoning literature experimentation and transition in urban mobility policies and street design practices, a critical tension between the development of new practices and the replication of best practices becomes apparent. On the one hand, the implementation and extension of cycling infrastructures often involves experimentation with novel design practices and policy mechanisms (Hahn & te Brömmelstroet, 2021; Sosa López, 2021). On the other hand, the scaling up of interventions demands a certain degree of standardisation and replicability if cycling policies and infrastructures are to remain coherent, compatible, and continuous (Hess, 2009; Lagendijk & Ploegmakers, 2022).

Seeking to ground critical discussion of experimentation and standardization in empirical study of cases of mobility transition, this paper analyzes Mexico City and Toronto's processes of infrastructural reconfiguration for cycling. The discussion is presented in three empirical vignettes: (1) the adoption and subsequent institutionalization of a cycling infrastructure policy; (2) the development and scaling of feasible and effective design models and implementation mechanisms; and (3) the extension of infrastructural reconfiguration across urban difference and jurisdictional boundaries.

In examining how cycling interventions are being extended and adapted across the heterogeneous infrastructural and urban contexts of Mexico City and Toronto, this paper aims to contribute to discussions of experimentation in street design and mobility transitions, as well as to broader literatures on urban transitions, policy mobilities, and sustainable mobility infrastructures.

High-Speed and Mass Transport

Layout Patterns And Crowd Flows Of Commercial Space In High-Speed-Rail Station Complexes: Take Three Chinese High-Speed-Rail Station Complexes As Examples

Yunjing Wang (College Of Architecture And Urban Planning, Tongji University), **Yu Zhuang** (College Of Architecture And Urban Planning, Tongji University)

The commercial space in the high-speed railway station area is a key factor in stimulating the vitality of the crowd in the station area, and the station complex can maximally convert the transport value of the station area into comprehensive functional value. In the era of ordinary railways, the high-speed railway station was only regarded as a passenger transport hub. The commercial space was only used as a supporting facility to serve the transport interchange activities, which failed to attract the crowd to stay for long. Still, with the gradual increase in the proportion of short-distance and commuter passengers, however, as the proportion of short-distance and commuter passengers grows gradually, the commercial space in station complexes that have appeared in recent years has also failed to take into account the needs of both passengers and citizens. In this paper, based on the block layout relationship between commercial space, station access space, and urban transport space, we construct a "node-path" network of commercial space entrances and exits with high-speed rail station entrances and exits as well as urban traffic entrances and exits, analyse the correspondence between the commercial space layout pattern of the station complexes and the flow of crowds, and explore how different commercial space layout patterns influence the flow of crowds. It also discusses how different commercial space layout patterns affect the behavioural activities of the crowd. Finally, it concludes that: 1. Appropriately narrowing the distance between the commercial space and the station space of small and medium-sized passenger stations, especially placing underground space between the two, can stimulate the consumption potential of transport-oriented passengers who transfer to the underground. 2. The entrance and exit settings of the commercial space and the distribution of the flow of people are affected by the layout of the commercial space. 3. The commercial space entrances and exits related to the movement lines of underground passengers are also affected by the layout of commercial space blocks. 4. The entrances and exits of commercial spaces related to the moving lines usually have higher pedestrian flow. This study can provide new perspectives and methods for analysing the layout patterns of commercial space in station areas and offer design suggestions for improving the use of commercial space in station complexes.

Keywords : Station-city Integration, Station Complex, Commercial Space, Crowd Flow, Layout Design

Decisions And Interactions In The Land Development Of China's High-Speed-Rail New Towns: A Multiple-Case Study Using Discourse Analysis

XUELI LIU (Tongji University), **Mi Diao** (Tongji University)

China has built the most extensive high-speed rail (HSR) network in the world over the past decades. To leverage the accessibility benefits of HSR, numerous HSR new towns have been initiated around newly constructed HSR stations. The primary objective of HSR new town is to facilitate economic growth and contribute to the ongoing urbanisation. Notably, only 32% of HSR stations are located in existing urban agglomerations (Loo and Huang, 2023), highlighting the critical role played by the land development patterns of HSR new towns in shaping China's urban landscape.

Although previous studies have studied certain facets of HSR new towns, such as station location settings(Loo and Huang, 2023), land coverage changes(Xiao et al., 2024), and the potential transformation of some HSR new towns into ghost cities(Dong et al., 2021), a comprehensive understanding of the decision- making process and the underlying mechanisms remains unclear. Moreover, most existing studies heavily rely on quantitative statistical modelling, often overlooking the nuanced insights provided by qualitative data including words and discourses. Elements such as interviews, meetings, political talks, published policies, newspapers and so forth play an integral role in the interactions among participants involved in urban development. Despite their potential significance, the utilization of such qualitative data in the land development processes of HSR new towns in China has been largely limited.

To fill this gap, this study examines the decision-making processes and interactions shaping HSR new town development in China through a multiple case study utilizing discourse analysis. We concentrate on three key aspects: the interactions between stakeholders in station locationing, the powers in planning formulation and implementation, and other governmental promoting actors. By exploring these dimensions, we aim to contribute valuable insights into the intricate processes driving the development of HSR new towns and their broader implications for China's urbanization trajectory.

We adopt Fairclough's Three-Dimensional Framework for Analyzing Discourse (Fairclough, 1992). Based on published policies, newspapers, printed plannings, interviews, and other materials collected from field trips, we unfold through three sequential lenses, including describing the characteristics of textual data, interpreting the dynamics of decision-making interactions, and explaining the underlying mechanisms.

We find four noteworthy insights. Firstly, when multiple location options exist for an HSR station, a negotiation process often ensues among stakeholders. The final decision on locationing emerges as an outcome of intricate negotiations involving various interest groups, as well as a compromise between engineering principles and political considerations. Secondly, there is evidence of a 'local growth machine' in host cities, which clearly define the development goal of the HSR station area as HSR new town. This coalition comprises government officials, local developers and media while excluding ordinary citizens and external developers. Thirdly, the planning system, including strategic planning as a macro policy guide, city planning as the localized manifestation of strategic planning, and planning implementation, assumes a 'lubricating' role in the land development in HSR new towns. It imparts legitimacy to the local growth machine, enabling its operation to be more stable. Moreover, a group of organisations bearing names associated with HSR play a 'catalytic' role in the development, facilitating the accelerated functioning of the local growth machine. Those include the Management Committee of the HSR New Town, Railway Office, Command Headquarters for HSR New Town Construction, Joint Meeting System for HSR Construction, HSR Industry Guide Fund, etc.

This study shed new light on the significance of considering the local context in the land development of HSR new towns, offering a complementary perspective to literature based on quantitative modelling. The findings can provide useful insights for future sustainable urbanisation around HSR stations in China and the globe.

Keywords *: Land development Mechanism, decision making and interactions, High-speed-rail new town in China*

Massifying Metropolitan Modal Shift To Trains: Challenges Of The Serm Projects In France

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France is finally going for it: the SERM (express regional and metropolitan services) are to be launched and radically improve mobility possibilities around at least ten French metropolises outside of Paris. By providing a frequent, simple train service with an extended time-range, public authorities want to provoke a massive modal shift to trains, with the overarching goal of reducing the environmental impact of mobility.

This change comes with its range of challenges: how to prepare small and deserted stations for a massive ridership increase, how to deal with intensifying flows in already crowded central stations? how to maximise the impact of modal shift, without causing induced automobile traffic? how to dimension amenities and services to enable a radical change in mobility chains? how to avoid reinforcing urban sprawl?

In this presentation, we will mobilise our experience of working with these projects, using both research and consulting tools. Working on the Bordeaux, Toulouse and Rouen metropolises projects, we developed several methods to collect precise existing data, assess the needs of the current and future stations, co-construct the park-and-ride amenities... Our approach aims to optimise the carbon reduction impact of the SERM projects, using mobility models, territorial analysis and a global environmental perspective.

We will show that the modal shift challenges are still largely open – still, our regional-scale methods may help to optimise this opportunity for a radical change in the French metropolitan mobility system.

Keywords *: regional mobility, integrated mobility and spatial planning, metropolitan regions, France, rail transit*

Mobility Policy In A Vacuum: The Failure Of Australian Planning Practice To Capture The Sustainability Benefits Of Emerging Transport Technologies.

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Private sector players are bringing new forms of transport mobility to cities (Stone et al, 2018) in the form of micro-mobility, mobility as a service, connected automated vehicles and electric vehicles. Taken together, those new mobilities possess the potential to reduce automobility (Urry, 2004) where they play a part in the public transport mix. However, research (Legacy et al, 2019) has noted that transport planners are being required to adapt to the technology instead of shaping the technology to serve sustainable outcomes. This paper investigates the experience of three Australian cities, (Perth, Melbourne and Sydney), to examine the extent to which transport planners facilitate these emerging transport technologies to positive advantage, including their alignment with long-standing policy imperatives of sustainable transport. The research draws on an analysis of transport strategies and interviews with players involved in transport planning in these cities.

We found that these new mobility modes are being implemented in a policy vacuum which means there is little support for adapting new technologies in ways that challenge the dominant paradigm of automobility. In order to better equip planners to manage these new modes in ways that support sustainability and transport justice agendas our work shows that three key issues must be addressed: skills; relationships; and planning processes.

Regarding skills, transport planners recognise current limits to their expertise since new transport technologies increase the range of knowledge, including the lived experience of users and in relation to place. Engaging with diverse knowledge sets has become an essential element of a transport planner's daily work. Planners must enhance their 'soft' skills so as to identify the right timing to promote new technologies, conduct strategic conversations, and facilitate innovation across institutional players.

Regarding relationships between players, the multiple agencies involved in technology transitions has increased agency fragmentation. As a result, planners must bring clarity to the role and power of different agencies while simultaneously enhancing effective collaboration between agencies. New procedures, routines, and cultures of collaboration are required to manage new digital technologies. Within this complexity, political leadership must be strengthened to ensure the appropriate expertise and understanding of the responsibilities of players as well as to manage practices across institutional boundaries.

Regarding planning processes, new ideas are currently filtered through planning processes that reinforce automobility. Innovative planning instruments are needed to steer the implementation of new technologies to create and empower organisations to pursue sustainability objectives. Experimentation with small-scale trials before a wider roll-out is one way in which these new planning process can be developed.

The paper calls for recognition of the power of new mobility technologies that not only can enable existing transport systems but also has the power to reshape the transport landscape either positively or negatively.

Keywords : Transport policy, New Mobility Modes, Transport Governance

Linear Infrastructures And Rural Spaces.pressures, Impacts, And A No-Remedial Design Approaches

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Nowadays, transportation infrastructures (roads and railways) play a significant role in national economic development. Still, it is also one of the sectors that stress the socio-ecological systems of periurban and rural areas at the local scale. The design principles of major linear infrastructures often do not consider the impacts on ecosystems and social networks, and they prioritize the speed and economy of implementation, the efficiency in managing supra-local flows, and the activation of investment opportunities. In addition, their presence is a driver for new investments and urbanization, and low-density spaces become new operational landscapes (Brenner, 2016 and 2020), perpetrating an extractive approach that exacerbates the gaps between "urban" and "rural". Those tensions produce a variety of resistances and answers by the public administrations and the local community because often infrastructures do not delve into the role of the landscape as a value system and their role as a socio-technical driver for innovation and development. The territory merely became a space for 'landing' rather than an opportunity for interaction. In other words, there is currently no recognized model of integrated and holistic governance that leverages infrastructure planning for mobility as an opportunity for the sustainable development of territorial systems. There is a need for a cultural leap toward new ways of understanding the relationship between the form of settlements and the geology of nature. Steinberg's ability to reconstruct the ecological history of urban evolution suggests the opportunity to return to representing territories through readings and descriptions. These descriptions emphasize the relationships between physical, geological, and social geographies with territorial systems. It will be a question of understanding the existing values and the historical relationships to support infrastructural projects oriented to local, endogenous a durable development.

Therefore, in infrastructural projects the landscape quality and the opportunities to become a driver for endogenous growth and sustainable development depend on the capacity of administrators, civil servants, practitioners, and activists to understand the real conditions of the design contexts, exceeding stereotyped readings, and cliches and their ability to set up new territorial representation able to support their action. Current practices are often based on standardized, sectoral approaches and/or administrative dimensions, simplifying the existing territorial relationships and proposing solutions based on delocalized "formulas", are ineffective and unsustainable in the medium-long term (Paris and Dezio, 2024).

SEW Line is a recently launched PRIN research aiming to integrate biodiversity, ecosystem services, and natural capital into mobility infrastructure investments through a replicable, cross-scale holistic co-design model. The aim of the proposal, which develops a composite and highly interdisciplinary methodology, is to advance knowledge in the planning and design processes of mobility infrastructure in peri-urban and rural landscapes.

In our paper, we present the first stage of the research, based on geographical readings of the context of case studies developed by the team. This phase is an opportunity for the enhancement of endogenous resources with a view to a sustainable strengthening of the economic and social system of the territory to exceed the deterritorialization process. The approach adopted is co-evolutionary, which reads the dynamics between environmental and social systems. This co-evolutionary perspective leads to a review of entrepreneurial choices, market dynamics, interactions with the production structure, the economic system as a whole, and the processes of use of natural resources, intersected with the geomorphological, physical, and climatic dynamics, as a matrix for the structuring of the landscape

Changing the initial point of view, we suggested that the geographical descriptions became the basis for projects in which new and more articulated activities linked to contemporary forms of living, moving, consuming, and inhabiting the space will provide opportunities for endogenous development.

Cycling And Micromobility

Deciphering The Scaling Laws And Spatial Structure In Urban Micro-Mobility: Empirical Evidence From Bike-Sharing In Shanghai

Kaichen Zhou (College Of Architecture And Urban Planning, Tongji University)

Micro-mobility, epitomized by bicycles and other lightweight, low-speed vehicles, plays a pivotal role in enhancing urban mobility and offers a sustainable alternative to conventional transportation modes. A comprehensive understanding of such mobility and its spatial underpinnings is crucial for delving deeper into urban phenomena. Existing research on urban mobility has revealed a striking finding: the existence of scaling laws in urban mobility. While established studies have focused on the general displacement of urban mobility, the analysis of mobility for specific travel modes has not been thoroughly explored. Thus, this study focuses on exploring scaling laws and potential spatial mechanisms in micro-mobility. In this paper, we use bike-sharing datasets from Shanghai's central city to extract cycling trajectories and empirically analyze the universal laws in cycling movemenmt. We find that the relationship between cycling visitations and cycling distance as well as frequency at any location conforms to a power-law distribution. This pattern is mirrored in the relationship between cycling visitations and certain built environment attributes, such as street density and land use mix. Furthermore, spatial clustering analysis has brought to light spatial clusters associated with cycling visitations, exhibiting size distributions that align with Zipf's law, which revealing a complex and ordered spatial structure behind cycling visitations. These insights not only shed light on the potential feedback mechanisms between the self-organization of urban spatial structure and micro-mobility but also underscore the profound impact of micro-mobility on the dynamics in spatial structure. Our study significantly advances the theoretical discourse on the interplay between urban space and human mobility, highlighting the imperative to integrate the scaling laws of micro-mobility and spatial structure into land use and transportation planning.

***Keywords** : Micro-mobility, bike-sharing, scaling laws, spatial clusters, Zip's law*

Active Mobility User Experience: A Framework For A Better Understanding

Mahtab BaghaiePoor (Technical University Of Munich)

Problem Statement:
Contemporary urban challenges such as health issues, air pollution, climate change, and space scarcity (Pogačar and Šenk, 2021; Mela and Girardi, 2022) necessitate a shift in the future of urban mobility towards active modes of transport. However, despite the evident benefits, many cities worldwide remain entrenched in a car-oriented mobility culture (Koszowski et al., 2019). To dive deeper into the constraints of increasing active modes' share in cities, this research focuses on the human-environment interactions in walking and cycling. In this regard, we want to develop a better understanding of what constitutes the daily walking/cycling user experience and how should we study that as a fundamental strategy to promote a shift in daily mode choice decisions towards active mobility. Studying the details of human-environment interactions lies in the necessity of capturing user experience in mobility (Müller and Meyer, 2019). User experience (UX) encapsulates the multifaceted dimensions of an individual's interaction with the urban environment during their daily commute. It goes beyond the physical act of movement, encompassing emotions, perceptions, and the overall quality of the journey. By delving into user experiences, planners gain insights into the factors that either encourage or discourage the adoption of active modes, providing a foundation for evidence-based decision-making.

To conceptualize user experience within the field of mobility, with a focus on UX for active modes, this study explores existing literature on walking and cycling user experiences systematically, revealing an absence of a comprehensive framework to apprehend and analyze the multifaceted elements shaping the UX of active mobility. In response to this gap, this research introduces a novel framework tailored to study the UX of active mobility modes. The framework is structured around three interconnected dimensions: the built environment, the natural environment, and subjective characteristics.

Methodology:
The methodology used in this research is a systematic literature review. The review process involved searching for relevant literature in various databases, including Google Scholar, Scopus, and Web of Science. The search was conducted using keywords such as "active mobility", "walking", "cycling", "user experience", and "framework". The inclusion criteria for the literature were that it should be published in English, peer-reviewed, and relevant to the topic of active mobility user experience.

Results:
The results of the literature review led to the introduction of a framework to study user experience in active modes. The framework contains three main components: built environment, natural environment, and subjective characteristics. We believe this framework is concise, comprehensive and applicable to various contexts and enables researchers as well as practitioners to investigate and enhance the daily experience of pedestrians and cyclists.

The built environment component of the framework is essential because it provides the physical infrastructure for active mobility. The quality of the built environment can significantly affect the user experience of active modes. For example, poorly maintained sidewalks or bike lanes can make it difficult and unsafe for users to travel. On the other hand, well-maintained infrastructure can make active modes more accessible and enjoyable for users. The natural environment component includes the natural surroundings, such as parks and green spaces and weather conditions. These elements can play a significant role in improving the activity's pleasure and comfort.

Lastly, The subjective characteristics component includes the psychological and emotional aspects of the user experience, such as attitudes, perceptions, and emotions. For example, if user is in a bad mood, or have negative memories of certain walking/cycling situations, this can possibly affect their mode choice at the moment. On the other hand, if user perceives active modes as enjoyable and beneficial, they may opt for active modes as a mediating activity.

Keywords *: Active Mobility, User Experience, Theoretical Framework*

Mobility As A Service, Or A Sacrifice? Governance And Competition Between Public Transport And Micromobility

Olivier Roy-Baillargeon (Polytechnique Montréal), **Fanny Tremblay-Racicot** (École Nationale D'administration Publique (Énap)), **Antoine Legrain** (Polytechnique Montréal)

The governance schemes that govern interactions between public transport and micromobility stakeholders are critical variables in the successful implementation of mobility-as-a-service (MaaS) systems. Like the dynamics of regional governance, planning, and development, MaaS is the theater of the superposition of a multitude of often divergent, even contradictory interests (Alyavina, Nikitas and Njoya 2022; Polydoropoulou, Pagoni and Tsirimpa 2020; Pritchard 2022) of:

local and regional governments (e.g., reducing congestion, mitigating greenhouse gas emissions);

transit agencies (e.g., increasing ridership, transferring trips from the private car or active mobility to public transport); and

private stakeholders in carsharing and micromobility (e.g., increasing market shares, attracting and retaining new customers, offering reliable and easy-to-access options for the first and last "mile" of trips).

Since their goals are often incompatible, these stakeholders from the public, private or nonprofit sectors often perceive one another more as competitors than as partners (Butler, Yigitcanlar and Paz 2021; Lyons, Hammond and McKay 2019). In this respect, the institutional design of governing bodies constitutes a determining factor in achieving regional socio-ecological transition targets.

Which institutional designs and governance mechanisms allow MaaS initiatives to be successfully implemented, overcoming these obstacles?

To answer this question, we have reviewed the literature on the challenges and conditions for success in the implementation of MaaS systems, analyzed case studies of MaaS initiatives in North America and Western Europe, and conducted semi-structured interviews with informants who have or who are still participating in the implementation of such systems.

This research reveals two preliminary findings regarding the trade-offs to be negotiated to form strong alliances and offer MaaS systems which concretely alter the carbon footprint and the travel patterns of communities.

Firstly, the three types of governance models (private, like Whim in Helsinki, Finland; hybrid, like Moovizy 2, in Saint-Étienne, France; and public, like Move PGH, in Pittsburgh (PA), USA) face the same challenges, such as the inability to attract varied clienteles in terms of their age, level of education, family structure and mobility habits. MaaS systems are used much less than expected by the stakeholders they bring together. They mainly manage to retain the loyalty of young, urban, highly educated professionals from the service sector without children, and already regular users of transit systems and micromobility services.

Secondly, the quality and extensiveness of public transit service seems to be a double-edged sword that entails a delicate balancing act (Qiao, Huang and Yeh 2022). Indeed, although spatial and temporal coverage and connectivity in public transport is an essential prerequisite for the deployment of a true MaaS system, other mobility services will be difficult to establish where public transport is almost hegemonic, as well as in cities and regions where its services are embryonic.

These preliminary findings allow us to identify some keys to success in terms of governance, so that MaaS systems can concretely contribute to reducing automobile dependence, greenhouse gas emissions and socio-spatial inequities in accessibility. Thus, a robust and extensive multimodal service seems to be a necessary but not sufficient condition. Likewise, a public governance system supported by proactive regional authorities seems to facilitate consultation, under three conditions:

alleviating the reluctance of transit agencies, often fearful of sacrificing their ridership and, consequently, their revenue;

tightly regulating private carsharing and micromobility actors, so that their services contribute to improving multimodal accessibility without cannibalizing public transport; and

implementing financial and regulatory measures to incentivize MaaS system usage and disincentivize driving alone.

How can we make such systems real tools for socio-ecological transition? What roles are emerging for national governments in achieving such objectives? This communication will open the discussion on these ever more pressing issues.

Keywords : Mobility as a service (MaaS), governance, public transport, micromobility

Equitable Cycling Network: A Mixed-Methods Analysis Of European Plans

Isabel Cunha (Entpe - University Of Lyon)

Promoting sustainable mobility is crucial for decarbonising cities and facilitating citizens' access to economic opportunities, education, healthcare, and social activities (Banister, 2008; Pangbourne and Anable, 2011). The bicycle, alone or associated with public transport, can be a helpful tool to address climate change and support sustainable and inclusive urban development (Pucher et al., 1999; Sagaris, 2021). Likewise, the co-development of equitable cycling plans, based on an open dialogue between planning practitioners, citizens, and coalitions, may enable transformative change to achieve these goals (Sagaris et al., 2020). Nevertheless, previous studies suggest that cycling plans are often inequitably distributed in global north and south cities (Cunha and Silva, 2022). Accordingly, regardless of the political endeavours to normalise cycling as a viable transport mode in cities, empirical evidence demonstrates that cycling networks and investment allocation prioritise central and wealthy neighbourhoods in contrast with economically disadvantaged and peripheral areas (Lee et al., 2017).

Among the potential triggers, scholars highlight the lack of awareness and the absence of equity-oriented appraisal methods during planning and decision-making processes. To address this phenomenon, this research explores the role of the planning support system tool TIRE, which assesses the relative equity impacts of cycling plans (Cunha and Silva, 2023) through a mixed-methods approach. Whereas the quantitative analysis involves the data analysis and the application of the tool per se in 3 European cities with distinct levels of bicycle use and cycling cultures, the qualitative assessment focuses on the experimentation of the tool by those professionals directly involved in the assessed cycling plans. Accordingly, this study conducted focus groups and semi-structured interviews with planning practitioners to examine the usefulness of TIRE in planning practice and understand how TIRE can foster the generation of equity-oriented strategies (Cunha et al., 2023).

Applying the TIRE instrument encompasses a threefold approach based on GIS and Statistical analysis. First, the tool measures the relative bicycle accessibility levels towards seven activities (i.e., education, healthcare, social services, culture, grocery, public transport and parks) at the municipal scale using a fixed-travel time threshold of 5 and 15 minutes. Afterwards, the tool assesses the relative distribution of socioeconomically advantaged and disadvantaged populations based on census data. Lastly, a bivariate analysis intersects the two previous indicators and perspectives, revealing four distributive clusters. These outcomes range from the most equitable to the most inequitable distribution, illustrating in 2D aggregated maps the potential of cycling planning and infrastructure provision in reducing socio-spatial inequalities.

The quantitative assessment disclosed significant social-spatial asymmetries and fragmented hotspots in both cases. Results revealed that more than half of the distribution of bicycle accessibility conditions favour socioeconomically advantaged segments in all case studies (Cunha et al., 2024). Within the qualitative assessment, this study suggests that TIRE has potential applicability in planning practice since a significant share of participants considered the communicative value of the output and its focus specific enough. Moreover, TIRE supported the creation and sharing of ideas, fostering insight into a planning problem and creating awareness about the equity implications of cycling infrastructure allocation. With the tool, the participants defined a set of strategies to improve cycling accessibility conditions in disadvantaged areas, including expanding the cycling network, reallocating road space and educational campaigns.

***Keywords** : Cycling, Equity, Accessibility, focus group, Interview*

Geographical Perspectives Of Active Mobility Policy And Behavior-Changing Subjects

Zayra Castillo (Hafencity University Hamburg)

Cities can help citizens make environmentally-friendly choices by making those choices more convenient and less burdensome. They can also encourage changes in social behavior to promote low-carbon practices. Behavioral change is seen as a strategy to address emission reduction targets, and policy instruments are considered crucial for achieving these changes. The importance of policy shifts has been highlighted by the Intergovernmental Panel on Climate Change (2022) and academic research. However, challenges remain in reducing emissions, especially in the transport sector where private car dominance is a major obstacle. Nevertheless, there is a growing awareness that city design should prioritize pedestrian-friendly environments, which are essential for urban success. To achieve this, cities are shifting away from cars and providing other mobility options, such as active mobility, which includes walking and cycling for functional purposes (Brown et al., 2016).

This study focuses on the collective subject and examines how cities can influence low-carbon behaviors, bringing together perspectives of social practice and Foucault's concept of "the conduct of conduct"(1982). It also explores the relationship between policy initiatives and related multi-level governance strategies. The research uses an analytical framework developed by Dowling et al. (2018), they created a threefold typology to categorize behavior change initiatives based on their constituted subject. Furthermore, this research employs a multi-case study approach. It focuses on active mobility frontrunner cities in the Northern and Southern Hemispheres. The research uses geographical perspectives. It follows an information-oriented approach to select the cities. The cities are Hamburg, New York, Bogota, and Singapore. The analysis includes a qualitative content analysis of Sustainable Urban Mobility Plans (SUMPs) from each case study city. This provides insights into policy initiatives aimed at reducing car dependence and promoting active mobility to achieve emissions reduction goals. The study also examines the governable subjects targeted by these initiatives and their linkage with specific levels of governance. Comparing and contrasting the results across the case studies sheds light on the dynamics of behavior change. It does so in the context of evolving transport policies and the active mobility revolution. The study emphasizes the role of governance in shaping urban settings through laws and policies. It adds nuance to understanding how cities can make low-carbon behavior changes. It also sheds light on policy capacities in guiding urban mobility transitions.

***Keywords** : behavioural insights, Active mobility, SUMP, sustainable mobility, policy diffusion, developing country context*

Diverse E-Bike Usage In Commuting Behaviors In Urban And Rural Settings

Junyu Hu

E-bikes have become the preferred mode of transportation for many individuals, particularly for commuting purposes. E-bikes emerge as a pathway for both efficient and more sustainable transportation mode compared to cars (Fishman and Cherry, 2016). E-bike have a travel range that can exceed 13 kilometers, which is considerably greater than the average range of 5 kilometers for traditional bicycles. (Lopez et al., 2017).

While traveling on e-bikes, many people also perform moderate-intensity physical activity (de Haas et al., 2022). For these reasons, it possesses a higher tendency to substitute car commuting. While traditional cycling for commuting is mostly taking place in urban areas, the long-distance commuting capabilities of e-bikes make them an attractive mode of transportation for residents in a wider range of locations. In addition to urban areas, individuals residing in suburban or peri-urban regions who face the necessity of daily long-distance commuting may also opt for e-bikes (Plazier et al., 2018). Nevertheless, existing research lacks a comparative assessment that can cater for identifying the interrelations between the commuting behaviors of e-bike riders in regions characterized by different population densities and urban sizes. Users residing in towns, cities, or suburban areas exhibit distinct commuting patterns as a result of their diverse residential and occupational locations. In this paper, we aim to find out the role of e-bikes as a mode of transportation for connecting urban and rural settings.

As a case study, bicycles are widely used for commuting in Denmark. The study analyzes a survey data from 3,000 commuters in Denmark, conducted by the Danish Transport Agency (Det Nationale Videnscenter for Cykelfremme, 2023). The questionnaire includes various user characteristics and commuting pattern information, such as the user's gender, age, postal code, education, occupation, income, commuting distance, mode of transportation (including e-bike, bike, car, public transport, etc.), 20 potential reasons for selecting an e-bike, preferred mode of transportation for various travel purposes, typical travel distances for different modes of transportation. By analyzing this data we can identify which of these commuters are typical urban-rural commuters and why they choose e-bikes.

Screening of users needs to be done both in terms of their living environment and commuting distance. Using the user's postcode, the population density within a 5-kilometer radius of the user's living environment (residential area) and the population density within a 25-kilometer radius (commuting range) can be calculated. Through these two densities, we can initially determine the user's living settings. Simultaneously, comparing users' commuting distances can further determine whether their travel pattern belongs to urban-rural commute.

By integrating geographic information to screen users based on living environment and commuting distance, the paper offers insights into the role of e-bikes in connecting urban and rural settings. This analysis provides valuable information for policymakers and urban planners seeking to promote sustainable transportation options and improve infrastructure to accommodate diverse commuting needs.

Keywords *: commuting behavior, E-bike, Urban-rural transportation gap, sustainable transportation, mode choice*

Rethinking City Streets: A Deep Dive Into Micromobility Experimentation

Freddy Nogueira (University Of Lisbon - Instituto Superior Técnico), **Filipe Moura** (University Of Lisbon - Instituto Superior Técnico), **Ana Morais de Sá** (University Of Lisbon - Instituto Superior Técnico)

The urban environment undergoes constant evolution, and urban experimentation emerges as a nimble and cost-effective alternative to swiftly transform dynamics, yielding significant benefits across various domains, particularly in enhancing public space's quality and facilitating micromobility. The study aims to comprehensively explore the multifaceted aspects of this innovative approach, shedding light on the motivations driving its adoption, the barriers encountered in its implementation, and the intricate dynamics among diverse stakeholders.

Cities, throughout history, have grappled with the intricate challenge of allocating space effectively to accommodate a multitude of functions, prompting urban planners to actively seek innovative and effective management strategies (Wang et al., 2020). According to Lydon and Garcia (2015) and Evans et al. (2021), the adoption of experimentation in public spaces, characterized by the use of cost-effective materials such as paints, potted plants, and wood, has emerged as a transformative solution. Notably, the momentum gained during the COVID-19 lockdowns has thrust experimentation into the limelight, although it is crucial to recognize that the underlying principles, such as fostering a sense of proximity and designing streets for people, are not entirely novel (Graziano, 2021).

Within the broader context of urban experimentation, this study places particular emphasis on micromobility, encompassing modes like bicycles, e-scooters, and walking. By delving into the motivations and barriers faced by experts engaged in the application of experimentation, the research aims to provide a comprehensive understanding of the factors influencing its success or challenges in the domain of urban mobility.

The examination of the impacts of public participation throughout the experimentation process adds a crucial layer to the study, highlighting the importance of inclusivity and community involvement in shaping urban spaces. The paper underscores the significance of post-implementation monitoring, presenting an in-depth exploration of viable methodologies to gauge the long-term effects and sustainability of experimental interventions.

To achieve these objectives, the research employs a methodology based on semi-structured interviews with experts from two distinct groups: urban planners and transport engineers. This diverse array of participants includes representatives from academia, industry, and public administration across different countries, ensuring a comprehensive and global perspective on the subject matter.

Results from the study illuminate the rich tapestry of experimentation techniques, ranging from tactical urbanism and pop-up urbanism to guerrilla urbanism and do-it-yourself urbanism, each exhibiting subtle yet impactful differences. Furthermore, the motivations driving experimentation diverge notably between Europe and Latin America, with the latter placing a greater emphasis on road safety, while the former focuses more on the public use of streets. The identification of clusters of stakeholders based on their responses adds a layer of complexity, providing valuable insights into the intricate dynamics surrounding urban experimentation.

Keywords *: experimentation, public spaces, micromobility, urban mobility*

15-Minute City

Understanding Mobility Behaviour In Large Housing Estates: A Critical Application Of The 15-Minute City Concept

Sandra Treija (Riga Technical University), **Alisa Koroļova** (Riga Technical University), **Uģis Bratuškins** (Riga Technical University), **Andrew Sonta** (École Polytechnique Fédérale De Lausanne), **Stefanie Rößler** (Leibniz Institute Of Ecological Urban And Regional Development), **Robert Hecht** (Leibniz Institute Of Ecological Urban And Regional Development), **Melinda Benkő** (Budapest University Of Technology And Economics), **Thomas Verbeek** (Delft University Of Technology), **Elena Dimitrova** (University Of Architecture, Civil Engineering And Geodesy)

The transition towards sustainability is requiring changes in almost every aspect of our lives – from the operation of globalised supply chains to the behaviour of individual citizens. The transport system is one of the areas where major change still needs to happen. Sustainable mobility intends to reduce the need to travel (particularly by car), encourage greater use of public transport, walking, and cycling, improve the accessibility of transportation, and reduce travel distances. The key here is to provide quality, with easy access to local services and facilities, so that people do not need to travel long distances. A set of parameters that characterise a sustainable city have been determined in studies of sustainable cities: population (over 50 thousand), average density (over 40 people per hectare), land-use type (mixed-use construction), mobility mode (public transport), etc. (Banister, 2008). The contemporary 15-minute city concept advocates that residents will be able to enjoy a higher quality of life in which they will be able to effectively fulfil the six essential social functions of the city. These include (a) residence, (b) work, (c) commerce, (d) health care, (e) education, and (f) entertainment (Moreno et al., 2021). Similar ideas have not only been put forward but have also been implemented before. Clarence Perry's neighbourhood unit, Le Corbusier's Ville Radieuse, or the micro-district in social city planning, inspired extensive urban development in the second half of the 20th century. In European cities they form vast built-up areas, i.e. large housing estates (LHE), where a large part of the urban population lives - and in Eastern and Northern Europe often even the majority. These mass housing districts were originally planned so that residents are provided with everything they need for everyday life within easy reach on foot (Hess et al., 2018). However, the location of these districts in the city (often on the outskirts), their insufficient provision of convenient and efficient public transport, the limited variety and quality of local infrastructure, the gradual loss of local facilities due to viability challenges, as well as the residents' wide choice of options for ensuring their daily needs have created a situation where the original idea of LHEs is increasingly failing (Wassenberg, 2004). Considering the specific urban pattern of the modern LHE's environment, our research project 15minESTATES has just started, focusing on relations between the '15-minute city' concept and the socialist or modernist city concept implemented in LHEs. Through selected case studies in five European cities, the aim is to understand whether the six essential urban social functions of a '15-minute city' are present in the urban pattern of LHEs and whether the amount and proximity to these specific services would help in saving time wasted in traffic, thus promoting sustainable mobility. A combination of qualitative and quantitative methods will be adopted for the case studies, among which are mapping, spatial analysis, surveys and interviews. In this paper, we will present the first results of a pilot survey on inhabitants' mobility behaviour to investigate which functions are connected to the car-dependent behaviour of residents in the selected case studies. The pilot survey will look at the interrelation between the use of sustainable mobility modes (walking, cycling, bike sharing, scooter sharing, etc.), certain functions, and their proximity.

***Keywords** : 15-minute city, large housing estates, mobility behaviour*

Redefining Urban Neighborhoods: Applying The 15-Minute City Concept In Seoul

Jung Woo Kim (Department Of Architecture And Architectural Engineering, Seoul National University), **Bumjoon Kang**

Background and Objectives
This study proposes a new method using daily mobility data in order to redefine neighborhood boundaries, reflecting residents' actual travel patterns. Inspired by the '15-Minute City' concept, which focuses on creating accessible zones based on travel time, this approach seeks to transform urban planning by aligning neighborhood planning with actual mobility patterns. We aim to apply this methodology to Seoul's existing Neighborhood Plan, which is segmented into 116 zones based on population size, to assess potential new area definitions. Furthermore, this study compares our new zone boundaries with Seoul's '2030 Neighborhood Plan' to assess the congruence of functional neighborhood boundaries.
Methods
This study focused on residents living in the Seoul Metropolitan Area and used the 2016 and 2021 National Household Travel Survey data. We employed network analysis based Community Detection techniques using the Louvain algorithm to delineate neighborhood zones of Seoul. The research focuses on selected travel data within a 15-minute timeframe, focusing on walking and cycling modes, to examine the nature and extent of neighborhood-based activities. We compared travel and neighborhood patterns between 2016 and 2021. Additionally, the study quantified the extent to which these derived boundaries align with the 116 neighborhood zones outlined in Seoul's 2030 Neighborhood Plan using the Jaccard Index.
Results
Using community detection on Seoul's mobility data, we discovered dynamic neighborhood zones distinct from the conventional 116 zones. The analysis of travel data within a 15-minute timeframe revealed new neighborhood zones that more accurately reflect residents' actual walking and cycling patterns, diverging from existing planned zones. Furthermore, a comparison with the 2030 Community Plan using the Jaccard Index identified both alignments and discrepancies, highlighting areas with potential for urban planning improvements.
Conclusion
This study redefined neighborhood boundaries precisely, enabling a comparison with Seoul's current neighborhood zones. By evaluating the extent to which existing urban plans reflect actual mobility patterns, the research offers insights into the complex dynamics of urban movement and functional neighborhood structures, suggesting ways to improve the precision and adaptability of urban planning.

Keywords *: neighborhood planning, community detection, network analysis, 15-minute city*

Repositioning The 15-Minute City Concept In A Multi-Scale Spatial Reading: The Contributions Of The Fractalopolis Methodology

Xavier Lehmann (Université Gustave Eiffel, Lvmt), **Olivier Bonin** (Ecole Des Ponts, Université Gustave Eiffel, Lvmt), **Pierre Frankhauser** (Université De Franche-Comté, Théma)

The 15-minutes city concept highlights the importance of putting proximity back at the heart of planning approaches, in order to focus accessibility to the amenities needed for daily life around short distances and encourage walking (Büttner et al. 2022). This concept, which has gained considerable momentum among politicians and academics, has important elements that need to be introduced or reaffirmed among operational urban planners. As well as reflecting important issues of spatial justice, the concept of the x-minute territory requires an exhaustive reflection on the relationship that individuals have with the satisfaction of their needs and the mobilities this generates. In the majority of methods used to formalize the concept, a potential for proximity accessibility from each location is calculated, based on a certain number of amenities and on distances deemed satisfactory to favor active modes over motorized modes. These choices raise a number of questions that need to be answered in order to enhance the adaptability of the methods and the interpretation of the results. One of the main criticisms that the concept has raised is its assumed "monoscale" anchoring, around a distance threshold representative of proximity (Lebrun, 2023). While this choice can be explained by a preference for strengthening active modes of transport, it is nevertheless restricted to certain types of equipment concerned by this specific location. We believe, however, that this concept provides a relevant analytical key for reorienting planning policies towards greater spatial proximity, if it is placed in dialogue with all the scales of interaction between the individual and the territory in which he or she lives.

With this in mind, we will present a multi-scale accessibility analysis methodology based on the use of Fractalopolis software (Frankhauser, 2021). The application of this tool is based on a diversified protocol, combining an analysis of urban planning documents and the use of geospatial data. Based on a detailed understanding of the urban framework of the territory in question, a hierarchical spatial system is constructed, respecting the complementarity of polarities between geographical scales. On the basis of this spatial system, adapted to the morphological realities of the application area, a set of accessibility rules is applied. These rules involve several indicators usually found in tools for measuring the 15-minutes city: a selection of points of interest to which inhabitants must have access, and proximity distance thresholds associated with them. In Fractalopolis, the shops and services selected for analysis are also categorized according to frequency of use and percentage of users, enabling results to be refined according to the principles of needs theory and residents' consumption practices. Taking population distribution into account in the software's accessibility calculations also paves the way for the development of prospective scenarios to simulate the evolution of this repair according to observable or desired trends.

Thus, the aim of this presentation is to place the 15-minutes city concept at the heart of a multi-scale approach to accessibility based on proximity, by refining the choice of types of conveniences and distance thresholds according to residents' practices and the morphological realities of territories, at all spatial scales. To illustrate these principles, several examples of application territories will be presented, illustrating a diversity of geographical and socio-spatial contexts (Ile-de-France region, Rabat conurbation in Morocco, etc.). Finally, the development of the Fractalopolis software is part of a wider project to provide planning stakeholders with a robust and relevant decision-making tool for the revision of their urban planning documents and the development of projects.

Keywords *: Proximity-based accessibility, Urban system, Multi-scale approach, Active mobility*

Perceived 15-Minute City: Exploring The Emotional And Temporal Dimensions Of Walking Environments

Lisa Marie Brunner (Norwegian University Of Science And Technology)

The 15-minute city is an urban planning concept that envisions neighbourhoods where residents can access most of their daily needs, such as work, shopping and leisure activities, within a 15-minute walk or bike ride from their homes (Moreno et al., 2021). Dense, socially connected and functionally mixed neighbourhoods are key aspects of 15-minute cities, supporting human-scale urban design and encouraging active transportation (Khavarian-Garmsir et al., 2023). Based on the idea of chrono-urbanism, the 15-minute city concept considers proximity in terms of both time and space, focusing on distances and the time it takes to reach daily destinations (Pozoukidou & Chatziyiannaki, 2021). Research has therefore focused on proposing 15-minute neighbourhoods based on calculations of road and street network distances.

However, distance-based accessibility analysis can only reflect the pedestrian's perspective of the street-level environment to a limited extent. The amount of stimulation and the quality of the perceived environment play an important role in shaping the overall walking experience and, consequently, the perception of time and distance (Gehl, 2010; Hillnhütter, 2021). In particular, the concept does not take into account the street-level characteristics of the urban environment and how pedestrians experience it. Walking for fifteen minutes in a boring and unpleasant environment will reflect a different experience of time and distance than walking for fifteen minutes in an interesting and pleasant environment. While the former may be perceived as long and tiring, the latter may be perceived as short and enjoyable. Acceptable walking distances to everyday places may, therefore, depend not only on the actual distance but also on the character of the walking environment and its effect on the pedestrian's emotional and temporal experience of walking.

Based on findings from an interdisciplinary study of pedestrians' experience of emotion and time, this paper discusses the concept of the 15-minute city from the pedestrian's perspective and questions the meaning of '15 minutes'. We argue that in order to address the principle of human design in 15-minute cities, the concept should take into account the actual characteristics of the streetscape and how pedestrians and cyclists perceive their environment during their journey. In a controlled experiment (n = 51), we investigated how different walking environments influence levels of brain activation (through functional near-infrared spectroscopy), emotional experiences and time perception. We found that urban environments with lower walking quality led to higher levels of brain activation, more stressful and unpleasant emotional experiences, and extended time experiences compared to environments with higher walking quality. Given the nature of neuroscientific and psychological experiments, the results are limited to a small number of participants. However, in the context of wider research, the findings are relevant to understanding the successful implementation of the 15-minute city concept. Further research is needed on how the human scale of the built environment can be considered in the research and practice of the 15-minute city.

Keywords : 15-minute city, human scale, walking, experiences, time perception

Mapping Public Transportation Ecosystems (Pte) In Israel

Amnon Frenkel (Technion - Israel Institute Of Tchnology), **Sigal Kaplan** (Technion - Israel Institute Of Technology)

Emerging 15m cities prioritize sustainable urban planning combining public transport, cycling, and walking to encourage a mobility behavior shift from private car to sustainable modes. Scenario building enables envisioning new futures with radical changes in planning policies, when continuing the current trends, no longer suffice2. Scenario building enables to design mobility policies accommodating middle-out actors to foster non-traditional thinking2,3,4,5. Facilitating processes are proposed as pathways1 (Auvinen and Tuominen, 2014). System barriers are identified expert-based assessment of the probability of policy measures (e.g., Shiftan, 2003) and by mapping background institutional, economic, spatial and sociological conditions to identify transport technologies in agreement with preferences and expectations (Nijkamp, 1997). Yet, system capabilities and processes acting as transition facilitators and barriers remain unaddressed.

This study proposes a new method for a thorough analysis of the Public Transportation Ecosystem (PTE) comprised of identifying key transition goal challenges and identifying missing/existing capabilities and processes that empower resolving the challenges. Differing from the back-casting scenario approach, we take a transition driven approach for system analysis. The method is applied in the national strategic public transportation plan 2025-2045 in Israel. The primary goal of the strategic plan is to motivate a modal shift from private to public transportation. The deriving challenges are enhancing travel satisfaction, embracing technological innovation, increasing efficiency and competitiveness.

The process involved dozens of stakeholders and middle-out actors including urban planners, transportation engineers, data scientists, civil society, transit operators, academicians, government and local authorities. The interactions between these different groups of planning actors assisted in the formulation of policy recommendations by identified key system capabilities and processes influencing the ability to address the core challenges of the strategic plan. The process generated 43 capabilities and 48 processes. An expert-based cross impact analysis was conducted to analyze the impact of existing and missing capabilities for supporting or impeding the identified transition processes. The process enabled to identify 13 core capabilities, whose utility is highest as derived from the supported processes, and 18 key processes to which priority and precedence should be given in the strategic plan. The capabilities include organizational, operational, technological, and passenger service, capabilities such as leadership, multi-year planning management, metropolitan transport authorities, big-data analysis, information and service center, advanced technologies for system management, monitoring and seamless operation. Among the transition processes are network planning and development, public transport optimization, service profile proliferation towards mobility as a service, passenger experience management, changing the public transport image, quality bids and government commitment. The proposed method enables to delineate the existing and the desired system, leading to insights and recommendations for upgrading the system and enhancing its attractiveness to promote the shift from private to public transportation.

Keywords : Public Transportation, Capabilities, Processes, Strategic Plan, Decision-making

Rethinking The Mobility And Accessibility Of The Ageing Society: 15-Minute City Model And Walkable Neighbourhoods For All?

Mina Akhavan (Tu Delft), **Fulvia Pinto** (Politecnico Di Milano)

In recent years, the 15-minute city model, crystallise by Carlos Moreno (Moreno et al., 2021) has gained increasing attention as a model in urban planning and design; it aims to create cities and neighbourhoods where residents have access to basic services within a 15-minute walk or bike ride from their homes. This concept is particularly relevant in the context of ageing societies, where the needs of older adults must be carefully considered to ensure accessibility and inclusivity. The implications of ageing societies are becoming wide and complex, affecting various aspects of our society, including healthcare, labour supply, and social integration.

Being 5, 10, 15 or 20 minutes, many cities worldwide have followed the strategies of the X-minute city goals as part of their post-pandemic recovery schemes (Pinto & Akhavan, 2022) and to improve health and well-being. Although the X-minute-city concept mainly considers spatial and environmental aspects, it neglects socio-economic and demographic elements (e.g., age, gender, income, people with disabilities, etc.). In most cases, the abilities of the users are not taken into account (for example, the walking speed of elderly people could be around 3.5 km/h while the average speed is considered to be 5 km/h).

Within this context, the current paper presents the urban policies and actions of Milan's 15-minute City, with particular attention to the inclusion of senior citizens. An analysis of the mobility patterns of the ageing society in this paper is presented based on the primary data collected for the project MOBILAGE (Akhavan et al., 2021). The aim is to investigate the criteria used for "Milan, a city of 15 minutes", evaluating the potential advantages and disadvantages of the policies and actions towards older adults (aged 65 years and over). The findings show that this concept cannot serve as a unique urban planning strategy but can be considered a flexible tool to support other planning strategies that share the same objectives and ambitions. As older adults tend to 'walk'...making walkable neighbourhoods is essential for healthy ageing, promoting their well-being and quality of life. Nevertheless, any intervention suggested by such accessibility analyses should be contextualised and developed with other qualitative assessments and in collaboration with local communities.

15-Minute City

Benjamin Büttner (Technical University Of Munich)

Enrica Papa (University Of Westminster)

Cecília Silva (University Of Porto)

Carlos Moreno

15-Minute City

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Background and Objectives
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The 15-minute city is an urban planning concept that envisions neighbourhoods where residents can access most of their daily needs, such as work, shopping and leisure activities, within a 15-minute walk or bike ride from their homes (Moreno et al., 2021). Dense, socially connected and functionally mixed neighbourhoods are key aspects of 15-minute cities, supporting human-scale urban design and encouraging active transportation (Khavarian-Garmsir et al., 2023). Based on the idea of chrono-urbanism, the 15-minute city concept considers proximity in terms of both time and space, focusing on distances and the time it takes to reach daily destinations (Pozoukidou & Chatziyiannaki, 2021). Research has therefore focused on proposing 15-minute neighbourhoods based on calculations of road and street network distances.

However, distance-based accessibility analysis can only reflect the pedestrian's perspective of the street-level environment to a limited extent. The amount of stimulation and the quality of the perceived environment play an important role in shaping the overall walking experience and, consequently, the perception of time and distance (Gehl, 2010; Hillnhütter, 2021). In particular, the concept does not take into account the street-level characteristics of the urban environment and how pedestrians experience it. Walking for fifteen minutes in a boring and unpleasant environment will reflect a different experience of time and distance than walking for fifteen minutes in an interesting and pleasant environment. While the former may be perceived as long and tiring, the latter may be perceived as short and enjoyable. Acceptable walking distances to everyday places may, therefore, depend not only on the actual distance but also on the character of the walking environment and its effect on the pedestrian's emotional and temporal experience of walking.

Based on findings from an interdisciplinary study of pedestrians' experience of emotion and time, this paper discusses the concept of the 15-minute city from the pedestrian's perspective and questions the meaning of '15 minutes'. We argue that in order to address the principle of human design in 15-minute cities, the concept should take into account the actual characteristics of the streetscape and how pedestrians and cyclists perceive their environment during their journey. In a controlled experiment (n = 51), we investigated how different walking environments influence levels of brain activation (through functional near-infrared spectroscopy), emotional experiences and time perception. We found that urban environments with lower walking quality led to higher levels of brain activation, more stressful and unpleasant emotional experiences, and extended time experiences compared to environments with higher walking quality. Given the nature of neuroscientific and psychological experiments, the results are limited to a small number of participants. However, in the context of wider research, the findings are relevant to understanding the successful implementation of the 15-minute city concept. Further research is needed on how the human scale of the built environment can be considered in the research and practice of the 15-minute city.

***Keywords** : 15-minute city, human scale, walking, experiences, time perception*

Mapping Public Transportation Ecosystems (Pte) In Israel

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Emerging 15m cities prioritize sustainable urban planning combining public transport, cycling, and walking to encourage a mobility behavior shift from private car to sustainable modes. Scenario building enables envisioning new futures with radical changes in planning policies, when continuing the current trends, no longer suffice2. Scenario building enables to design mobility policies accommodating middle-out actors to foster non-traditional thinking2,3,4,5. Facilitating processes are proposed as pathways1 (Auvinen and Tuominen, 2014). System barriers are identified expert-based assessment of the probability of policy measures (e.g., Shiftan, 2003) and by mapping background institutional, economic, spatial and sociological conditions to identify transport technologies in agreement with preferences and expectations (Nijkamp, 1997). Yet, system capabilities and processes acting as transition facilitators and barriers remain unaddressed.

This study proposes a new method for a thorough analysis of the Public Transportation Ecosystem (PTE) comprised of identifying key transition goal challenges and identifying missing/existing capabilities and processes that empower resolving the challenges. Differing from the back-casting scenario approach, we take a transition driven approach for system analysis. The method is applied in the national strategic public transportation plan 2025-2045 in Israel. The primary goal of the strategic plan is to motivate a modal shift from private to public transportation. The deriving challenges are enhancing travel satisfaction, embracing technological innovation, increasing efficiency and competitiveness.

The process involved dozens of stakeholders and middle-out actors including urban planners, transportation engineers, data scientists, civil society, transit operators, academicians, government and local authorities. The interactions between these different groups of planning actors assisted in the formulation of policy recommendations by identified key system capabilities and processes influencing the ability to address the core challenges of the strategic plan. The process generated 43 capabilities and 48 processes. An expert-based cross impact analysis was conducted to analyze the impact of existing and missing capabilities for supporting or impeding the identified transition processes. The process enabled to identify 13 core capabilities, whose utility is highest as derived from the supported processes, and 18 key processes to which priority and precedence should be given in the strategic plan. The capabilities include organizational, operational, technological, and passenger service, capabilities such as leadership, multi-year planning management, metropolitan transport authorities, big-data analysis, information and service center, advanced technologies for system management, monitoring and seamless operation. Among the transition processes are network planning and development, public transport optimization, service profile proliferation towards mobility as a service, passenger experience management, changing the public transport image, quality bids and government commitment. The proposed method enables to delineate the existing and the desired system, leading to insights and recommendations for upgrading the system and enhancing its attractiveness to promote the shift from private to public transportation.

Keywords : Public Transportation, Capabilities, Processes, Strategic Plan, Decision-making

Rethinking The Mobility And Accessibility Of The Ageing Society: 15-Minute City Model And Walkable Neighbourhoods For All?

Mina Akhavan (Tu Delft), **Fulvia Pinto** (Politecnico Di Milano)

In recent years, the 15-minute city model, crystallise by Carlos Moreno (Moreno et al., 2021) has gained increasing attention as a model in urban planning and design; it aims to create cities and neighbourhoods where residents have access to basic services within a 15-minute walk or bike ride from their homes. This concept is particularly relevant in the context of ageing societies, where the needs of older adults must be carefully considered to ensure accessibility and inclusivity. The implications of ageing societies are becoming wide and complex, affecting various aspects of our society, including healthcare, labour supply, and social integration.

Being 5, 10, 15 or 20 minutes, many cities worldwide have followed the strategies of the X-minute city goals as part of their post-pandemic recovery schemes (Pinto & Akhavan, 2022) and to improve health and well-being. Although the X-minute-city concept mainly considers spatial and environmental aspects, it neglects socio-economic and demographic elements (e.g., age, gender, income, people with disabilities, etc.). In most cases, the abilities of the users are not taken into account (for example, the walking speed of elderly people could be around 3.5 km/h while the average speed is considered to be 5 km/h).

Within this context, the current paper presents the urban policies and actions of Milan's 15-minute City, with particular attention to the inclusion of senior citizens. An analysis of the mobility patterns of the ageing society in this paper is presented based on the primary data collected for the project MOBILAGE (Akhavan et al., 2021). The aim is to investigate the criteria used for "Milan, a city of 15 minutes", evaluating the potential advantages and disadvantages of the policies and actions towards older adults (aged 65 years and over). The findings show that this concept cannot serve as a unique urban planning strategy but can be considered a flexible tool to support other planning strategies that share the same objectives and ambitions. As older adults tend to 'walk'…making walkable neighbourhoods is essential for healthy ageing, promoting their well-being and quality of life. Nevertheless, any intervention suggested by such accessibility analyses should be contextualised and developed with other qualitative assessments and in collaboration with local communities.

15-Minute City

All-Inclusive 15-Minute City? A Fine-Grained Analysis Of Spatial Accessibility Inequality In Amsterdam

Petar Koljensic (Tu Delft)**, Thomas Verbeek** (Tu Delft)

The '15-Minute City' is an urban planning concept that seeks to ensure that all essential human needs are within a 15-minute walking or cycling distance (Khavarian-Garmsir et al., 2022). Since it was coined by Carlos Moreno in 2016 (Moreno, 2016) and adopted by the Paris mayor Anne Hidalgo in her 2020 re-election campaign, the concept has received widespread attention among policymakers and academics (Moreno et al., 2021). However, the concept has also received criticism, not the least from the perspective of transport justice (Pozoukidou and Chatziyiannaki, 2021, Willberg, Fink and Toivonen, 2023). One strand of critique focuses on the problematic average person that is central to the concept, while both walking and cycling speeds, but also needs and preferences, are unique to every person. Other criticism is directed towards the concept's focus on inner city areas with relatively well-off populations, while more peripheral urban areas with another composition of the population are ignored. In the further uptake of the 15-minute city concept, it is vital to consider how it includes different social groups to make sure everyone has fair access to essential amenities and services. An important prerequisite for that is having a detailed understanding of how accessibility is distributed across cities and social groups today.

The primary objective of our study was to estimate differences in accessibility, identify areas and social groups that face accessibility disadvantages, and propose potential solutions for improvement. Through an extensive review of existing literature and study cases related to the 15-minute city framework we identified the lack of a flexible tool that allows for a fine-grained analysis of accessibility. Therefore, we developed the '15-Minute City Index', a tool that assesses the spatial accessibility at a low spatial scale, with dynamic parameters on cycling and walking speed, and a flexible inclusion of specific services and amenities. Our tool calculates accessibility in reverse, starting from the amenities. Different layers of amenities can then be added up in a flexible way, with potentially also including weights, to get a complete spatial overview.

We applied our quantitative evidence-based methodological approach to the case of Amsterdam, a city that is known for its high levels of active travel. By combining small-scale socio-economic and demographic data with our novel 15-minute city index, we could carry out a detailed analysis of inequalities in spatial accessibility.

The results revealed clear disparities in the index among different parts of the city, with population density and street network playing a significant role. Further, the 15-minute city index shows that slightly slower walking or cycling speeds can have a large effect on spatial accessibility. In terms of social groups, the index is lower among populations with non-western migration backgrounds and the elderly.

The study not only presents methodological innovation through a newly developed tool, it also enhances the understanding of spatial accessibility within Amsterdam's context and contributes to transport justice debates on the 15-minute city concept.

Keywords *: 15-minute city , Accessibility, inequality, data-driven, Amsterdam*

Guiding Principles For The 15-Minute City In Peripheral Areas: The Emc2 Model.

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Developing a 15-minute City (15mC) is a new planning strategy for affordable and sustainable mobility. Through pedestrian-based proximity, inhabitants and city users should be able to walk to destinations catering to most of their daily needs (Moreno et al. 2021, EIT Urban Mobility 2022). Compact European urban cores have already implemented 15mC solutions with some success, as in Paris and Barcelona. However, the implementation of the 15mC is much harder in post-war car-dependent outskirts and suburbs, lacking some of its key morphological pre-conditions: centrality, density, proximity to services and public transport, mixed land use, quality of walking and cycling, and attractive public spaces. These pre-conditions influence people's behaviours through intermediate concepts like walkability, sense of place, ease of reach, and liveliness (Gehl 2011, Dovey et al. 2017). We think that interventions aimed at improving pedestrian accessibility alone, without addressing these morphological challenges, won't be able to successfully implement the 15mC in peripheral areas. What is needed is a new coherent framework to guide interventions on the different facets of the 15mC.

The Evolutive Meshed Compact City (emc2) is being developed to provide a workable urban model capable of ensuring the necessary coherence of a 15mC strategy in the urban peripheries. The emc2 model proposes to distribute compact urban form as corridor development along pre-existing main roads connected to wider-range mobility options and forming a meshed structure across the metropolitan area. This requires smart densification along these streets, which are further redesigned for pedestrians to become lively main streets (Bertolini 2020, Ståhle et al. 2022, ADEME 2023).

The emc2 model can be specified through the implications of a few guiding principles, which could inform more specific urban planning and design patterns (Alexander et al. 1977).

A meshed foreground network of main streets is the backbone of an uninterrupted system of pedestrian public space, enhanced by multimodality. The foreground network is characterized by high values of network centrality at various scales, to catalyse the movement economy (Hillier 1996).

The network of main streets develops synergies (and should avoid conflicts) with ecological networks (namely blue and green networks) and with far-range mobility corridors (highways, railways).

Locally, the main street acts as an accessible, dense, and diverse centre for a neighbouring area. It is as such the focus of selective densification, and its activities benefit from the conditions created by multi-scalar network centrality.

The main street is pedestrian-friendly. Pedestrian friendliness goes beyond pedestrian movement and includes pedestrian stay, interaction, and perceived sense of place.

Ordinary streets and pathways create connective networks within the meshes of main streets to enlarge pedestrian sheds. Urban functions that do not have the requirements of the movement economy are accommodated within the mesh.

The presentation will focus on these guiding principles, showing how the emc2 model differs from other apparently related models like Transit-Oriented Development (TOD, Cervero et al. 2004) or the Neighbourhood Unit (Perry 1929). However, planning normally intervenes in the existing city, and contemporary urban peripheries in Europe are more or less prone to the requirements of the emc2 model. We will thus also present a framework to assess the potential of contemporary urban peripheries to develop the emc2 model. Indeed, many European urban outskirts already possess incipient networks of main streets, inherited from spontaneous growth, including pre-existing rural settlements and faubourgs. Where present, these networks could serve as the backbone of the peripheral 15mC, as foreseen by the emc2 model.

Feasibility Of Accessing Peripheral Centres By Regional Public Transport.

jake wiersma (University Of Amsterdam)

Following post war suburbanisation, in many European regions new regional centres have been developed on peripheral locations near highway exits. They host a range of regional functions like retail, educational campuses, leisure and health care, attracting many visitors. However, in many ways they are the opposite of city centres: Monofunctional, dominated by parking lots and not accessible by public transport. This has caused a growing mismatch between the economic system and the rail system, traditionally the backbone of regional transport. In the selected case of South-Limburg, Netherlands, currently 25% of jobs are to be found near rail stations. About the same number is located in centres near highway exits. This has caused car dependency, from cities and suburbs alike, being problematic for non-car-owners. A possible 'game changer' is the e-bike. However, only about 50 % of employees in South Limburg hold jobs within 10 km. In terms of travel time and comfort, accessing these peripheral centres by public transport is not compatible with the car. The structure of the South-Limburg regional transport system can be characterised as the 'fishbone' model: A core of rail transit fed by local public transport (buses) from origin and to destination. This causes door-to door travel times being 3-4 times compared to the car, not counting the lack of comfort caused by transfers. Following the T.O.D concept, an answer could be: Relocate peripheral centres to station areas. However, most of these developments seem irreversible, moreover, they are still growing and pulling services and jobs away from urban locations.

The research question is: Can we avoid car dependency in the daily commute for work and education by replacing the current 'fishbone' system by offering direct public transport services to peripheral centres, using existing motorways? This leads tot the following sub- questions.

How many people do the peripheral centres attract and from where?

Are these streams substantial enough to provide direct and cost-effective p.t. services?

What would be the resulting gains in travel time and comfort?

Nine peripheral centres were selected. Data of traffic flows were derived from the Traffic Model of the Province of Limburg. Subsequently , the relations were mapped via GIS . A bicycle-BRT system was tested, using existing car infrastructure on main roads and highways.

The results show that some relations are promising for the creation of a new BRT service via existing motorways. In other cases existing bus-lines could be stretched. Resulting travel times are between 1,5 and 2,5 times door-to door, compared to the car. For non- car-owners these are considerable gains in travel time, and avoiding transfers makes the trip more enjoyable. However, without push measures these gains probably will not persuade current car drivers to use public transit.

Three questions for further discussion and research arise:

Could this BRT system partly replace existing local bus-services, thus avoiding additional costs? This leads to the discussion how the potential use of the e-bicycle could in its turn replace local bus services up to 10 km.

Which of the current peripheral centres could on the long-term be relocated to existing or new station areas?

In what measure could improved access by regional public transport shape the conditions for the transition of monofunctional peripheral centres into multifunctional and lively environments, profiting from nearby green areas, thus offering alternatives for central urban locations?

Urban Peripheries And The 15-Minutes City. A Comparative Study Of Planning Policies Aiming At Applying The Concept Of Proximity To Suburban And Semi-Dense Areas.

Arne Markuske (Technical University Munich)

Since its introduction in 2015 at COP21 in Paris the 15-Minutes City (ville du quart d'heure) has been widely discussed and has become quite popular even outside the academic and professional debate. Since then its promoter, Carlos Moreno, and his team of Chaire ETI at Université Paris 1 Panthéon Sorbonne have further elaborated the concept.

Moreno conceived the concept as a response to the key climate and health issues imposed on cities and territories by the multiple crises of our time such as climate change or global pandemics (Chaire ETI, 2020, p. 3). Consequently, the concept has been adopted by the "C40 Cities" network as the keystone for their vision for ecological, just and human-centred urban design in the 21st century (Moreno, 2020, p. 118). Furthermore, in the second white book of Chaire ETI several pioneer cities are listed, such as Ottawa, Melbourne, Portland, Barcelona, Milano, Nantes and Mulhouse (Chaire ETI, 2020, pp. 20-45).

It is striking that the majority of these so-called pioneer cities, apart from Nantes and Mulhouse, are metropolises of national or even international importance which have a very compact and mixed-use urban structure that might fulfil Moreno's criterion of proximity, already to a large extent. However, Roger Keil and Wu Fulong point out that "urbanization in the twenty-first century is increasingly occurring in the peripheral areas outside the city" (Wu and Keil, 2022, p. 11) for which Thomas Sieverts coined the term "Zwischenstadt" (Sieverts, 2012). In Germany for example approximately 62 to 75 percent of the population already live in these urban peripheries (Bremer 2022, p. 33). Consequently, developing guiding principles for the transformation of these Zwischenstadt areas in order to decrease consumption of space, sealing of surface and mobility-related CO_2 emissions can play an important role for the sustainable transformation of the built environment.

That is why Moreno suggests to extend their concept of the 15-Minutes City to semi dense or less dense areas and calls that adaptation the 30-Minutes Territory which could provide a new territorial framework (Moreno 2020: 127f.). A first methodological approach on how to apply the criterion of proximity on peripheral areas is presented as part of the research project "Portes de Paris" carried out by Chaire ETI and published in its first white book (Chaire ETI, 2019). It appears that this could be a fruitful approach as Sieverts already pointed out, that walkability plays a key role in transforming urban peripheries (Sieverts, 2012, p. 39).

In my study I will examine the question if and how different planning policies apply the idea of the 15-Minutes City or the 30-Minutes Territory on Zwischenstadt-like urban peripheries by comparing the official documents of different municipalities which are claimed to being based on the concept of proximity and the 15-Minute city, e.g. Ottawa's "5 big moves" (Chaire ETI 2020: 21), Melbourne's "Plan 2017-2050" (Chaire ETI, 2020, p. 24) and Portland's "20-minute neighbourhood" (Chaire ETI, 2020, p. 29). The goal of the study is first to assess if the documents address urban peripheries at all and if yes what significance is given to them. Second, it will be analysed on which aspects of the 15-Minute city, e.g. proximity, density, mixed-use or ubiquity, the individual policies focus on and, third, by which means and strategies they intend to reach their goals, e.g. increasing walkability or bikeability, increasing building density, establishing mixed-use by the implementation of new typologies or by adaptive re-use of existing building structures. It is expected that the results of the study can contribute to answering the question whether and how the 15-Minutes city concept can be applied to urban peripheries.

Keywords : urban peripheries, walkability, 30-Minute Territory, Zwischenstadt, 15-Minutes City

15-Minute Cities Approach? The Case Study Of Athens

Vasiliki Charalampidou (School Of Architecture, National Technical University Of Athens)

This proposal focuses its research interest on the concept of the 15-minute city. This is an undoubtedly innovative concept, proposed by the French-Colombian urban planner Carlos Moreno (ville du quart d'heure) and which, despite the criticism it has received from an anthropocentric point of view, is applied in whole or in part – in different variations – in many cities around the world (Paris, Buenos Aires, Melbourne, Shanghai, etc.).

The 15-minute city aims to create communities where people have access to basic daily activities and needs within a 15-minute walk or bike ride. This approach falls into several directions of sectoral policies and strategies, such as climate change, urban resilience, sustainable mobility, etc.

This article examines how the 15-minute city can be implemented in Greek cities, using the city of Athens as a case study. In this context, the existing strategies for Athens are examined and refined, such as the Urban Resilience Strategy, the Athens Resilience Strategy for 2030, the Covenant of Mayors for the Climate, etc. In addition, the contribution of the National Pedestrian and Cycling Strategy to the 15-minute city concept will be assessed.

The benefits of such a scheme, especially in the case of Athens, are many, such as reducing traffic congestion, reducing energy demand and adapting to climate change, to name but a few. However, despite being a people-centred approach, the 15-minute city also raises some social issues that require innovative urban planning approaches, such as the difficulty of moving people with special needs.

To achieve the deeper goal of the 15-minute city in Athens, it is necessary to change the traditional way of urban planning (city centre, suburbs, residential areas, commercial areas, leisure areas), avoiding social exclusion phenomena and gentrification practises. To summarise, the implementation of the 15-minute city differs each time by the more specific policies applied, as cities differ from each other in social, economic, environmental and urban planning terms. What remains and is applied is the specific urban planning methodology, which also needs to evolve and be further researched.

Keywords *: 15-minute city, Athens, walkability, urban planning methodology*

Transit-Oriented Development (Tod)

Urban Transport Emissions In Hosting The Olympic And Paralympic Games: Issues And Solutions For Paris 2024

Anais Fabre (Griffith University), **Michael Howes** (Griffith University), **Aysin Dedekorkut-Howes** (Griffith University), **Millicent Kennelly** (Griffith University)

Mitigating climate change is an urgent challenge. Urban transport systems are major emitters of greenhouse gases, so decarbonising their operation is vital for achieving net zero emissions by 2050. By increasing travel demand in host countries, the Olympic and Paralympic Games, one of the largest mega-events in the world, tend to exacerbate the problem of transport emissions. The International Olympic Committee (IOC) is now committed to delivering climate-positive Games from 2030. As a result, the IOC's new targets bind future host cities to provide more sustainable solutions, including emission reduction and carbon offsets. Staging mega-events such as the Games creates a significant environmental impact and an opportunity to instigate transformative change for a host city, particularly concerning the transport sector.

This research aims to determine whether hosting the Olympic and Paralympic Games can assist in decarbonising urban transport systems for host cities. Can hosting these mega-events provide the impetus for investments to accelerate the transition towards more sustainable transport systems? This paper will examine what Games-related changes can achieve this outcome by conducting a policy review of Paris' transport strategies to host the 2024 Games.

To address the aims of this research, two preliminary studies have first been conducted:
A review of the factors influencing transport emissions for cities hosting the Games
A case study on the ability of Paris to meet best practice recommendations in terms of urban transport decarbonisation.

The review's findings highlighted key aspects that play a role in increasing or decreasing transport emissions in cities hosting the Games, namely:
Sociopolitical context
Passengers' travel behaviour, including the modal share between public transport and private vehicles
Investment levels in low-emission transport options, such as public transport, active mobility, and electric vehicles
Impact of traffic congestion
Implementation of emission regulations and transport management/restrictions
Effectiveness of spatial planning strategies for urban and transport infrastructure developed or accelerated for the Games.

Since transport is Paris' most significant source of air pollution, robust programs and policies are needed to support transport demand and shift towards a more sustainable transport system. On the one hand, Paris benefits from a high urban density, which favours both walking and public transport. The city also boasts an extensive network of bicycle paths and is stepping up efforts to electrify public transport and improve pedestrian zones. However, the city's urban density leads to heavy traffic congestion, which poses problems for the efficiency and sustainability of transport systems. Lack of social acceptance of certain decarbonisation strategies and operational delays in public transport infrastructure, such as some of the Grand Paris metro lines, also remain an obstacle to climate mitigation.

This paper is now using the background work from these two previous studies to undertake a policy review to examine relevant transport policies/plans/projects initiated or accelerated for the Paris 2024 Games, assess their impact, implementation feasibility and effectiveness, and identify enablers and barriers from a climate mitigation perspective. To comply with the IOC climate targets, Paris is required to deliver carbon-neutral Games. Paris is taking this opportunity to attract funding for more sustainable investments and strategies, including in the transport field.

In the urgent context of climate change, this research is a call for climate action and will contribute to addressing a significant problem. The findings of this project will be useful for key stakeholders involved in organising future Games and can be used to determine the extent to which a host city may successfully steer investments towards climate-positive games and, consequently, identify the changes needed to comply with the IOC's new criteria and leave a positive legacy behind.

Keywords : climate change mitigation, urban transport decarbonisation, Olympic and Paralympic Games, Paris 2024

Research On The Iterative Development Of Tod Community: From Singapore'S Neighborhood Center Complex To China'S "Future Community"

Ronglu Yang (Zhejiang University), **Kang Cao** (Zhejiang University)

The TOD (Transit-Oriented Development) model, originating in the 1990s from the New Urbanism in the United States, is a transit-oriented model based on high-density, diverse, and livable design that contributes to a functionally balanced and dynamic community environment. Since its inception, the TOD model has found widespread application globally, adapting to diverse social, cultural, and institutional contexts. In Europe, cities like Amsterdam and Copenhagen have embraced this model. Asian countries such as Singapore and China have also joined the trend over the past decade. In Zhejiang Province, China, a so-called "Future Community" (FC) model, initiated in 2019, has made TOD a central focus. The FCs are possible for innovative development as TOD communities with the premise of being surrounded by transportation hubs. We call such communities TOD-oriented Future Communities (TOD-oriented FCs). Its initiative draws inspiration from Singapore's rich experiences in community development while undergoing several iterations of innovation, creating a locally distinctive TOD community model. Our principal aim is to conduct a preliminary exploration of the planning, construction, and iterative mechanisms of this new-type community oriented by the TOD model.

We delve into four cases: one case in Singapore and three cases in China. Specifically, Singapore's case is the Neighborhood Center Complex, and three cases in China are the "Guali Colorfully FC", the "Yangliu Jun FC", and the "Future City FC". Singapore's TOD community transformed in iterations to TOD-oriented FC in China. The advancement of TOD-oriented FC in China underwent three stages: learning, piloting, and spreading. (1) In the learning stage, the colorful town in Guali borrowed insights from Singapore's TOD community, evolving into an initial TOD new town based on a bus terminal, surrounded by residential areas. (2) In the piloting stage, the local government, Zhejiang Provincial government, created the FC model with the colorful town as a template. The "Yangliu Jun FC" was among the first batch of pilots which was TOD-oriented FC. (3) In the subsequent spreading stage, the local government made efforts to create high-quality, replicable templates based on two batches of pilots, with "Future City FC" leading the way, accelerating Zhejiang Province's development of the TOD-oriented FCs. During the piloting and spreading phases, the TOD-oriented FCs are fundamentally guided by the principle of establishing urban transportation hub complexes based on subway stations.

Our research results indicate that, through multiple generations of practice in TOD-oriented FCs, there have been iterative optimizations in various aspects, such as transportation connection, construction scale, functions, and operational mechanisms. Regarding transportation, the community development evolved from a bus station-centric TOD model to a model based on rail transit stations. This transformation involved promoting vertical development and establishing a stereoscopic traffic transfer system. Regarding scale, the total architectural development volume of the community gradually expanded, with increased population influx effects. Regarding functions, leveraging TOD complexes, the community enhanced commercial and public service functions. It also supplemented entrepreneurial offices, cultural tourism, and intelligent management, gradually forming a multi-functional TOD community that meets diverse needs, including residence, employment, shopping, entertainment, and travel. Regarding operation, the community transitioned from a "government-led" approach to a collaborative "government-enterprise partnership with social participation" model, involving multiple stakeholders in community governance.

However, the construction and development of TOD-oriented FCs are also faced with some paradoxes and challenges. For communities, excessive population flow could lead to issues such as noise and security problems, reflecting a contradiction between the outward nature of the TOD model and the inward-focused residential functionality of communities.

In summary, our research provides a thorough analysis of the iterative development of TOD communities, seeking a more scientifically rational development path and offering insights for optimizing communities worldwide.

***Keywords** : Transit-Oriented Development (TOD), Future Community, traffic complex, public transportation, community planning*

How To Prevent Inequities In Access? The Relationship Between Local Governments And Real-Estate Developers On The Affordability Of Transit-Oriented Development In Four Canadian Cities

Fanny Tremblay-Racicot (École Nationale D'administration Publique (Enap))

Transit-oriented development consists in a dense, diversified and pedestrian and bike-friendly real estate development located in walking distance of public transit stations. Recent data shows that the relationship between increased transit ridership and the reduction of total kilometers traveled by T.O.D. residents is not a direct one, wherein higher-income households are reducing their total kilometers traveled more so than lower-income households, but lower-income households tend to increase their utilization of public transit more than higher-income households (Boarnet et al. 2017). However, restricting access to T.O.D. by excluding transit-dependent residents not only infringes on principles of equity and equal access to jobs and services, but also deprives public transit networks of a significantly large potential clientele (Kuby, Barranda and Upchurch 2004, Boarnet et al. 2017). Since a large portion of public transit riders come from lower-income households, affordable housing and public transit reinforce one another: the necessity of preserving and growing affordable housing in proximity of transit stations is therefore key.

To what extent is the dimension of social equity and affordability considered in the implementation of T.O.D. in Canada? What strategies are employed by municipalities to ensure the collaboration of real estate developers in the production and implementation of T.O.D.? This communication presents the findings of a comparative analysis of the planning and implementation processes of T.O.D. projects, conducted in four cities (Halifax, Québec, Montréal, and Calgary) located in three Canadian provinces (Nova Scotia, Québec, and Alberta).

The results of our documentary analysis, complemented by a series of semi-structured interviews with public sector managers and real estate developers, reveal that although affordability is occasionally mentioned in planning documents, it is largely overlooked by decision-makers, with the exception of Québec City where the administration has allocated a dedicated budget for the establishment of a land reserve for affordable housing projects along its tramway project corridor. The issue of social and affordable housing was deliberately dismissed by the planning authority for the Réseau Express Métropolitain in Montréal, as it is believed that the new users of the transit line will contribute to financing the network, which is deemed to sufficiently serve disadvantaged areas.

In general, Canadian municipalities have a variety of public policy instruments to ensure the affordability of T.O.D., such as preemptive rights, inclusionary regulations, land reserve creation, bonus zoning, and waiving construction fees, although the extent of these powers varies between provinces. However, our interview results reveal a complex and sometimes opaque relationship between different levels of government and real estate developers. Provincial government intervention is sometimes necessary for certain mixed-use real estate projects to be built, as seen in the case of Halifax.

Ensuring the affordability of T.O.D. requires the systematic consideration of this issue in the planning or redevelopment of real estate development along new and existing corridors. The land ownership of buildings and land determines the instruments that can be deployed by the municipality. In addition to sincere political will, several conditions must be met to correct the market, including collaboration between municipalities and non-profit real estate developers, as well as a nuanced understanding of the for-profit private real estate market to properly calibrate the tools deployed.

Research On Typology Of Beijing Metro Station Area Based On Tod Development Effect

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Transit-oriented development (TOD) has significant advantages such as increased economic efficiency, reduced carbon emissions, and improved urban accessibility due to its intensive development pattern. A typology study of TOD is helpful for targeted development management. In this study, a typology model of "node-place-slow travel guidance" is proposed, taking into account the development requirements of the dimension of "walking and biking (slow travel) mobility". The empirical study is carried out in Beijing as an example, and based on the K-means plus algorithm, the subway station areas are further categorized, and the effectiveness of the subway's TOD development is quantitatively evaluated. The results of the study are of great significance to the sustainable development of the city, and also provide a quantitative basis for differentiated rail transportation management policies.

Does London Need A New Accessibility Tool For Public Transport?

Jan Scheurer (Rmit University), **Enrica Papa** (University Of Westminster)

Both in a UK and an international context, London has frequently pioneered innovative approaches to transport policy throughout its history. From the world's first underground railway in 1863 to the introduction of central area congestion charging in the 2000s, such innovations have typically addressed development pressures and spatial constraints that manifested sooner and more drastically in London than in smaller and perhaps slower-growing peer cities elsewhere in Europe. Simultaneously, this local evolutionary edge in transport planning has long coexisted uneasily with a national policy environment described as incoherent and beholden by dogma (Wolmar, 2016) and erroneously focussed on reducing travel times rather than the facilitation of economic development (Metz, 2016).

London's public transport network is characterised by a plethora of legacy rail infrastructure distributed unevenly over the metropolitan area, and a bus network whose operational input exceeds that of any other developed city the authors are aware of. This results both in a near-ubiquitous presence of frequent public transport travel opportunities and in gaping spatial and operational inefficiencies. Applying the Spatial Network Analysis for Multimodal Urban Transport Systems (SNAMUTS) tool (Curtis and Scheurer, 2016) in a megacity for the first time, this contribution will show how these strengths and shortfalls can be mapped and quantified in geographical detail. The intention is to make a critical complementary contribution to existing accessibility tools such as Space Syntax, pioneered in London but criticised for neglecting the role of public transport (Curtis and Scheurer, 2010), and the Public Transport Accessibility Levels (PTAL), developed and used extensively by the GLA metropolitan transport authority and the London Boroughs but lacking a network-level perspective that could capture and evoke policy responses to the extraordinary pressures experienced by a heavily used public transport system in the context of rapid urban intensification.

Walkability

Drivers And Barriers Of Walking In A Car-Dependent City.: What Is The Role Of Socio-Cultural And Spatial Factors?

Elif Sezer (University Of Palermo), **João Igreja** (University Of Palermo), **Ignazio Vinci** (University Of Palermo)

The increasing reliance on cars worsens problems such as traffic jams, time wasted in transit, challenges in finding parking, and financial burdens. Additionally, urban functions and daily activities are spreading out more, leading to a rise in dependence on cars. Consequently, this diminishes the appeal and flexibility of active mobility and public transportation compared to private vehicles (Mattioli et al., 2020). However, the positive impacts of active mobility on human health and quality of life (Anokye et al., 2012) have encouraged governments to adopt policies that shift from car-dependent transportation to active mobility. To that end, a thorough understanding of the determinants influencing the choice of active modes is a crucial aspect of achieving this transition (Ton et al., 2019).

Previous studies have indicated that to explain mobility behaviour it is insufficient to consider spatial and socio-economic factors individually (Boussauw & Witlox, 2011). This has led to a recent shift of interest towards more sociocultural and psychological aspects, such as the perceptual foundations or the individual's specific spatial and temporal constraints (Fransen et al., 2019). Herewith, recent studies have focused on factors that draw attention to values and beliefs, or attitudes and habits, like reasoned and unreasoned behaviors, the social environment, and environmental psychology.

Against such a backdrop, this study emphasizes the non-technological barriers and drivers towards walkability and combines spatial and socio-cultural features. This is done by analyzing in detail the case of Palermo's historic center, one of Southern Europe's most well-known cities for highly car-dependent mobility patterns. On the one side, the paper presents hints about the accessibility to public transportation, street quality and distribution of amenities. On the other, it inquires about people's perceptions based on an online survey. In conclusion, the study provides valuable insights regarding the combination of sociocultural and spatial factors to facilitate a meaningful transition toward promoting active mobility.

Keywords *: Active mobility, Travel Behaviour, Walkability, Palermo*

Awareness Of Cultural Values And Recreational Walking: A Case Study In Izmir, Turkey

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The rapid urbanization has led to the deterioration of traditional urban fabric and resulted in the loss of historical identity. Due to the dominance of contemporary architecture and modern urban practices, traditional urban fabric is barely perceptible, and historical buildings are less noticeable. Both new development areas and historical city centers lack human-scale design. With the increase in traffic -and its negative consequences regarding accessibility and pedestrian circulation-, and the change in the forms and functions of historical buildings, historical areas are losing their appeal to pedestrians. For this reason, although the importance of historical buildings for recreational walking is emphasized in the literature, current navigation tools and interfaces still offer the shortest routes. The number of navigation tools and interfaces that enable historical buildings to be more noticed and appreciated is very limited.

This research aims to explore the relationship between pedestrian density, recreational walkability, and awareness of historical structures in the historical city center.

The study is conducted in Konak, Izmir, which has a higher concentration of Early Republican Period architectural structures. The cultural heritage values in Konak district are facing the challenges brought by contemporary urban life. The commercial uses on the first floors altered the form and function of the modern architectural heritage. Especially the windows and signs at pedestrians' eye level reduce the legibility of these buildings. In this respect, while some buildings in this area have been better protected against these changes, some have lost their formal and functional originality. This study compares the pedestrian density and recreational walkability around such buildings that have been well-preserved and those that have not.

The methodology employs a mixed-methodology approach, combining perception-based and measurement-based methods. The study consists of three main components: literature review, fieldwork, and desk-based analysis. Additionally, the methodology comprises three stages: (1) systematic selection of buildings that can be considered as modern architectural heritage and preserved at different levels, and the implementation of surveys to assess awareness for each building; (2) systematic identification of factors influencing recreational walking and the creation of walkability maps via Geographic Information System (GIS) around each building which were selected in the first step; (3) pedestrian counting in front of each building which was selected in the first step. The analyses focus on three issues: 1) How the protection levels of the selected buildings impact noticeability and recognition; 2) How recreational walkability values vary around the historical buildings that are noticeable and protected at different levels; and 3) Is there a difference in the number of pedestrians around the historical buildings that are noticeable and protected at different levels? Thus, this study discusses whether urban design qualities in the immediate vicinity of historical buildings can support recreational walking more and whether the pedestrian density can be increased in the vicinity of historical buildings via better design.

The study is associated with the doctoral thesis titled "A New Methodology for Walkability Maps for Unnoticed Historical Cultural Values: İzmir Case" at Dokuz Eylül University, Institute of Natural and Applied Sciences. It will present the literature review, methodology, and preliminary results derived from the field study conducted for the doctoral thesis.

Keywords *: recreational walking, walkability, historical area*

'Levelling-Up Walking As A Mode Of Transport' – A Case For Changing Hierarchies

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Despite the key role of walking in achieving the compact and 15-minute city, improving public health and reaching sustainability goals, walking 'as a mode of transport' is often overlooked in the transport planning discourse (Johansson et al., 2022; 2023). Today, most emphasis is placed on either motorised transport or transport modes such as cycling, regardless of whether the focus is on city planning, logistics or safety. As a consequence, pedestrian injuries account for an increasing share of road traffic injuries in high income countries and motorised transport continues to be seen as the norm. Consequently, the aim of this study was to gather leading researchers and practitioners – in different and various ways related to walking as a mode of transport – to identify common problems, issues, and priorities, as well as to identify potential ways forward in solving these issues.

Between 2021 and 2024 a survey, a series of focus groups and individual interviews were held with academics and practitioners across Scandinavia and the United Kingdom to better understand the current state-of-the-art of walking as a mode of transport. Participants – a total of 135 policymakers, practitioners and academics – were strategically selected from the authors' professional networks as well as using a snowballing strategy to reach saturation. Data was collected through a total of 22 focus groups, as well as individual surveys and individual interviews. The combination of both individual and collective opinions has the advantage of both making sure that all individual's specific comments are included as well as the combined experiences and perspectives (Wibeck, 2010)

In the analysis of the material, a thematic model: realising walking as a mode of transport, evolved. Whilst illustrating an ideal construct in which planning and safety perspectives work coherently, combining different methodologies and input data, the data also identified the problematic disparity and disconnectedness between these two overarching fields, thereby alluding to why walking as a mode of transport remains outside of the major transport and urban planning discourse. The results also identified an important knowledge gap; knowing what the individual and societal needs are related to walking.

Together, the results suggest that there is a strong desire amongst policymakers, practitioners and academics in levelling-up walking as a mode of transport and changing the status and hierarchy in the transport system. However, to do so requires a more holistic view, combining different methodologies and perspectives and better understanding how safety and planning traditions can be combined.

Keywords : *Walking as a Mode of Transport, Pedestrians Needs, health and well-being*

Exploring Transformations In Sustainable Urban Mobility: Insights From Citywalk 2.0 Project And Beyond

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Since our society navigates through green and digital transitions, urban mobility becomes a critical focal point for change (Schipper et al, 2020). This paradigm shift significantly influences not only behavioural patterns and transportation modes, but also the formulation of urban planning policies (Van Acker et al, 2016). The exponential rise in urban population necessitates a heightened emphasis on sustainable urban mobility, as current transportation systems heavily reliant on automobiles contribute to adverse environmental effects, health concerns, and a scarcity of high-quality public spaces within urban landscapes (Schipper, 2002).

Within this context, the project CityWalk 2.0 project entitled Together for Energy-efficient Urban Mobility: Decreasing Carbon Intensity of Urban Transport by supporting Shift to Active Urban Mobility through rethinking street design and changing travel behaviour, financed under Interreg Danube program aims to promote energy transition in the transport sector by drastically reducing the energy use of urban transport and enhancing overall liveability (Anciaes & Jones, 2020). CityWalk 2.0 addresses the negative effects of car-centric urban transport systems and supports 10 pilot cities located in the Danube Region to shift from extremely energy-intensive (and inefficient) car-based mobility to active forms of mobility (walking, cycling), micromobility and street redesign, targeting both the city and the citizen level (Bertolini, 2020).

Despite the distinct local contexts of these cities, positive outcomes have been demonstrated through actions such as improvements in traffic safety, adoption of diversified transport modes and strategic planning in the past five years. Therefore, CityWalk 2.0 is structured around four main dimensions: anticipation of future challenges, reflexivity in adapting strategies, inclusion of diverse mobility modes, and reactivity to dynamic urban contexts.

A brief comparative analysis has been conducted between the approaches of the CityWalk 2.0 pilot cities. The results showcase the evident impact of soft and hard actions across various dimensions. Common walkability issues related to regulation and street design, as well as the elevation of pedestrians and cyclists to the apex of the "traffic pyramid," are highlighted in the cities' approaches to sustainable urban mobility. Key elements of CityWalk 2.0 include the redesigning streets to encourage active mobility and discourage car use, changing the travel behaviour of citizens and strengthening the political will and commitment to implement the transformation.

In conclusion, insights from CityWalk 2.0 project contribute to Track 5 by examining the changes in transport modes, mobility policies, urban models, and the roles of various actors as drivers to attain Sustainable Urban Mobility in the 21st century, providing essential guidelines for reshaping the discourse on urban mobility transformations.

Promoting Walking And Changing The Priority Setting In Urban Mobility

Noriko Otsuka (Ils Research Ggmbh), **Anna-Lena van der Vlugt** (Ils Research Ggmbh), **Janina Welsch** (Ils Research Ggmbh), **Katrin Lättman** (University Of Gävle), **Jonas De Vos** (University College London), **Edward Prichard** (Linköping University)

This paper presents the overall results from the EU-JPI funded project, WalkUrban, which aims to promote urban walkability and reconsider the prioritisation of public space use by different modes of transport. In relation to the 15-minute city concept, the potential role of walking in reducing car dependency and shaping sustainable neighbourhoods has been discussed in previous studies. However, the allocation of public space for pedestrians is generally limited compared to extensive space for vehicles, as walking is still not well recognised as a single mode of transport and taken for grated in urban mobility.

To understand key drivers for and obstacles to walking in different urban neighbourhoods, we have examined objective and perceived walkability based on mixed methods approach combining quantitative and qualitative data in order to assess urban walkability from multiple perspectives. Our research looked into built environment characteristics, pedestrian infrastructure, residents' walking behaviour and perceptions in three European cities (Dortmund, Genoa and Gothenburg). These cities have different topography, socio-economic structure and public transport offers as well as policies and approaches to encouraging active modes. In terms of objective walkability, we calculated a walkability index using OS-Walk-EU, an open-source walkability assessment tool which aggregated scores of weighted proximities to amenities, pedestrian radius of activity, and the amount of green and blue infrastructure. Subsequently we compared it to the perceived walkability by residents, resulting from household surveys conducted in six urban neighbourhoods in the three cities (n=1103). In addition to the findings from the household surveys, that captured people's walking related attitudes and travel behaviour with reference to their recent walking trip, we carried out a street level assessment to understand how people perceive the built environment in-situ, and what factors actually stimulate or disturb them while walking.

To delve into people's actual walking experience at street level, we applied two further methods: walk-alongs and walking route assessment (WRA) based on citizen science. To understand the needs of vulnerable people in relation to a feasible and enjoyable walking environment, we conducted walk-along interviews with different target groups such as school children, disabled and older people in the six urban neighbourhoods. For the WRA, we developed a tool by adapting a freely available software, KoBo Tookbox, and 92 citizens mainly in Dortmund and Genoa downloaded the tool on their smartphones and carried out an assessment of the walking routes they had chosen. For the household surveys and WRA, we applied the Short Perceived Walkability Scale (SPWS), a compact scale to measure perceived walkability and analyse its determinates. In parallel, the WRA and walk-alongs allowed to point out specific factors related to basic requirements of walking and barriers on streets (e.g., passable streets, pavement conditions, on-street parking) and additional aspects which enhance their walking experiences (e.g., green space, lively streets with many shops and stimulative arts).

The ultimate aim of the research is to identify local solutions for improving overall walkability alongside general recommendations for a pedestrian centred urban environment in order to change the prioritisation of walking in urban mobility. With experts and practitioners in the field we plan to explore policy implications and future implementations for creating walking-friendly neighbourhoods as well as the transferability of our research methods and outcomes to other European countries beyond the cities studied.

Keywords *: walkability, urban mobility, mixed methods, urban neighborhood, street-level assessment*

The Evaluation On Walkability In An Aging Society: The Case Of Senri New Town, Japan

Sota Aida (Osaka University)

In recent years, Japan has experienced a rapid aging society with a declining birthrate, and there has also been a growing interest in the concept of 15-minute cities, which the proximity to urban amenities is concerned. In the planning and development of future cities, pedestrian accessibility has increasingly been prioritized. To deal with the needs towards the ageing society, it is important to develop urban environments that focus on the lifestyles and health promotion of the elderly.

In Japan, however, there are still few studies on the walkability of the elderly, while a lot of previous studies discuss the evaluation of built environment characteristics and real estate values with regard to the needs of the general population, which focused more on younger and healthier people. The purpose of this study is to examine the walkability in the urban environments for the elderly using a case study in the Takanodai district within Senri New Town, where 38.9% of the total population is over 65 years old. The Senri New Town was the first large-scale new town development in 1970 in Japan aimed at providing a better walking environment for residents, and the initial design was therefore planned to create separate designated space for pedestrians and vehicles by arranging cul-de-sacs following the Radburn method to walk safely.

As the first step of this study, a literature review was conducted on existing walkability indices for the elderly, and a limited number of papers was selected as a basis of developing a walkability index for this research. These papers introduce key indicators for walkability assessment to address the elderly's needs. For this research we selected the following seven indicators ("presence of sidewalks," "pavement condition and obstructions such as parked bicycles," "condition of stairs," "degree of slope," "parks and recreational facilities," "trees and vegetation," and "street lighting") to develop a walkability index.

Next, a quantitative walkability evaluation was carried out in the Takanodai district using the walkability index. Using a heat map the walkability of each street was shown in the selected two case study areas: 1) detached housing neighborhood (low-density) and 2) social housing neighborhood (high density tower blocks). In this paper we present the findings from the detached housing neighborhood which consists of the majority of the Takanodai area and is characterized by its hilly topography. As a result, the pedestrian-only streets, which were initially designed as a footpath to improve walkability, were rated at the lowest in the walkability index. In contrast, general roads, some of which do not have dedicated sidewalks are rated higher. This is due to the fact that the pedestrian-only streets are often hilly and have stairs and do not appear to be not suitable for older people to enjoy walking. This suggests that when the Senri New Town was developed in 1970, the Japanese government had a limited awareness of the need to include barrier-free access and it seems that slopes and stairs were not considered as an obstacle to walking since new towns generally attracted young families to settle in.

This study developed an elderly-focused walkability index and applied it for the neighborhoods in the Senri New Town, where the population is aging, and found that the urban planning of the time of the development no longer works well in the current aging society. The present research evaluated the walkability with reference to objective characteristics of the built environment, and future research is planned to pursue the examination of residents' perception of walkability as well as the actualized walking by residents.

Walkability In Policies: An Evolution From Conceptualization To Policy Discourse In Portugal

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In the last thirty years, the literature coined Walkability as an index measured through attributes of the built environment and walking behaviour (Frank et al., 2010; Fonseca et al., 2022). Recently, planning-oriented research acknowledges the interdisciplinarity of Walkability and incorporates its measurable variables as indicators addressing policies toward sustainable and healthy cities (Giles-Corti et al., 2022). However, Walkability has not been substantially promoted explicitly in a single policy, but mainly implicitly through different conceptual components addressing various policies. Thus, the planning discussion returns to the conceptual basis to assertively define the components impacting Walkability inserted into policy discourses (Lowe et al., 2022; Nau et al., 2023).

This work builds upon a chronologic conceptual framework indicating key components related implicitly or explicitly to Walkability. The evolution suggests a long-term transfer of the Walkability concept from scientific and theoretical knowledge into planning practice. A qualitative discourse analysis aims to identify the key concepts of Walkability, implicit or explicit, in policy document guidelines, goals, and measures. This research works towards interpreting whether the key concepts impacting Walkability are incorporated into policy contents, taking Portugal's National policy documents from 2000 to 2023 as a case study.

Previous results point to a policy timeline indicating that Walkability has not been the protagonist theme in Portugal's planning system over the years. The research suggests it was initially implemented chiefly implicitly within specific sectors of Urban and Transport Planning, gradually becoming explicit as an integration concept within intersectoral policy designs concerning Sustainability, Climate Change Governance, and Public Health. Reinforcing these findings, the National Strategy for Pedestrian Mobility recently approved in 2023 finally promotes Walkability in a single policy that integrates multisectoral policy discourses.

Streets And Conflicts

Exploring Public Acceptance Of Urban Road Space Reallocation: A Vignette-Based Survey Experiment

Michael Wicki (Eth Zürich, Spur), **David Kaufmann** (Eth Zurich, Spur)

This study investigates public opinion towards the envisioned urban strategy "E-Bike City" that aims to reallocate half of street space to active mobility modes, public transportation, and public spaces. The research, formulated as an assessment of a hypothetical strategy, employs a vignette-based survey experiment within a sample of approximately 6,500 participants from a Swiss national panel survey. The focus is on understanding the individual drivers of public opinion regarding this urban strategy.

A significant component of the study is the examination of sociodemographic influences on public opinion. The analysis aims to uncover how factors such as urban versus rural residency and car usage affect attitudes towards E-Bike City strategy. To do so, we employed an experiment presenting two hypothetical E-Bike City implementations, each with different attributes concerning funding sources (city, federal government, or both), e-bike purchase subsidies (varied target groups), and accessibility measures for suburban and rural areas. Participants evaluate these scenarios based on their level of support, perceived fairness, anticipated effectiveness in promoting (e-)bike usage, and potential intrusiveness in daily life. In a second step, respondents also indicate which of the two proposals they would be more likely to accept. This comparison of the two scenarios in a hypothetical popular vote allows us to identify which aspects of the concept are more likely to be accepted or rejected by different demographic segments.

The goal of this research is to provide a nuanced understanding of public perception towards sustainable urban mobility concepts, focusing on the E-Bike City as a hypothetical urban mobility strategy. Insights from this study will contribute to the discourse on sustainable urban planning, the reallocation of street spaces, strategies towards car-free cities and thus informing strategies for communicating and designing sustainable urban mobility policies.

Not In My Street: Acceptance Of Car-Reducing Street Experiments In Existing Neighborhoods

Simone Aumann (Technical University Of Munich), **Stefanie Ruf** (Technical University Of Munich)

The urban transport sector is facing transformational challenges in order to reduce motorized private transport and meet climate and livability goals. This includes technological advances such as the conversion from combustion vehicles to e-mobility with decarbonized energy sources and the radical reorganization of living and moving around in our cities. For the success of the mobility transition, public acceptance is of central importance. While the acceptance and the associated use of new forms of mobility at a technological level, such as the acceptance of e-mobility and car sharing, have already been widely discussed (e.g., Gruschwitz et al., 2022), little research has been conducted into the acceptance of measures aimed at changing mobility behavior towards sustainable modes of transport (Becker and Renn, 2019). In particular, the acceptance of car-reduced neighborhood concepts in existing urban structures, i.e. a retrospective implementation of pull and push measures, has not been adequately addressed in current research (Aumann et al., 2023). While there has been some research on the hypothetical implications (Kirschner and Lanzendorf, 2020), urban living labs can help to better understand the processes and specific measures in real-world conditions that help or hinder high acceptability, eliminating potential biases or blind spots of more hypothetical approaches such as the Not in My Backyard (NIMBY) effect and the influence of public engagement on acceptance.

The Car-reduced Neighborhoods for a more Livable City (aqt) project in Munich tested car-restrictive measures such as the closure of street sections for cars to facilitate alternative uses and the introduction of mobility hubs in a five-month living lab in the Südliche Au neighborhood during summer of 2023. The neighborhood with around 11,000 inhabitants is located close to the city center and can be considered a 15- or even 5-minute neighborhood with a high potential for a reduction in car use and ownership, as it is mixed-use, walkable and dense with public transport and basic amenities in close proximity (Büttner et al., 2022).

Prior to the experiments in May 2023, an online survey was conducted in which questions were asked about residents' mobility behavior, socio-demographics and the future of mobility in their neighborhood. In particular, they were asked to evaluate the potential conversion of on-street parking spaces and street sections for other purposes such as green spaces and active mobility in their neighborhood. Survey participants were recruited by dropping a survey invitation letter in their household mailbox. In October 2023, at the end of the street experiments, a second online survey with the same study design and an adapted questionnaire was conducted to evaluate the acceptance of the implemented and changes in mobility behavior and attitudes. In the first survey, N = 559 residents responded, and N = 924 residents participated in the second survey. N = 106 people took part in both survey rounds with a generated identification code allowing for a longitudinal analysis.

By comparing the hypothetical and actual acceptance in a before-and-after-survey, important connotations are expected to be learned from. Preliminary results indicate that acceptance for greenery and opportunities to stay and mingle are high in hypothetical scenarios and in real-life implementations (>60% rate greenery and opportunities to stay and mingle positively in both cases). A NIMBY effect can be observed in the realized experiments, i.e. people tend to evaluate the experiments worse when living in close proximity. Further analysis will test for statistical significance and dive deeper into other factors such as the socio-demographics of persons, mobility behavior and car ownership, perceived noise and neighborhood conflicts as well as the perceived communication and engagement quality of the process potentially associated with acceptance rates.

Keywords *: urban living labs, car-free streets, acceptance*

Navigating Transformation: Sustainable Mobility And Public Spaces In The Austrian Context

Lisa Gallian (Tu Wien), **Barbara Laa** (Tu Wien)

The rise in harmful greenhouse gas (GHG) emissions from transportation, especially road traffic, is a significant environmental concern. In Austria, the transportation sector poses a big challenge for the environment, contributing to about 30% of the total GHG emissions in 2019 (Anderl et al., 2020) and increased emissions since 1990. Beyond just emissions, the conversation on sustainable transport must include historic developments, how our society and economy have transformed due to the widespread use of cars in the 20th century.

Although some academics still promote solely technological solutions such as electric vehicles or e-fuels to counter climate change, there is widespread acknowledgement across disciplines that the transport system has to change fundamentally, in line with a social-ecological transformation (e.g. Brand and Wissen, 2017). Despite these shifts in academic discourse and planning practices, global trends still reflect an increase in motorization and private car mobility, with limited implementation of transformative policies in most countries.

In this study, we look specifically at the role of public space in sustainable mobility and analyze the institutional conditions for a social-ecological transformation. Public space is an essential interface for different disciplines to meet current challenges and negotiating and balancing different interests. While for decades street spaces in many cities and regions were planned exclusively for motorized individual traffic, pedestrians and cyclists were put together to the remaining public space. To redesign public space for sustainable mobility modes, social interaction, and attractive places to stay, it must be reclaimed through forward-thinking urban and transport planning in terms of systemic change through local action.

We address the following research questions: (1) What institutional conditions exist in Austria when it comes to social-ecological transformation of public spaces and how do they influence local implementation?, (2) What key barriers and leverage points can be derived for a social-ecological transformation of public spaces?, (3) What recommendations for action result for politics, planning and administration?

The research questions aim to explore the rules and conditions in Austria that either help or hinder these transformations in public spaces. Institutional conditions in mobility tend to be complex and context dependent. Studies of institutions help to gain a better understanding of how they shape the behavior of actors and how political, economic, or social systems function. We draw from institutional theory to understand and explain organizational and individual action and therefore for (institutional) change. According to Karlsson et al. (2020), the identification of institutional factors - which can have either obstructive or beneficial effects - must consider different levels of analysis: macro, meso, and micro. While the macro level encompasses broader societal and political factors, the meso level consists of private actors and various formal organizations operating under different jurisdictions, from regional public transportation authorities to municipal planning departments.

Methodologically, our analysis is divided into three different approaches: a focus group with professionals from the mobility sector, an extensive literature review covering scientific, legal, and planning documents, and guideline interviews with experts who have been involved in seven different case studies. The expected outcomes aim to provide nuanced insights into institutional conditions, identify key barriers and leverage points, and offer practical recommendations for transforming public spaces in Austria.

***Keywords** : governance, Sustainable Urban Planning, public space, sustainable transformation, transport*

Empowering Urban Communities: Streetecho Toolkit For Inclusive Street Transformation

Enrica Papa (University Of Westminster), **Sabina Cioboata** (University Of Westminster)

The evolution of urban landscapes is witnessing a profound shift in the allocation of street space as cities worldwide prioritize inclusivity over vehicular dominance. This suggests the emergence of an era where streets transcend mere conduits for traffic, embracing a role as vibrant hubs fostering community engagement, social interaction, and well-being. Central to this transformation is the recognition that streets play a vital role in urban life, where cultural, social, and economic activities come together to shape the fabric of communities.

These paradigm, policy and practice shifts call for deeper investigations into alternative ways of seeing urban streets. They also call for developing innovative tools to capture better the socio-spatial complexities associated with street uses and perceptions. The Ex-TRA project, funded by ENUAC JPI Europe, delves into the concept and implementation of street experiments (Bertolini 2020) and convivial public spaces, advocating for streets designed to accommodate mobility and people while championing the dimensions of justice and equity. A pivotal aspect of this project lies in acknowledging citizens' valuable perspectives and knowledge, highlighting the imperative of community involvement in shaping street transformations.

In response to this imperative, the StreetECHO toolkit developed as part of the EX-TRA project emerges as a pioneering solution rooted in the principles of epistemic justice (Fricker 2007), aimed at enhancing transparency and inclusivity in decision-making processes surrounding street experiments and changes. By de-centring expert knowledge and amplifying non-expert viewpoints (Smeds et al. 2023), StreetECHO strives to generate a more comprehensive understanding of urban mobility dynamics and enable diverse stakeholders to contribute meaningfully to the evolution of their built environment.

The tool is one of the final outputs of a three-year research project that tested data collection and analysis methods in four different European cities involved in street experiments. Additionally, community workshops were conducted in two boroughs in London. StreetECHO was developed based on insights gained from a literature review and empirical lessons learned from practical applications. It comprises several key components to foster meaningful engagement and generate data-driven insights. It includes a guided survey, providing an accessible approach to gathering information on street perceptions, uses, and transformation opportunities. Additionally, the toolkit features a map-based response interface, allowing citizens to geotag their feedback for spatial context. Real-time tracking, data visualization, and hotspot mapping functionalities enable robust reporting and analytics. Moreover, demographic profiling capabilities facilitate comparisons across diverse groups of street users. Complementing these features is a guided workshop protocol designed to foster community engagement and facilitate deeper exploration of insights derived from survey data.

Mixing quantitative data with more qualitative storytelling features, StreetECHO enhances citizen engagement and co-creation by facilitating a nuanced understanding of diverse community perspectives. This would support planners in involving local stakeholders in co-creating street interventions aligned with community needs and aspirations. Secondly, the toolkit enables crowd-sourced assessment and hotspot identification by aggregating citizen feedback. This provides valuable insights into how different groups perceive and utilize urban spaces, informing targeted interventions and resource allocation. Lastly, StreetECHO empowers citizens to contribute place-specific suggestions for improving their streets, fostering a sense of ownership, and facilitating collaborative urban governance.

Based on ArcGIS online, StreetECHO represents an endeavour towards democratising urban planning processes, fostering inclusivity, transparency, and community empowerment in pursuing more equitable and liveable cities. By amplifying the voices of urban inhabitants and leveraging the power of collective intelligence, StreetECHO aims to contribute to an urban agenda where streets serve not only as conduits for movement but as vibrant spaces that reflect their communities' diverse needs and aspirations.

Fighting For Proximity: Acceptance, Opposition, And Political Outcomes Of Barcelona'S Superblocks

Oriol Marquet (Universitat Autonoma De Barcelona), **Monika Maciejewska** (Geography Department, Universitat Autònoma De Barcelona)

In the realm of urban development, strategies like superblocks have risen to prominence for fostering sustainable cities. Yet, their deployment has elicited a wide array of responses, from enthusiastic approval to strong disapproval. This research delves into the complex effects of superblocks, with a special focus on their reception and the repercussions for the initiating political entity, Barcelona en Comú, in the locales of their application.

Superblocks aim to cultivate sustainable, close-knit living spaces but have stirred both support and controversy, mirroring the debate surrounding urban planning reforms worldwide. In cities such as Oxford, London, and Edmonton, similar policies have faced criticism from those viewing them as encroachments on personal freedom and part of a broader environmental agenda. This resistance is anchored in a longstanding distrust of central urban planning, a sentiment that has only intensified in the aftermath of COVID-19. The research investigates these attitudes, identifying them as stemming from conspiracy theories, ideological stances, lifestyle disruptions, and valid concerns over issues like gentrification and social exclusion. Furthermore, it examines the influence of post-truth strategies in urban planning discussions, highlighting the challenges misinformation and a general distrust in authorities pose to rational urban policy-making. It suggests that urban planners employ a mix of scientific evidence and participatory approaches to address urban challenges effectively.

Additionally, the study looks into the political ramifications of superblocks in Barcelona, employing Geographic Information System (GIS) data and detailed voting data to apply a mix of Adjusted Difference-in-Differences (DiD) and Propensity Score Matching (PSM) methods. This analysis aims to gauge the electoral reaction to superblocks on a granular level. Results indicate that regions with superblocks tended to support the incumbent party, BEC, more, despite a decrease in their overall popularity in Barcelona. This trend hints at the potential of superblocks to sway the political landscape favorably in specific contexts, helping offset BEC's declining electoral support. Thus, the research underscores the importance of superblocks in influencing political trends and their efficacy in bolstering electoral support for parties promoting sustainable urban initiatives.

In sum, this study offers an insightful exploration of the challenges and political implications involved in implementing urban proximity policies like superblocks. It stresses the need to weigh both social acceptance and political factors in urban policy-making. As environmental and economic pressures mount, the findings provide valuable lessons for policymakers and urban planners on aligning sustainable projects with public and political backing. Barcelona's experience with superblocks exemplifies the delicate balance between urban planning goals, societal approval, and political impacts in modern urban settings.

Mind The Gap: Exploring Blind Spots And Gendered Perspectives In Urban Public Transportation Policies In Antwerp And Rotterdam

Charlotte van Vessem (Vrije Universiteit Brussel), **Imre Keseru** (Vrije Universiteit Brussel)

This research investigates the creation, perception and usage of public transport in urban environments along the lines of gender. It aims to address the structures that dictate everyday life in urban public transport, yet have become invisible for this very reason. To explore the conceptualisation of gender in public transportation policies, this study constructs a theoretical framework based on the concepts of androcentris (derived from Greek andros meaning man, implying a systematic focus on the male and the masculine) and blind spots, with particular attention paid to the concept of 'gender mainstreaming' in public transportation policymaking.

Public transportation is often perceived as a neutral system that works equally well for all travellers, but there is a growing body of scientific literature that shows that there is no such thing as 'travellers' as a hegemonic group with similar needs, goals, and perspectives (European Institute for Gender Equality 2017; Ortega Hortelano et al., 2019). A significant difference exists between male and female needs for, and perspectives of, public transport. Transportation systems are male-oriented, and the decision-making remains a largely male-dominated field (Sharma and Hencks, 2015). Despite this androcentric approach, public transportation has a much wider group of users.

Considering urban public transport research, there has been little focus on women's perspectives, especially from an institutional standpoint. Additionally, public transportation policies have been extensively studied, but the specific focus on gendered link between women and urban public transport policy specifically is still relatively new (Ortega Hortelano et al., 2019). Most scholars analysing women in relation to urban areas focus on 'traditional' women's topics such as work, the domestic sphere and political emancipation (Schmucki, 2012), side-lining gendered perspectives in policymaking so far. Moreover, there is still relatively little research on specifically the topic of gendered urban spaces and public transport in a European context: the majority of available studies focuses on the Americas and Southeast Asian cities. This leads to a gap in the literature focused on Europe, and to a general lack of understanding of policy structures in the field of public transportation, in which the focus lies on the experiences of female users of public transport instead of on the policymaking process. Consequently, this leaves a gap in the understanding of the intersection of policymaking, urban public transportation, and gender in a European context.

This research aims to provide a first analysis that looks at urban public transportation policies from a gender-perspective. Policy discourse analysis and expert interviews and policy analysis of Antwerp, Belgium and Rotterdam, the Netherlands as well as with EU policymakers will be used to answer the question: "how does contemporary policy approach the dimension of gender in public transport?". The research further investigates theoretical concepts of access to space through spatial and temporal drawbacks, as well as the gendered 'periphery of care' based on Fraser (2016).

Land Use And Mobility Integration

New Spaces For Mobility: Diverging Trajectories Within The Liège-Aachen Diffuse City

Cédric Wehrle (University Of Liège)

A rich body of research has been done on the many types of contemporary diffuse cities around the world (Barcelloni Corte and Viganò 2022), whose specific characteristics arise through specific geographic, but also social, technical, and political factors. The Liège-Aachen metropolitan axis is such an example of diffuse city, sharing common geography, culture, and history.

The Liège-Aachen metropolitan axis fits on many aspects within the research lineage on the diffuse city but sets itself apart from neighbouring western European examples in several ways. Firstly, it lies both at the centre of Europe and at the edge of two countries, languages, and planning cultures. Secondly, it crucially lacks a hegemonic urban centre of which this case study can be seen as the hinterland. Lastly, despite being part of the oldest recognized European cross-border collaboration, it lacks a common territorial project.

The socio-technical system of automobility (a term coined around the same time as research around the diffuse cities grew manifold), constitutes a defining catalyst not only for accentuating already present dispersed settlement structures, but also for producing, within a very short time span, characteristic urban forms and a sprawling new typological catalog of spaces linked to the car.

To accompany the massive urbanisation process induced by the car, two radically different planning traditions have been pursued between Liège and Aachen since the 1960s: the banlieue radieuse ideal was accentuated in Belgium (De Meulder et al. 1999), while the German area became a laboratory for Christaller's central space theory (Bloetvogel 2004). This results in very different settlement patterns between two regions, despite them sharing similar metrics of population growth, economic fortunes, and car adoption rates.

The strive to dramatically reduce carbon emissions linked to transport by 2030 constitutes one further instance of such shared metric. Accordingly, European countries and regions have, accordingly, published in recent years bespoke objectives and spatial planning tools to reduce car use. Conversely, in the scientific community, a growing body of work is being collected to envision post-car future scenarios in which the prevalence of the automobile (today recognized as a largely counterproductive system) and its ancillary spatial imprint would dramatically shrink in favour of new territorial configurations (Cogato Lanza et al. 2021). Many researchers have highlighted the crucial role of how spaces of automobility will be used as an essential leaver for change (Bertolini 2022), considering what is already there as a potentially formidable resource of grey energy.

This contribution aims to address this gap in the research about this very type of transborder diffuse city through the lens of automobility and a future post-car discourse. Specifically, it proposes, in the light of the scientific work describing either Belgian or German past planning practices, to compare the spatial impact of existing policy objectives and government plans being drafted today in both regions to reduce future car use. This comparison of two bordering, immensely comparable yet surprisingly contrasting contexts, aims to highlight possible paradoxes, but also opportunities for better informed transborder collaboration.

In 2021, violent floods in both Germany and Belgium highlighted how geographically inherent territorial solidarities is ever more a crucial factor for understanding our territories in a way that is meaningful to tackle the challenges of the transition. However, as there is not only one single path to a successful transition, different ways to spatialise the same metrics linked to automobility and its possible decline exist. For new solidarities between territories sharing common ecological threats to emerge, the implication of such diverging paths cannot be ignored.

Keywords *: diffuse city, urban morphology, automobility, post-car policies, transborder relations*

Hidden Development Potential In Small Towns: Performative Experiments As A Contribution To The Mobility Turnaround For Improved Land Use In Baden-Württemberg, Germany

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Since the 1970s, exceptional situations have been repeated in rapid succession and have plunged us into a long climate, environmental, energy and health crisis that also affects institutions, professions and the modern project itself (Doglio: 2021). "Being in crisis" requires a rethinking of intervention methods: we must not limit ourselves to not limit themselves to temporarily remedying the most acute effects, but rather must do justice to this permanent state of crisis (Reckwitz: 2022).

If certain functions in urban development are called into question in the future due to drastic transformation processes, this enables a discourse on the opportunities inherent in this permanent intermediate state. How everyday practices and spaces can be integrated into this change in a relational way has hardly been tested, especially in small towns.

The current debate on the adaptation and reuse of buildings whose previous uses have become "obsolete" - e.g. churches, garages or shopping centers (Rettich, Tastel: 2020) - needs to be transferred to open spaces and potential infrastructure areas. This is particularly promising for areas reserved for stationary traffic: changing transport choices and mobility behavior, remote working conditions as everyday practice and seamlessly coordinated mobility chains suggest that the release of these areas for more intensive uses will become an option in the future. In contrast to the large urban centers, yield pressure in small towns has so far been less direct, but here too, growing competition in land use is becoming apparent (Spalek, Meyer et al.: 2023). Due to the particularly high proportion of private transport, it can be assumed that the availability of 'liberated' areas in small towns can have a proportionately greater impact than in the denser centers and can be read as an opportunity for participatory and public welfare-oriented developments.

In a model project, the Baden-Württemberg Institute for Sustainable Mobility (BWIM) is developing performative actions that are dedicated to exemplifying such space potentials. This involves systematically testing the role that performative experiments can play as a transformation tool to trigger desirable developments. The context is a region with a highly fragmented settlement and landscape structure, small and medium-sized towns and urban peripheries. The aim is to address changes in everyday practices in small towns as well as thematize global crises such as the climate crisis.

***Keywords** : sustainable mobility, Germany, urban experiment, temporariness, public space*

Shared Mobility And Housing – Legal Framework In Austria

Oliver Peck (Tu Wien)

The mobility services available in the residential area play a key role in determining mobility behaviour, especially since around 80 percent of everyday journeys start or end at the place of residence. If residents are to switch from motorized individual transport to more sustainable transport in the future, attractive alternative mobility services have to be offered in the area of housing, e.g. by setting up car or bike sharing services in housing estates, platforms for carpooling, providing tickets for public transport, etc. Especially enforcing the integration of car sharing services in the residential environment is seen as a game-changer to reduce motorization rate, change mobility bevahiour und reduce land use for parking spaces.

Housing and mobility should therefore increasingly be considered as a holistic concept. This means the implementation of sustainable mobility concepts into new housing projects. But also, the task of transforming the existing building stock offers an opportunity to link the areas of housing and mobility more closely.

So far, the relevant legal framework in Austria for the integration of mobility and housing (i.e. spatial planning laws and building regulations) sets only very general targets regarding mobility in residential areas. Planning law requires a minimum level of transport infrastructure as a precondition for settlement development. Building regulations primarily focus on motorized individual transport by stating obligations to provide parking spaces for cars when new residential buildings are constructed. In Vienna, recently the option was introduced that by establishing a car-sharing service, the number of compulsory parking spaces is reduced. But overall, there is still no comprehensive legal basis for the integration of alternative mobility services into housing.

To strengthen the role of alternative mobility services in residential housing, new approaches are being discussed. For example, property developers could be obliged by the law to implement alternative mobility concepts (including, for example, of car sharing services) instead of building parking spaces. On the other hand, the provision of sustainable mobility at the place of residence can also be seen as a responsibility of the public sector. In this case, the obligation for developers to build parking spaces could be replaced by introducing a new "mobility tax", the funds from which can be used for financing alternative mobility services offered by the public sector.

In any case, before an adapted legal framework - which not only takes car traffic into account, but also the integration of alternative transport options - can be established, essential questions need to be clarified. Should mobility services be set up on-site and only accessible to residents or generally accessible and set up in public areas? Who should be responsible for setting up and operating the mobility services: developers, the public sector or the residents themselves? How can sustainable funding be achieved for long-term operation? These questions are still to be examined more closely in the future in an interdisciplinary way.

Keywords *: sustainable mobility, carsharing, building law, housing, mobility services*

Changing The Narrative: Medium-Sized Cities As Potential Frontrunners Of Mobility Transition?

Maximilian Birk (Rwth Aachen University)

While metropolises are regarded as epicentres of innovation and change, most Europeans do not live in large cities but in various small and medium-sized cities and settlement types. An effective transport transition must therefore also develop solutions for the challenges of the transport system outside metropolitan areas. Focusing on the specific framework conditions and challenges of small and medium-sized cities can help to emphasize the specific transformation potential of small and medium-sized cities and can contribute to leveraging their potential.

Small and medium-sized cities (20,000 - 50,000 inhabitants) in particular face distinct challenges when it comes to implementing a local mobility transition: On the one hand, as a particularly large group of communities, they are of great importance as a place to live and work and thus generate a high proportion of traffic volumes. On the other hand, due to their limited financial and human resources, they seem to have only a limited ability to independently establish goal-oriented transport planning in a dynamically changing mobility world.

Against this backdrop, the submitted article deals with the question of how small and medium-sized cities can independently shape the transformation towards an urban mobility turnaround and works out their potential for transformation in the area of mobility and transport transformation at the spatial, actor and governance levels.

Statistically, medium-sized cities have comparatively high car ownership and car use rates. This goes hand in hand with a perceived dependence on the car, which is both culturally and habitually conditioned. At the same time, however, medium-sized cities tend to have sufficient facilities for daily needs, education and health care within a limited spatial extent and thus good spatial conditions for non-motorized local mobility. In theory, they somewhat naturally fulfil a key characteristic of the concept of the 15-minute city.

At the level of actors and governance, there is an area of tension between the professional specialization and personnel strength of administrations in large cities for shaping change processes, and the supposed agility, rapid coordination and decision-making processes, and personal proximity of administrative units in smaller cities.

The two levels of investigation are empirically addressed by a GIS-based accessibility analysis of a total of 40 medium-sized cities based on the 15-minute city framework and by qualitative interviews with 36 local actors from the fields of local politics, administration and mobility services in 3 medium-sized cities with special focus on interactions at the local level with regard to transformation and change.

The aim of the contribution is to tear down the often-received dichotomy between urban and rural areas and to focus more on the many municipalities that are neither metropolitan nor rural. In this way, it seeks to reframe the narrative: Small and medium-sized cities are key players in a sustainable transformation and have great potential for transforming mobility themselves.

Keywords *: medium-sized cities, mobility transition, spatial potential, 15-minute city, local governance*

The Dual Processes Of Fragmentation And Integration In Transport Tendering: Understanding Transport Integration In A Unitary National Government

David Weinreich (University Of Bergen), **Karel Martens** (Technion-Israel Institute Of Technology)

A high level of integration of public transport services in terms of scheduling, ticketing, and cross-operator data provision and others is crucial to provide a high level of service to potential users. Transport integration issues are a growing need as transport providers consider low cost ways of increasing ridership following the travel pattern disruptions exacerbated by the recent pandemic.

Particularly in Europe, there has been increasing privatization of services, which are tendered to private operators that bid in a competitive process, though public authorities often retain the power to define such services (Pettersson and Hrelja, 2020). This has created operator fragmentation (Pettersson & Hrelja, 2020), and requires further research on cross-operator service integration. Previous scholarship has found that larger tenders and more integrated tenders should, over time, facilitate further cooperation (Veeneman & van de Velde, 2014), but more research is needed on the process for developing such tenders, how its ability to overcome transport fragmentation is influenced by the centralization of the process and the centralization of government decision making (Veeneman and Mulley, 2018). Israel presents a case with a highly centralized transport decision making process that will add to existing literature on tendering and transport fragmentation.

The challenge of delivering an integrated system has increased over the past decades, due to the (gradual) privatization of public transport services over multiple private public transport providers in many countries. Israel is one of the countries that have followed this path since the early 2000s, with the public tendering process resulting in the fragmentation of services from merely 2 into 17 bus operators.

In this paper, we use document analysis as well as interviews with key members of the national government, private consultants, private operators and municipalities, to understand how the Israeli tendering process fragmented services into 17 operators, but also developed ways to integrate them. The study uses this information to understand the role of formal institutions in coordinating schedules, integration of fares and fare cards, shared use of terminals, and cross-operator data sharing across the country. We identify a number of ways integration was enhanced in each category, with the national government making use of its strong leverage over private operators. We also highlight the limitations of this approach due to the separate management of bus and rail services within the national government. The study closes with findings that Israel has achieved coordination despite a large amount of private ownership and fragmentation across operators. Flexibility over time has helped to refine this coordination with each new tender. However the results have been confined to the bus system, with poor coordination across modes (bus/rail), and results that are unsatisfactory to local municipalities, which are often not included in the decision making process. In this case, the use of a higher level of government to effect coordination has been effective, though it has also impeded their ability to adapt to local needs.

Keywords *: transportation, fragmentation, governance, multi-level governance*

Tools And Models For Mobility Planning

From Data To Design: Using Mobile App Data And Machine Learning Techniques For Street-Level Walkability Assessment

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Recognizing streets as social spaces, urban planners in recent years aim to reposition pedestrians at the forefront of city design, challenging decades of car-centric urban planning (Salazar Miranda et al., 2021). One result is the increasing interest in the interplay between walking and the built environment among scholars and practitioners striving to foster sustainable transportation and cultivate healthy urban communities globally (Yencha, 2019). However, while pedestrians interact closely with the street environment, walkability assessments to this date have predominantly operated at the neighbourhood level, neglecting essential human-scale characteristics. Moreover, the exploration of walkability and the built environment has traditionally relied on constrained and temporally confined methods, such as surveys and observations (Ferrer & Ruiz, 2018). To bridge these research gaps and gain fresh insights into the intricate connection between walking and the built environment, this study employs machine learning techniques to scrutinize mobile app data capturing pedestrian traffic, coupled with street characteristics examination.

Specifically, the study leverages tree-based algorithms to unravel the nuanced relationship between pedestrian volume and various built environment features at the street level, spanning diverse time periods. Pedestrian traffic data from Tel Aviv, Israel, forms the basis of the analysis, with meticulous consideration given to seasonal variations, days of the week, and hours of the day. The investigation spans an extensive dataset of over 8,000 street segments and encompasses 20 street-level characteristics, including elements such as trees, lighting, bus stations, businesses, educational and cultural institutions, health services, and residential density, among others, providing a robust foundation for evaluating the dynamic association between pedestrian volume and urban features.

The study's outcomes yield fresh perspectives on the relative significance of diverse characteristics in influencing walking activity, elucidating distinct street profiles associated with varying levels of pedestrian volumes. Notably, our findings underscore the crucial role of time variables in the discussion of the relationship between walking and street characteristics. The model results reveal that the importance attributed to street features varies across different time definitions, shedding light on the temporal dynamics of pedestrian movement. Further, the importance of street-level walkability assessment is emphasized in the results. for example, land-use mix, which is commonly attributed to more walking at neighbourhood-level, was found with low significance at street level; Areas with low walkability overall also include street segments with very high walking volume and vice versa.

This research carries implications for decision-makers and urban planners. By unveiling pedestrians' behaviours and preferences at the street level, the study suggests that the use of bigdata technologies and artificial intelligence analysis can equip stakeholders with valuable insights to guide more efficient infrastructure investments and informed planning decisions. The nuanced understanding of the relationship between walking and the built environment, facilitated by machine learning methodologies, offers a paradigm shift in approaching urban planning and walkability research, encouraging the creation of environments that not only promote active transportation but also contribute to the establishment of healthier and more liveable communities.

Explore The Improvement Of Humanity-Oriented Transportation Through Adaptive Topology Optimization Of Traffic Networks Using Density Fields

Yin-Chen Chen (National Cheng Kung University), **Hsueh-Sheng Chang** (National Cheng Kung University)

The "Athens Charter" mentions that "transportation" plays a crucial role in connecting dwelling, work, and recreation (use of leisure time). However, the current development of car-based transportation has significantly impacted the quality of urban life and personal safety. Therefore, advocating for humanity-oriented transportation, improving pedestrian environments, and reducing traffic conflicts have become trends. Our study introduces a topological optimization model using the Shepard density interpolation strategy to establish a traffic density field. The aim is to investigate how, within an acceptable range of overall service levels on urban roads, it is possible to reduce vehicular space and release more space for pedestrian activities. Furthermore, combining adaptive methods for more accurate traffic density estimation facilitates the effective allocation of both vehicular and pedestrian spaces.

The traditional planning approach of automobile-based for urban spaces and transportation environments is based on the general pattern of the circulation in the city and its region. It considers different user groups, such as pedestrians, automobiles, through traffic, and the needs and characteristics of roads including road width and intersection design, to determine the flow and quality of traffic. In Taiwan, transportation planning is integrated into urban planning, considering land use, road distribution, traffic characteristic surveys, traffic volume analysis and prediction, public transportation conditions, etc. This helps in planning corresponding road functional levels and road system configurations to meet the varying degrees of feasibility and accessibility. However, over time, the development of road networks has leaned towards a car-oriented pattern. This has had significant impacts on pedestrian environments in urban areas including issues such as high usage of motor vehicles leading to air pollution and inadequate parking space, insufficient sidewalk coverage, and the incompatibility between transportation modes and urban spaces.

In response to these challenges, urban transformation becomes imperative. Shifting from car-based transportation to humanity-oriented transportation emphasizes a human-centric planning approach. While prioritizing the efficiency of transportation system development, it is equally important to consider environmental protection and public safety. This involves focusing on pedestrian activities on roads, increasing pedestrian space, and minimizing the impact of vehicles on road users. Improving road spaces, adjusting the functional structure of road systems, reconfiguring road spaces, reducing the impact of through traffic, and lowering driving speeds in the area. Therefore, through the proposed methodology in our study which introduces the Shepard density interpolation strategy into a topological optimization model to construct a traffic density field, coupled with adaptive methods, the precision of traffic density estimation is enhanced. The goal is to reevaluate and adjust spatial configurations before implementing humanity-oriented transportation. This approach aims to simultaneously meet the needs of pedestrian and vehicular spaces, contributing a modest effort towards achieving net zero emissions and sustainable development in response to climate change.

Urban Transport Layers - A Data-Driven Exploration Of European City Structures

Christian Gerten (Ils - Research Institute For Regional And Urban Development)

The transition of urban transport towards sustainability stands as an outstanding challenge for the cities of the 21st century. The ubiquitous dominance of private motorised mobility has been identified as one of the main drivers for many negative urban developments in terms of urban sprawl or functionally segregated neighbourhoods (Wiersma et al., 2021). Cities are urged to actively promote sustainable transport solutions, fostering a mobility transition through initiatives such as cycling promotion, enhancing public transport infrastructure, and introducing innovative sharing services. Urban paradigms like the 15-minute city and transit-oriented development embody these principles for sustainable and inclusive urban development. Current research assumes that these concepts, which require physical redesign, can significantly facilitate the transition from cars to eco-friendly transport modes. The urban fabric theory by Newman et al. (2016), which classifies cities into pedestrian, transit, and car zones, provides a framework linking urban design and transport. However, previous studies often rely on simple indicators, such as distance to transit or car density. A study by Gerten & Fina (2022) introduced a methodological approach by analysing physical characteristics, walkability, and access to high-quality public transport, allowing a nuanced classification of neighbourhoods based on transport priorities. Advancements in technology and the rise of open data initiatives present new opportunities for urban transport analysis. This includes the availability of new data sets and their increasing accuracy (transit feeds, OSM) on the one hand, and new software (GIS-plugins, R-packages) to process them on the other. By using, combining, and adapting different methodological approaches, such as the OS-WALK-EU (Fina et al., 2022) or public transport quality categories, urban structures and their transport qualities can be refined. With these emerging opportunities, it is also possible to expand the concept by Gerten & Fina (2022) with an additional view on other sustainable modes of transport. Extending these layers of urban transport allows for a classification ranging from multi-modal to car-dependent areas, which could provide a more accurate view on transport options within a city. By analysing the results over time, this approach allows to quantitatively monitor the progress or setbacks of the transport transition. Additionally, combining this information with data on land development, urban growth or socio-economic characteristics could also shed new light on topics like mobility poverty, the cycle of car dependency or transit-oriented development. This research contribution will use several selected European cities, to explore the following research questions: What changes in transport modes can be observed in cities? Are there specific structures in the distribution of transport modes within cities, and do these structures contribute to patterns of socio-economic inequality in accessing these modes? This research contributes to the discourse on quantitative monitoring of urban transport and provides insights that are crucial for creating sustainable and inclusive cities.

Inclusivemicromob: Designing A New Urban Model Through Genny 3.0 In Lugano

Annalisa Rollandi , **Albedo Bettini** (Supsi), **Filippo Bignami** (Supsi)

As urban populations grow, cities face the challenge of ensuring efficient, sustainable, and inclusive transportation systems. InclusiveMicroMob investigates the role of micro-mobility, specifically shared transportation options and the participatory process they can trigger, in fostering inclusive and sustainable urban mobility within the context of Lugano in Switzerland. The study explores how micromobility initiatives can address diverse community needs, improve accessibility, and contribute to new urban models, analyzing potential conflicts and synergies with other systems and from a transformational perspective toward the "15-minute city."

An interdisciplinary team of SUPSI researchers leads the project with the participation of some key players in local and national mobility policies. The project takes place thanks to the participation of the Municipality through Lugano Living Lab and the Swiss innovation company Genny Factory SA, which will supply and monitor the prototypes. The project is financed by the Federal Office for Development (ARE).

InclusiveMicroMob promotes a new inclusive and sustainable multimodal mobility offer. The project introduces the Genny 3.0 prototype, a new self-balancing vehicle, no longer intended exclusively for disabled people, a replacement for individual internal combustion vehicles for all citizens. It is the first inclusive and sustainable multimodal micromobility tool, which provides support information for the understanding and management of urban dynamics, thanks to data collection, from a smart city perspective.

The city of Lugano constitutes a compelling case study thanks to its unique blend of historical charm and modern dynamism, combined with a commitment to sustainable development. This research uses a mixed-methods approach, combining qualitative interviews, quantitative data analysis, and testing to comprehensively evaluate the impact of micromobility initiatives on the city's mobility.

The first section of the research examines the current state of urban mobility in Lugano, considering the existing challenges and opportunities. Through interviews with municipal officials, urban key actors, urban planners and micromobility providers, the study explores the motivations behind adopting the current policy and any concerns or resistance encountered for a new mobility policy.

It also examines the city's transportation infrastructure and public transportation systems to identify potential synergies, conflicts and gaps in accessibility, where micromobility tools can play a crucial role.

Subsequently, the research delves into the adoption of Genny 3.0 in Lugano. InclusiveMicroMob includes two main activities. Qualitative analyses with different actors to investigate the challenges and Genny's perception. On the other hand, urban tests aimed at analyzing current opportunities and critical issues regarding public space dimension, public transport management, and conflicts with other systems, identifying challenges for the future.

A central focus of the research is inclusiveness and the idea of a participatory process, evaluating how micromobility initiatives meet the different needs of the population of Lugano. It includes accessibility considerations for people with disabilities, affordability for various income groups, and the impact on different demographic segments.

The research also evaluates the environmental sustainability aspects of adopting micromobility in Lugano, analyzes the reduction of carbon emissions, integrates with existing public transport, and examines the overall ecological impact of shared transport options. Through this analysis, the study seeks to provide insights into how cities can leverage micromobility to achieve their environmental sustainability goals.

In conclusion, the study aims to propose recommendations to optimize inclusiveness in future urban mobility planning in Switzerland. InclusiveMicroMob comprehensively examines the intersection between micro-mobility, inclusivity, and urban planning in Lugano. The study provides a nuanced understanding of how shared transportation options contribute to a more inclusive and sustainable urban mobility landscape. The findings and recommendations derived from this research can serve as a valuable resource for city planners, policymakers, and micro-mobility providers looking to enhance urban mobility in a efficient and equitable way.

Classifying Potential Multimodal Hubs In The Milan Metropolitan Area. A Scalable Tool For Addressing Multimodality In The Inner Cities.

Mohamed Elgohary (Politecnico Di Milano), **Paola Pucci** (Politecnico Di Milano)

Introduction

The concept of a multimodal mobility hub as a transport node, where the physical integration between transport services, intelligent technologies, and data-driven solutions allows users to combine several mobility options (Graf et al., 2022; Geurs et al., 2023) and its different typologies (Weustenenk & Mingardo, 2023), has recently gains space both in the Mobility Urban Agendas and in the academic domain.

Multimodal Hubs in Literature

In the Urban Mobility Agendas, the policy for implementing multimodality supports the integration of active mobility (i.e., walking and cycling) with public transport and micro-sharing mobility options to limit the use of private cars and change the hierarchy of mobility choices pyramid (Edmonton, 2023). In the academic domain, by updating a reflection on the spatial role of the transport nodes, started in the 1990s (Amar, 1989; Bertolini, 1999; Joseph, 1995; Kokoreff, 2002), the aim is devoted to investigating and operationalizing their potentialities as an "interface between the transport networks and the spatial structure of an area," including a range of transport and urban components (CoMoUK, 2019).

The transport node is an essential component of the transport network. It simultaneously is part of a spatial setting, representing the place where the accessibility offered by the transport supply may support the individual opportunities to perform activities, reach essential activities, and participate in social life (van Wee, 2011). This addresses the analytical approaches that go beyond established formats for combining the transport performances of the nodes with the variable densities and rhythms of users and uses, also related to the permanently or temporarily inhabited areas inside and around them.

Aims

By exploring the complementary dimensions associated with the transport node, including its suitable locations (Blad et al., 2022) and the profiles of the users and their needs (Bosehans et al., 2021; Bell, 2019; Tran and Draeger, 2021), the paper proposes the outcomes of an ongoing research finalized to develop an evidence-based strategy for planning and designing urban multimodal mobility hubs in the Milan metropolitan area.

The gap in research

On Urban Mobility discourse, several studies tried to cluster multimodal hubs into "typologies" (Arlington County, 2021; ARUP, 2020; Crowther et al., 2020; Grade et al., 2016; Metropolitan Transportation Commission, 2021). The typology of Multimodal Mobility Hub is beneficial to give an overview of the functions, sizes, and locations of the available multimodal hubs. However, the multimodal hubs typology does not support enough evidence-based policies, as they consider only the hub without looking into the context or the potential users.

Methodology

This paper proposes a multidimensional analysis framework to fill this gap left by typologizing the Multimodal Hubs. It analyzes potential Hubs based on Standard Mobility and Urban data that can make methodology scalable and applicable to different contexts, not just to the case study (Milan Metropolitan Area). The paper defines indicators that characterize the Multimodal hub drive from the literature (Geurs et al., 2023); then, the methodology mobilizes the accessibility of potential mobility hubs by applying the accessibility by proximity index (Lanza et al., 2023). Both dimensions are used as input (Bertolini, 1999) node/place classification model. Then, in unbalanced conditions, examine the "People" dimension. This dimension aims to explore users' needs and practices to better understand the selected hub's functionality. The process is done through a digital and on-site survey, followed by active participation through a digital platform to discuss possible changes.

Results

The result is to indicate the status of Multimodality for each station based on their multimodality characteristics and the characteristics of the relevant context; further, it characterizes the people's needs and mobility practices. This paves the road to an evidence-based co-design for Multimodal Mobility hubs.

***Keywords** : Multimodal mobility hubs, classification, mobility practices, Milan*

A Role For New Mobility Services Outside The Inner City?

Anders Larsson (University Of Gothenburg), **Carey Curtis** (University Of Gothenburg)

The current shift in policy and planning towards sustainable cities and mobility has gained significant attention in academia. Much of this research is, however, dominated by actions centred only on densely populated settlements leaving a knowledge gap as regards the other settlement types, including suburban areas of large cities, small towns and rural areas (van Wee, 2016). Any transition to transport-efficiency needs to take into account the conditions in different spatial contexts (Larsson et al 2022). In practice, however, these strategies have mainly been implemented in the dense city (Pettersson et al, 2021). New mobility services have been mainly installed in dense urban areas (inner city, inner suburb) in places that are already rich in transport mode choice and activity opportunity. This ignores the large areas of outer suburbia, small country towns and villages. In Sweden, these are places where many people live but where there is less transport choice and also fewer opportunities for work, shopping and other activities. As a result, they have poorer accessibility with public or active modes which thus results in car dependent lifestyles (Larsson et al, 2022).

This research seeks to understand the role that new mobility services have in areas between the dense urban core and the rural hinterland and their potential by different population groups. Employing a case study approach based in the Greater Gothenburg region, we select places to represent a spectrum of socio-demographic and accessibility contexts. From places with good public transport for work commuting and new sustainable housing initiatives to less accessible areas with older housing and lower incomes. All areas have a very limited supply of new mobility services (ie. bike share, e-scooter share, car share, flex bus, ride-hail etc) making them useful for understanding the needs and potentials for new innovative solutions and business models. We draw on surveys of residents to establish their current travel behaviour, use of new mobility services and their views on the potential of these. In addition, we draw in a series of in-depth interviews with public and private sector suppliers of new mobility services in order to understand their views on the barriers and opportunities for installation of these services outside their usual places.

Our preliminary results show that few residents use New Mobility Services, the potential for their use varies by geography and demography. Further the relationship between public and private sector impedes the integration of New Mobility Services as part of fully functional public transport system.

Keywords *: Public Transport, Semi-dense areas, New Mobility Services*

New Mobility Cultures

Mobility Dependency Of Women In Peri Urban Region: The Case Of Creil And La Roche-Sur-Foron.

Maya El Khawand (Université Gustave Eiffel)

Over the past few decades, improvements in travel conditions have led to socio-spatial transformations, especially urban sprawl and increasing distances between housing and workplaces. These changes have favored the migration of new populations to rural and peri urban areas, including low-income households seeking affordable housing and households seeking a more natural environment. Moreover, these spatial changes have led to significant social inequalities, such as limited access to fast travel modes, which highly depends on personal characteristics (Preston, Rajé, 2007) or to residential locations with good amenities or efficient public transport services. Both of these spatial transformations of urbanized areas and the social valuing of mobility have led to the increase need to travel more frequently, sometimes further, and faster (Kaufmann, 2008). This process of "mobility dependency" results in two forms of prejudice for precarious social groups: lack of accessibility for those who do not have access to mobility, or significant financial costs, difficult and longer travelling time for mobile people but severely constrained in their movements (Fol, Gallez, 2017; Chevalier, 2020).

In the face of the climate emergency and foreseeable rises in energy prices, access to local amenities and services is becoming increasingly difficult. This is especially true for less-advantaged population in rural and peri-urban areas, which are less well served by public transport and often have fewer local services and shops. Consequently, these areas, characterized by significant distances between various activities, tend to be stigmatized as fragile territories marked by unsustainable lifestyles and mobility habits predominantly reliant on cars (Fourny, Cailly, 2012). Given this scenario, reducing private car usage has become a central topic in political discourse. National and regional authorities leverage railway services as a tool for improved transportation and urban planning coordination, with the goal of reducing car dependency. Models like Transit Oriented Development are being implemented, though typically applied to densely populated urban areas.

We hypothesize that in these areas characterized by diffuse urbanization, the application of urban-centric planning principles (such as densification, polarization, and massification of flows, etc.) may exacerbate mobility dependency. This is particularly true for less advantaged individuals, resulting in paradoxical effects on their access to services, amenities, and housing. In these areas, the railway service promotes the territory with good regional accessibility and sometimes a micro-local accessibility restricted to a limited perimeter around the station. However, this approach tends to overlook the daily accessibility needs of the local population, especially the less-advantaged groups, including women.

Based on a qualitative methodology such as semi-directive interviews, walk-alongs, focus groups, etc., this research draws on the disparities between the vision of local actors (potential accessibility) and the needs and practices of the population, especially women (effective accessibility). In this communication, we will be looking into the women's effective access to services, amenities, housing and job opportunities. Based on the comparison of two communes in the peripheries of Paris and Geneva, we will be analyzing their accessibility needs and mobility practices in the territory. The first case study is Creil, a commune located outside the administrative region of Ile de France, but at its fringes. It is strongly dependent on the Ile-de-France metropolis, which is reflected in the high rate of daily commuting. The second case study is the small town of "La Roche-sur-Foron," located in the French peripheries of Geneva and served by the new Léman Express railway, the transborder French-Swiss infrastructure.

***Keywords** : mobility dependency, accessibility, peri urban regions, social inequalities, women*

Exploring Independent Mobility Disparities For Belgian Adolescents: Gender Differences In Autonomy And Daily Travel

Kandice Fults (Vrije Universiteit Brussel, Cosmopolis Centre For Urban Research), **Kobe Boussauw** (Cosmopolis Centre For Urban Research, Vrije Universiteit Brussel)

Research in childhood and adolescent independent mobility has shown repeatedly, and in diverse locations, that there is a significant gender gap in independent agency; female children and adolescents are given less independent agency than their male counterparts (Ghekiere et al. 2017; Brown et al. 2008). Previous analyses of children's travel in Belgium show that young teenagers shift a large portion of their daily travel from automobile travel to non-automobile travel at around 12 years old, with no statistically significant influence by gender (Fults, et al. 2023). Interestingly, it was simultaneously found that this shift to non-automobile trips presents a significant gender gap when segmenting the non-automobile trips as independent or accompanied trips. Male youth have a much higher rate of independent travel compared to female youth, even as they both shift to non-automobile-based travel at a similar rate.

This paper will present a more nuanced analysis of this observation. Utilizing the same most-recent and most-comprehensive national travel data set in Belgium, this paper will present analyses specifically aimed at answering with whom female Belgian teenagers are traveling and what is the purpose of both accompanied and independent trips. Given the documented shift from automobile to non-automobile daily travel for teenagers, this paper will also identify, on a disaggregated level, to which modes teenagers are shifting. The results of these analyses will allow for a more critical discussion on the gender gap in independent mobility for Belgian teenagers.

Keywords : gender, independent mobility, travel behavior, Active travel

Stepping Out Of The Box Of 'Sustainable Mobility' Into An Interconnected, Otherwise Mobile World. Seeking A New Methodology For The Future Of Mobility Planning

Kim Carlotta von Schönfeld (Western Norway University Of Applied Sciences)

The world today is nearly unthinkable without high levels of mobility – either of oneself, or at least of goods, services and often even families and friends around one (Rosa, 2003). While mobility has arguably been crucial in some form or other throughout the history of humanity (Graeber & Wengrow, 2021), it seems that over time the speed and distance of mobility only keep increasing, and widely dominant economic and social systems are more and more dependent on such mobility (Rosa, 2018). Yet, it is now widely acknowledged that, at least in the current shape, this cannot go on, for reasons as diverse and daunting as human burnout, climate change, biodiversity loss, and more. This research tackles this challenge from the angle of imaginaries of mobility values. Building on existing research on mobility values (von Schönfeld & Ferreira, 2022), and on imaginaries and creative methodologies from diverse fields (e.g. Bina et al., 2020; Derr et al., 2018; O'Neill & Roberts, 2019; Woiwode et al., 2021), this research proposes a methodology for both studying and triggering ways of "thinking otherwise" about the future, and the role of mobility within it (as mobility is key, but can also not be thought without also considering its contexts and diverse purposes, roles and inequalities). More specifically, this research explores the potential of a combination of walking interviews, hand-drawn maps, biographical storytelling, and artistic representation (such as through drawing, poetry, photography, collage or play-doh sculpting) with planners in the field of mobility in Bergen, Norway and Porto, Portugal, to uncover hidden desires and possibilities for a more sustainable, just, and otherwise if not less mobile world. First results from the methodological review and workshops exploring these combined methods in these two cities as part of a Marie-Sklodovska-Curie Fellowship will be shared in this presentation.

Keywords : Mobility, methodology, futures, thinking otherwise

Roadmap Towards A New European Culture Of Mobility

Alain L'Hostis (Lvmt), **maxime hachette** (Avenues)

Everyday mobility differs from place to place, but it can have certain commonalities. It is influenced or even characterised by an array of spatial, social, economic and even cultural conditions. We have, therefore, started from the assumption that mobility itself can be considered as a 'culture' and that in Europe the culture of mobility is currently evolving. In this context, REBALANCE, a Horizon 2020 project, was carried out by 6 participants from 6 European countries until the end of 2022. It aimed to identify the values and culture of future mobility. The project included a foresight exercise aiming at a paradigm shift in transport policy, leading to greater consideration of societal values, which are not fully taken into account in the development of transport policies, and greater alignment with the SDGs.The project initiated a discussion on the foundations of current transport policy paradigms. By reviewing the present, it mobilised a broad network of experts and stakeholders around new cultures and policies to discuss and converge on a common, more sustainable vision and to design a roadmap for a new transport paradigm. What made REBALANCE original was the massive mobilisation of high-level, multidisciplinary thinkers. The project has drawn on contributions from philosophers, sociologists, social psychologists, geographers and lawyers who have not necessarily been involved in past and current debates on transport research. Their role has been to challenge the precepts of current thinking and the cultural and political decision-making process. REBALANCE also brought together a team of a dozen thinkers and visionaries and 14 high-level transport experts. One of the main outcomes was the creation of a "Manifesto for a New Culture of Mobility".The aim of REBALANCE was to provide strong support for European public policies on mobility and transport. It began by analysing the evolution of the culture of mobility and then identifying the trends highlighted by the experts. REBALANCE then translated these trends into scenarios and highlighted desired and likely trends. In this way, European decision-makers are better informed about the expectations and hopes of their citizens. By involving citizens through a survey distributed in several European countries and taking into account the opinions of experts and thinkers, a vision of future mobility has been formulated. This vision is reflected in a manifesto addressed to European decision-makers to be taken into account in their future public policies. The manifesto is supported by a roadmap with concrete actions and deadlines, as well as a guide for the design of infrastructure policies to realise the vision of future mobility that breaks with current and past paradigms. It also highlights the role of communication in shaping the culture of mobility, discusses the concept of public interest and analyses the methods used to evaluate mobility projects in order to suggest ways to better respond to the recommended changes.The presentation will focus on the roadmap and the guidelines for future European mobility policies. We will describe the methodology used to translate the vision of future mobility identified by REBALANCE and the Manifesto into a roadmap and guide for future European mobility policies. A workshop was organised to bring together a wide range of experts (academics, associations, industry, etc.). We used the Delphi method to validate each stage and to reach a high level of consensus.

Keywords *: Mobility, Transport policy, Culture, Paradigm shift, Forward-looking, Manifesto, Roadmap*

(Not) Getting There: Visions For Future Mobility And The Lack Of Clear Transformation Pathways

Stefanie Ruf (Tu Munich, Germany), **Franziska X. Meinherz** (Tu Munich, Germany)

Mobility and transport are the only sectors in which GHG emissions are still increasing, despite considerable efforts to decarbonise them. At the urban level, this failure has been attributed to mobility policies and transition strategies firmly grounded in the car-centric and hypermobile status quo, with policymakers being reluctant to push for transformative, restrictive measures because they expect them to be unpopular (EEA, 2019; Marsden & Docherty, 2013). These assumptions are contrasted by the observation that people's mobility practices constantly change over the life course and in response to contextual changes, and that many people increasingly demand greener and more livable cities.

We analyse this seeming contradiction by investigating the visions and notions of change that underpin urban mobility strategies and plans and compare them to the discourses and visions upheld by the population. Our study focusses on the case of Munich, Germany, and is based on a mixed-methods approach. We analysed municipal policy documents through a qualitative content analysis and conducted a survey with N = 1,722 residents on mobility of the future.

Our findings indicate that both the policy documents and residents described future urban mobility in overarchingly positive terms. The policy documents stressed the need for a mobility transition, but motivated it with demographic and economic growth, not with the climate catastrophe. They framed decarbonisation as a positive externality of measures that aim to improve urban quality of life. Thereby, the imminent need for transition was implicitly downplayed, portraying the decarbonisation of urban mobility as desirable but not as inevitable. Residents also barely mentioned the climate catastrophe.

Both in policymakers' and residents' vision for the future of mobility, individual cars played a subordinate role compared to active mobility and public transportation. In policy documents, technocentric visions around shared and automated mobility played an important part, whereas residents barely mentioned technological solutions. Mirroring existing literature, policy documents largely refrained from explicitly mentioning restrictions, insisting instead that residents would abandon driving on their own account if cycling and public transport infrastructure were improved. Nonetheless, policy documents as well as residents' visions emphasised the need to reallocate road space, which can be read as a restrictive measure. Policy documents assumed that such interventions would be supported unanimously by residents because they would improve their quality of life.

Both policymakers' and residents' visions were sufficiently vague and general for them to be largely shared. However, we argue that they may fail to induce the desired transformation because they are not "clear enough to be able to provide the necessary guidance for the transition process" (Schippl & Arnold, 2020, p. 13). Local resistances may emerge not because residents do not share the vision of a mobility transition, but because the conflictuality and details of local steps of implementation are not anticipated and managed. Therefore, we conclude that the reason for standstill is not residents' aversion to change, but instead a lack of visions for transformation that are detailed enough to be workable. In addition, municipal policymakers tended to deflect responsibility for the transition by pointing to regional and federal actors.

Action Research For Mobility Commoning: Theoretical-Methodological Insights From Amsterdam

Jonne Silonsaari (University Of Amsterdam), **Marco te Brömmelstroet** (University Of Amsterdam)

Questions on the interconnections between mobility, social justice and transitions have evolved from transport equity to transport justice and again to mobility justice, gradually expanding the understanding how just mobility systems should be imagined and enacted (Verlinghieri & Schwanen, 2020). Mobilising these insights is deemed instrumental in the shift from composed 'reformist' studies towards more radical 'transformative' approaches to question underlying structures and conventions of mobility planning, governance and politics (Cox, 2023; Karner et al., 2023). Still, theoretically sound, action-oriented and participatory research remains scarce.

Mobility commoning has been suggested as a key concept for imagining and enacting just mobility futures. Yet, its contents and functionings are subject to different interpretations. Sheller (2018) for example discusses mobility commoning as a result of social movement activity and local civic initiatives. Nikolaeva et al. (2019), on the other hand, have discussed it mainly as a set governance shifts, 'such as communal decision-making practices, openness to new forms of perceiving the right to mobility as well as the right to immobility (the right not to be displaced), the awareness of the social production of mobility and the power relations inherent in it, as well as the commitment to creating equity and working in the interest of the public good' (ibid., 353). We argue that these insights are very much complementary and introduce a novel operationalization of mobility commoning by explaining how it can be pursued in collaboration among governance actors, and local civic actors and social initiatives through action-oriented, participatory and reflexive research. We explain why these types of research designs can question the underlying deliberative, procedural and epistemic injustices created through exclusive top-down expert led design and policy processes (Sheller, 2018).

We describe our approach with two projects from Amsterdam. First, we discuss our findings from an ethnographic and action-oriented research project focusing on the Amsterdam cycling programme social initiatives targeting a marginalised group that is often sidelined in mobility policy and planning: racialised lower-class youths in the urban peripheries. These results highlight that even an advanced system of velomobility, such as the Dutch might be underpinned by deep mobility injustices, and how both, immature and advanced cycling cities should engage with local communities and diverse groups to assemble velomobile commons. Second, we describe an ongoing project facilitating neighbourhood co-design processes for street experiments and transformations.

We conclude that even though such a synthetic notion of mobility commoning is a promising approach, it needs to be based on radically democratic deliberation, procedures and epistemics that account for local knowledge on how commons are assembled in the interactions of different material, spatial and socio-cultural elements. Based on our arguments we wish to engage with the audience to debate the role of research and researchers as change agents for inclusive and just mobility futures.

Keywords : mobility commoning, action research, transformation

From 'Which Nature' To 'Whose Nature'? Ecological Restoration And Its Recent Urban Complications

Deike Peters (Soka University Of America)

This paper presents insights from a sabbatical research project that problematizes the different ways in which planners, policy makers, and activists in California and Germany propose to "restore" nature and enhance the ecological functions of urban waterscapes like rivers and wetlands in the name of urban resilience-building and greening. My two main case study examples are the (still court-embattled) Ballona Wetlands Ecological Restoration Project near my current home in Los Angeles and the (recently completed and largely celebrated) 30-year renaturalization of the Emscher river in the German Ruhr Valley, with a particular focus on developments in my hometown of Dortmund. The entire field of restoration ecology is still a relatively new science and practice with intense accompanying ethical debates over which nature is to be restored. I will review and bring this important literature in conversation with reinvigorated debates in urban political ecology over whose nature is to be restored, focusing on recent contributions centered around multi-species justice and urban rewilding. My two case studies confirm that state-sponsored projects typically still privilege human interests over conflicting claims to urban spaces by more-than human lifeforms.

Keywords : multi-species justice, ecological restoration, wetlands, rewilding

Exploring The Links Between Subjective Wellbeing And Low Carbon Mobility Practices

Lea de Fremont (Universite Gustave Eiffel)

In the context of climate emergency, it is crucial to reduce human mobility's carbon footprint. Sustainable mobility (Banister, 2008) is essentially made of less trips, modal shift and less distance. Taking subjective experiences into account is needed to promote sustainable mobility while attempting to improve subjective wellbeing (SWB).

SWB has two dimensions. In the hedonic dimension wellbeing is made of experiences of happiness based upon the satisfaction of preferences (Ryan & Deci, 2001). This is itself made up of three elements : the presence of positive feelings, the absence of negative feelings and overall satisfaction with life. On the other hand, the eudaimonic dimension of well-being is related to the meaning of one's life and their personal growth. In particular, it can be linked to environmental mastery, autonomy and competence (Ryan & Deci, 2001). Previous research has conceptualised the relationship between travel and SWB (De Vos et al., 2013) and showed various quantitative evidence of their links although determining the direction of causality remains a challenge (Mokhtarian, 2019).

We believe qualitative research is needed to better understand the links between mobility and the various components of SWB. This communication proposes a qualitative exploration of SWB within low carbon mobility. We understand low carbon mobility as both car-free mobility and mobility with moderate car use (in terms of distance travelled and frequency of use). According to a social practice theory perspective, low carbon mobility is viewed as a system supported by material elements, meanings and competence. Our aim is both to study low carbon mobility practices and to understand some of the conditions under which they can contribute to the hedonic and eudaimonic dimensions of wellbeing.

Following Hitchings' (2012) claim that individuals can talk about their practices, our analysis is based on interviews with low carbon mobility individuals. Interviews included a wide range of topics (a biographical mobility overview, daily and occasional mobility, experiences and representation related to mobility). To help participants talk about their routines they were asked to fill in a weekly planner that was used during the discussion.

Interviews were conducted in France in Paris region and Nantes metropolitan area (one of the 10 most populated French cities). Both urban areas have a well-developed transport system with different level of coverage according to their scale. Drawing on these two geographical contexts, we will focus in particular in the role of urban and transport features in supporting low carbon practices and their contribution to subjective wellbeing.

Keywords *: Low carbon mobility, subjective wellbeing, lifestyle, transport modes*

Participation And Empowerment In Mobility

Participative Approaches For Accessibility Planning: A Review And Applications

Armand Pons (Cnrs, University Of Strasbourg)

In the past decades, urban studies repeatedly highlighted proximity, inclusive public transports (PT), along with walkability and cyclability as major challenges for improving spatial justice and decarbonising mobility (e.g. Sclar et al., 2014). A range of accessibility indicators has been developed in this vein to evaluate equity in transportation (Pereira et al. 2016). Usual metrics are based on a combination of infrastructural data, information on their use and urban characteristics (demographics, the local distributions of ressources, etc.); they can be described as morphological indicators. Their major shortcoming is that they do not incorporate more subjective dimensions such as the perceptions of urban spaces' users (Ryan and Pereira, 2021) including comfort, the match between individual needs and the available services, as well as the perceived danger. These are all dimensions that we cannot fully identify without going down to a micro scale, and without putting people at the heart of the research protocol. We postulate that participative approaches are essential for enhancing accessibility metrics and mobility planning (Boisjoly and Yengoh, 2017). We thus propose to build methodologies that would no longer be solely based on urban morphological elements, but also on the specific constraints affecting people when choosing their ways in the city. If these specifics can vary widely at the individual level and from one spatial or temporal context to another, with physical and social factors playing a key role alongside environmental factors, we argue that interactive tools can help overcome this issue.

Our method is based on a mixed-method mobility modeling, considering both motility, i.e. the ability to move (Kaufmann et al., 2004) and social perceptions. By adopting this perspective, we considered that individuals don't always choose their route according to the shortest path between an origin and their destination, but by arbitrating between ways that are more or less demanding. Indeed, people can prefer detours in the event of a difficult crossing, a complex transfer or to avoid congested streets, and use safer, better-signposted roads as alternative routes. In order to comprehensively assess specific accessibilities, in situ experiments and focus groups were carried out. We collected PT users' constraints and perceptions through interviews and collaborative mapping. These qualitative results were used to calibrate and refine our measurements. Based on our observations, we also overlaid constraints in order to match users' experience as closely as possible. In parallel, we created an online platform to gather participative feedback on the cycling and pedestrian networks. This will enable us to conduct a complementary analysis on bikeability and walkability in the urban space, and thus better address multimodal accessibility issues.

Keywords *: Multimodal accessibility, People-centred approach, Interactive GIS-based platform, Participatory mapping, Low-carbon mobility*

Challenges In Addressing Messiness And Uncertainties In Sustainable Transport Planning With Participatory Interventions

Peraphan Jittrapirom (Radbound University), **Vincent Marchau** (Radboud University), **Rob van der Heijden** (Radboud University), **Ruben Aske** (Radboud University), **Yuko Onishi**

The transition towards a more sustainable transport system is a complex and multifaceted process surrounded by uncertainties. This complexity stems from the involvement of diverse stakeholders within the transport sector, each with their own perspectives, visions or desirable future, and preferences regarding what constitutes sustainability, the current challenges, and the most suitable solutions, measures, and policies to achieve sustainable outcomes. The related uncertainty, on the other hand, arises from the future aspect and the long-time horizon that is concerned with the transition, both internal and external to the transport system, such as an unknown about travelers' adoption of a new mobility service (internal), a wide implementation of self-driving vehicles (internal), and a resurgent of Covid-19 pandemic (external).

This amalgamation of complexity and uncertainty poses significant challenges that can impede or slow down the successful realization of a sustainable transport system. To navigate these challenges, various research methods have been proposed and applied, including the visioning process, participative group model building, and dynamic adaptive planning. These methodologies aim to assist decision-makers and stakeholders in understanding and addressing the intricacies of sustainable transport planning and implementation.

In this paper, we critically examine the challenges encountered in applying these methodologies to support decision-making and practice in sustainable transport. We highlight both the vulnerabilities and opportunities inherent in these approaches, with a focus on issues such as stakeholder identification and engagement, elicitation of future visions, and managing uncertainty. To illustrate our discussion, we present three case studies wherein we employed Robust and Generative Visioning, Participative Group Model Building (GMB), and the Dynamic Adaptive Planning process.

To structure our reflections, we draw upon the framework of knowledge integration in transdisciplinary research and the analytical lens of Decision Making under Deep Uncertainty. By leveraging these frameworks, we elucidate the nuances of our findings and provide insights into potential avenues for future research. Overall, this paper contributes to the ongoing discourse surrounding sustainable transport by offering a critical examination of methodologies aimed at navigating complexity and uncertainty. By identifying key challenges and opportunities, we aim to inform and inspire future research endeavors aimed at fostering a more sustainable transport system.

Keywords : *Mobility Policies, Intervention, uncertainty, participation*

Towards A More Inclusive Traffic Planning? Changes In Urban Mobility In The Face Of Socio-Cultural Diversity In A Berlin Neighborhood

Agnes Müller (Technische Universität Berlin)

In the interest of sustainable transport planning, changes in mobility behavior are currently in the focus of mobility researchers worldwide, but the associated cultural and diversity-related dependencies demand more attention (Fainstein, 2010). Hence, the paper explores the changing intersections of mobility and social inclusion in an urban context (Cass, Shove, and Urry, 2005). Initially, it introduces theoretical discourses on mobility and inclusion, examining the changing urban mobility from different perspectives such as gender, age, and ethnicity. Utilizing a case study from Berlin, the article analyzes how mobility issues can lead to exclusion in everyday life, and what is necessary to create more inclusive urban mobility concepts and planning procedures (Miciukiewicz and Vigar, 2012).

The selected case study focuses on the "Reichenberger Kiez," a dense urban neighborhood in Kreuzberg, Berlin, with the Reichenberger Strasse as main thoroughfare. This densely populated area has been somewhat neglected since World War II due to its close proximity to the Berlin Wall. Many families with a Turkish or Arabic background reside in Kreuzberg since then, significantly shaping the cultural life of this part of the city. Today, gentrification changes the social composition of the neighborhood and the economic infrastructure. Many new bars, nice restaurants, shops etc. opened and existing social facilities, such as schools, kindergartens and care centers are highly demanded. Hence, there is an increasing traffic in the neighborhood, and the street and public space is very much contested.

Consequently, the "Reichenberger Kiez" neighborhood encounters several challenges concerning mobility. Despite two subway stations at its northern edge and several bus stops within the neighborhood, the neighborhood has only limited access to public transport. Only few streets lead in and out the neighborhood as a canal and a public park form barriers to the adjacent neighborhoods. Although over the past decade new mobility options, including station-based and floating car-sharing, shared bikes, shared electric cargo bikes, and scooters became available, those led to new conflicts. Due to the cobblestone on Reichenberger Strasse, an increasing number of cyclist and scooter drivers use the pedestrian way, risking accidents with pedestrians. Hence, many people such as families and elderly persons living in the neighborhood advocate for improved biking conditions such as a proper cycle path. A neighborhood grassroots initiative "Reichenberger Kiez for everyone" promotes a traffic-calming concept ("Kiezblock") but does not represent the cultural and economic diversity of the neighborhood. Cultural norms discourage cycling for other groups. Conservative German-Turkish women, for instance, are not allowed to bike, whereas young German-Turkish and German-Arabic men view cars as a symbol of economic success, while associating bikes with lower economic status. These residents complain about the lacking parking options within the neighborhood and oppose actual movements to redistribute the street space.

Within a seminar at TU Berlin in the Master programs Urban Design and Urban Planning and Mobility, the author conducted together with students the case study's field research. The methodological approach included semi-structured interviews with neighborhood users and neighbors, interviews with experts for professional insights, an online survey, traffic counts, and mappings to understand mobility patterns and to spatially illustrate various perspectives on inclusion. In a final step, students envisioned scenarios for redesigning mobility and street space within the neighborhood to enhance inclusivity and ensure mobility access for all residents, addressing diverse perspectives.

The article summarizes the field research results, aligns them with the literature review on mobility and inclusion, and expands on the analysis of the current urban mobility planning processes. By addressing the intricate interplay between mobility, social inclusion, and urban planning, the paper explores the challenges and possibilities of creating a more inclusive urban mobility planning scheme.

Towards A Better Understanding Of People'S Perception Of Fairness Through Comparing Socio-Economic With Spatial Explanations: A Residents' Survey On Public Acceptability Of The London Ulez

Thomas Verbeek (Tu Delft)

The growing evidence on the health impact of exposure to air pollution, heightened public concern and stricter environmental legislation make local governments adopt increasingly strict measures to improve urban air quality. A popular instrument is the Low Emission Zone (LEZ), a defined urban area where the most polluting vehicles are no longer welcome. Although several studies have shown a significant (small) reduction in pollution levels after implementation, the policy measure remains controversial.

The controversy is explained by two dimensions of social justice that can come into conflict when implementing this measure: environmental justice (Walker, 2012) and transport justice (Martens, 2016). Supporters of LEZs often use environmental justice arguments based on the principle that everyone has the right to a healthy environment, including clean air. They think it is a fair "polluter pays" instrument that benefits more deprived communities in particular, because they are more exposed and contribute less to air pollution. Opponents of LEZs often use transport justice arguments based on the principle that everyone has the right to a minimal access to an adequate transport network, because accessibility is essential for social inclusion. They fear an unequal access to different transport options and disproportional financial burdens on disadvantaged socio-economic groups.

This conflict leads to a just sustainability dilemma: what is a "fair" or "just" balance when looking at policy instruments that have positive and negative effects across different domains, touching on collective values and individual aspirations? According to the work of political theorists, universalism should not be prioritised above the local and plural when considering justice and fairness (Schlosberg, 2009) and criteria will differ according to how we value things in a certain place and time (Walzer, 1983). However, we can still learn from local case studies to operationalise fairness and develop socially acceptable rules.

In this paper the results will be presented of a survey with approximately 1,000 Greater London residents. London is a leading city in implementing LEZs, having introduced an initial central Ultra Low Emission Zone (ULEZ) in 2019, which significantly expanded in autumn 2021 to cover an area of 381 km2. The survey was carried out in summer 2022, after this expansion, when there was vigorous debate on a further expansion to cover all of Greater London (1,569 km2), which eventually happened in Summer 2023. This period provides an interesting backdrop for a survey on public acceptability and perception of fairness of the instrument. By associating the postcode-based location of responses with individual socio-economic and demographic characteristics collected through the survey, we analyse whether socio-economic characteristics (such as education and income) or residential location (determining how one is impacted by the measure) are more important to explain acceptability and perception of fairness. This people-driven perspective can help to develop the right mitigation and support measures, either based on location or socio-economic group. This can inspire other cities in adopting fair urban air quality management strategies, and provide valuable input for operationalisation of just transition policies in general.

Inclusive Stakeholder Involvement To Implement Sustainable Mobility Solutions: A Case Study Of Mobility Hubs

Lluis Martinez (Vrije Universiteit Brussel), **Imre Keserü** (Vrije Universiteit Brussel)

Transportation planning has traditionally overlooked public participation, being highly influenced by technical approaches (Kębłowski & Bassens, 2018), while often adopting a post-political perspective (Legacy, 2016). Nonetheless, policymakers are increasingly interested in participatory methodologies that facilitate stakeholder involvement. This is because such involvement is central to developing solutions and policies that are just and sustainable, and facilitate their adoption (Triplett & Johnson, 2011). In this regard, participatory methods need to take into consideration inclusivity to facilitate broader and equitable involvement (Bailey et al., 2012).

In the context of the Smarthubs project, a co-creation process of a mobility hub was implemented in Anderlecht (Brussels), to design an inclusive multifunctional space. Relevant stakeholders and disadvantaged groups (e.g., older individuals, ethnic minorities, and people with lower education and/or income levels) were involved. Employing an adaptive and exploratory approach, the process focused on informal social interactions in public spaces to engage participants. Four-day-long on-street events served as platforms for inviting inhabitants, civic organizations, public authorities and service operators to participate in different activities, discussing sustainable mobility solutions and collecting their input. The latter served as a basis for designing a future mobility hub in the location where the activities took place.

The co-creation process offered valuable insights into relevant approaches for involving stakeholders, especially disadvantaged groups. The results highlight the significance of such inclusive methodologies in ensuring equity and representativeness in participatory transport planning. As a result, several recommendations for researchers, practitioners, and decision-makers interested in fostering inclusive solutions were developed. The findings contribute to a growing body of knowledge aimed at transforming urban environments and promoting a more sustainable and equitable urban future.

Keywords : participatory transport planning, stakeholder involvement, transport equity, sustainable urban mobility

Mobility And Energy Transition

Integrating Top-Down And Bottom-Up Approaches In Energy Transition: Assessing The Social Acceptability And Overall Accessibility Of E-Mobility By Commuters Of A University Campus.

Lucie Juncker (L2ep), **Elodie Castex** (Tves), **Alain Bouscayrol** (L2ep)

Addressing global warming, especially in the mobility sector, requires a comprehensive response due to its substantial contribution to greenhouse gas emissions in developed countries. The University of Lille is committed to environmental stewardship, conducting regular five-year carbon assessments, revealing that over half of its greenhouse gas emissions originate from home-university mobility. [1,2]

To address transportation-related environmental challenges, the CUMIN research program (University Campus with Innovative and Carbon Neutral Mobility) transforms the Cité Scientifique into a living lab. The initiative aims to shift transportation methods towards sustainability, ultimately reducing the university's GHG emissions and promoting environmentally conscious mobility [3].

To better understand campus accessibility intricacies, the CUMIN program uses isochronous maps as analytical tools. These maps reveal the crucial role of convenience in transportation decisions. Through a GIS-based accessibility analysis, the study evaluates access to community facilities in medium-sized urban areas. Isochronous analyses outline time areas for each transportation mode, offering insights into challenges for some campus users. This mapping explains why some users, despite acknowledging sustainability goals, struggle to refrain from thermal car usage. These assessments drive innovative and sustainable solutions, contributing to a comprehensive understanding and enhancement of accessibility [4].

Within the CUMIN framework, the SARA (Social Acceptability of electric vehicles in Restricted Areas) project focuses on community involvement in sustainable mobility. SARA adopts participatory methodologies, engaging campus users through a survey and aligning interviewee data on commuting habits with aforesaid maps. It uses a blend of bottom-up and top-down strategies to effectively address environmental challenges. The research explores commuters' motivations, perceptions of electric vehicles, opinions on sustainable mobility solutions, and potential barriers. The goal is to formulate targeted strategies addressing diverse perspectives and challenges within the campus community for a sustainable energy transition.

This paper introduces an innovative method to assess the social acceptability of mobility transition before decision-making, ensuring sustainability. The SARA project involves volunteer students and staff in interviews, allowing them to experience Lille University's electric vehicle and provide insights into technical aspects such as brakes or comfort. This participatory approach gathers immediate feedback to understand how firsthand experiences may catalyze shifts in opinions, encouraging a transition from thermal to electric vehicles. This also contributes to experiential learning in sustainability [5].

In summary, the University of Lille's research aims for carbon-neutral campus mobility, innovatively collecting data later useful to design comprehensive and sustainable incentive measures for sustainable commuting. Beyond understanding challenges, the focus is on assessing social acceptability in mobility transitions, with insights from the SARA project extending beyond the university, influencing broader transportation practices. The goal is to transform perceptions and practices, emphasizing the critical role of social acceptability in ensuring the success of sustainable mobility initiatives.

Keywords : E-mobility, Eco-Campus, Social Acceptance, Survey, Accessibility

Delivering Climate-Proof And Healthy Built Environment Using Renewable Energy In Public Transport

Chandrima Mukhopadhyay (Na)

The study investigates the feasibility of using renewable energy as a source for electric public transport network on the ground that it will improve both demand for mobility and boost energy transition. Use of renewable energy in public transport has substantial benefits from both demand and supply sides. Since 60% of operating cost of public transport is consisted of the fuel cost, electrification of public transport and further the use of renewable energy in generating the electricity will substantially reduce the operation cost over time. Electricity as fuel is 29% cheaper than diesel (Trade Brains, 2023), and the use of renewable energy is 12% to 29% cheaper than fossil fuel (Shukla, 2022), while solar power is the cheapest (Howell, 2022). This will improve mobility for all with affordable services, and especially for the vulnerable groups in the global South who cannot currently afford public transport. On the supply side, since more than 50% of additional energy demand would come from the modal shift to public transport, and its electrification, use of renewable energy in electric public transport network will boost the energy transition (ICCT, 2022).

Electric public transport using renewable energy delivers both climate change mitigation and UN's Sustainable Development Goals. The use of renewable energy in public transport is often perceived as relevant to environmental science, the narrative that it will substantially improve peoples' mobility has not been strongly proposed yet. On the other hand, there is only one EU document that focuses on how the coupling of public transport and renewable energy will boost energy transition.

Along with national government policies on electrification of public transport, both at the national and subnational levels in India there are policies on renewable energy, and many subnational policies encourage use the renewable energy for electric public transport, even in the form of circular economy. For instance, there are policies and missions encouraging the use of municipal solid waste and wastewater to generate renewable energy, at multiple spatial scales, starting from Urban local bodies (ULBs), and for various sizes of towns. The study will present few such cases from the Indian context to discuss how such interventions boost both the demand and supply side of urban mobility in Indian cities.

Based on a very recent review of the relevant literature, the future research agenda includes scenario analysis consisting of private-public transport share, modal share of various public transport modes, along with energy mix; projection of capital and operating costs, reflecting on fare; using a life cycle analysis, relating to 1.50C scenario. The emission scenarios could use back-casting method. There is a lot of scope in developing context specific scenario modelling. More studies on production and storage of renewable energy in public transport should be carried out. The production related studies would demonstrate how operating cost could be minimized considering whole life cycle analysis. And storage related studies could help understanding the impact of using renewable energy on other sectors. The storage part will also demonstrate how renewable energy can be supplied to buildings, the other significant sector within built environment, in the case frequent power cut, which is going take place due to climate change and extreme weather events (specifically extreme heat events here). The review already shows few co-benefits of investing in use of renewable energy in public transport, such as accessibility and affordability, health, safety, eradication of poverty. Improved share of public transport and fare reflects on accessibility and affordability from the demand side.

The Transformative Impact Of Electric Vehicle Transition On Automobile Ownership

Aslıhan Kahraman (Middle East Technical University), **Büşra Yılmaz Yanık** (Tubitak)

Electric transition in road transportation is an inevitable changeover to reduce fossil-fuel-related carbon emissions and combat climate change. With a 45% share, road transportation constitutes the highest demand in global oil consumption, which as a sector has been facing significant challenges such as fluctuating prices and provision due to geopolitical tensions together with approaching peak levels (World Energy Outlook 2023; Kobashi et al., 2021). On the other hand, rapid developments in renewable energy technologies make clean energy more accessible and affordable. Besides reducing fossil fuel-related emissions, the uptake of electric vehicles (EVs) is also associated with a transition in automobile ownership patterns. However, relatively few supporting arguments and quite limited research regarding how this societal transition will take place raise the question of whether reduced car ownership caused by the EV transition is a well-founded claim or is just a myth. This study provides a comprehensive interdisciplinary review of socio-technical dynamics and the interplay of different actor groups' strategies related to electric vehicle uptake in cities to discuss its transformative effects on automobile ownership patterns toward clean energy transition in individual road transportation. The research reveals that different combinations of various actors' (central and local governments, automobile manufacturers, mobility service providers, global energy companies, technology developers, etc.) strategies and individual behaviors may yield quite different trajectories which impact the way future car ownership patterns and individual mobility will be evolved through. The aim is to elaborate on under which circumstances EV transition can be considered a game changer. The existing literature so far has provided quite contradictory arguments about the possible impacts of widespread electric vehicle adoption in urban areas. On the one hand, EVs are highly associated with sharing schemas in the mobility discourse, such as "mobility as a service (MaaS)" or "mobility on demand" frameworks; on the other hand, governments also provide citizens with considerable incentives if they own an electric vehicle. While EVs, in this perspective, are seen as a transition to make individual mobility cleaner and more environmentally friendly, reduced transportation costs caused by relatively lower energy costs of EVs bring the risk of increased vehicle miles traveled (VMT), which may eventually lead to urban sprawl. Such unexpected results may even be exacerbated if EV transition takes place in this direction (based on widespread individual ownerships of EVs) and, eventually, EVs are replaced by their successor autonomous vehicles which are highly associated with increased VMT due to their ability to reduce the value of travel time (VOTT). In this case, long-distance commuting and living on the outskirts of cities become more attractive since people gain the freedom to do other productive or leisure activities during commuting, which was previously not possible while driving the car by themselves. Besides, other factors that impact the adoption of EVs at an individual scale include technological advancement in EV parts, batteries, and maintenance, to what extent renewable energy technologies will be integrated into powering electric vehicles, and the development of sufficient charging infrastructure to enable their efficient and convenient operation. The existing and predicted trajectories vary due to uncertainties and local contingencies involved and the nature of intricate and complex relationships between the actors in the development of market and policy dynamics.

Keywords : electric vehicle, transition, automobile ownership, New Mobility Services, road transportation

Which Model For Ev Charging Services In The European Union? Technological Coexistence As A Lever For A Eu-Wide Transition Toward Electromobility

Anne GUILLEMOT (Cired/Ecole Des Ponts Paristech), **Gilles CRAGUE** (Cired/Ecole Des Ponts Paristech)

Over the last fifteen years, the European Union (EU) has made growing efforts to phase out petrol-based automobility and has actively supported the development of alternative fuel options, with the aim to decarbonize the transport sector and address climate change. Notably, the EU has placed a strong emphasis on advancing electric vehicles (EVs) and electromobility. Pursuing a transition toward electromobility at the EU scale is about building a new, comprehensive socio-technical system, entailing a broad range of technological and non-technical innovations, together with a new institutional framework. Key components include the development of EV charging infrastructure and services, involving a variety of stakeholders, and entailing new user practices as regards "refueling". Such a far-reaching transformation is assumed to be uncertain and open-ended, because different actors may disagree about the most desirable innovations, whether it concerns technologies, market organisation or business models, and they may seek to shape the transformation according to their own (conflicting) interests. Besides, resistance to change may emerge at multiple levels.

Starting from the observation that various technological approaches have gained prominence across the EU to provide EV-charging services, this paper intends to understand what would be the best approach to effectively support a EU-wide transition toward electromobility. We depart from previous approaches that viewed the EU as a collection of national settings with varying approaches to EV charging infrastructure and services, and which focused on efforts to reduce variety across borders through standardization and harmonization. Rather, we observe the momentum and debates unfolding in pan-European arenas, involving businesses and policymakers working toward establishing a consistent, EU-wide charging offer right from the outset.

Based on a longitudinal, qualitative investigation spanning from 2011 to 2019, we delve into the rationale and expectations that fueled the development of an ambitious technological approach: the electromobility hub solution. We also provide an interpretation of why a comprehensive, single-technology approach could not be universally imposed, and technological variety has prevailed instead, including contractless payment solutions and peer-to-peer roaming. Our analysis relies on an interpretive framework gathering insights from various strands of literature interested in technological development and transitions. We investigate the contextual structures, whether sectoral or geographical, that account for the different technological approaches and the prevailing status quo. Leaning on the concept of institutional work, we introduce the concept of 'institutional journey' to frame the process through which various technologies gain legitimacy, depending on a set of actors, actions, and the technology fit-or-stretch with regard to user practices and established institutions within the automobile sector. Our study demonstrates that the coexistence of various technological approaches is both a key characteristic and a driver of EU-wide transition toward electromobility, fostering the engagement of users, businesses, and policymakers alike.

This paper makes a significant contribution to the research on sustainability transitions at the European Union scale, an issue that has thus far been largely overlooked by the research community.

Children And Youth Mobility

Walkability Or Parental Safety Perceptions Influence Children'S Active Commuting To School: A Systematic Review

catarina cadima (University Of Porto), **Paulo Pinho** (University Of Porto)

Walkability is a concept designed to evaluate to what extent the built environment promotes or is pedestrian-friendly. Regarding urban mobility, walking and biking are widely recognised in scientific and political circles, with active school travel as a target to encourage physical activity, with short and long-term positive effects on children's autonomy, free air pollution, health, economy, and society. However, it requires supportive environments that safely accommodate children's activities. In this regard, walkability indices for streetscape and school neighbourhoods are growing, but just a few consider parental safety perceptions and children's specific characteristics. This systematic review offers a comprehensive overview of the existing evidence, examining and summarising quantitative and qualitative studies. The evidence presented in this review is clear and convincing, demonstrating the need for further research in this area. The updated information provided in this review highlights the link between the urban environment, parental fear of traffic, children's travel behaviour to school and outdoor independent play. We used the PRISMA method, and from the initial analysis, we retained 37 from 1479 papers. The results show different research methods, namely audit tools, GIS-based tools, GPS tracking, surveys, and just a few using interviews or focus groups. Studies results highlight geographical differences. Social and environmental diversities apply to different solutions for promoting active commuting to school. Distance and good infrastructures are critical regarding environmental perceptions and measures but not exclusive. Parental fear of traffic and cultural background may influence results. These results suggest the importance of including qualitative approaches when evaluating existing policy approaches and designing new policy tools, regulations, or other interventions.

Keywords : Walkability, Independent travel, Active commuting to school, Children, Parental safety perceptions

Urban Mobility Labs In Schools As A &Quot;Game Changer&Quot; For The European Green Deal - Experiences From The Horizon 2020 Project Shared Green Deal

Nadine Haufe (Tu Wien, Institute Of Spatial Planning, Centre For Sociology)

EU countries are committed to achieving climate neutrality by 2050. The European Green Deal is the EU's strategy for achieving the 2050 target. The Green Deal is not simply a set of technical ambitions, it also seeks to fundamentally societal transformations and support behavioural changes (EC 2019).

In light of pressing challenges such as climate change, real-life, participatory, adaptive, and reflexive experimental interventions are described as indispensable incubators for transformative change towards climate neutrality (Harderer et al. 2023). The EU funded Horizon 2020 project SHARED GREEN DEAL– "Social Sciences & Humanities for Achieving a Responsible, Equitable and Desirable GREEN DEAL" focuses on the societal changes needed to make the EU Green Deal a reality. By providing Social Sciences and Humanities (SSH) tools, SHARED GREEN DEAL aims to stimulate actions in different Green Deal fields (Clean Energy, Circular Economy, Efficient Renovations, Sustainable Food, Preserving Biodiversity, Sustainable Mobility) with social experiments across Europe to support the implementation of the EU Green Deal policy, at the local and regional level.

Transport emissions represent around 25% of the EU's total greenhouse gas emissions and urban mobility has been singled out as a key focus area for the European Green Deal through its mission to have Europe be climate neutral by 2050 (EC 2020). A number of studies show that in Europe, even in cities, children are still being driven to school by carers to a high degree rather than independently travel to school by more sustainable modes (e.g. Fyhri et al. 2011). his not only results in lost health benefits for school children and increased dependency of children on their carers, but also leads to more car traffic around schools and in the mobility system in general (e.g. Waygood et al. 2017; EC 2021). School-related mobility is an important driver of children and young people's learned mobility behaviours. However, schools also bring together different people from the wider community and are thus excellent 'hubs' for collective change (Horelli 1998). Therefore, the EU-funded Horizon 2020 project SHARED GREEN DEAL supported the creation of 'Urban Mobility Labs' in the context of schools to accelerate the shift towards sustainable school mobility.

As part of the Shared Green Deal project, Mobility Labs within schools were implemented in 4 European cities - Sofia (Bulgaria) and Panevezys (Lithuania), Braga (Portugal) and Galway (Ireland), each involving the participation of young people (aged 10-16) from 3 different schools and professionals (including teachers; school administration; municipality). To facilitate collective learning and co-creation, age-appropriate and actor-specific activities (e.g. workshops, excursions, online tools, games) were used to understand current mobility practices and to assess opportunities for change. Each mobility lab co-created context-specific solutions (e.g. games, exhibitions, education material) to raise awareness, supported acceptance to sustainable mobility around schools. Each mobility lab formulated also policy recommendations for travel to school strategies and thereby foster representation of young people in policy making.

This contribution discusses the experiences and outcomes of co-creating urban mobility solutions with future generations and implementing 'Urban Mobility Labs' in the context of schools for the shift to sustainable school mobility. It also discusses the potential impact of Urban Mobility Labs in schools on the social transition and the Green Deal target of climate neutrality by 2050.

Keywords *: mobility lab, Co-Creation, schools, young people, European Green Deal*

Being A Child On A Car Free Island: Exploring Independent Mobility And Children's Perception In Büyükada-Istanbul

Arzu Erturan (Mimar Sinan Fine Arts University), **Bahar Aksel** (Mimar Sinan Fine Arts University)

The United Nations (2020) emphasizes that more than 50% of the world's population will live in cities in 2050. Approximately 1/3 of this population consists of children. cities that are developed on motor vehicle-oriented urban transportation policies have vital effects on the environment and urban residents; when it comes to children, it prevents their healthy growth, safe and free movement, also weakens their relationship with the city. The scale of urban environments expands due to highways and motorized vehicle traffic, while the negative effects of exhaust gases and asphalt-covered surfaces on child growth are increasing as well as the spatial and social disconnections. On the contrary, the areas where children can walk safely, play and experience the city freely decrease day by day. Settlements that serve for children's safe and free movement are important for the healthy development of children, adult urban residents of the future, who will demand a high quality of life, strong social interaction and environmentally friendly settlements of future.

The Child-Friendly Cities approach defines independent mobility / freedom of mobility of children as one of the main goals. At this point, developing sustainable urban mobility policies, supporting the active and independent mobility of children in their daily lives, making cities car-free, reducing and slowing down traffic, and expanding sustainable and active transportation types are considered as important steps for creating child-friendly environments.

With its 16 million residents, Istanbul is the most crowded city of Turkey (TÜİK, 2023). The metropolitan area is shaped by variety of urban typologies from different historical periods, diverse lifestyles, and heavy traffic load of transportation. Experiencing the Istanbul metropolitan area as a child has difficulties, such as lack of accessibility to amenities, dependency on vehicle urban mobility, large scale physical environment challenging for cognitive mapping. On the contrary, Büyükada Island in the Sea of Marmara defines a unique alternative due to its low-density urbanization, accessible services, strong urban identity and car-free transportation. As the largest island district of Istanbul Metropolitan area, Büyükada offers a great potential for children and adults, in terms of creating a child-friendly environment and freedom of movement.

The purpose of the study is to discover the mobility of children in a car-free area and to understand the effects of freedom of mobility on perception of space. Within this scope, spatial components of children's perception about the place they live in and the relation with their mobility types were determined. As the methodology, "mind mapping" used for exploring children's free mobility through drawings and written expressions, "walk-along" used for discovering children's perceptions of Büyükada in situ. Field work was carried out with 20 students of 9–10-years-, living on the Island and studying at Büyükada Primary School.

This paper discusses the findings of the field study that shows children's school journeys are mostly made by active transportation modes such as walking and cycling, as individuals or accompanied by their siblings / friends, rather than by their families. In their out-of-school activities, most of the children can perform independent activities such as playing on the street / in the park, going to sports, or wandering around the city center, alone or with groups of friends. For this reason, their developed perception of space allows them to describe the details of space and find their way. In addition, their spatial perceptions vary in terms of their mobility patterns and durations, location of their homes, distances to the center, and differentiate according to the variety of urban elements they encounter every day. These findings from a car-free settlement can be promising for strengthening the policies for building a child-friendly urban future.

Keywords *: independent mobility, active mobility, Child Friendly Cities, child perception, children's urban mobility*

15-Minutes Walking Accessibility To Primary Schools Across Space And Time

Cecília Silva (University Of Porto), **João Teixeira**

Efficient transport systems and high travel speeds have generated unprecedented levels of accessibility considering the larger travel catchment areas. On the flip side, such conditions lessened the need for proximity which in turn led to the distancing of human activities and car dependency. This is particularly concerning when considering young children, who find less opportunities for independent mobility and accessibility, fuelling physical and cultural car-dependency from a very young age.

In this presentation we develop a cross-section and longitudinal analysis of the levels of walking accessibility to primary schools in the northern region of Portugal (expanding over an area of more than 21.000 km2). We look at both urban dispersion and primary school concentration of the last decades. Using statistical data and contour accessibility measures, we explore how walking accessibility to primary schools evolved in the last decades (1991-2021) and how it enables or disables car-independency among young children and their households. We also explore the role of different urban environments in walking accessibility and car independence, by looking at a broad variety of urban contexts, from metropolitan, medium, and small size cities, peri-urban and rural environment.

Our results show a clear concentration of schools in the last decades, resulting in a significant decrease of walking accessibility to primary schools and phenomena of urban dispersion (moving away from schools and central areas). This concentration of schools significantly reinforced the relationship between population density and walking accessibility. The analysis also revealed a concerning increase in the proportion of population without access to school by walking, having to rely on less sustainable transport modes from a very early age.

Keywords : car independence, child mobility, proximity-centred accessibility

Mobility And The Pandemic

Resilience Of Different Public Transport Modes During And After The Covid-19 Pandemic: An Analysis Of Turkish Metropolitan Cities

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The Coronavirus disease (COVID-19) had a major impact on urban mobility and travel behaviour. It has been well documented that in the days of the COVID-19 outbreak, public transport has proved to be the most vulnerable transport mode throughout the world (see, for example, Das et al., 2021; Gutiérrez, Miravet and Domènech, 2021; Parker et al., 2021). Crowded vehicles, stations and stops were to be avoided to keep personal safe space and distance. In response to this concern for safe distancing, the change in travel behaviour has favoured personal transport modes, including both motorised and non-motorised.

This paper presents an analysis of public transport before, during and after the COVID-19 pandemic in a number of Turkish metropolitan cities. The aim is not only to examine the overall public transport usage, but also to carry out a comparison between different modes of public transport. Therefore, metropolitan cities that operate a diversity of public transport modes are included in the study. In particular, cities that operate both bus systems and urban rail systems, such as metro, light rail and tram, are analyzed with a view to observe differences between modes in terms of vulnerability as well as resilience, i.e., the capacity to recover after the pandemic.

In addition to the analysis of different performance levels in different public transport modes in the face of this health crisis, the paper also presents how the operators responded to the crises and whether their responses have been effective in the resilience of public transport systems in recovering from this crisis. This latter analysis contributes to ongoing research (see, for example, Gkiotsalitis and Cats, 2021; Shortall, Mouter and Van Wee, 2022) on the adaptation of transport service providers to this crisis and hence on the policies of increasing the resilience of public transport.

To carry out this analysis, detailed ridership data was collected for seven cities in Turkey, from 2018 to 2023. In addition, interviews were made with transit operators with a view to understanding different policy responses during and after the pandemic. Results of both the performance analysis of different public transport systems and the operators' policy responses to improve these systems' resilience provide valuable insight into how transport policies should be formulated in order to be prepared for and respond effectively to possible future health crises. The paper is intended to contribute to the main theme of the Congress by discussing whether certain modes of public transport and certain policy responses have been "game changers" in the face of the public transport "crisis" during and after the COVID-19 pandemic.

Keywords *: public transport, Post-pandemic, COVID-19, health crisis, resilience*

The Legacy Of Covid-19 On Urban Mobility: An International Comparison Of Public Policy And Urban Planning

Leah Gerber (German Chancellor Fellow, Deutsches Institut Für Urbanistik; Former Principal Planner, Arlington County, Virginia), **Alexander Cox** (German Chancellor Fellow, Initiative For Advanced Urbanism And A..I; Former White House Deputy Director For Economic Mobility)

The COVID-19 pandemic played out most visibly on city streets–once vibrant spaces and corridors turned quiet as the predictable rhythms of urban life were upended. As people rapidly shifted their routines and behaviors, public policy makers and urban planners had to respond with flexible policy and creative planning that allowed cities to quickly adjust to a very different reality. Public spaces were transformed so that residents could walk, bike, and roll more safely. Public transit systems worked to serve dependent populations, even while losing up to 75 percent of ridership (Finbom et al., 2021). While many of these changes were a direct response to the pandemic, they also served to demonstrate how cities could be reshaped to accommodate more equitable, sustainable, and diverse forms of mobility. Four years after the onset of COVID-19, this paper will examine to what extent the pandemic changed the trajectory of transportation systems by comparing select cities in Germany and in the United States.

At the federal and multilateral levels, economic recovery and stimulus funding supported local governments in implementing mobility projects, and in many cases were designed to encourage innovative planning. In Europe, the €800 billion NextGenerationEU plan was built around themes such as equality, sustainable mobility, and the green transition (European Commission, 2024). In the United States, the White House released guidance to all federal agencies on how to use resources from the American Rescue Plan, Bipartisan Infrastructure Law, and other legislative packages to advance equitable urban development (White House, 2023). In both instances, the combination of generational investments, enabling policy, and sudden shifts in urban life created the opportunity for cities to reimagine and reinvent public space and mobility.

Use of public transit immediately decreased in 2020 as a result of the COVID-19 pandemic (Google, 2021). However, there was a mode shift towards cycling and walking in most European countries and the United States (Abdullah, 2020). The dramatic drop in public transit usage caused many planners to fast track construction of active mobility projects, many of which were launched as temporary interventions. Berlin implemented temporary pop-up bike lanes, pedestrian zones, and play streets, and constructed 25 kilometers of bike lanes with relatively low-cost materials to serve residents, many of whom were trying to avoid public transit. The city implemented pedestrian zones on major streets, including the busy central commercial corridor Friedrichstrasse. Similarly to Berlin, the District of Columbia transformed public space in response to the COVID-19 pandemic. Washington, DC expanded its active transportation network through its Slow Streets Initiative, creating more space for residents to safely spend time outdoors walking and biking. The city also prioritized its public transportation system through a Car Free Lanes program that allowed buses to travel more efficiently while also creating room for cyclists.

Four years later, some of these transportation projects remain in place while others have been reverted. What policies and planning allowed for temporary infrastructure to become permanent? And how can planners and policy makers demonstrate the success of pandemic-era mobility projects to ensure they are seen not just as emergency interventions but as a positive and lasting redefinition of urban space?

***Keywords** : Active mobility, comparative urbanism, post-COVID cities, Inclusive public space*

Resilience And Recovery: Unraveling The Role Of Public Transit In Post-Covid-19 Urban Dynamics

Amir Forouhar (Postdoctoral Fellow, School Of Cities, University Of Toronto), **Karen Chapple** (School Of Cities, University Of Toronto), **Ramesh Pokharel** (University Of British Columbia), **Jeff Allen** (School Of Cities, University Of Toronto)

Transit-oriented communities, recognized for their compact, walkable layouts and convenient access to public transportation, have traditionally symbolized inclusive, resilient, and desirable places to live. The global COVID-19 pandemic, however, disrupted established transportation patterns, reshaping the dynamics of neighborhoods and urban spaces and potentially altering the attractiveness of transit-oriented communities.

This study explores the overall resilience of neighborhoods surrounding subway stations in Toronto in the aftermath of the COVID-19 pandemic, comparing their recovery trajectories with control neighborhoods and identifying the factors influencing these recovery rates. Utilizing a Difference in Differences (DID) model and leveraging Location-Based Services (LBS) data from mobile phones, we assess recovery rates in 2023, contrasting them with pre-pandemic levels in 2019.

Our findings underscore the inherent advantages of transit-oriented communities, demonstrating that despite ongoing ridership challenges post-pandemic, neighborhoods around transit stations in Toronto recovered more rapidly than their counterparts situated farther away. The study reveals that the concentration of industries which typically involve interactive or manual work such as accommodation and food services, art and entertainment, health care, and education around transit stations fosters a diverse economic landscape, acting as a buffer against economic shocks and sustaining vibrant commercial areas. Moreover, our results emphasize that neighborhoods around transit stations exhibit higher population and employment densities, supporting local businesses and fostering lively commercial areas in the post-pandemic era. Proximity to jobs and essential amenities such as grocery stores, childcare, restaurants, and parks also emerges as a critical factor influencing the recovery of neighborhoods. This implies that residents of neighborhoods around transit stations are less reliant on long-distance transportation for their daily needs, which has been especially valuable during the pandemic.

These findings not only shed light on the pivotal role of public transit in post-pandemic recovery but also provide a robust foundation for policymakers, urban planners, and community stakeholders to construct more adaptive and resilient urban environments in anticipation of future challenges.

Keywords : Public Transit, Urban Resilience, Location-based Mobility Data, post-COVID cities

Mobilities And Pandemic In The City : Case Studies From Los Angeles

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Los Angeles has been emblematic of the city of cars for decades. The urban form, economic trajectories and cultural dimension of the metropolis reveal the omnipresence of this mode of transport, with commuters spending an average of 2-3 hours a day in one of the most characteristic areas of dense urban sprawl (Eidlin, 2005) in the United States, if not the world. Against this backdrop, public transport and active mobility have a low priority, despite the city's long history of rail and tramway networks, which have shaped part of its urban structure (Lefèvre, 1984). While the development of public transport is not new, it has become a major issue in political debate, and a source of conflict, relatively recently (Elkind, 2014), following the undeniable effects in terms of congestion but above all environmental pollution. The public transport system, mainly based on bus and metrorail, falls under the jurisdiction of the County through the Metropolitan Transportation Authority (METRO) and is concentrated in a relatively small central area.

The recent period has been marked by a shift, or at least a more pronounced focus on the issue of sustainability. The issue of active mobility (public transport, cycling, walking) is at the heart of metropolitan planning documents ("We Have a plan for our next LA", METRO) and municipal documents ("Sustainable mobility city Plan", LA Municipality), with increasing emphasis on the development of bicycle paths especially. In this new context, the Covid 19 pandemic has played a significant role in shifting policies in Los Angeles, as it has in many other cities around the world. The drop in public transport ridership, already low, is notable, as is a renewed interest in active mobility. Several schemes have been set up in this context, such as Bicycling LA.

The aim of the presentation is to examine the effects of the pandemic on active mobility policies in Los Angeles, on several scales: those of the METRO, the Los Angeles municipality, but also, on a finer scale, in two independent municipalities within Greater Los Angeles, Santa Monica and Culver City, which are relatively exemplary case studies. The aim will be to discuss the role of the pandemic in accelerating existing trends, to question the risk of divergence and fragmentation between the various public policies implemented, between the County and municipal levels, and to assess the social integration capacity of public transport and active mobility.

***Keywords** : Active mobility, Mobility Policies, pandemic, Transport modes*

Track 06: Governance

GOVERNANCE - Planning and democracy: contradictions, failures, and agonistic alternatives in shaping urban spaces and in urban planning practices

Chairs:

- Enrico Gualini, TU Berlin

- Joel Idt, Université Paris-Est

- Donato Casavola, Politecnico di Torino

Keywords: agonistic democracy; conflict; co-production; experimental governance; local democracy; Planning practices and instruments; public-civic cooperation

Can conflicts and contradictions be at the heart of urban policy-making and planning practices? After decades during which viewing the production of space from a 'governance' perspective (for instance, focusing on the dialogues, partnerships, negotiations, etc.) appeared to be commonsense, times are ripe now, more than ever, either for critical assessments and for experimental alternatives to this narrative. Conflicts are no longer systematically seen as problems. Through local experiments and networked exchange, urban political communities have started addressing tensions,contradictions, and failures of established governance practices. In doing so, they are turning critique and agonistic engagement into opportunities for cooperation and materials for innovation in urban planning and policies. At the core of these new emerging practices is the struggle for recovery and – as it were – for the reinvention of the role of the public in producing urban policies. New local democracy experiments thus dwell on a problematisation of governance that highlights such contradictions as well as the quest for alternatives.

This track aims at exploring the current state of local planning and governance as practices developing in a dialectic environment of de- and re-politicisation in agonistic arenas where the struggle for change is at the same time a struggle for new formats and principles of co-production that is at least partly based on conflicts, tensions and contradictions between stakeholders. The track welcomes contributions that aim at promoting scholarly analysis of current practices dealing with issues such as:

- emerging contentious issues of urban development, for which planning and governance struggle to find effective balances of divergent positions and interests;

- experimental governance initiatives by introducing new patterns of interaction and leaving some room for conflict;

- the role of conflicts and contradictions in urban planning techniques and in public policy instruments, which bring technical debates to a political level.

- new forms of public-civic cooperation potentially capable of introducing policy change and institutional innovation, despite (or rather thanks to) the tensions that can exist in this type of situation;

- directions towards overcoming formal-institutional 'invited' citizen participation and towards 'inventing' new forms of participatory governance;

- critical reflections on achievements of the 'new municipalism' in reinventing urban governance as well as on the mid-to-long-term challenges facing it.

Contentious Governance

Agonistic Planning In Practice: Is It Successful?

Felix Leo Matzke (Ils Research)

The Rhenish mining area can serve as a real-word laboratory setting for agonistic planning theorists: since the middle of the last century open coal-pit mining led to a state of permanent conflict. In the 1970s and 80s citizens' initiatives were founded fighting for their villages to stay. Inhabitants and NGOs tried to solve their argument juridically up to the German Federal Constitutional Court. But until recently neither the "right to home" nor environmental conservation criteria could outdo reasoning for security of energy supplies. With a growing influence of climate activists on societal and political discourses, the tide now has turned: Most Germans support a sustainable transition of energy supply markets (e.g., Bertelsmann Stiftung 2023). Subsequently, federal and state governments have decided to phase-out lignite mining in 2030 (RWE AG, 2022).

However, for some villages in the mining area of Garzweiler in Erkelenz this decision came too late. Inhabitants who already resettled have now to accept that their relocation was not necessary. This led to multiple lines of conflict between different actor groups. Disputes are reinforced because five formerly separated villages have been merged in a collective resettlement. Some inhabitants stayed in the old villages refusing to relocate causing additional tensions between "leavers" and "remainers". Climate activists who built a camp in a former village in Erkelenz are not seen as supportive but rather as an external friction by most of the residents. Also, the municipal administration although objecting the mining plans all along is not an ally in the eyes of the villagers because eventually it has to implement the (unpleasant) decisions made on planning levels above.

This paper builds upon research (e.g., workshops, qualitative interviews, a survey) within the framework of a transformative research project (Zhoch3, 2021-2024). Aim is to show how these conflicts outlined above are negotiated by the different groups of actors. Thesis of the paper is that based on the strategic approach of mining operator RWE, also local citizens, climate activists, and even the municipal administration have 'learned' to act in an agonistic manner. Agonistic planning theory argues for conflict being a productive force when opposing parties tolerate each other and adhere to shared rules of conflict resolution (Kühn, 2021: pp. 145-146, Pløger, 2021: pp. 1297-1298). But a) if an involved party complies to "the rules of the game" as well as b) if agonistic behaviour is considered to be successful varies greatly from an individual perspective. The paper concludes that the highly fragmented field of actors impedes a collective mode of problem solving. Regarding the transformative objective of the project, our findings offer some ideas how social cohesion could be strengthened to support more collaborative actions.

Keywords : Agonistic planning, Rhenish mining area, real-world laboratory, lignite mining, transformation

What Is The Relationship Between Participation And Conflict In The Implementation Of Development Projects? Lessons From Ault

Sofia GUEVARA VIQUEZ (Lab'urba, Ecole D'urbanisme De Paris), **Marie Fournier** (Gef, Conservatoire National Des Arts Et Métiers)

The proposal focuses on the interactions between institutional participation mechanisms and 'uninvited' participation (Wynne, 2007; Wagenaar, 2014 in Bobbio and Melé, 2015) in the implementation of a relocation and urban redevelopment project to address coastal erosion in Ault (Baie de Somme, France). This project was launched in 2013 and its implementation quickly became very conflictual. We analyse the initial implementation of participatory mechanisms in the design of the project, the emergence of conflicts challenging these mechanisms, and the project's ability to manage these conflicts over time. The main actors involved are the municipality and inter-municipal actor responsible for development, a local NGO and local state services. The proposal does not reduce the results of the project to the presence or absence of participation mechanisms. It focuses, along time, on the evolution of the relationship between participation mechanisms and the conflict at stake.

As already stated in other research, we describe how the conflict has progressively evolved all along the negotiation process. From frontal opposition and unresolvable conflict (which can be described as an "either -or" conflict (Hirschman, 1994), a common construction has gradually emerged.

The fieldwork is qualitative, based on 32 semi-structured interviews and site visits between 2022 and 2023 ; analysis of institutional documents and the press. The presentation follows the different phases of the project. Firstly, we show a period of strong conflict between local stakeholders. In this phase, practitioners and policy makers encounter difficulties in setting up participatory mechanisms to discuss the project after it had been publicly announced. The fieldwork shows how difficult it is for policy makers to engage in dialogue with a mobilisation that is gaining strength and multiplying its modes of action. Secondly, we show the period of local reconfiguration, with changes in the position of the local elected representatives; finally we shed light on the current collaborative actions between previously opposed actors. While these actions do not mean that all disagreements have disappeared, they do illustrate the real cooperation that is taking place between actors. Eventually, inspired from previous research and papers (Bobbio and Melé, 2015; Blondiaux, 2008), we show how conflicts have contributed to the design of participation processes locally as they encouraged policy makers to adapt and transform the participation processes initially defined. On a longer term, they contributed to the definition of the future for the coastline.

Planning Processes Between Agonistic Uses Of Participation And Participatory Uses Of Conflicts

Maude Cournoyer-Gendron (Uqam)

Conflicts are part and parcel of contemporary urban planning processes. The aim of this communication is to shed light on the role of such contentious moments in the elaboration and concretization of urban projects.

Results presented here are drawn from a doctoral research, using a multi-case strategy built on press analysis and semi-structured interviews, focusing on the effects of conflicts in planning processes and outcomes. The two cases studied were the Yellopark project—a new stadium for the local football club (and its adjacent urban development) in Nantes (France), and the Royalmount project—a lifestyle centre to be built at the crossing of two highways in Montreal (Canada).

To a lesser or greater extent, the multiple critiques advocated by a variety of actors had a wide range of effects on projects, their implementation and on the territory. Results shown that projects changed mainly through minor adjustments and in some rarer cases, through major bifurcations when subjected to critiques.

Nonetheless, six effects of conflicts in planning were identified in our study: (1) the apparition of newly concerned actors, (2) the emergence of unprecedented spaces for debate—either institutionalized, or initiated by citizens or private firms; (3) the formulation of counter-expertise, as well as the emergence of alternative projects. Due to the conflict, (4) various concerns were revealed for the territory of the project, and (5) contrasting views of the city and its future were carried out by the actors at hand. Hence, the moment of conflict acts as a trial phase for projects, (6) forcing its justification, spreading the debate towards new issues—from more technical aspects of the project to the question of its impacts and possible scenarios.

By highlighting some of the effects of conflicts in urban planning processes and outcomes, we could then reflect on theoretical implications of our empirical observations where there was a blurred line between participation and conflict (Blondiaux, 2008; Bobbio and Melé, 2015; Fung and Wright, 2005). In fact, we observed antagonistic use of participation by institutional actors and the use of conflict as a way to establish new spaces of participation or to be invited in the conversation. Such evidence implies to rethink the imbrication of conflict dynamics related to counter-powers and the more collaborative dynamics associated with a deliberative ideal, in the "making of the urban" (fabrique urbaine). It is an invitation to envision a continuum between conflict and participation (Bobbio and Melé, 2015), and to rise above the dichotomy of collaborative or agonistic participatory process, with a top-down, consensus-oriented, institutionalized, process on one side, and bottom-up and insurgent participation on the other (Healy, 2003; Hilbrandt, 2017).

The Attention Economy Of Planning Practice: The Variegated Allocation Of Attention To Different Issues In Planning

Jonathan Metzger (Kth Royal Institute Of Technology), **Maria Håkansson** (Kth Royal Institute Of Technology), **Jenny Lindblad** (Kth Royal Institute Of Technology)

John Forester has suggested that one of the central tasks of planning is to organize attention and has even gone so far as to argue that there is indeed a "practical economic geography" of attention in planning, when taking into consideration that attention is a scarce and unevenly distributed resource (Forester, 1993).

This paper picks up on this notion from Forester and develops this intriguing insight in dialogue with both classical organization theory on attention as a scarce resource in any organizational context (e.g., Simon, 1971), and more recent work from the field of Science and Technology Studies (STS) which has highlighted the importance of attending to issues to understand societal dynamics (e.g., Marres, 2007; Leino & Laine, 2012).

In the paper we build upon these theoretical inspirations to investigate what issues are given concrete attention in the context of planning practice, and the mechanisms behind this. The empirical material for the paper has been collected through ten in-depth workshops with Swedish planning practitioners employed within municipalities as well as property development companies and major technical consultancy firms.

We suggest that attention is allocated to issues based on a combination of who is involved in the planning process, the perception of roles and responsibilities among these actors, and their understanding of 'how things work' – as well as institutional requirements, laws and current events/ media cycles.

Thus, to understand how attention is allocated in planning processes, there is a need to investigate how a 'politics of what' is also deeply intertwined with a 'politics of who' (is involved) and a 'politics of how' (things are done/ methods & practices) through how constellations of practitioners, regulations and methods produce manifest patterns of attention to certain issues in planning practice – and lack of attention to other.

We conclude that the solution to the problem of limited attention in planning cannot be to argue that planners always should be equally attentive to every potentially relevant aspect at all times, considering that this is a practical impossibility. Instead, inspired by McGoey (2012) and the work of John Law, we suggest that the key competence that must be fostered is a reflexive "strategic ignorance", which is mindful of how simplifications of complex realities are performed, what they leave out – and to what effects.

Navigating Contradictions: Institutions Of Commoning And Their Governance Impact In Naples

jorge mosquera (Iuav University Of Venice)

The surge in social inequality across Europe, especially in urban areas, has worsened since the 2008 economic crisis. This phenomenon is particularly pronounced in Mediterranean countries and is intricately linked to the gradual weakening of the welfare state affecting the entire continent since the last decades of the previous century. The complexity of this outcome arises from the interplay between exclusionary market forces and state policies that, whether due to incapacity or reluctance, fall short in fostering inclusion (Fregolent and Nel·lo, 2021). In some cases, in response to this condition, residents have independently sought to provide for their own services through collective action and cooperative forms of organisation, also targeting the collective management of public spaces to counter the risk of misuse and privatisation (ibidem).

Within this context, this paper aims to explore the case of the city of Naples. Over the years, the concept of *uso civico e collettivo* (collective uses) has developed through interactions between activists advocating for the collective management of public spaces and the public administration, which was previously under the leadership of a neomunicipalist mayor. The core idea involves the legal acknowledgment of the right to civic and collective use. This is actualized through declarations made by communities who collectively take care of publicly-owned assets, treating them as urban commons (Harvey, 2012; Dellenbaugh et al., 2015; Stavrides, 2016). In Naples, the Municipality recognizes these declarations, acknowledging the potential for resource redistribution and the generation of significant cultural, social, political, and pedagogical value. This recognition justifies the shared responsibility of the local administration in managing costs and ensuring essential functions like utility expenses and major maintenance (Micciarelli et al., 2022). The case of Naples appears to redefine the collaborative relationship between citizens and institutions, as well as between citizens and urban spaces underscoring the collective value of certain self-organising practices within the city (Ostanel, 2017).

Practices based on the concept of urban commons exhibit a dual nature, as highlighted by Enright and Rossi (2018). On one hand, they serve as sites for post-capitalist experimentation; on the other, they are vulnerable to the commodification of social relationships. A critical perspective warns of potential risks, including co-optation by governments, turning such initiatives into mere service-providing organisations. This risk is particularly pronounced in fragile contexts like Naples, where the depletion of resources has diminished institutional presence. As institutions recede, self-managed socio-spatial practices emerge, offering services at zero cost, filling gaps that the local authority struggled to address (Pascapè 2020). The aim of this work is therefore to explore the contradiction and the possible impact of the institution of collective uses for urban governance by exploring two specific urban commons in Naples where the intense work of commoners had led to public investments and the successful request of services by the local community. The preliminary field research has revealed how commoners are navigating the inherent contradiction of being utilised as instruments in the context of welfare state reduction, while simultaneously striving to offer tangible solutions to the ongoing welfare crisis. This dual role underscores the complex dynamics and challenges faced by commoners as they grapple with the evolving landscape of social welfare. Presenting the work of an ongoing research, this work aims at sharing critical reflections on the mid-to-long-term challenges faced by neo municipalist institutions.

Keywords : commons, Institutionalisation, governance

A Morphogenetic Approach To Conflict In Spatial Governance

Prathiwi Putri (University Of Kassel)

Critical realist approaches to structure and agency have their place within the trajectory of planning literature; some scholars explicitly mobilise the propositions (e.g., Moulaert et al., 2016; Næss et al., 2018; Xue, 2022) or inexplicitly show the influences in their works (to mention a few Tasan-Kok, 2008; Metzger, 2013; Oosterlynck & González, 2013; Sager, 2018). Surely, conflict (and power) is a big theme in the literature and many scholars working on the theme reflect some critical realist perspectives (see for example in these edited books Gualini, 2015b; Metzger et al., 2015).

This article offers a critical realist perspective on conflict, and mobilises especially Margaret Archer's morphogenetic theory that was born from her dissatisfaction with the classic problems of the binary dichotomy of structure and agency. Informed by her accounts for stratified structure and agency, it conceptualises conflict beyond agential conflict, which is often perceived at the level of event.

Focusing on Archer's notions of corporate vested interest and strategic role, the author seeks to engage with conversations in planning theory to further argue for 'space of dissensus' as 'space enacting the political' (Dikeç, 2005; Gualini, 2015a). She hopes to provide an instructive framework to account for real potential conflicts (systemic and social or inter-agential) in theorising the role of insurgencies in planning and development in the Global South (see also Roy, 2005; Miraftab & Wills, 2005; Watson, 2014). The conceptual discussions are made grounded with the case of spatial conflicts in Jakarta, involving stories about riparian kampung communities who have been evicted from the main river basin of the metropolitan city.

Keywords : critical realism, conflict and insurgency, margaret archer, the political, Global South

Contentious Governance

Rescaling(S) Of The State(S) In Housing Production :: Inter-State Conflicts In The Development Of The Grand Paris Express Station Areas

ANTOINE GOSNET (Ehess | Umr Géographie-Cités)

Since the launch of a metropolitan underground's network project in the Paris region in 2010, the stations districts, newly invested by metropolitan logics and becoming levers of growth and attraction of private capital (Halbert and Attuyer 2016), are subject to State-led housing productions. This article focuses on the reconfigurations of housing policies in the suburban municipalities soonly served by the future subway network.

Mobilizing eighty semi-directive interviews[1], we question the State's attempts to regulate the affordable housing's production within the areas. These national regulations are based on several control vehicles addressed to municipalities to develop social diversity within their station's district.

Nevertheless, despite national public action guidelines and models of good practice for the development of station districts, the survey highlights an ambiguous role played by the State. Through several state-owned public institutions exercing land value capture strategies, some State agencies actually relies on real estate developers to build housing programs fully dedicated to home ownership (Aalbers 2016) within the station districts. The central State - understood in this doctoral study as State services (Préfectures) public planning establishments, national housing agencies, public bank - appears to provide a framework for and regulate decentralised local public action in an unequal manner. The degree to which the « State » intervenes in local housing policy seems to be directly correlated with the dynamics of metropolisation brought about by the arrival of the metro in the district.

Approvals for the construction of social housing are rarer, and strategies to financialize the state-owned-land (Christophers 2017), disregarding the first-time residents needs, reinforce the affordable housing access' tensions. This ambivalent positioning of the State may lead to a widening of socio-spatial inequalities due to contradictory and coercive national measures (Rodriguez-Pose and Storper 2020) in a context of metropolisation of the Paris periphery invested by metropolitan facilities.

[1] Conducted with deconcentrated State services (Préfectures) Public Planning Establishments, National Housing Agencies, local authorities, social landlords and real estate developers.

***Keywords** : housing policies, multi-level governance rescaling, Territorialization of public policies, Urban Governance, semi-structured interviews*

Contentious Urban Infrastructure: A Critical Discourse Analysis Of A Conflict Between Renewable Energy And Biodiversity Conservation In Leipzig, Germany

Neelakshi Joshi (Leibniz Institute Of Ecological Urban And Regional Development, Dresden)

In the last two decades, cities worldwide have adopted plans and goals to reduce their energy based emissions and are increasingly switching to 100% renewable sources of energy. However, as renewable energy projects begin to materialise, conflicts have also emerged. Conflicts are often attributed to the spatial dimension of urban energy transitions, bringing the sources of energy production within or close to the city boundaries (Hoicka et al., 2021). The ecological impact of renewable energy projects in driving landscape change and impacting biodiversity is increasingly gaining attention and call for a socio-ecological justice perspective toward energy transition (Dunlap, 2021). A socio-ecological justice frame helps establish equivalence between social and ecological dimensions of justice and its utility in framing future urban energy policies (Grossmann et al., 2021; Yaka, 2019).

This paper presents the complicated case of conflict over the location of a solar farm in Leipzig, Germany. The solar farm promises to achieve greenhouse gas reductions and contribute to the city's attempts to reduce its carbon emissions. The farm is located on the city's landfill site, in disuse for the last twenty years. In these twenty years, the landfill has become refuge for various species of birds, butterflies as well as larger animals like deer. Furthermore, the local people use is as a green oasis amidst industrial infrastructure. As a result, the solar farm project has raised opposition from citizens and environment conservation groups.

Using a socio-ecological justice frame, I conducted a critical discourse analysis of the arguments presented for and against the project during city council meetings in October 2023. I supplement this data with self-published reports, newspaper articles, key-informant interviews, and a residents' survey. I contrast the discourse of climate change mitigation from the solar farm against biodiversity conservation and the need for a green space by the locals. Findings indicate that the urban energy transition process attempts to create a balance between economic growth, social equity, and environmental protection. However, the inherent contradiction between preservation and growth is fraught with tensions and entanglements, making sustainability transitions rife with trade-offs, negotiations and an attempt to find a state of truce between conflicting interests.

The paper cautions that evaluating urban energy transitions based solely on carbon reduction, without consideration toward their social-ecological impacts, risks re-producing existing unsustainability and injustices in cities, leading to further conflicts. Furthermore, I highlight the limitations of the current decision making processes with regards to urban renewable energy infrastructure in doing justice to socio-ecological impacts.

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How Do Conflicts Shape The Local Governance Of Housing Production? Findings From The Paris Metropolitan Area.

Julie POLLARD (University Of Lausanne), **Côme SALVAIRE** (Ird)

Opposition to infrastructure development for the 2024 Olympics, to the construction of high-rise buildings (including the Tour Triangle), and to the megacomplex EuropaCity are among the most heated urbanization conflicts to have arisen in the Paris metropolitan area in recent years. Behind these highly publicized conflicts, the development of urbanization and urban planning policies are also shaped by more low-key conflicts. The tension between the imperatives of densification and adaptation to climate change is putting increasing pressure on urbanization in the Paris region. And most of the conflicts lie in residential development (Torre et al. 2014). Assuming that mobilizations against housing production are common, recurrent and structural, this paper focuses on opponents to housing projects as key agents of housing policy implementation. It addresses the following two questions: Which collective actors mobilize to block housing construction, and in which areas of the metropolitan territory? How do these mobilizations affect local urban policy-making?

Conflicts are defined as relational processes that constitute a contentious form of political participation in local urban governance. Focusing on conflicts is a way to capture dynamics of local politicization of urban development issues and to consider factors and actors of transformation in local urban politics (Gualini 2015; Melé 2003). Conflicts reveal modes of local governance involving public and private actors in the (non-)implementation of housing projects: local politicians (in government or in opposition), a wide range of associative actors (including neighborhood community and environmental associations), real estate developers, etc. By adopting such an approach, this contribution is positioned at the intersection of debates in policy analysis - particularly around urban governance - and planning theory.

Empirically, this contribution examines a broad set of conflicts over housing development projects in the Paris metropolitan area between 2017 and 2022. The conflicts were identified through a systematic analysis of the local press (newspaper source: Le Parisien), which led to the identification of 150 cases of conflict. This database constitutes the main material for this paper, supplemented by about fifteen interviews (with political actors, associations, and planning lawyers). This research is thus in line with a body of literature on conflicts over the use of space, based on systematic analysis of the local or regional daily press (For example, see : Drozdz 2016; Hjalager 2020; Villeneuve et al. 2010).

This database shows the relative importance of different association profiles (neighborhood associations, supra-local associations, environmental associations). It reveals the strength of "ordinary" conflicts structured around the mobilization of neighborhood collectives – and, in contrast, the relative weakness of mobilizations led by supra-local associations, especially environmental ones. Moreover, the interventions of each type of association are differentiated according to the socio-economic and morphological characteristics of the various urban areas of the metropolis. We observe a higher intensity of mobilization in socially mixed areas. And the mobilization of supra-local and environmental associations is stronger in the most socially privileged areas. Our approach also allows us to highlight the links between the associative and political arenas. Finally, we examine the impact of these mobilizations on both urban governance practices and public policy outputs.

Keywords *: housing, conflicts, Paris metropolitan area, media coverage*

Exploring Contradiction And Coherence Of Rural Commodification In Mandalika Megaproject, Indonesia

Isnu Pratama (Institut Teknologi Bandung), **Delik Hudalah** (Institut Teknologi Bandung), **Armei Rapudin** (Institut Teknologi Bandung)

The Indonesian government has recently promoted megaproject development to boost national economic growth. This policy has triggered socio-spatial transformations in various regions, particularly in tourism development projects that leverage the attractions of local rural landscapes. In addition to large-scale physical development activities, the business cycles/processes inherent in mega-projects utilizing international capital investment force the governance of rural spaces to change according to entrepreneurial logic. This transformation process is closely related to commodification, where rural spaces are considered productive when activities are oriented towards commercialization and financial profit accumulation. Traditionally associated with isolated and idle space, rural spaces are now experiencing dynamic socio-spatial transformations and exposure to the external world, influencing the community's life and its physical landscape.

Research on the commodification of rural spaces in the literature shows that the original social, cultural, and spatial characteristics may be permanently lost and replaced with new features and governance logic. This leads to a contradictory process where communities often experience negative externalities from detrimental development, such as eviction, loss of livelihood, and a decline in environmental quality. However, a coherent hybrid process between original and new rural spatial governance characteristics is possible. This process is considered more just and brings positive benefits. Recent research on the commodification of rural spaces still leaves a knowledge gap regarding how these processes of contradiction and coherence can occur.

To address the research problems mentioned earlier, this research will utilize the theoretical frameworks of the Creative Destruction Model (Mitchell, 2013) and the Production of Space (Lefebvre, 1991). The Creative Destruction Model can systematically and periodically understand the process of rural commodification through the process of capitalization. Meanwhile, Lefebvre's theory emphasizes that rural space's (re)production process cannot be separated from power relations among actors and their manifestations in socio-spatial practices. Such a framework can reveal their values and perceptions of how space is reproduced. This research argues that coherence and contradiction in commodification are closely related to the efforts of stakeholders to align values and visions in planning/managing rural spaces. Furthermore, megaprojects involving complex actor relations and extensive impacts on the built environment make the effort to align values and visions increasingly challenging.

This research analyzes the commodification processes in rural tourism areas resulting from mega-project development in the Mandalika Special Economic Zone (SEZ) in West Nusa Tenggara Province, Indonesia. The SEZ has been one of the most productive tourism mega-projects in recent years, utilizing various natural, cultural, and international sports event attractions. Through conducting a field survey, archiving secondary resources, interviewing stakeholders, and applying content analysis to the data, this research seeks to generate original insights and contribute to the field of rural (planning) studies.

***Keywords** : Commodification, Power Relations, Conflicts, Coherence, Tourism Megaproject*

Contentious Governance

How Do Land Use Conflicts Escalate? Unveiling The Causal Mechanisms In A Conflict Over A Biogas Plant

Meike Fienitz (Leibniz Centre For Agricultural Landscape Research), **Rosemarie Siebert** (Leibniz Centre For Agricultural Landscape Research)

Land use conflict research has long focussed on attempting to avoid or solve conflicts. However, more recently, agonistic views of conflict have found their way into the research field, with scholars emphasizing the inevitability of conflicts, as well as their positive functions (i.e., Harrison and Loring 2020, Wolf 2021). Rather than avoiding conflict per se, research has begun to focus on the question how conflicts can be managed to achieve productive outcomes. As a result, the dynamics of land use conflicts are recently receiving increasing interest in scholarly debate (i.e., Gualini 2015, Sahide et al. 2021). However, thus far, research has focussed on the causes of different conflict dynamics. In the present paper, we argue that additionally, knowledge of the processes by which certain conditions lead to escalation is important for improved theorization of land use conflicts' dynamics and allows us to identify options for more targeted interventions. Therefore, the objective of this paper is to analyse not why, but how land use conflicts escalate. To achieve this, we perform process tracing on an in-depth case study of an escalated land use conflict concerning the expansion of a biogas plant in an urban-rural fringe region in Brandenburg, Germany. We analyse material obtained through document analysis, a field visit, and semi-structured, episodic interviews with all involved actors, applying qualitative text analysis. We thus identify a chain of five causal mechanisms that connect the conditions resources, adverse structures, and emotional opposition with the outcome escalation: A lack of dialogue during the early phase of the conflict leads to a lack of understanding between the conflict parties, as a result, central actors are unable to imagine a compromise, which renders them unwilling to compromise, which finally confounds with them perceiving other options as more attractive than collaboration to lead to escalation. Our results confirm, but also specify the causal relevance of previously identified conditions for escalation in land use conflicts. Moreover, our findings reveal several options for policy-makers and planners to create conditions that foster agonistic conflicts and for involved actors to achieve collaborative dynamics instead of escalation. Most importantly, the early phase of a conflict emerged as key for interventions, with achieving a dialogue from the very beginning as the main leverage to thwart the escalation process. Providing access to mediation and making negotiation more attractive in comparison to litigation emerged as further options. Beyond the specific case, we therefore formulate options how policy-makers, planners, and conflict actors can achieve agonistic arenas for the negotiation of divergent land use interests.

Keywords *: land use conflict, conflict dynamics, escalation, agonistic conflict, process tracing*

Disaster Capitalism Meets Authoritarian Urbanism: Post-Disaster Urban Redevelopment Planning In Hatay, Turkey

Deniz Ay (University Of Bern), **Burak Buyukcivelek**

In the aftermath of the February 2023 earthquakes that hit south of Turkey and northern Syria, millions of people are displaced, left homeless, and face tremendous hardship in post-disaster conditions for accessing basic services. In this paper, we analyse the institutional and political moves that the State is orchestrating in post-earthquake redevelopment planning. Following the theoretical underpinnings of disaster capitalism (Güney 2022), we argue that the local political conditions and vulnerabilities of a disaster-hit area enable the State's fast-track policy action to facilitate a wholesale property transfer and dictate land use changes to open room for market-oriented, exclusionary, and non-democratic redevelopment (Ay and Turker 2022). We explore the reinforcing relationship between authoritarian urbanism and disaster capitalism and suggest that an authoritarian policy infrastructure yields "a new breed" of post-disaster redevelopment that directly attacks the local capacity and public interest in the recovery and reconstruction of the lives and livelihoods of the local communities and residents (Zupan et al., 2021). By conducting a case study on the post-disaster planning in Defne and Antakya districts of the Hatay province in the south of Turkey, we identify the institutional pillars of the centralized authoritarian urbanism practice and its reverberations on the ground (Ergenc and Yuksekkaya 2022). Our findings contribute to a nuanced understanding of the logic of disaster capitalism and disaster urbanization (Madden 2021) by identifying the policy instruments that the State mobilizes to intensify profit-seeking urban development in politically contested cities.

Keywords *: urban redevelopment, disaster capitalism, Housing; Earthquake Disaster; Post-Disaster Reconstruction, Turkey, authoritarian urbanism*

Co-Production Strategies With An Agonistic Tension: Counter-Hegemonic Efforts For Local Development Of A Marginal Rural Area In Southern Italy

Angela Barbanente (Politecnico Di Bari), **Laura Grassini**

Growing critiques have been raised towards communicative and consensus-oriented approaches to urban planning and policies, because of their over-representation of the most powerful and their insufficient capacity to challenge hegemonic dynamics (Purcell, 2009). At the same time, the value of conflict and antagonism has been highlighted, as a means to pursue social justice and transformative outcomes. Nevertheless, how conflicts with hegemonic positions may create new spaces for co-production of alternative development patterns and innovate urban planning and policy making is still an under debated issue (Legacy et al., 2019).

This paper deals with these issues through a reflexive analysis of a planning process for landscape rehabilitation and local development carried out in a rural area located in the extreme tip of the Italian heel: Southern Salento. This area has been increasingly affected by marginalization and abandonment, even more in recent years due to the disastrous spread of the Xylella epidemic, which has turned a large part of its traditional olive groves landscapes into ghostlike places. Existing policies for the recovery of the area, developed as part of national and EU cohesion policies, have largely employed consensus- and consultation-based forms of participation. These have led existing local conservative elites to greatly influence the development strategy, with the consequence of re-legitimising entrenched practices and failing to contrast social injustices exerted by extractive elites and institutions (Servillo et al., 2016).

In this context, a planning experiment for landscape rehabilitation and local development started in 2020, leading to an Integrated Project connected to the strategic scenarios of the Territorial Landscape Plan of the Apulia region. Those scenarios are aimed to protect and enhance the territorial identities of the region, as a basis for sustainable development, through the active mobilization of its inhabitants in the co-production of their living environments. This also implies the overthrow of the hegemony of the market logic, usually agreed upon by local elites, that had reduced inhabitants to mere consumers (Magnaghi, 2005).

The approach adopted by the Integrated Project was thus quite different from the consensus- and consultation-based forms of participation employed by existing policies: rather than public debates open to all alternative viewpoints, it selectively gave voice to disempowered actors and grassroots collective practices experimenting unconventional rural economies while trying to overcome ineffectiveness of existing policies and failures of market-driven development; rather than emphasizing the coordination and collaboration between all the different governance and institutional levels, where persistent clientelist and dependency politics may hinder the development of social relations, it relied on the involvement of key actors connected to those multi-tiered networks and coalitions specifically engaged in transformative experiments for local development. Development alternatives were thus not theoretically conceived of, but concretely experimented as a result of collective efforts and relational practices. Those alternatives actually straddle between past, present and future as they are rooted in a re-interpretation of the core identity features of the places, which come from the past but are continually re-shaped by collective efforts; at the same time, they are nurtured by experimental actions carried out in the present, as concrete utopias (Davoudi, 2023) and praxis-oriented visions of the future shaping new imaginaries in an agonistic tension against hegemonic narratives.

This paper accounts for the way in which the Integrated Project, as an experiment of co-production with an agonistic tension, was developed and may suggest innovation pathways for urban planning and policies engaged in counter-hegemonic struggles.

Keywords : co-production, counter-hegemonic transformative planning, Southern Italy

The Metro Of Athens As A Wicked-Problems Mega Project: Conflicts And Contradictions Over The Siting Of Stations

PANTOLEON (PANTELIS) SKAYANNIS (Polis University And University Of Thesaly)

This paper investigates the physical planning issues related to the siting of stations on the Athens metro lines. A 'technical' choice has become a contentious issue that has brought the debate to a political level. Considering issues of problematic or conflictual siting that had arisen during the planning of the first phase of the metro (base project), the paper focuses on two current acute issues (of line [4]), those of the location and form of the Exarchia and Evangelismos (Rizari) metro stations. Trying to see the problems under the light of mainly eco-environmental and social sustainability in combination with certain approaches to planning, such as those that utilize the concepts of wicked planning and clumsy solutions, and the discourse on mega projects and the complexity, uncertainty, and risk inherent in them, would be particularly useful. The intertwining of these concepts leads us to understand the deeper essence of the problems. The paper argues that if and whenever a solution is attempted, this never-perfect solution logically follows that it should at least be based on extensive consultation with all stakeholders and that the course of such design events should be recorded in a way to ensure institutional memory.

Methodologically, the paper is the product of many years of research on mega projects in Greece and internationally. The research is qualitative, based on discussions and interviews with stakeholders and key figures associated with the projects, as well as on events recorded in the mainstream electronic and print media. The result of this research is derived from the intersection of the conclusions of our previous extensive research on the basic project of the metro and from the research into the current reality of the problems of the design of the new line.

One of the research's key conclusions is that there is an inherent negation in the Greek planning system to conduct substantial communication with the stakeholders if it is expected that they are going to pose 'difficult questions' or oppose a project. This 'poor' citizen participation is going along an insufficient appraisal of the projects, especially in certain aspects of their eco-environmental and social dimensions. As solutions provided are 'over' clumsy, this leads to a vicious cycle of problems leading (at least) to the delays of projects.

From this research, it is highly recommended that future projects in Greece and internationally should utilise strong consultation procedures, and/or suitable forms of participatory planning or decision-making, in the frame of a new kind of participatory governance and comprehensive appraisal so that they save time and resources and be more eco environmentally and socially sustainable and useful.

***Keywords** : Athens metro, conflict, governance, social sustainability, mega projects, wicked problems*

Unplanned Anarchism As A Response To The Anarchism Planned In The Governance

Paul Tiensuu (University Of Helsinki)

In contemporary politics, participatory governance is justified as a way of decentralising power. As it weakens the state's control and decentralises its power, it is a way of governing that embraces a certain anarchism but in a coordinated manner. However, it appears to empower the individuals and societies that already have considerable economic and societal power in the political society at large.(e.g. Kohler-Koch & Quittkat 2013) With regard to planning, the participatory planning processes that emphasise individualistic channels of participation may end up only engaging the strongest individual stakeholders particularly in the well off neighbourhoods. Focusing on the individual participation it may even weaken the neighbourhoods' use of hierarchical and centralising coordination agencies, such as community associations, important for the more vulnerable communities. Thus it may contribute to the trend of regional inequality, and increase the vulnerability of the vulnerable communities. (Guilluy 2014)

The participatory governance's tendency to individualism in participation thus does not necessarily engage the majority population, while the weakening of state-centric representative government weakens the institution of majority representation. One response to this may be the different populist movements that aim to return to the representative democracy, undoing participatory and technocratic ways of government (e.g. Hopkin & Blyth 2019). But another would be the unplanned anarchic takeovers that reject both the state and the individual driven ways of planning. Such "anarcho-communitarian" tendencies may often be seen to be at play in the populist-like, identitarian movements, if they do not aim at higher level representative democratic goals. These would mainly be the types of group-identity communitarian segregationists, which however usually do aim at state-like communities that simply undo the individual liberties and are in this sense hard line communitarian and not at all anarchist (Lukes 1995). More to the point are the movements that remain strongly anarchic in that they (1) do not align in representative politics, (2) do not create static hierarchic organisation, and (3) do not aim at state-like power, but act against it, while also (4) want to act and be heard as a collective, a community, however disparate, and not as individuals. These could be strongly localised movements, a prime example of which is the separated anarchist enclave of ZAD of Notre-Dame-des-Landes in Bretagne (Verdier 2021), or collecting more disparate members over a larger region, such as the gilet jaunes movement, in spite of its mobilisation in political purposes by different parties.

In this presentation I will first shortly present the fragmentation problem of the combination of centralising planning and decentralising processes. Drawing from Jacques Rancière's ideas on unplanned politics rising from the people directly, I will then analyse the difference of the populist and anarcho-communitarian solutions, and finally consider whether the anarcho-communitarianist movements, in theory and in light of the recent examples, could have a capacity of collecting the disparate voices of the vulnerable communities in the fragmented states.

Local Contention In Energy And Water Related Projects. Discussions Of Environmental Justice

Carolina Pacchi (Politecnico Di Milano), **Ruggero Signoroni** (Dastu Politecnico Di Milano)

Climate change dynamics trigger very diverse effects at spatial and territorial level, and their impacts on the territorial domain are typically contentious, in that they entail structural distributional issues at different scales in relation to different populations, as literature in the environmental domain has shown since long (Swyngedow Heyned 2003; Mohai, Pellow, Timmons Roberts 2009). Moreover, the possible policy directions to tackle them, in terms of prevention, mitigation and adaptation, open distributional games very difficult to tackle with traditional public policy tools (Schön Rein 1994) and with horizontal governance arrangements. Recent cases of mobilization in local conflicts about energy production and water management in Europe and the Mediterranean show the urgency to address these distributional issues and the difficulties related to a transition to different models of production and consumption. Forms of mobilization and insurgency make the underlying contentious dimensions manifest, even in the face of strong sustainability rhetoric, and they resort to complex a repertoires across the offline and online spheres, thus producing new types of spatialities (Leitner, Sheppard, Sziarto 2008).

The paper will critically discuss issues of mobilisation and insurgency in three cases of local contention related to energy production and water management. Looking more in detail into these cases, some elements seem to recur: the diversity of stakeholders and their perspectives, the alertness and networking ability of local communities, the ability to counter decisions backed by local, national, or international power with forms of insurgency, the ability to unveil and challenge sustainability rhetoric and discourses, the capacity to play across a range of offline and online mobilization strategies and tools. What lies at the heart of the cases that will be discussed are the inequality patterns made evident by these mobilisations: they entail for instance native populations in the face of state governments, poorer farmers in the face of larger farming corporations, local village inhabitants in the face of large internationally backed projects.
Unpacking these recurring elements, the paper will highlight dynamics of contention, mobilisation and insurgency, looking specifically at how local communities get to identify and define themselves in relation to the commons impacted by decisions taken by supra-local actors, how they get together through different online, offline and hybrid strategies, how they enact and make forms of conflict manifest, how they deploy their strategic ability to create wider support networks and to challenge dominant climate and sustainability related rhetoric.

Keywords *: water management, energy production, local conflicts, mobilisation*

Cooperative And Participatory Governance

The Institutionalisation Of Civic Initiatives

Francesco Campagnari (Ecole Des Hautes Etudes En Sciences Sociales)

In the last decades planning research has explored the actions that citizens perform to directly tackle problematic situations and public problems through different lenses, ranging from self-organisation to social innovation, from autonomous practices to bottom-up public policies. Across these conceptualisations, scholars have often framed public administrations and civic initiatives as two distinct sectors of society: the first riddled with institutional rigidity which limits their capacity to face emerging problematic situations; the second as experimental processes able to tackle public problems through direct action, autonomously creating new public policies for unformalised needs (Cellamare, 2014). Public administrations have been interpreted as institutions and civic initiatives as their opposite, free from institutional reductionism and the normative power of past experience. Planning and policymaking have then often considered civic initiatives for their ability to generate direct solutions to problematic situations. Considering this interpretation, the contribution presents the results of a recent research project on the institutionalisation of civic initiatives. Drawing from the pragmatist concepts of civic action (Lichterman, 2020), problematic situations, public problems, and experience (Dewey, 1927; Cefaï, 2019), it moves the attention from civic initiatives as a sector of urban action to direct civic action as a style of direct intervention on problematic situations. It adopts a dynamic conceptualisation of institutions, that takes into account the fact that institutionalised and non-institutionalised actions are not rigidly separated categories, as the latter can dynamically evolve over time into the former through processes of institutionalisation (Berger and Luckmann, 1966).

The exploration of the histories, everyday activities and encounters with new problematic situations of two long-standing European civic initiatives reveals three main results. First, civic initiatives are not always experimental, as they can adopt institutionalised engagements with their problematic situations, reproducing practices that they themselves may have institutionalised. Second, in the framework of the relationship between civic initiatives and public policies, civic initiatives can engage both in the elaboration of new policies or sustain the continuative reproduction of routinised public effects, seen as institutionalised public policies. Third, single civic initiatives are contributing to the institutionalisation and innovation of direct civic action as an approach to tackle problematic situations in broader communities at national and international levels. This process of diffusion is based on the scaling up and legitimisation of solutions to cultural and artistic issues effectively enacted at the local level.

These results have various implications for the understanding of civic initiatives and for their involvement in the governance of public problems through policy-making and planning. Namely, the contribution suggests seeing long-standing civic initiatives not just as experiments that can generate new solutions or innovate government-led policies, but also as tested, effective and institutionalised practices and policies. In this light, we see that they present similar issues to other institutions, but they also generate continuative public goods and effects. Finally, these results highlight how the effective experience of these civic initiatives can be used by other actors to develop new policies and plans.

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Democratic Innovations In Urban Governance: A Comparative Analysis Of Participatory Practices In Three Mediterranean Cities

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In the current context, characterised by transversal and systemic crises and the intensification of socio-spatial inequalities, cities are asserting themselves as the main arenas for confronting and overcoming those crises (Fainstein, 2014; Bua and Bussu, 2023). The complexity of these challenges – democratic, environmental, socio-economic and urban - requires a deep transformation in the field of urban planning and governance, especially in the construction of new forms of relations between citizens and government institutions. Urban policy agendas have increasingly emphasised the role of public participation in producing more "inclusive, safe, resilient and sustainable cities and communities" (UN, 2016). However, the significant gap between political discourse and the practices developed exposes the urgency of reinventing these relationships and the need to bring citizens to the centre of the political dispute over cities. Over the last two decades, there has been a proliferation of participatory innovations and experiments worldwide, at different scales and with different institutional designs(Smith, 2019). The spaces where these interactions take place are specifically designed to increase and deepen citizen participation in decision-making processes, playing a crucial role in articulating community demands, defining projects and developing public policies that meet local needs (Cornwall and Coelho, 2007). In this sense, understanding their methods and institutional arrangements is crucial, as well as analysing their influence on decision-making and in addressing social and spatial challenges.

The hypothesis is that, when well designed, they can blur the boundaries between state and civil society, articulating social and political movements for a radical transformation of institutional arrangements toward a new paradigm of governance, aimed at democratising the local economy, urban transformation for socio-spatial justice and sustainability, and advocating the inclusion of new forms of direct democracy in urban planning for collective decision-making. Therefore, this paper conducts a comparative analysis of different institutional designs for participation in three Mediterranean cities that have been recognised for innovating in urban governance: Lisbon, Barcelona, and Bologna. Firstly, based on a literature review, it builds a methodological framework that establishes criteria for observing how the institutional designs of participation respond to the challenges of: i) distributing socio-spatial justice; ii) transferring decision-making power to those affected; iii) promoting inclusion; and iv) strengthening relationships of trust and community ties. Then, it maps participatory practices on urban issues in these three cities and, through documental analysis, critically explores them in the light of the established theoretical framework to finally theorise about the potential for knowledge transfer and institutionalisation of these practices, thus informing urban policies.

It is expected to contribute recommendations aimed at expanding citizens' ability to influence decisions that impact their lives and communities, promoting increased socio-spatial equity, inclusion, and sustainability in cities. This research will help to clarify the importance of an ongoing commitment to innovation and experimentation in urban governance to respond effectively to the emerging and constantly evolving challenges of contemporary cities. This study will identify new paths to assure that public participation can contribute to explore how public participation can be mobilised to transform cities into more inclusive, safe, resilient, and sustainable spaces, aligning with SDG 11, through an indicator that refers to the proportion of cities with a "structure for the direct participation of civil society in urban planning and management that operates regularly and democratically" (UN, 2016). By analysing such structures, it is hoped to provide valuable insights for the implementation of more effective and inclusive urban policies.

Keywords *: urban governance, urban planning, participatory design, civic engagement, democratic innovations*

Administrative Perspectives On The Role Of Citizens In Planning Processes

Lea Fischer (Rwth Aachen University)

Administrative planners interact with local citizens in various ways when it comes to processes of urban development and transformation. Especially in public participation processes it is possible for them to enable and activate citizens to participate and co-create. But planners refer a lot to challenges of participation: It is hard to get citizens to participate and if they do participate, interaction is characterized by opposition and conflict. Apart from that, purpose and scope of citizen participation and the influence citizens (should) have on decision making processes are constantly negotiated among professionals. In the PhD project which this contribution is based on these narratives about the role of citizens in planning processes are studied, searching for patterns, lock-ins and roots. Social psychology and communication science put emphasis on the significance of images of the other in social interactions. Therefore, this contribution aims to get new perspectives on the relationship between administrative actors and citizens in the institutional context of spatial planning.

From the perspective of the social psychology of organizations planners can be understood as individuals but embedded in the frameworks of a profession and moreover of an organization (here: the planning administration). The organizational sensemaking theory introduced by Weick (1995a, 1995b) gives important insights in how planners embedded in administrations consider their co-actors: Organizations construct their (social) environment influenced by their self-image and construct themselves distinct to the picture they paint of their environment. These images then again shape interactions (Weick, 1995b, pp. 18–24).

In the PhD research it is examined which roles planning administrations attribute to citizens and how they are discussed within the institutional framework. Based on empirical findings from two case studies, in the dissertation these images, their construction and their consequences are explored: Which images of the actor type citizen containing which role expectations occur among administrative planners? How do these processes of construction and negotiation run? Which logics and frameworks shape these constructions and ultimately individual actions?

In doing so, different framings are carved out by interpretative qualitative analysis. These framings refer to the characteristics and functions administrative planners attribute to citizens in general. Furthermore, there are framings of the situations of interaction between administrative actors and citizens – these situations are deeply shaped by social roles and their relations. By studying the reports of planners of their experiences with citizen participation, several areas of tension can be identified, that display different understandings and performances of the roles attributed to citizens in planning processes. The analysis of the construction of roles, the corresponding expectations how the other should behave and the problematization of experienced behavior can contribute to the understanding of lock-ins in planning conflicts. Therefore, this research project aims to add an empirical view to the debate about agonistic planning approaches, especially to the debate in how far agonistic approaches are compatible with institutional and cultural frameworks in the planning system (Durner, 2023; Paxton, 2019).

If Not Participatory Budgeting, Then What?

Kasia Piskorek (Wust)

Participatory budgeting (PB) is a tool that has made its way to success worldwide. It adapted well in different contexts and planning cultures. Native to South America, for over two decades now, it has been implemented in European towns and cities. Due to its flexibility and simple concept, PB is relatively easy to introduce regardless of the scale and existing participatory infrastructure. Also, its formula promotes the agency of citizens and local communities in addressing their actual needs.

However successful, PB's implementation is not resistant to specific threats, such as (1) bureaucracy or formalisation, (2) tokenism, and (3) media malaise. These can disturb the process, cause exclusion, and influence the outcomes in an unwanted way.

In this research, built partially upon Horizon project DEMOTEC, participatory budgeting is examined for conditions threatening its effectiveness. It entails cases from 7 European countries (Cyprus, Greece, Romania, Poland, The Netherlands, United Kingdom, and Ireland) and consists of studies on (1) the general context of public engagement, (2) the implementation and popularity of participatory budgeting, as well as (3) the main weaknesses of the process.

The purpose is to open a discussion on how vulnerable PB is to today's threats and whether there is an alternative.

Keywords : citizen participation, participatory budgeting, context-based problems with participatory budgeting, leading participatory tools

The Engaged University Within River Agreements: Opportunities For Innovating Public-Civic Cooperation

Valeria Lingua (University Of Florence, Department Of Architecture)

The contribution provides an insight on the role of engaged universities in providing governance initiatives by introducing new patterns of interaction on strategic regional planning in soft governance planning spaces as the river basins.

Based on the experience of the Regional Design Lab (ReDLab), Department of Architecture of the University of Florence in the definition of river agreements, the contribution provides a comparative analysis of different contexts in terms of governance structures and process leaders and activators:

- two community-led participatory process (on the Ombrone River and Mugnone Stream), where the activators are small citizen associations

- an intermediate process Kicked off by a Municipality (on the Elsa River) that has involved other 11 municipalities along the river

In all these processes, the University acted as co-leader and trustable stakeholder within the negotiation with other institutional actors as the Region, the district Authority, the Ministry of Environment.

Operatively, the ReDLab acted in different ways: by co-ordinating the processes, by providing both formal and informal learning, by providing processes of co-creation of shared visions and scenarios, co-design of urban regeneration projects for improving the stakeholders' capabilities and 'futures literacy'.

These processes, considered as bottom-up or mid-bottom processes, are confronted with top down processes activated by the Region, in order to define opportunities and threat of the University engagement within soft governance planning spaces.

The expected result is a critical contribution on the civic role of Universities within these soft-governance processes and planning spaces, defining opportunities and threats for both universities and key policy agencies in defining new forms of public-civic cooperation, capable of introducing policy change and institutional innovation.

Obstructing Institutional Space For Participatory Governance? Contemporary Applications Of Ostrom's Iad Framework In Spatial Planning Research

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Elinor Ostrom's Institutional Analysis and Development framework (IAD) is frequently used to study an institutional setting for governance practices in spatial planning. Our impression is that this often happens without awareness of or structural incorporation of conditions under which this frame was developed. We believe that these conditions are essential for the applicability of the framework and therefore the reliability of the institutional analysis. For example, the IAD framework emerged out of a particular set of cases, being small communities dealing with a scarce common. This particular setting is not always identical to contemporary spatial and governance issues (Ostrom, 2005). Moreover, applications of the IAD in contemporary research often focus on one of its working components instead of the complete framework. This raises questions on the extent to which the application of Ostrom's IAD framework has departed from its original premises, and consequently the implications for contemporary analysis of spatial and governance issues.

In our paper, we explored the premises of the IAD framework to the institutional setting of spatial and governance issues as described by Elinor Ostrom herself, to identify the differences in contemporary applications of this framework. To that end, we intertwined three research steps. First, key principles of the IAD framework were derived by analysing 15 key publications, including early empirical research, (e.g. Ostrom, 1965), late studies (e.g. Polski & Ostrom, 2017) and comprehensive work (e.g. Ostrom, 2005). Next, from these principles, we established an analysis scheme which we applied to compare a selection of contemporary research based on institutional analysis in the field of spatial planning. These include, secondly, ten years of applied IAD research of the Spatial Planning department of the University of Groningen, who have a longstanding tradition of institutional analyses and the IAD in governance practices and spatial planning, and thirdly, other contemporary applications of the IAD at other research institutes.

The IAD framework is an instrument to systematically study a set of rules and concepts in order to demarcate established governance practices regarding a commons dilemma or the use of a common pool resource. In the IAD framework, Action arenas are fundamental, focusing the analysis on a configuration of rules (an institutional arrangement) for a particular commons dilemma under which stakeholders act and experience related problems (Ostrom, 1985). Here, institutions are understood as the rules, norms, and strategies that prescribe how actors must, must not, or may act within action arenas (Polski & Ostrom, 2017). Our analysis revealed three main findings. First, the framework is frequently applied in cases that do not resemble the criteria identified by Ostrom, i.e. the requirement for an action arena to concern a focused commons dilemma or particular common pool resource. This is however vital, because the commons dilemma or common pool resource drives the formation and application of the respective institutional arrangement. Secondly, most institutional analyses using the IAD framework only analyse rule types and do not use the complete framework. This results in a lack of coherence between the rules, which is a premise of the framework. Lastly, Ostrom is inconsistent in definitions of the key concepts including action arena, action situation and institutions. As a result, subsequent studies employ different definitions which make the institutional analyses consequently only limitedly comparable and could produce different results.

These findings may affect the practices of planning and governance. If action arenas are incorrectly identified, the management can be unclear of commons dilemmas, common pool resources and the actions of how actors must, must not or may act. Resultant institutional spaces may obstruct certain stakeholders to engage in participatory processes, subsequently obstructing further policy change and institutional innovation.

Cooperative And Participatory Governance

Flexible Citizenship As A Discursive Mechanism In Urban Planning: The Case Of Island Governance

Yuyao Mei (University Of Groningen), **Frans Sijtsma** (University Of Groningen), **Dimitris Ballas** (University Of Groningen), **Richard Rijnks** (University Of Groningen)

Contemporary urban planning underscores the imperative of inclusive public engagement of diverse stakeholders. In an era of heightened global mobility, tourists can develop strong place attachment to distant places among which islands take specific place. On islands, tourist numbers may easily exceed the local community during busy seasons and while the numbers may be high and the place attachment may be strong, tourists are barely given the opportunity to participate in decision-making of local governance because of their non-citizen identity. In this research, we move beyond tourist citizenship behavior studies to the concept of flexible citizenship (Lepofsky and Fraser, 2003; Misener and Mason, 2006; Weaver, Moyle and McLennan, 2022), which allows one to discursively connect to and articulate their rights to a place. The aim is to test whether and to what extent tourists perform duties and rights of citizenship norms (Dalton, 2008). We apply an online PPGIS approach to experiment with different forms of participation on five different islands in five different countries. We organize online role-play games with simulated public decision making under unfolding scenarios to support the experiments where tourists are empowered with flexible citizenship. Participants are invited to map their capacities for giving supports using public participatory GIS platform so the evolution of capital as well as potential conflicts during the participatory process is also documented (Hilbers et al., 2022). We report on the design and the first results of the experiment.

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Keywords *: governance, tourism, island, flexible citizenship*

Can Urban Planning Facilitate Place Attachment, Social Connection, And Care Through Community Engagement?

Suzanne Barker (Monash University), **Annette Kroen** (Rmit University)

This paper discusses whether and how urban planning practice could be reframed to facilitate increased place attachment, social connection, and care for neighbourhoods as part of plan making processes. Cities worldwide continue to face urban growth pressures due to high rates of migration and structural demographic change. Australian cities are a prime example of large cities experiencing strong population growth. Melbourne, for example, has experienced an annual growth of about 2% on average over the last decade (ABS 2022). This growth is playing out in both continued urban expansion through greenfield development and urban intensification byway of densification of existing low-rise suburbs.

Urban intensification processes in Greater Melbourne are often conflict-filled, dealing with opposition from local communities in response to proposed changes. Participatory processes employed to facilitate urban infill and associated city-shaping infrastructure are often considered ill-conceived which leads communities to protest as they do not feel heard (Legacy, 2016). Whilst undeniably political, at a psycho-social level, such defensive behaviours aimed at protecting and serving the local area can indicate strong place attachment (Manzo & Perkins, 2006). Furthermore, a strong place attachment to one's home or neighbourhood can be an individually and socially useful attribute because of a range of positive effects it can result in including positive health outcomes and environmentally responsible behaviours. Yet the design of community engagement and public participation processes within these urban intensification environments are often ignorant of this psycho-social dimension of the conflict in Australia.

At the other end of the urban growth spectrum in Australian cities is greenfield development of large areas, usually constructed over many years for large populations. For urban planners this entails the difficulty that no residential community exists that can be engaged with using public participation processes. Land developers that develop larger master planned areas, however, often include community facilities in their estates to promote social connections amongst new residents thereby promoting the estate and land sales (Nicholls et al., 2017).

This paper juxtaposes these two disparate planning scenarios and approaches to community development and engagement to consider their influence on the formation of social connections and fostering of place attachment. It firstly considers the results from urban intensification case studies in Geelong, located near Melbourne. The Geelong based research revealed how some residents expanded their social networks and place-social bonding as a by-product of their community activism in opposition to the local government's proposals. These results are compared with Melbourne's new suburbs where communities are built from scratch, partly through organised community activities but also through communities of interest. Additionally, it is discussed what role urban planners can play in facilitating these new communities.

The paper considers the role and purpose of urban planning and community engagement in each context. In so doing, it discusses whether the remit of urban planning and community engagement processes need to be reframed to consider community development activities that potentially nurture place attachment, social connections, and care for neighbourhoods as an explicit objective of planning practice.

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Collaborative Urban Governance: Actor Coalitions, Conflict And Consensus

Laura Cortizo (Universidade De Aveiro)

Urban transformations are associated with a combination of factors such as negotiation between urban, public and private actors; the generation of local leadership (political and civic); joint will; and public consensus (Castells & Borja, 1996). With this work, we seek to understand how collaborative approaches contribute to mitigating conflicts and building consensus in urban planning processes. It starts with the understanding that the elaboration or review of a municipal master plan is an opportunity to expand the democratic character of the production of cities, as it involves articulation and negotiation between different actors and can be characterized as a process of collaborative governance. Exploring Social Network Analysis as a methodology, networks of actors related to the PDM of Maia, a city in the Metropolitan Region of Porto (Portugal), will be created and analyzed, seeking to identify clusters and specific dynamics. As a theoretical lens for our analysis, we start with the concept of collaborative governance, which expands the role of policymakers and places negotiation processes at the center of decision-making, formally involving actors external to the state and public administration (Ansell & Gash, 2008). This approach allows us to see networked and multi-institutional governance for the co-production of public policies and services (Agranoff, 2007; Koliba et al., 2011). By operating within restrictive structures, political actors can reshape these restrictions and create new structures, whether through pressure or collaboration. In the second case, different agents can build specific collaborative processes, whose effectiveness corresponds to actions that "move political processes forward and avoid impasses while taking advantage of the agreement of competing policy actors and coalitions" (Wood & Tenbensel, 2018). Local governance networks, in which local governments are understood as "network coordinators" (Stoker, 2011), have their effectiveness driven by personal and institutional trust between local stakeholders (Silva et al., 2022).

Still, from the perspective of understanding this new dynamic, the robust theoretical contribution of the Advocacy Coalition Framework stands out, arguing that coalitions that seek to translate their beliefs into policies compete with each other within a policy subsystem using strategies to influence government decision-makers (Sabatier and Jenkins-Smith, 1999). ACF focuses on coalition dynamics, policy-oriented learning, and policy change. Researchers have used such theoretical support to understand how coalitions of actors operate strategies and resources to enable desired political changes (Koebele, 2019), although there is still little production associating the ACF with collaborative urban governance.

In this scenario, with the present work, we explore Social Network Analysis (SNA) as a methodological axis, a field that has been driven by technological development, recording a growing theoretical (Venturini et al., 2019) and practical (Schiller et al., 2022) production.

***Keywords** : collaborative governance, urban transformation, Social Network Analysis, actor-network theory, advocacy coalition*

Who Said The Diagonal Was The Shortest Route? Designing, Letting Design, Co-Designing And Redesigning A City Block In A Central District Of Lyon

Baptiste Colin (Evs)

At the beginning, as in any development project, there are several stakeholders. Public and private stakeholders, visionary politicians, pragmatic planners, committed developers and social landlords. And then, of course, there are the inhabitants, the people living there and the users. Very quickly, several issues emerged and antagonisms were revealed: maintaining economic and commercial activity, densifying the area, conserving a social and cultural identity, modernizing the district. Such an urban project is clearly projected onto a pre-existing space, and the confrontation with deeper dynamics that affect the urban transformations of the neighborhood highlights the divergent aims of the stakeholders that are involved, particularly in the manner in which they 'design the city'. The purpose of this paper is to explore the margin for maneuver and the balance of power that determine the trade-offs involved in resolving a conflict over a development project for a city block in Lyon.

As a central district traversed by demographic and sociological dynamics that reflect the history of migration in the city, Guillotière is at the heart of highly media-reported conflicts of use, which serve as a reminder of the crucial role that social issues play in urban development projects. The plan to transform the block in this case arose in 1925, as part of an ambitious project to extend a wide avenue as a legacy of the model developed by Haussmann. To complete this project, the local authorities acquired land and demolished buildings, thus freeing up space and generating temporary uses. The renouncement of the project provided some hope for a preserved neighborhood. Now that the project has been abandoned, this diagonal (tangent to the river) remained part of the planning intentions for a long time, and is still expressed in the opinion of the 'Architecte des Bâtiments de France' (ABF), who was consulted about the plans for the project: its line is a constant in the design of the project currently being finalized.

This paper focuses more specifically on studying the consequences of major protests in opposition to the planning operation led by the Metropolitan Council on this block: several groups succeeded in getting the overall project redesigned as part of a concertation process. The mobilization of grassroots groups therefore had the effect of stretching out the urban production process. The concertation period appears to be a way of managing the uncertainty that surrounds both the political representation and the programmatic content of the planning. After a radical change in the political affiliation of the newly elected representatives, the concertation process was extended, followed by a long period of arbitration and rewriting of the project. Some of the grassroots groups gradually ran out of steam; local attention shifted to other problems in the neighborhood, and the latency led the local authorities to managing an intermediary spatial situation, a temporary space, while the opportunity for the diagonal still hangs in the air as part of the project's design.

__Keywords__ : town, planning , conflict, participation, temporary use, power

Knowledge Production Processes For Spatial Justice In Transition Times

Valeria Monno (Dicatech Politecnico Di Bari)

In this paper, I discuss invited (including co-production) and activist bottom-up forms of knowledge production to highlight their relations with power and their transformative potential in affecting the construction of more socio-environmentally just urban space for vulnerable communities of human and non-human. My goal is not to produce normative and conclusive answers on the topic. It is to reflect on the potentialities of each of these forms of knowledge prodcution in triggering ontological and epistemological changes in oppressive frames of thinking and action. It highlights problems to be faced by different actors when involved in even small planning actions opposing stressful and unjust ways of living.

The first part of the paper reflects on recent theoretical transitions that have influenced ways of conceiving knowledge production to outline an interpretative framework which is oriented to highlight differences and possibilities in the transitions from a style to another of knowledge production.

In the second part, I tell the story of Taranto an industrial city in a post-modern, ecologically oriented Europa which has seen almost 25 years of conflicting truth on its industrial and polluting past, present and future, which has involved different actors (including professionals) and ways of knowledge production in different periods to solve the "working or dying" dilemma. Nowadays, after years of knowledge conflicts, it seems that we have arrived at "the end of double truth".

I trace the changes and permanence in producing knowledge through my own although "light" involvement and conversations with citizens, professionals and activists.

The interpretation confirms that coproduction produce material, tangible effects. However, they are unable to change power relations among actors and the dominant onto-epistemologies of spatial injustice. On the contrary they are reproductive and diffusive of reproductions of dynamics and logic of oppression. They are used as a way to channel vulnerable communities' discomfort into a stream of actions that facilitate adaptation to unjust urban and regional transformations. They also reproduce delegitimization, disempowerment and isolation of dissonant voices (of activist s and experts) or attempts of independent thinking as unacceptable costs for making any process effective. As a result, innovative ways of participation strengthen the division between professionals and public administration, which sits on the one side and citizens on the other, while associations assume an ambiguous role. Coproductive forms of engagement diffuse a conception of citizens' engagement as a value-free process based on individual and contingent choices in a context of efficient urban management.

Bottom-up collective actions offer more opportunities to transformative interactions. When characterized by genrative thinking and critical openness they are not only focused on tangible and intangible effects. Although ineffective in producing "material" results in the short run, the intangible impacts of these generative collective actions can be relevant in producing a regime shift towards more green socio-environmental urban transformations. By looking at intangible effects, bottom-up knowledge production processes can reconnect people to power relations and redefine the ambiguous role of planners, associations and professionals, which currently risks preventing rather than promoting transformative changes. These processes have to be seen as spaces opened to emergent active collectivities that can help nurture the idea of planning as practice for the caring of places.

Keywords *: Actors' relational dynamic, Knowledge/power relations , vulnerable , spatial justice*

Cooperative And Participatory Governance

Megacities And Participatory Planning: An Analysis Of Stakeholders.

Hana Elattar (Hafencity Universität Hamburg)

Participatory planning has long been advocated as a pivotal method for creating sustainable cities. This approach hinges on the inclusion of all societal and economic groups within the urban context, recognizing them as the rightful owners and decision-makers of their cities, (Jacobs, 1961). In the context of mega cities, this condition could be regarded as ambitious.

Currently, there are 33 megacities worldwide, a number expected to rise to 44, as projected by the United Nations Department of Economics and Social Affairs (United Nations, 2018). These sprawling urban landscapes, predominantly located in Asia, Africa, and South America, encompass diverse and dense populations, making broad-scale participatory planning a daunting task. Typically, megacity participatory planning concentrates on neighbourhood-specific issues and small-scale developments. This local focus, while beneficial in addressing immediate community concerns, often overlooks the larger, city-wide initiatives crucial for addressing more significant challenges such as energy transition. The question here is, how can we ensure a participatory approach in the macro-scale design? These macro-scale developments in relation to the energy transition can be seen especially in transport planning, they include the redesign of some urban spaces to prioritize pedestrian pathways over vehicular traffic, aiming to reduce carbon emissions. The impact of such changes could not be considered only on the neighbourhood level, as the effects of changes in the street network tend to surpass their immediate neighbourhoods and reach into the city as a whole. Such effects can be seen in the form of more congested traffic or reduced parking spaces in areas. The inclusion of the inhabitants of such neighbourhoods could therefore not be considered as an efficient citizen involvement. Other examples relevant to transport and energy are the development of new public transport lines and planning for new charging stations, fuel stations or hydrogen refuelling stations.

the unique characteristics of megacities – their expansive size, intricate infrastructure, rapid growth, and socio-economic diversity (Wenzel et al., 2007; Buehler, 2003) – necessitate a re-evaluation of traditional participatory approaches. As mega cities form a complex eco-system, its development elements are usually differentiated between one another during the planning process. This is already true in other types of cities and leads to the shift of power structures between the different stakeholders depending on the objective of the development. This division of elements shows, nevertheless, a higher level of disconnect in megacities due to their high level of complexity, which results in most cases in a top-down approach in decision making.

To access an overarching framework for (mega)city-wide participatory planning, the study of the different stakeholders of development is of high importance. Studying the stakeholders in mega cities entails not only identifying them but also carrying an analysis of what their main needs would be and most importantly, their degree of influence in the different planning elements (i.e., transport, energy, public space, etc.). Among others, stakeholders considered in participatory planning include city inhabitants, municipal authorities, tourism industry and environmental and sustainable groups. The study conducts a detailed quantitative analysis of these groups, acknowledging the diverse political and environmental contexts in which megacities exist. This analysis aims to overcome the prerequisite condition that all socio-economic groups of the megacity must be included in the discussion and focus on stakeholders which are more affected by different topics. Such approach will also prevent the leaning towards the idea that every neighbourhood is an island for its citizens and allow for more agile framework for megacity planning with citizen involvement at the centre. Finally, such approach should allow for the creation of more complex planning tools in the future which could be compatible to this large range of changing stakeholders.

***Keywords** : stakeholder analysis, , sustainable development, Megacities, Participatory Planning, Macro-scale development*

The Success And Failure Of Port Governance - A Review Of North Jakarta Ports After Two Decades Of Governance Reform

Lisna Rahayu (University Of Groningen), **Tim Busscher** (University Of Groningen), **Taede Tillema** (University Of Groningen), **Johan Woltjer** (University Of Groningen)

This paper presents a review of the complex deliberation and negotiation processes embedded in practices of managing international ports. The dynamic transformation of port governance in the last several decades shows how port governance keeps reforming to find the most appropriate model and to avoid failure (Baltazar & Brooks, 2006; Debrie et al., 2013). However, transforming from one model to another, for example, through port devolution from mono to polycentric governance, does not guarantee failure-free. Practices of port governance have become an increasingly important field in transport planning. Studies about port governance have typically responded to questions over who governs port, what is governed, how is it governed, and for what is it governed (See, e.g., Vieira et al., 2014; Zhang et al., 2018., Zhang et al., 2019); however, little known why port governance can fail or success, for example in improving container dwell time.

This research aims to demonstrate how policy integration and inter-organizational coordination can influence the success and failure of port governance in improving a key transport- and logistics indicator: container dwell time, to ultimately gaining a better understanding of why port governance can succeed or fail. We select ports in North Jakarta as a case study with an argument that as the central key point in Indonesia's maritime transport, ports in North Jakarta have experienced a governance reform in the last two decades, so we can compare its failure risk from two different governance settings. We capture the aspirations of the port operator, customs officers, regulator, forwarder, trucking company, and shipper through an in-depth interview.

Our qualitative analysis result shows that even after the governance transformation, port governance still faces governance failure risks. When governance transforms, the risk of failure dynamically follows. Stakeholders in port governance must be fully aware to see this challenge to be able to improve container dwell time at the port. This study offers an assessment framework for port governance performance and to know appropriate policy responses to be devised for improving success in port governance.

Keywords : Port Governance, Governance Failure, Governance Reform, Container Dwell Time

Co-Creation As An Institutional Innovation For Conflict Mitigation In Collaborative Planning In China

Xiaomeng Zhou (Utrecht University), **Yanliu Lin** (Utrecht University)

Over the years planning theorists have engaged in extensive debates over different approaches to dealing with conflicts among diverse stakeholders in planning, among which two major planning approaches prevail. Collaborative or communicative planning, rooted in Habermasian communicative rationality, strives to attain consensus-oriented planning decisions through inclusive and deliberative processes where participants hold equal positions and engage in sincere communication (e.g., Healey, 2020). This planning approach faces criticism in contemporary pluralist societies due to its overemphasis on consensus-building and depoliticization of planning (Kühn, 2021). Agonistic planning theorists, inspired by Chantal Mouffe's agonistic pluralism, recognize the inherence of conflicts in planning and view conflicts as opportunities to generate productive outcomes among competitive opponents based on commonly accepted rules (Kühn, 2021). The ongoing debate revolves around which approach is more conducive to overcoming planning conflicts (Innes and Booher, 2015; Kühn, 2021). Nonetheless, both communicative and agonist approaches bear deep imprints of democratic ideals. In China, collaborative planning is characterized by authoritarian deliberation, where participatory and deliberative practices are confined to selective topics with limited scopes and citizen empowerment (He and Warren, 2011; Lin, 2023). Lin (2023) contends that collaborative practices in China exhibits some features of both communicative and agonistic approaches. These features may even appear at different planning stages with different functions and impacts. However, it remains unclear how specific institutional settings shape collaborative processes and the extent to which such processes can address conflicts in planning. In recent China, co-creation (or Gong-Tong-Di-Zao in Chinese) has emerged as a new participatory and deliberative institution designed to mitigate conflicts in planning practices. Co-creation activities are used to engage local governments, organizations, professional planners, and residents to collectively discuss planning issues and address conflicts of interest. This article develops a conceptual framework including three key aspects of collaborative practices – initiation, processes, and outcomes – to analyze how specific institutional settings shape collaborative practices. We select two case studies in Guangzhou that established co-creation committees as a platform to discuss planning matters and mitigate conflicts in urban regeneration projects. As a commercial development project, the Enning Road case reflects more agonistic features with controversial contestation over economic interests and distrust among participants. The influence of the co-creation committee on planning decisions was also limited, since it was introduced at the very late stages of the project (implementation and management stages). In contrast, the Pantang Wuyue project, funded by the local government, exhibits some communicative features: introducing the co-creation committee at the planning stage, involving community planners to identify problems and solicit public opinions, focusing on common goods rather than individual or organizational interests. The results show that the impact and capacity of addressing conflicts of co-creation activities varies in collaborative planning practices, influenced by factors such the stages of planning processes, the participants of the committee, the nature of the problems involved, the type of interests (private or public interests), and the role of planners. This research contributes to a nuanced understanding of institutional innovation for collaborative planning in non-democratic contexts by developing a conceptual framework and offering empirical evidence to illuminate the variance of collaborative practices and their dynamics of conflict mitigation.

***Keywords** : Collaborative planning, Agonistic planning, Authoritarian deliberation, Co-creation, Institutional innovation*

Examining Waterfront Regeneration Planning In Da Nang, Vietnam

Ngoc Thao Linh Dang (Monash University)

This research seeks to examine the diverse cultures and values of stakeholders—ranging from the private sector, local authorities, community members, and government bodies—involved in the tourism-driven waterfront development in Da Nang city. It evaluates the influence of participation on the planning outcomes for public spaces and how public participation contributes to reimagining place identities within a tourist setting.

Building upon Henri Lefebvre's seminal idea of "the right to the city," which posits that meaningful urban life is realized through the collective access and use of urban spaces (Harvey, 2008; Lefebvre, 1968), this study investigates its relevance to urban development and how it might address issues of inequality, exclusion, and the need for citizens in reclaiming their role in shaping the cities they inhabit. At its core, the right to the city is seen as a powerful tool for challenging urban inequalities, exclusions, and alienation by promoting a more inclusive and participatory approach to urban development. Though the concept has been a rallying point for urban studies and activism with different developed charters across countries (Fernandes, 2006; Sugranyes & Mathivet, 2010; UN-HABITAT, 2010; UNESCO, 2006), little has been examined regarding the complexities in the context of Asian communist states, such as Vietnam.

The relationship between people and the waterfront and the definition of what constitutes an urban waterfront has been extensively discussed in literature over the years (Herzog et al., 2000; Hoyle et al., 1992; Wrenn, 1983). The trend of waterfront redevelopment, from Baltimore's Inner Harbor to London's Canary Wharf, from Darling Harbor in Sydney to the Victoria and Albert Waterfront in Cape Town, from the Guggenheim Museum in Bilbao to Wan Chai in Hong Kong, is a global one, with cities adopting similar approaches to rejuvenation that emphasizes the potential of leisure and tourism as catalysts for change (Craig-Smith & Fagence, 1995; Sue, 2013).

Research has shown that the process of waterfront redevelopment is significantly shaped by factors such as local institutional arrangements, project leadership, planning rationalities, urban typologies, and market conditions (Galland & Hansen, 2012). Additionally, the transformation involves complex power dynamics among stakeholders, which dictate particular styles of waterfront redevelopment (Dodman 2008; Galland and Hansen 2012; Teschner 2018). While public involvement is critical in recognizing various knowledge forms, including local knowledge (Innes & Booher, 2010; Rydin, 2007; Sanoff, 1999), place identity (Amundsen, 2001; Hague & Jenkins, 2004), market and commercial interests often prioritize economic gains, affecting the inclusivity of urban waterfront planning. Thus, despite the global recognition of public participation's importance in planning, its application to waterfront redevelopment processes remains a challenge where the planning culture and the decision-making context determine the level of public involvement in the process (Lane, 2005). North America and Europe show the successes of large-scale and emblematic projects in redeveloping derelict areas of post-industrial cities. However, less attention has been given to the efforts of a more recent generation of cities, particularly in developing Southeast Asia countries, where waterfront redevelopment is taking place.

This study on Da Nang's waterfront, currently at an early stage of tourism development, provides a unique opportunity to examine the influence of Vietnamese planning culture on decision-making among public and private stakeholders in waterfront regeneration. It aims to assess and emphasize the importance of public participation in the planning process, which can shape the outcome of public spaces in relation to redefining place identities.

Keywords *: Waterfront Regeneration, public participation, planning process, public space, place identities, governance*

Community Planners In Jerusalem: The Role, Changes Over Time, And What Works.

Galya Globerman (Hebrew University), **Emily Silverman**

How do you manage a city whose residents are not only diverse, but also in conflict with each other? Diverse in terms of religion, language, culture, socio-economic power, and world views, and in a conflict that is rooted in history, geopolitics, and religion. It is a city of global importance, yet very much a place where individuals live their daily lives.

In his 1988 Foreign Affairs essay, then-Mayor Teddy Kollek made the case for greater self-governance of Jerusalem's different communities. This idea gave way to the establishment of Community Councils that would allow Palestinians, ultra-Orthodox Jews, and secular Jews a greater say in determining their urban landscape and daily life. Jerusalem's Community Councils began opening their doors in various neighborhoods in the late 1980s, providing social and administrative services to residents. In 1998, the role of community planners (CP) became embedded in Community Councils. Community planners and the work they have engaged in have since played a role in shaping the city.

My research sought to examine the role of these community planners, how it has changed over time, and how we can begin to evaluate success. As part of my research, I interviewed dozens of planners and key stakeholders and collected more than 60 stories of successes and failures.

Drawing inspiration from Rohe's (2009) chronology of neighborhood planning in the United States, we identified different time periods for CPs. We identified a period of growth and impact, followed by a drastic decline, to today, where CPs are neither thriving nor sinking. Their ability to be effective is very much influenced by the city's leadership and the mayor's tolerance for discourse, conflict, and public participation. The municipality's planning department has already taken an interest in these findings, potentially incorporating them with their work to evaluate CPs' roles.

When examining their role, we identified three archetypes of CPs who then adopt one of two approaches. We found that CPs embrace, or are pushed toward, being primarily planners, organizers, or coordinators. Within these three main roles, they may engage in both bottom-up and top-down initiatives. Here, we showed that the role of community planners can be understood through different lenses. These findings are relevant to any institution that has community planners - in Jerusalem and beyond. The framing can help CPs and others make sense of their role, determine their priorities, and evaluate their purpose in each community. This impacts training, budget, and management regardless of where they work.

Finally, there's the evaluation of success. CPs in Jerusalem have operated without any discussion about what success entails. Despite this, we were still able to identify stories of resounding success. We found that successful community planners, or effective community planners, unknowingly adopt methods of strategic planning. This begs the question - should community planners be trained in strategic planning? If so, how can they, as strategic planners, fit into systems of centralized urban planning?

My research is lacking in some areas. First, I focused on 3 of the existing 28 community councils, and in an attempt to collect data that would be comparable in some way, I did not examine the role of community planners in East Jerusalem (Palestinian communities) or ultra-Orthodox neighborhoods. Second, I only began to scratch the surface of success in community planning. I hope more research on these topics will be conducted in the future. Despite these shortcomings, this research is the first of its kind in Jerusalem; moreso, its findings are relevant to other cities grappling with the role of community planners and different approaches toward urban governance.

In The Name Of 'Common'.Urban Commons As A Trick To Redefine Actors And Their Roles In The Urban Regenerationproject In The City Of Turin.

Ianira Vassallo (Dist - Politecnico Di Torino)

In the last twenty years, the urban commons' concept joined, in a very controversial way, the academic and professional debate on urban planning and city-making (Buchs & al., 2019). Inside this debate the "commoning practices" act to protect some part of the city from the market and the neoliberal forces that try to capture it (Harvey, 2012; Festa 2017). But what happens if these practices are promoted by the administrations? How do they change the roles of public and private actors and owners in the urban transformation project ?

In the last ten years, in Italy, we observed the emergence of specific experimental public policies that mix commoning practices with urban regeneration processes. In this framework the city of Turin could be an interesting case study to observe how 'urban commons' and the processes they trigger, become a new field of urban public policies (Ostrom, 1990; Dellenbaugh & al., 2020). In 2016, the City of Turin adopted the "Regolamento dei Beni Comuni" with the idea to use this administrative tool as an opportunity to define a local welfare policy (with an European funding) by regenerate spaces managed in a shared way by different local subjects (NGO, active citizens, informal group, small enterprises) able to offer diversified public services and adhering to the demands coming from the different neighborhoods. Today we can affirm that, despite the premises, the revitalisation process of real estate has prevailed over the process of social inclusion and civic activism (Saporito,Vassallo, 2020) which is crucial to define an urban common. The paper will explore the possible misunderstanding linked to the idea of institutionalization of communing processes as a lost opportunity for the construction of an alternative model of transformation of the city that starts from the horizontal collaboration between municipality and local private and public actors.

New Spaces Of Governance

What Is The Role Of Land Policy In Urban Commons Governance? Lessons From Switzerland

Tianzhu Liu (University Of Bern, Institute Of Geography)

The over-extraction and uneven distribution of resources pose significant challenges to environmental and social sustainability. Addressing these challenges requires a shift from the conventional economic growth to a post-growth model centered on well-being and fair resource distribution. Urban environment is a key setting for resource management with worldwide urbanization. Urban commons, defined as an urban-related resource system that is self-governed by a community of users, offer potential for post-growth transitions through decommodification (Bakker, 2007; Ostrom, 2015). They represent a promising governance avenue for sustainable resource management.

Although commons serve as alternatives to state and market, contemporary urban commons are intertwined with the state (Pithouse, 2014). Of particular interest are public actions concerning land, or land policy, as land stands as a crucial resource. Land policy refers to public decisions and actions implementing spatial development objectives through changes in the use, distribution, and value of land, integrating the issue of land-use planning and property rights (Gerber et al., 2018, p. 10). Land policy and urban commons share similar focuses on resource use, distribution, and governance. However, the precise influence of land policy on the initiation, development, and maintenance of urban commons remains unclear.

This study explores the impact of land policy on urban commons, examining two main questions: 1) Under which land policy are urban commons managed? 2) What land policy instruments affect the emergence, organization, and perpetuation of urban commons? We examine a sample of urban commons initiatives in Switzerland to answer the question.

A mixed use of quantitative and qualitative methods is adopted. The study concentrates on diverse urban commons types—housing, agri-food, and city greening—within three distinct functional urban areas in Switzerland, each located in different cantons characterized by varying legislative frameworks. The initial data collection phase involves a desk review covering over 100 urban commons, gathering information on their characteristics related to resource usage, rule establishment, and community dynamics. Additionally, policy documents are scrutinized to identify pertinent land policy instruments. Quantitative statistical and correlation analyses are used to process this data. The second stage of data collection involves semi-structured interviews with project managers of the most intriguing cases. These interviews delve into the processes of access to land, the fabrication of land use rules, and the maintenance of resource use. The focus is on influential land policy instruments serving as enablers or barriers, along with strategies employed by commoners in response. Qualitative content analysis is used to interpret the interviews.

Results are presented with three parts: firstly, an overview of land policy features within which urban commons are created; secondly, correlation between land policy instruments and urban commons features, illustrating how urban commons management is affected by land policy; thirdly, an examination of how land policy is obstacles or facilitators to urban commons as well as commoners' strategies. This research will enhance understanding of urban governance rooted in urban commons, highlighting their development within formal land institutions. It seeks to offer guidance to commoners on self-governance strategies and to policymakers on adopting land policy instruments favoring urban commons, thus fostering the transition towards post-growth.

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Transformation From Public Sphere To Common Space: Comparative Cases From Istanbul And Barcelona

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In political science theories, definitions of the public sphere are discussed through concrete examples in urban life, and it is observed that there is no clear definition of what the "public sphere" includes. While Habermas(2004) considers the public sphere as a field of communicative action, Arendt(2012) considers the public sphere as a field of work, labor, and action. Unlike these two important approaches, Sennett (2010) considers the public sphere as a space where adult citizens can become actors and become increasingly homogenized. The most important element at the center of these debates is the forms of social relations in spaces of togetherness. This study argues that public spaces can be transformed into common spaces through the theory of "common space", which offers a theoretical framework that can also encompass the public sphere. While one can participate in the public sphere as a "citizen" within the framework of certain norms, participation in the commons is based on the individual's belonging and his/her agency. The unwritten forms of behavior and will that be inherent in the state of being a community are sufficient for participation in the commons. The enclosure of public space by the state or the private sector (with different forms of intervention) and the acquisition of the space in favor of social demand because of social movements against this, regardless of what the concept of "public space" represents, public space can turn into a common space because of community action and will. At this point, the main problem of this study is to reveal whether the transformation of public spaces into common spaces is possible, the role of actors in this process, and whether these processes lead to an alternative form of spatiality in countries with different governance structures. For this reason, Turkey and Spain have been selected for the study, where the social movements that increased after the 2008 crisis were intensively observed. The most important factors in the selection of these two countries are their similarities in basic sectors such as tourism, services, and agriculture, as well as in areas such as housing, construction, and public services. The qualitative research method based on secondary data was used in the study, and newspaper news, interview articles, and graduate theses on the fields were scanned and analyzed in terms of content.
Located in Istanbul, Turkey's largest city, Validebağ Grove is one of the last green areas of the densely built-up city, as well as a place of memory with important and historical buildings. Following the discussions on the opening of the Validebağ Grove for construction, citizens started a social movement in this space, held vigils in the grove for months, and stopped the construction decision. After the decision was stopped, the common use of the grove increased with the will of the citizens themselves, and the vigils of the citizens who could not trust the decision taken continued. Another example is Can Batlló, a former factory located in the Sant neighborhood of Barcelona, the largest city in Spain. This former factory site was planned to be transformed into a project with green areas and social housing in the general plan of the metropolitan municipality. This plan was not implemented for 40 years and the area was left dysfunctional. As a result of residents' organizing, the factory site was occupied in 2011 and transformed into a socio-cultural center.
The main findings of the study show that public spaces can be transformed into "common spaces" and give rise to a new spatial alternative after social movements and the will shown by these movements. The main factors required for this are social organization, the will shown for the spatial demand, and the negotiation process established with the local government. Considering the role of local governments in the process of spatial transformation, it is seen that the transformation of space in favor of the "common good or public interest" is made possible by granting local governments more authority and freedom of decision-making and rescaling the state from the local level.

Keywords *: Common space , social movements, Public sphere, Community Public Space*

Planning For Planetary Commons

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This paper highlights the need for finding radical new ways of planning that extend beyond nation state-based international policy making. As a territorial governance agenda in a climate crisis, a radical shift is needed around the ways in which we collectively care for and govern planetary commons (Rockstrom et al 2024, Zaidi et al 2024). Latour (2018) has argued that 'belonging to territory' is critical to the politics of the new climactic regime which requires a democratic politics that leads humanity back 'towards the Earth' and not just back towards 'the global or national'. The paper draws on two case-studies focused on new ways to inhabit the Earth within the context of regenerative futures (Warden 2021, Watson et al 2023). The paper concludes by calling for a new research agenda focused on 'planning for planetary commons' as increasingly vital to the survival in a climate crisis.

Keywords *: Planetary commons, climate change , regenerative futures*

The Publicness Of Urban Commons. Insights From The Brussels Commoning Scene.

Verena Lenna (Vub)

If care is one dimension of welfare that we need to reappropriate to protect the foundations of a democratic society and democracy (Tronto, 2013), publicness is the other. Well before and independently from the current privatization processes resulting from the market intervention, "the organizational mold of the welfare state at the various levels in which it translates collective, public values, interests, and goals - from everyday practices to systemic organizational effects - tends to generate communication blocks, separations, and segmentations of social relations, isolation, irresponsibility, indifference, privatization of issues - in short, privatism' (De Leonardis 1998). The final consolidation of the institutions and the operating systems of the welfare state corresponded in fact to the loss of a lively public sphere - as a basic, fundamental public good - which was animated and precisely constituted around the collective definition of welfare problems and solutions.

While these observations were formulated at the end of the 90s, in the context of an emerging welfare mix season and its ambiguities, they appear to be still very - or even increasingly- relevant today, given the more recent developments of the welfare systems and in particular, given the proliferation of urban commons. Centred on care practices and fueling social cohesion, while improving the conditions of our living environments, urban commons almost inherently represent a complementary layer of existing welfare infrastructures - as the working hypothesis at the core of my ongoing research project. However, their operational systems and conditions may fuel the risk of increasing privatism in the sphere of welfare.

Vis-à-vis such a risk, in this paper, I will investigate the publicness of the urban commons as a capacity to contribute to the identification of welfare problems and issues and the elaboration of solutions in the public sphere, as they concern the very social bond that we share. To critically assess such a capacity, I will examine the commoning scene of the Brussels Capital Region, based on my direct implication as an activist and researcher since 2011 and having co-coordinated a regional study on the local urban commons (2022-2023). I will focus in particular on three initiatives, considering their long-lasting and mature trajectory, which led them from being bottom-up, precarious initiatives and the initiators of the commons movement in Brussels to becoming influential policymakers. The Community Land Trust of Brussels (since 2012) is an organisation aiming at making homeownership accessible for low-income families; Etats Généraux de L'Eau à Bruxelles, since 2002, aims at the collective and individual re-appropriation of water management infrastructures, from the micro-scale of a private garden to the macro-scale of a valley; Communa (since 2013) operates as a platform for the temporary occupation of vacant buildings. As markers and their conditions of publicness, I will address the following dimensions and their triangular relationship: 1. the porosity of their operational conditions, allowing for a de-fragmentation of concerned communities, and their welfare needs, rights, and responsibilities; 2. the transcalarity of their ecologies, necessarily implying a multilayered and complex approach to problems and solutions, thus generating communicative and participatory dynamics and sustaining the public discourse around welfare issues; 3. their transformative capacity of policies and the related narratives, allegedly allowing to overcome the privatism of contract-based agreements at the origin of numerous forms of common-public collaborations.

Keywords : publicness, welfare, urban commons

Exploring Relationships And Conflicts Between Practices, Policies, And Regulations In Wood Pasture Social-Ecological Networks: The Case Of Tuscany

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Wood pasture is a neutral designation that, following a geographical approach, indicates a type of landscape with trees where grazing is the main driver. From a socio-ecological perspective, wood pasture systems vary depending on the interactions between ecological components, stakeholders involved, management systems, and governance systems. As a practice, wood pasture takes on multiple forms, including traditional, contingency-driven practices based on the economic and land availability of the shepherd/farmer, and innovative practices within agroforestry activities. What distinguishes practitioners' activities is primarily the approach with which a land management plan on the company's territory is or is not designed. In all cases, in Italy, wood pasture practices are regulated by multiple sectoral regulations, which, by not directly considering silvopastoralism, do not facilitate its diffusion and tend to cause the informal execution of practices. In this landscape, an experimental representation of wood pasture practices is proposed as complex socio-ecological systems composed of intersectoral interactions to analyze their characteristics. The hypothesis is that existing relationships are often unstable, non-reciprocal, and conflicting, increasing the distances between different types of practitioners and hindering the diffusion of agroforestry silvopastoral practices. The research's objective is, therefore, to understand how socio-ecological systems of woodland grazing are structured, specifically answering the questions: i) who are the main actors constituting the socio-ecological systems of wood pasture? ii) What are the interactions between the actors? iii) What externalities do these interactions produce? The study context was chosen regionally to have a common regulatory framework regarding forest regulations, measures of activated common agricultural policy, and landscape plans. Data were collected through semi-structured interviews with shepherds, farmers, and public officials. Data processing was done through network analysis, allowing the representation of the interaction system of individual practitioners and connecting systems, assessing the degree of collaboration between parties (among shepherds, between shepherds and the political and regulatory system, between regulatory and political sectors). The analysis creates a network composed of nodes and edges, where nodes represent social and ecological actors, while edges represent various types of relationships, whether conflicting or not, between actors. The representation is obtained by calculating three centrality indicators: degree centrality, betweenness centrality, and closeness centrality. The first measures a node's involvement through the number of connections, the second identifies the probability that a node is on the shortest path between two others, highlighting key actors and ecological components in the network, and the third is used to evaluate the average closeness of actors in the network. Preliminary results identify multispecies and multilevel networks forming wood pasture systems where actors in veterinary, agronomic, forestry, landscape, and environmental sectors have non-reciprocal relationships with shepherds and show poor correlation between them. Furthermore, the network highlights the distance between practitioners aware of agroforestry silvopastoral practices integrated into an official knowledge network and shepherds who have been trained through direct or transmitted knowledge moving in informal networks. The multilevel representation model offered by network analysis, experimented in the territorial context of the Tuscany region, is proposed as a model to be implemented and applied to other territorial bases to understand often isolated silvopastoral systems, connect them to territorial data, and assess social and ecological relationships. This methodology, by facilitating the interpretation of wood pasture production systems, has the potential to highlight system criticalities to promote dialogue between sectors, the creation of trans-sectoral collaborative models, and the sharing of knowledge.

Keywords *: conflict, collaborative governance, silvopastoral systems*

Territorial Governance

Enterprise-Sponsored Or Government-Sponsored? Research On The Characteristics And Mechanisms Of Rural Gentrification In Metropolitan Suburbs Driven By Significant Projects: The Case Of Lianmin Village In Shanghai, China

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【Abstract】 *China has been pursuing a rural revitalization strategy in recent years. Rural areas located on the outskirts of metropolitan areas have outstanding advantages in rural tourism development due to their superior geographical location. In particular, the implementation of significant projects such as Disney has caused similar characteristics of rural gentrification in the rural revitalization of Western countries. However, rural gentrification in Western countries and China shows many differences in terms of the interests of rural indigenous people and the role of local governments. Firstly, recent research has found that China's rural indigenous people are not always victims of gentrification and forced displacement. On the contrary, they have become active actors and beneficiaries. Secondly, under the Western liberal economic system, rural gentrification is usually considered to be the result of corporate dominance, and the role of the state and government in it is often ignored. But in China, local governments play multiple roles such as investors, organizers and coordinators. Therefore, based on the differences in driving forces, rural gentrification can be classified into enterprise- sponsored and local government- sponsored. Previous studies in China often focused only on one type of rural gentrification. But in fact, there may be various gentrification characteristics in the rural areas of China's megacities. And the complex dynamic mechanisms behind them need to be further studied using more effective methods. In addition, there may be complex interactions between various types of gentrification, which may change at different stages of development. This article takes Lianmin Village, located in the suburbs of Shanghai and close to Disneyland, as an example, and organized three surveys on it. Specifically, this study adopts a research method that integrates qualitative methods such as on-site panoramic surveys, household semi-structured interviews, and actor networks, and quantitative methods such as questionnaire surveys. As a result, this study collected 102 valid questionnaires that can be used to describe the characteristics of the migrant population, the evolution of the industrial structure and the features of the rural landscape in Lianmin Village. This study then uses the actor-network analysis method to pursue the mechanism behind the phenomenon. Lianmin Village is located on the outskirts of the Shanghai metropolitan area and is close to Disneyland. Its unique geographical location has brought many potential passenger flows and development opportunities. Finally, this study initially obtained three findings. Firstly, Lianmin Village has the characteristics of enterprise-sponsored rural gentrification and government-sponsored gentrification in terms of agrarian population structure, rustic industrial structure, and rural landscape style. The former has higher flexibility and reflects more urban aesthetic interest. Rural gentrification, with local government investment and construction as the main mode of participation, focuses on public actions such as road widening, blackening of basic service facilities, showing apparent preferences for public attributes and local characteristics. Secondly, the mechanism behind the above factors may not be that local enterprises and governments drive independently in their respective fields. Instead, the above two main actors are interconnected through other actors such as village elites, comfort immigrants, tourists and so on, forming a complex joint action network. Market resources and government resources are efficiently allocated and reorganized through actor networks. Thirdly, the dominance and correlation strength of enterprise-sponsored and government-sponsored rural gentrification fluctuate at different stages of development. The project development of Lianmin Village has gone through three major development stages: dependence period, transformation period and alliance period. The actor-network formed among multiple subjects gradually strengthened after a brief period of loosening. Finally, this article believes the research results can provide empirical reference for rural revitalization in similar areas.*

Keywords *: rural gentrification, metropolitan suburbs, significant projects*

Discussion On Regional Differences And Development Paths Of Urbanization Models In The Pearl River Delta Region Under The Background Of Integration Of Guangdong-Hong Kong-Macao Greater Bay Area

Ziwen Luo (Tongji University)

With the development of globalization and economic integration, the pattern of the world's division of production is changing. The Bay Area, as a large nucleus of economic growth poles, plays an important role in facilitating regional participation in the global economic cycle and high-quality urbanization development. In 2019, the government published the Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area, which means the development of urbanization in the Pearl River Delta (PRD) region has entered a new phase. The traditional region's urbanization Model can be divided into Dongguan Model and Foshan Model (Foshan Model was divided into Shunde Model and Nanhai Model). Based on the background, this study analyzes the geographical differences between the two models, and then explores the future development path of urbanization.

The study finds four differences in urbanization patterns, the first is the initial impetus of urbanization. Dongguan Model relied on foreign investment and technology, Shunde Model was mainly financed by government guarantees for bank loans, and Nanhai Model was financed by the villagers collectively. Second, different Models have their own unique urbanization paths. Dongguan Model relies on well-developed foreign enterprises to drive the development of private enterprises. Most of the private enterprises in the Shunde model were transformed from township enterprises. Nanhai model is to concentrate collective property and land into shares and lease them to enterprises through share cooperative organizations. Finally, the region faces the following urbanization dilemmas: In terms of the administrative system, Dongguan City has a two-tier administrative system of "city-township", which is characterized by homogenized competition among towns and dysfunctional regional governance. Shunde and Nanhai were incorporated into Foshan City after the district for county, so that the management level of Foshan City is mainly concentrated at the district and township level rather than the city level, and there is a conflict in the management structure with the neighboring cities. Then the core scientific research strength of ndustrial system needs to be improved. Urban space also faces many problems, the intensity of land development in Dongguan City and Foshan City has reached the limit of the environment. Urban land use is fragmented with no "strong center" area, which is unable to adapt to the land demand of new industries. Beyond that, the level and scope of services provided by the support facilities are very limited.

The following paths can be referred to for the future development of the PRD region. Firstly, always put people first. Paying attention to population flows and group needs, optimizing the urban land layout, perfecting the construction of the support facilities system and so on. Secondly, insisting Science, technology and innovation oriented: adjusting the current industrial structure, and improving the core research and development strength. Furthermore, emphasizing on sustainable development: protecting, restoring and conserving ecological resources. Last but not least, emphasizing regional coordination: taking metropolitan areas and city clusters as the core growth poles and accelerating the circulation of factors such as population, information, and capital.

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Strengthening Metropolitan Governance Through Soft Planning: Towards A Supra-Municipal Awareness In The Region Of Lisbon?

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Over the past decade, a significant surge of interest in soft planning and soft spaces has emerged, reshaping planning processes and governance dynamics. These concepts have catalyzed innovative planning approaches and the rescaling of governance arrangements, challenging the conventional boundaries associated with hard spatial planning. They underpin the foundation of a new planning paradigm, characterized by a shift in territorial governance facilitated by more flexible governance arrangements beyond the formal ones and the creation of new spaces for planning and political engagement, characterized by a voluntary and non-statutory nature (Cavaco et al., 2023).

While these concepts were initially applied to describe planning solutions in the UK and Northern Europe, their influence has transcended boundaries, shedding light on similar approaches in Southern Europe (Purkarthofer and Granqvist, 2021). In Portugal, the ascent of soft planning is intricately linked to the European Union's (EU) role, particularly in advancing non-statutory planning practices (Cavaco and Costa, 2019). This encouragement is evident not only through non-mandatory policy agendas but also significantly through the allocation of funds from the Cohesion Policy. Despite lacking formal competencies in spatial planning, the EU's Structural and Investment Funds, combined with specific policy initiatives, have effectively propelled territorial strategies and partnerships. These operate on a soft planning basis, influencing domestic administrative-territorial organization.

Across various community programming cycles, the Cohesion Policy has significantly exerted a substantial influence on Portugal's internal processes of territorial and governance rescaling, accentuating the rise of inter-municipalism (Vale et al., 2021). In the absence of administrative regions (an intermediate tier of government between the central and local administrations), models of inter-municipal cooperation have emerged as a pivotal mechanism to fortify regional governance and engage local authorities in the allocation of European funds. Nevertheless, these models bring to light inherent challenges, primarily arising from the absence of a corresponding administrative and governmental level. The imperative to address the distribution of territorial resources and power among cooperating municipalities becomes evident, particularly as the legitimacy of their intervention depends on votes from local elected officials. Consequently, their influence is confined to the municipal territories where they hold formal jurisdiction (OECD, 2020).

By examining the case of the Lisbon Metropolitan Area and inter-municipal cooperation within the context of Portugal's territorial administrative structure, this presentation aims to delve into the dynamics and impact of soft planning approaches. It specifically focuses on their role in reinforcing territorial rescaling and metropolitan governance. The presentation acknowledges the influential role played by the Cohesion Policy and the European Funds in propelling these dynamics, notably by providing financial mechanisms to invigorate integrated territorial approaches.

To achieve this, the paper scrutinizes several strategies and non-statutory planning instruments implemented between 2014 and the present. This analysis reveals significant progress in recent years, particularly in strengthening metropolitan governance. Beyond the institutional and administrative consolidation of the Metropolitan Area, these instances contribute to the gradual development of a 'supra-municipal awareness' that goes beyond the mere aggregation of individual and autonomous municipal intentions—an ordinary record in Portugal's inter-municipal cooperation.

***Keywords** : Soft Planning, Territorial Governance, Governance Rescaling, Inter-municipal Cooperation, Metropolitan Area of Lisbon*

Governing Complex Regions: The Formation Of Intermunicipal Structures In Various City-Regional Types In Germany

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In recent decades, the diverse functional interdependencies between cities and their surrounding areas have led to the development of urban regions. Beyond the administrative boundaries of cities, there is therefore a need to manage political and planning coordination processes in the urban-rural continuum. In doing so, the interests of the large core cities must be harmonised with the interests of smaller cities in the surrounding areas and rural areas in the surrounding countryside (Zimmermann, Feiertag 2022). Inter-municipal contentious issues between the city-regional sub-areas require a constant struggle for balance. The development of city-regional governance structures offers an opportunity to bring the city region together and move it forward (Growe, Yan 2022).

Since the 1990s, the networking and institutionalisation of German city regions has been promoted. A variety of informal instruments such as discursive tools and market instruments are used to bring city regions together (Wiechmann 2004). Today, twelve European metropolitan regions and four metropolitan border regions, which are recognised in nationwide spatial development models, bear witness to the success of this work. In the last decade, regiopolitan regions have experienced an upswing. They point to a lively interest in urban-regional co-operation, even outside the metropolitan regions (BBSR 2023). However, the development and innovation of city-regional governance structures is a conflict-laden field of experimentation. As a result, highly context-dependent, unique forms of public-private interaction and co-operation emerge (Zimmermann, Gallard, Harrison 2020).

The aim of this presentation is to analyse the role of different instruments and groups of actors in the formation of governance structures in different types of urban regions (metropolitan regions, metropolitan border regions and regiopolitan regions). The focus is on the question of which forms of public-private co-operation emerge and to what extent institutional innovation and policy changes occur in different types of city-regions. On this basis, we discuss which factors promote the re-invention of inter-municipal governance structures.

Based on a Qualitative Comparative Analysis (QCA), the influence of different instruments and groups of actors is systematically compared in a total of 12 case studies. The QCA includes information from partially standardised expert interviews as well as from a document analysis.

This data will be used to

show results on the development process of inter-municipal cooperation in different types of urban regions and

explain conclusions for the methodological-systematic analysis of complex regions in a comparative city-regionalism.

Keywords *: governance structure, city-regions, instruments, actor constellation , comparative methods*

The Top-Down Governance Of Metropolitan Regions In Brazil

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The paper will explore how metropolitan regions are planned and governed in Brazil. To that effect, it will explain how metropolitan regions are created in the country, and under which premises. It will discuss their governance mechanisms and planning instruments, such as the Integrated Urban Development Plan, public service agreements and public functions of common interest. The methodology draws on the analysis of federal laws and Brazilian legal doctrine, and review of the specialized literature from urban law, urbanism, and planning.

According to the Brazilian Institute of Geography and Statistics (IBGE), a metropolis is a city that exerts a very high level of influence and attraction over other cities. The 15 metropolises occupy the top of IBGE's urban hierarchy (2020). In Brazilian law, nonetheless, the metropolis as defined by the IBGE has no particular legal status. On the contrary, it has the same status as other cities: a municipality. Since the 1988 Constitution, municipalities are autonomous entities in Brazil. Above the local level, the other autonomous entities are the 26 states and the Federal District, and the federal government.

Between cities and states, but with a different status, we have metropolitan regions (MR). The first law about MRs dates from 1973, through which the federal government created 8 of them. However, since the 1988 Constitution, this competence was attributed to states. In total, there are 76 metropolitan regions in Brazil (Blanco Junior, 2021). In 2015, the Metropolis Statute was enacted, stating that, besides metropolitan regions, states can create urban agglomerations, of which there are 5 in the country (Blanco Junior, 2021; Marrara and Rosim, 2021). Importantly, despite its name, the Statute governs metropolitan regions, not metropolises.

We hypothesize that metropolitan regions have a weak status in the Brazilian legal framework. With no legal autonomy, they are creatures of states, as Gerald Frug (1984) would put it. MRs depend upon states' planning instruments, such as macrozoning plans, which have been considered vague and innocuous (Compans, 2015, p. 19). In practice, public action in MRs takes place mostly through voluntary agreements signed among cities for public service provision. We further claim that the top-down model of creation of metropolitan regions has consolidated, similarly, a top-down model of governance, with little permeability to the demands of cities and their citizenry. As such, the most significant instrument through which cities take part in metropolitan governance is the contract, whereas the planning function is controlled by the state that created the metropolitan region.

Keywords : Brazil, metropolitan governance, metropolitan regions, urban agglomerations, metropolitan planning

Territorial Governance

Study On The Governance Model Of &Quot;Integration Of Development Zone And Town&Quot; From The Perspective Of Scale Reconstruction– Take South Jiangsu Region Of China As An Example

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The county economy in South Jiangsu, supported by development zone and town, is the representative model of Chinese urbanization. However, in the process of rapid urbanization, differences in management systems between development zone and town lead to conflicts in the areas of rights boundary and social management responsibility, which is not conducive to the overall development of the region. Under the guidance of new urbanization, the overall development strategy of building a "Development Zone and Town Community" has become the consensus of southern Jiangsu with the integration of development zone and town governance as a means.

This paper takes 27 development zones and 43 towns in southern Jiangsu Province as empirical objects. With the help of the scale reconstruction theory, this paper establishes the re-scaling analysis framework of "Power-Space", analyzes the type characteristics and driving mechanism of "Integration of Development Zone and Town", and tries to answer the research question of "how local governments can innovate governance models through the flexible scale reconstruction strategy of district-town integration". In order to provide theoretical basis and decision-making suggestions for the policy making of local government governance innovation and the application and promotion of district and town integrated governance practice in China.

The study found: (1)Administrative level and industrial strength determine the diversification of integrated governance types of development zone and town, and the four types of "Linkage Platform, Agreement Cooperation, Unified Administration, and Trusteeship Embedding" are differentiated, indicating that the integration of the development zone and town is a governance action tailored to local conditions, reflecting the change of local governance thinking from rigid spatial governance to flexible system design. (2)Integrated governance of development zone and town is an effective means to promote the non-agricultural development of town by relying on development zone. On the one hand, by virtue of the advantages of industry and investment promotion, the development zone promotes the development of town, and breaks the embarrassing situation of the mismatch between power and responsibility of town; On the other hand, town provide new opportunities for the re-entrepreneurship of the development zone, and make up for the lack of social governance in the development zone. (3)Driven by new-type industrialization, new-type urbanization and governance modernization, the power relationship between development zone and town is adjusted and the spatial redistribution pattern is optimized through flexible re-scaling strategies such as the establishment of cooperation mechanisms or innovative administrative systems, reflecting the institutional environment reconstruction and governance behavior changes under the game of multi-level power subject relations between cities, development zone and town.

***Keywords** : Development zone, Town, Scale reconstruction*

Research On The Correlation Between Higher Education Facilities And Innovative Economy In Yangtze River Delta Region——Based On The Data Of High-Tech Enterprises

JINGYAN XU

The Yangtze River Delta region is the most developed region in China's economy and industry, and also the region with the highest degree of opening to the outside world in China, which plays an important leading role in realizing the high-quality development of China. According to the theory of modern economic growth, human capital (especially education) is the source of economic growth, in which advanced education improves the total factor productivity by accelerating the speed of technological innovation and imitation. Therefore, it is necessary to explore the development relationship between higher education facilities and innovative economy.

Based on the number of colleges and universities and the data of high-tech enterprises, the spatial pattern characteristics and formation mechanism can be explored by comparing local spatial autocorrelation, bivariate spatial autocorrelation and time scale. It is found that the higher education facilities in the Yangtze River Delta are randomly distributed but unevenly distributed, while high-tech enterprises are in a state of spatial agglomeration, and there is no spatial correlation, which has not reached a high degree of Industry-University-Research integration and development to some extent.

This difference in spatial distribution needs to be analyzed in combination with China's special national conditions and policies. On the one hand, China's higher education started late, originated in the Westernization Movement in the late Qing Dynasty, and was influenced by the ancient academy in China, and most of them were located in mountain resorts, thus forming a suburbanization phenomenon with a large location close to the "central city" and keeping a certain distance from the center of the "central city". On the other hand, since the 1990s, institutions of higher learning have frequently undergone structural changes such as merger and reorganization, which have changed the shortcomings in the fragmented school-running and management system with the establishment of comprehensive universities as the mainstream. The factors such as policy, construction and operating costs, cultural environment and infrastructure conditions have been comprehensively considered in the location of colleges and universities. At present, higher education facilities in the Yangtze River Delta region are basically concentrated in provincial capitals. In addition, it also shows that some cities in the Yangtze River Delta region have a low impact on innovative economic output through active policies such as talent introduction and enterprise support, and the spillover of human capital in big cities. Although some cities are blessed by colleges and universities, their economic growth capacity is still in a weak position, which is related to the industrial development stage of the city. Since the integration of the Yangtze River Delta became a national strategy in 2019, the cooperation and exchanges between universities in the Yangtze River Delta region have also been accelerating in terms of the layout of higher education facilities, which not only builds campuses across provinces in the region, but also attracts universities outside the region to run schools in different places. In the future, an integrated leading think tank cluster will be gradually formed to promote the harmonious and unified sustainable development of man and nature, economy and society with innovative economy.

Keywords *: Yangtze river delta,Higher education facilities,Innovative economy,Economic growth, Integrated development,spatial features*

Study On Governance Model Of Multi-Subject Participation In Rural Industry Development – A Case Study Of Shanghai Rural Revitalization Model Village

Yanxia Mu (Tongji University), **Feng Luan** (Tongji University), **Jiahui Fan** (Tongji University, Epfl)

In the process of rapid industrialization and urbanization, the problem of rural decline has become a global trend. In response to this trend, China's central government put forward the rural revitalization strategy in 2017. Industrial prosperity is the core of the rural revitalization strategy. Shanghai is the most economically developed city in China, but its rural areas also have problems such as aging, hollowing out and widening economic gap between urban and rural areas. Since 2018, the Shanghai municipal government has created 112 model villages for rural revitalization as the pilot projects, introducing the city's capital, talent, management, technology and other elements to them, with the core goal of exploring the demonstration model of rural industrial prosperity. This process has formed a governance pattern in which multiple subjects such as governments, enterprises, village collectives, villagers, and social organizations jointly participate in the development of rural industries. Clarifying the essential process logic of the common participation of these subjects, integrating the resources and advantages of them and realizing the coordination of their respective rights, obligations and interests, have become the most critical issues to realize the revitalization of rural industries.

This study selected 18 rural revitalization model villages of Shanghai. Through on-site investigation and interviews with relevant subjects, it concluded that:

(1) The essential process logic of multi-subject joint participation in rural industrial development is to increase the value of rural land, buildings, facilities and equipment, intangible assets and other assets by introducing elements, achieve industrial introduction, upgrading or scale expansion, and carry out operations, thus generating cash flow and reasonable distribution.

(2) There are three typical governance models: The single-subject dominant mode (such as town and/or village collective investment and construction and establishment of a platform for operators to operate, enterprises investment and construction and establishment of a platform for operators to operate, professional enterprises investment and construction and operation of the whole village, district and/or town government regional overall investment and construction and operation, villagers' independent investment and construction and operation). Multi-subject cooperation mode (such as multi-village cooperation, village-enterprise cooperation). Intervention (such as social organization intervention in village industrial development, village collective investment in urban high quality assets).

(3) The establishment of multi-subject joint governance system, whole process supervision mechanism and normal communication mechanism is an effective way to achieve the coordination of co-governance.

(4) In order to realize the revitalization of rural industry, it is necessary to combine the location, resource conditions of the village and the characteristic of each subject to choose, integrate and continue to innovate the governance model.

(5) In particular, for most villages, village collectives and villagers are in a relatively weak position in the co-governance pattern. In the open co-governance pattern, great attention should be paid to the protection of the interests of village collectives and villagers. The village collective governance ability, villagers' self-organization ability, endogenous development motivation and ability should be continuously enhanced.

Keywords : Shanghai, Rural revitalization model villages, Rural industry development, Governance model, Strategic suggestions

Public-Private Collaborations For The Regeneration Of Productive Territories. The Case Of Medium-Sized Companies In Northern Italy.

Cristiana Mattioli (Dastu Politecnico Di Milano)

Starting from the ongoing processes of transformation in dynamic industrial contexts, the paper discusses the need to redefine the role of guidance of public actors at different scales, while promoting new forms of public-private governance systems aimed at territorial regeneration.

The thesis of the paper is that with the transition to post-industrial forms of production, the territory is not only a node within networks and flows, but also a strategic resource, expendable on the global market. Moreover, the health and livability of local contexts become fundamental factors in attracting skilled labour. A new pact must be forged between industry and society. It is essential that businesses take collective responsibility not only for reviving economic development, but also for doing so in a socially and environmentally sustainable way. The idea of the territory as a repository of resources to be used for global competition must be abandoned in favour of a policy of regeneration.

The paper will discuss these issues by focusing on the northern part of Italy, in particular the triangle between Milan, Venice and Bologna, which is one of the most dynamic economic areas in Europe. Composed of medium-sized cities and diffuse urbanisations, it is an intermediate territorial context, outside both the metropolitan areas and the inner ones. It is characterised by thousands of competitive medium-sized industrial companies, well integrated into global supply chains. They are the result of the development of existing small companies or foreign investments with strong local impacts. Negotiations between small public administrations and large private companies often reveal asymmetries of power. In the worst cases, new land-consuming industrial projects are built in an already congested and polluted area, where abandoned industries can be also found, in marginal and fragile areas. In the best cases, large companies are located in planned, oversized industrial zones. These existing specialised areas, functionally and physically separated from urban systems, are usually of poor quality in terms of environmental and service performance. For example, they lack collective services, have too much paved surface area and associated problems with heat islands and water treatment, have vacant spaces and are not accessible by collective or active forms of mobility.

In view of these criticalities, the paper will propose the identification of instruments and procedures capable of stimulating the conscious participation of companies, at least the most dynamic and advanced ones, to channel part of their resources into urban reform interventions. Business associations and trade unions can also play an important intermediary role, bringing together and linking private and public interests.

Two main issues emerge. On the one hand, in the case of industrial expansions or new settlements, it is important that the public authorities are not satisfied with the architectural and landscape quality of parts of the urban area, but are able to act in a more comprehensive way, diverting some of the private added value and rent to redevelopment. A specific land trust can be envisaged to combine extensions with land remediation, even in different locations, or public works and facilities. On the other hand, at a time of severe cuts in public funding, forms of secondary welfare can provide an opportunity for urban regeneration through the creation of new public-private or private-private partnerships aimed at improving the efficiency, sustainability, and habitability of existing industrial areas. An energy community, a reforestation campaign, the 'adoption' of parts of the urban fabric, more structured 'consortia' aimed at integrated territorial projects can all be opportunities to increase local attractiveness and collective well-being.

***Keywords** : industrial territories, public-private collaboration, territorial regeneration, attractiveness, sustainability*

Urban Shrinkage And Regional Governance In Southwestern China: A Case Study Of The Chengdu-Chongqing Urban Agglomeration

Cuiping Tan (The University Of Hong Kong)

Urban shrinkage is a widely spread phenomenon across the world, expanding to rapidly urbanizing China since 2000s. Urban shrinkage emerging around core cities is one of the typical shrinking modes in China. A salient example is the severe shrinkage of cities surrounding Chengdu and Chongqing in the past twenty years. However, previous research has paid a lot attention to the identification of urban shrinkage in overall China and its driving force in north-eastern and south-eastern China, but there are few in-depth studies in China's southwestern regions, wherein urban shrinkage is driven by both market forces, such as the flow of population and capitals from small cities to core cities, and state intervention, including the policy and financial support to regional core cities. These dynamics differ from those in the northeast region of China, primarily driven by resource depletion, and the southeast coast, significantly influenced by market choices. Given the contextual differences in terms of economic development stage and governance models, this study attempts to provide a comprehensive case study of Chengdu-Chongqing Urban Agglomeration, located in southwestern China. It critically analyses and interprets urban shrinkage in this region, revealing the intricate relationships and regional governance between and among the cities from the dimensions of population, economic and spatial developments. Methodologically, the study employs mixed quantitative and qualitative methods in identifying and explaining geographical patterns of urban shrinkage at the regional scale. These include the use of spatial modelling techniques and regression analyses, and application of relevant theories and qualitative data to interpret the quantitative findings, and for conducting a case study of Ziyang, a shrinking city located between Chengdu and Chongqing.

The results highlight that administrative, geographical, and industrial connections with core cities exacerbate the shrinkage of surrounding smaller cities in this region. The study also emphasizes that land use, resource allocation, industrial strategic orientations, and collaborative governance within the urban agglomeration have both positive and negative impacts on the shrinkage of surrounding cities. A rational and coordinated regional governance model can promote overall development and enable shrinking cities to achieve sustainable development.

This study contributes to a more comprehensive understanding of urban dynamics and provides insights for addressing the challenges faced by shrinking cities.

Keywords *: Urban shrinkage, Regional governance, Southwestern China, Urban agglomeration*

Awareness And Willingness Of Chinese Households To Reduce Carbon Footprint In Daily Life

Na An (Tongji University), **Chenyu Huang** (Tongji University), **Jiawei Yao** (Tongji University)

With the rapid urbanization process and an increase in living standards, household energy consumption has become a primary driver of high energy consumption and carbon emissions, leading to a gradual rise in household carbon footprints. Over the past two decades, the carbon footprint of Chinese households has accounted for more than 40% of the total carbon emissions from primary energy utilization. Factors such as residential types, energy consumption patterns, dietary habits, and family composition play significant roles in reducing carbon footprints in daily life. Therefore, this study assesses the willingness of Chinese households to reduce carbon emissions in their daily lives. Based on geographical location, households are categorized into the Northeast, East, North, Central, South, Southwest, and Northwest regions. We utilize six categories: transportation, housing, food, daily goods, waste, and energy, to determine the trends, influencing factors, and overall regional comparative analysis of household carbon footprints.

The results indicate that knowledge about household carbon footprints can lead to a slight reduction in carbon emissions, with households familiar with carbon reduction concepts emitting 26 kg less carbon than those who are not. Furthermore, promoting low-carbon behaviours can further reduce household carbon footprints, with neighbourhoods that frequently promote low-carbon knowledge having a 4% higher carbon reduction capability than others. Overall, the Northeast region has the highest per capita household carbon footprint, indicating relatively higher per capita carbon emissions in that region. The Southwest region follows while the North China region has the lowest per capita household carbon footprint, possibly due to higher energy efficiency in that area. Household income is positively correlated with carbon emissions, and residents in high-income areas may lean towards high-carbon-emission foods like meat and dairy products, consuming fewer low-carbon options such as grains and vegetables. Regarding the willingness to reduce carbon footprints, most households tend to prioritize energy consumption pattern reduction in the Central region, while the North China region prioritizes comfort over carbon reduction. Among the seven regions, 90% of people show a willingness to save energy, with the East region displaying the strongest commitment to carbon reduction. In terms of carbon reduction awareness, the East region shows a higher willingness compared to other regions.

The differences in household carbon footprints across regions reflect the combined impact of various factors, including economic development levels, consumption patterns, energy efficiency, and transportation methods. Higher household income is typically associated with higher consumption patterns and energy usage, leading to larger carbon footprints. Therefore, to reduce carbon emissions, Chinese households need to consider strengthening low-carbon promotion efforts and formulating and improving practical and implementable carbon reduction policies.

Keywords *: Household carbon footprint, climate change mitigation, willingness to reduce carbon, household characteristics, household behaviour*

Territorial Governance

Study On The Urban Low-Utility Land In The Context Of China'S Territorial Spatial Planning Reform: Taking Linyi City As An Example

JiaRui li (College Of Architecture And Urban Planning - Tongji University), **Yao Cheng** , **Lin Tian**

With the rapid development of urbanization, urban sprawl has resulted in the misuse of resources and the inefficiency of urban land use, so how cities can be of high quality is an urgent problem to be solved for the development of cities in various countries. Exploring the low-utility land remediation of land space is of great significance to optimize the pattern of land resource use and promote industrial upgrading. During decades of rapid urbanization, China has entered a period of stock development, and in the context of the reform of land spatial planning, the government pays more attention to the economic use of land optimization and upgrading, and the redevelopment of land space and comprehensive land remediation have also become an important part of the planning system at this stage. Linyi City, Shandong Province, has earlier carried out relevant research on low-utility land remediation, which represents the general status quo of the development of second and third-tier cities in China. Therefore, this study takes this city as an example, constructs a framework for the analysis of low-utility land, summarizes the overall characteristics of its national land spatial development, adopts the indicator construction method to evaluate the performance of the overall national land use of land space, and adopts the 'people-land correspondence' method based on the theory of the rural residential land to measure the potentials of the national land space, so as to provide a reference for the remediation of low-utility land.

The results show that: (1) In the spatial development of the national territory, land for construction shows a 'circle + point' distribution pattern, with urban land for construction accounting for only 21.9 percent of its total size, and the proportion of land used for rural settlements and the distribution of the population are not coordinated.

(2)The development of land space in Linyi City varies greatly from place to place, with the average GDP of Mengyin County being only one-thirteenth of that of Lanshan District, at the same time, the urban and rural land use indexes for construction in Linyi City are upside down, which has far exceeded the requirements of the land rules and is facing a bottleneck in terms of resources.

(3)Territorial spatial development relies on incremental driving, with large-scale expansion of industrial land, the proportion of in situ urbanization in villages is high, with about 60 percent of rural migrant workers transferring for employment within the city, and the phenomenon of urban-rural amphibiousness is prevalent, which affects the effective utilization of rural construction land.

Key contributions to the findings:

(1)Formed a relatively complete process of low-utility land analysis, including 'development characteristics - causes - performance evaluation - potential calculation', which is of great significance for the preparation of the future system for the remediation of low-utility land in national land space.

(2) The preliminary proposal is that the main body, behavior, results, motivation, and internal elements together constitute the 'Subjective initiative + element function' type of governance ideas, which will provide ideas for the governance of low-utility land in other cities.

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Primate-Secondary City Relationships In Mega City-Regions: Regional Integration Through Urban Network Externalities

Jun Wen (Delft University Of Technology), **Sylvia Jansen** (Delft University Of Technology), **Harry van der Heijden** , **Simin Yan** (Heidelberg University), **Peter Boelhouwer** (Delft University Of Technology)

In Europe and China, the growth of secondary cities is reported to surpass that of primate cities due to factors such as urbanization policies, environmental concerns and considerations for life quality. Primate cities are the largest cities in a country or region, while secondary cities are cities that are second to primate cities in the urban hierarchy. While essential for regional development and national economic performance, secondary cities encounter challenges such as limited industrial and talent attraction compared to primate cities and insufficient political influence in shaping national policies. To address these challenges, scholars propose a strategic approach: cohesive integration through city networks, where secondary cities integrate with adjacent cities at the regional level. This paper adopts the regional level of mega city-regions, where secondary cities experience both positive influences (borrowed size) and negative influences (agglomeration shadow) from primate cities through regional integration, and simultaneously act as the regional centers of adjacent small cities.

While existing studies mainly focus on analyzing the effects of regional integration quantitatively, qualitative insights into the integration process of secondary cities are lacking, especially the cooperation with primate cities. To address this gap, this study aims to qualitatively explore how the relationship between primate cities and secondary cities is formed in the process of regional integration. The theory of urban network externalities asserts that cities in networks apply economies of scale through complementary relationships and synergies in cooperative activities. Building upon this framework, this study 1) explored the preconditions for network participation, including seriousness, adaptability, and openness, and 2) further concluded the three levels of goals which guide cities' engagement in the network, including efficiency, synergy, and competence. We selected the notable case of the Yangtze River Delta city-region for the field study, and interviewed 30 urban planners, officials and academics in the one primate city (Shanghai) and four secondary cities in this region.

Preliminary findings indicate:

1) Preconditions and goals are related to national and regional development stages, economic status and policy orientations.

2) Efficiency goals dominate in various cooperation between secondary cities and primate cities, especially between cities with development disparities. Cooperation driven by efficiency goals may shift with changing developmental stages of secondary cities.

2) Synergy goals emerge among cities sharing similar markets, relying on resources such as geographical proximity and competitive industries. This fosters a strong cooperative relationship between primate cities and secondary cities, emphasizing demand allocation over competition.

3) Competence goals, regarded as the most strategic aim, involve collaborative efforts with cities facing similar challenges. However, these challenges might bring about conflicts in the distribution of resource and interests among primate cities and secondary cities.

This study provides nuanced insights into the dynamics of primate and secondary city relationships, contributing to a deeper understanding of the regional integration process of secondary cities in mega city-regions.

Keywords *: Secondary cities, primate cities, regional integration, mega city-region, urban network externalities*

Planning Practices And Instruments – Evaluation Of City Alliances In The Context Of Central Place Concepts By The Example Of The Harz Region, Germany

Polina Mihal (Ukrainian), **Marisa Fuchs**

Equivalence of living conditions is one of the fundamental issues of spatial planning. It is about equivalent development opportunities, access and accessibility to infrastructures of general interest and much more. Particularly in shrinking and structurally weak regions, the capacity of services of general interest is jeopardized. This is where inter-municipal cooperation plays a significant role. Inter-municipal alliances offer opportunities for greater adaptability and resilience of cities and better provision of services of general interest for the population.

The shrinking Harz region in the federal state of Saxony-Anhalt is also characterized by a continuous population decline and is struggling with inadequate (public) transport links to the larger cities outside the region. This has a negative impact on the population's supply with higher-quality goods and services within a reasonable commute and impairs the provision of equal living conditions in all parts of Germany. Aiming to address these developments, the three largest cities in the region intend to cooperate to secure the provision of higher goods and services in the region and to strengthen its capacity for development. These three cities together have a so-called functional complementary potential and are striving to be designated as a function-sharing city alliance in the future.

However, the effectiveness of function-sharing city alliances depends on the coordination of planning and service provision by the cooperating cities. In this context, the evaluation of inter-municipal cooperation comes into play. Its task is to review the level of performance and the degree of target achievement at certain periods (Fürst 2010). The results of the evaluation can be used to assess whether the functionally cooperating group of municipalities should continue to exist or whether a new central location classification is required (Guyadeen/Seasons 2018).

For this newly initiated city alliance in the state of Saxony-Anhalt, the IMPULS project developed a tailor-made evaluation model. In this context, the presentation provides answers to the following research questions:

What are the most important quality assessment criteria for an evaluation of city alliances?

How should a formative, accompanying evaluation be designed in order to take the maturity of the city alliance into account?

What are the main success factors and barriers for the applicability of an evaluation of city alliances?

We used various methods to develop the evaluation model. With the help of a document analysis, we reviewed with which assessment criteria such an evaluation has already been carried out in Germany. Based on these practical lessons we developed a three-stage formative evaluation model in an iterative process with feedback by the practical stakeholders. Three evaluands will be introduced on which the evaluation model is based. The first evaluand is Spatial planning contract and a regional development concept, the second is Cooperation within the city alliance and the third is Projects/ function-sharing. The three-stage structure is intended to reveal the degree of maturity of the cooperation in function-sharing. We discuss our applied methodological approaches with regard to their transferability to other shrinking regions and provide insights into suitable strategies for the different fields of action.

Keywords *: Strategic planning, strategic development, inter-municipal cooperation, city alliance, function-sharing cities*

Drawing Up Cultural Historical Pattern Languages To Support Regional Transitions

Oswald Devisch (Hasselt University), **Teresa Palmieri** (Free University Of Bozen-Bolzano)

The awareness grows that even seemingly commonplace planning challenges – such as noise disturbance, parking issues, and privacy concerns – call for systemic changes that imply complex transitions, cross multiple scales and involve a large diversity of stakeholders (Meadow, 1999). Flanders employs 'strategic projects' as a key instrument to navigate this transition. A strategic project comes with an iterative process structured around three interconnected tracks: developing a shared vision at the regional scale, investing in strategic locations, and establishing a collaborative process with key stakeholders (Albrechts, 2004). However, sustaining this iterative process, tracking synergies among investments, maintaining alignment with the overarching vision, and ensuring stakeholder commitment pose significant challenges.

Despite the availability of tools like concept notes, project subsidies and quality chambers, most investments remain isolated, failing short of contributing to systemic change. This paper introduces an innovative approach grounded in the concept of pattern languages (Alexander et al., 1977), to augment relationships among individual projects, the overarching vision and the agendas of involved stakeholders. In particular, the choice for pattern languages is informed by their three central features: it's moral component, it's emphasis on coherency, and it's generative ability.

To augment the contextual nature of a pattern language, we incorporated Cultural Historical Activity Theory (CHAT) (Engeström, 2000). CHAT posits that an activity not only relies on tools but also on a community, rules and a division of roles; all framed within a specific history and culture. Stakeholders, according to CHAT, only change their activities when triggered by conflicts (or contradictions) within or among these components.

We developed a visual analytical framework, rooted in both pattern languages and Cultural Historical Activity Theory, to challenge how stakeholders - ranging from individual citizens to businesses and local authorities - have engaged with their region throughout history and may do so in the future. This framework identifies the triggers that prompted stakeholders to change their way of working (i.e. the contradictions that made them adjust their current activity pattern). The resulting mappings unveil interdependencies among stakeholders, but also among the stakeholders and the (unique) attributes of the region, providing a comprehensive understanding of the regional activity-system to which they all contribute. Additionally, the mappings trace patterns in the individual histories such as recurring leverages, similar actions, and types of cooperation's, culminating in a regional 'cultural historical pattern language'.

Our argument suggests that each strategic project should commence with the creation of such a language to illuminate how individual actions contributed to past and potential future changes and to weigh the stakeholders' capacity to engage in forthcoming actions (Palmieri et al., 2021). To exemplify our methodology, we will present a case study conducted in the Rupel region, Belgium, where we developed such a regional cultural historical pattern language with 12 entrepreneurs. Throughout our case, we successfully unravelled the intricate interdependency of these entrepreneurs with the region, highlighting their role in addressing commonplace planning challenges typical for a region in transition.

How To Deal With Conflictual Central Policy Approaches? Spatial Regional Governance Dynamics In Flanders Unpacked.

Pieterjan Schraepen (Ghent University), **Joris Voets** (Ghent University)

In many national contexts, societal policy challenges are more interconnected than ever, necessitating the development of a new collaborative approach and the forging of broad coalitions. The regional level is often highlighted in the literature as a suitable scale to achieve various forms of policy integration (Gualini, 2006). The region is framed as a platform where diverse societal objectives can be realized by facilitating interaction among different actors and policy levels (Fricke & Gualini, 2018).

Various policy dynamics within many EU states attempt to concretely address these societal challenges. Developments range from those situated in the relational sphere of projects and programs on one hand to more systemic reforms that are territorially oriented on the other, intervening at the basic tiers of government (Zimmerman et al., 2020). However, the specific configuration of the regional space resulting from diverse, often conflicting central policy initiatives and particularly the friction such a (compartmentalized) central approach can cause, often remains overlooked.

This contribution focuses on a specific set of policy developments descending from the central government to the regional level. It zooms in on the concrete interplay that can arise between these various policy dynamics, examining how these policy initiatives interact with each other, potentially leading to conflicts or administrative innovations, and identifying the tensions and contradictions underlying them (Christmann et al., 2020).

Evidence is presented from Flanders (northern part of Belgium), where diverse regional policy dynamics and reforms are in progress within the current governance set-up, appearing to form a complex ensemble. This contribution specifically examines the role of conflicting policy systems within the broad domain of spatial planning.

More specifically, we delve into the interplay of three central Flemish policy developments that seem to evolve rather independently from one another in the present policy context:

The Flemish mobility regions reform as a tool for integrated regional planning by establishing a more intense intergovernmental cooperation platform for addressing urban mobility & planning issues through this new governance approach.

The Flemish region formation process as a generic central policy development that aspires to coordinate cross-policy cooperation more strongly by working with a fixed reference region scale.

The elaboration of a new Flemish policy approach through 'region deals' aiming to enable regional cooperation across different levels of government around spatial objectives and cooperation as equal partners, by determining how, by whom, and by what means these objectives will be realized.

We approach the interplay of these three policy dynamics as a new policy arena where, through the confrontation of these dynamics, new possibilities for collaboration and innovation can emerge, albeit with room for conflict, where various considerations and compromises between diverse positions and interests can find a way (Kuhn, 2021; Rangoni, 2020).

Keywords *: intergovernmental collaboration, spatial governance, rescaling, regional governance, conflict dynamics*

Territorial Development Strategies: Navigating The Complexities Of Multi-Level Governance In Northern Italy

SARAH ISABELLA CHIODI (Politecnico Di Milano), **Lorenzo Liguoro**

Regional Managing Authorities (MAs), particularly those at the NUTS2 level in Italy, play a pivotal role in managing territorial development policies, coordinating and integrating diverse strategies and initiatives across multiple governance levels. This study delves into the practical and operational methods employed by MAs to navigate these complexities, focusing on the transition between the 2014-2020 and 2021-2027 European Programming cycles.

The research, conducted by Prof. Sarah Isabella Chiodi and Dr. Lorenzo Liguoro at Politecnico di Milano, examines the experiences of four regional actors – Piedmont, Lombardy, Veneto, and Emilia-Romagna – in implementing territorial development policies, with a particular emphasis on Policy Objective 5 of the renewed Cohesion Policy: "A Europe closer to citizens."

The Challenges of Place-Based, Multi-Stakeholder, and Multi-Level Programming

The study highlights the intricate challenges faced by MAs in managing place-based, multi-stakeholder, and multi-level programming. These challenges include:

The need to coordinate and integrate diverse strategies and initiatives across multiple levels of governance. This requires MAs to develop strong relationships with a wide range of stakeholders, including national governments, local authorities, the private sector, and civil society.

The need to ensure strategic alignment between different themes, funding sources, and regulatory frameworks. This requires MAs to develop clear and coherent visions for territorial development, and to ensure that these visions are reflected in the policies and programs that they implement.

The need to engage citizens and other stakeholders in the planning and implementation of territorial development policies. This requires MAs to develop inclusive and participatory processes that allow for the voices of all stakeholders to be heard.

The Study's Methodology

To address these challenges, the study adopts a mixed-method approach, combining a quali-quantitative CAWI investigation with an operational thematic laboratory. The CAWI methodology gathers data and insights from regional actors, while the operational thematic laboratory facilitates direct confrontation among actors, fostering knowledge exchange and collaboration.

The Study's Envisaged Findings

The study's findings highlight the following key trends in the management of territorial development policies in Northern Italy:

focus on place-based approaches. This trend is reflected in the increasing emphasis on Policy Objective 5 of the renewed Cohesion Policy, which aims to promote more inclusive and sustainable growth by investing in local communities.

emphasis on multi-stakeholder collaboration. This trend is reflected in the increasing use of partnerships and other forms of collaboration between public, private, and civil society actors.

value of multi-level governance. This trend is reflected in the increasing need for MAs to coordinate and collaborate with actors at the European, national, and local levels.

The Study's Implications

The study's findings have implications for the development of effective territorial development governance in Northern Italy and beyond. These implications include:

The need for MAs to develop strong capacities for strategic planning, coordination, and collaboration.

The need for MAs to invest in inclusive and participatory processes for engaging citizens and other stakeholders.

The need for MAs to work with partners at the European, national, and local levels to ensure coherence and coordination across different levels of governance.

Conclusion

The study contributes valuable insights into the challenges and opportunities of managing territorial development policies in a multi-level governance context. The study's findings can be used to inform the development of capacity-building strategies and other initiatives to support effective territorial development governance.

Keywords : *Territorial Development Strategies, Multi-Level Governance, Multi-Stakeholder Collaboration*

Just And Ecological Transition Governance

New Territorialities Of Governance For The Anthropocene

Diane Davis (Harvard University)

see attached

Keywords : *governance, risk, water, climate crisis, territoriality, anthropocene.*

Socio-Ecological Justice Through A Governance Lens: The Superilla-Green Axes "Experiment" In Barcelona

ALESSANDRA MANGANELLI (Hafencity Universität Hamburg)

Over the last decades, experiments have been proliferating in urban areas as key modalities to foster urban sustainability governance (Fuenfschilling et al., 2019). Examples of urban experiments range from living laboratories, to tactical urbanism, pilot projects, multi actors´ partnership, and similar. They can be defined as temporally and spatially bounded initiatives engaging with forms of experimental governance, aiming to prefigure and concretely materialise more sustainable futures here and now, but also aspiring for more systemic and impactful (urban) transformations (Sengers et al, 2021). Yet, despite good intentions, the capacity of experiments to be transformative in the sense of going beyond the status quo and fostering greater socio-ecological justice is debatable. While part of the scholarly debate on urban environmental governance and experimentalism underlines the potential of urban experiments for stirring more sustainable and just urban transformations (Castán Broto & Bulkeley, 2013a; Monstadt et al., 2022), other scholars are more critical, highlighting how the capacity of experiments to be radically transformative and to foster greater justice should not be taken for granted (Hodson & Marvin, 2010; Karvonen, Evans & van Heur, 2014). Examining the governance of urban greening experiments through a socio-ecological justice lens, this contribution embraces a nuanced and context-based perspective on the capacity of experiments to foster justice in processes and outcomes. In particular, the concept of governance tensions is adopted to illuminates how conflicts experienced by actors involved in transformative projects give place to both, barriers, but also opportunities to enhance scopes of action. The empirical "test case" of this contribution is the Superrilla-Green axes program put into place by the Municipality of Barcelona to foster sustainability and promote eco-socialist policies of re-appropriation of public space by marginalized users. The analysis shows how actors involved in this greening "experiment" deal with tensions among social and ecological aspects of justice, and, consequently, what we learn about key dynamics that make this type of projects more or less socio-ecologically just.

Keywords : *Governance tensions, Socio-ecological justice, Urban experiments*

Co-Production As A Planning Strategy. Insights From Implementing Urban Climate Shelter In Schoolyards

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Cities play a crucial role in advancing climate ambition, given the challenging objective of limiting the temperature increase to 1.5°C. European cities are exploring planning and designing solutions to reduce Greenhouse Gas (GHG) emissions and address the impacts of climate-induced extreme events, including challenges arising from elevated temperatures and the intensification of the Urban Heat Islands (UHI) effect. Despite the ongoing efforts of cities, there is a need for improvement in integrating local climate mitigation and adaptation actions.

Urban Climate Shelter (UCS) is an initiative that aims to transform schoolyards from traditionalist approaches, based on impervious surfaces and low-albedo materials, to more sustainable, natural, and resilient approaches, which are beneficial for adapting cities to climate change and citizens' quality of life and health. This initiative draws inspiration from best practices found in recent years, with a specific emphasis on the "Refugis Climàtics" in Barcelona and "OASIS - Schoolyards" in Paris. Both projects prioritize a participatory approach, involving tasks distribution and engagement of both adults and children. It advocates for bottom-up approaches, engaging diverse stakeholders, and stimulating citizen participation beyond those with specialized knowledge.

The paper aims to explore UCSs in schoolyards, portraying them not only as cooling islands but as spaces where co-production becomes tangible. Fostering active participation in co-design and co-production processes proves essential for translating policy into physical results, with the alignment of science, policy, and practice serving as a powerful catalyst for development. In addition, co-production integration faces challenges within various planning systems, emphasizing the need for a deeper understanding of urban governance. The measurement of co-production becomes imperative as a tool for promoting good governance.

UCS's approach transcends mere physical transformations, they signify a shift towards fortifying governance structures and raising awareness about how urban spaces can contribute to climate change mitigation and adaptation. This marks a departure from traditional approaches, introducing experimental governance initiatives that embrace new patterns of interaction and deliberately allow for some level of conflict. The essence lies in recognizing that schoolyards extend beyond their conventional role and can evolve into spaces for broader community use. Through participatory co-production and co-design involving citizens, solutions are customized to meet their needs and preferences. This approach fosters a sense of ownership and active engagement within the community, aligning with the principles of an experimental governance model that encourages diverse planning practices.

Keywords *: co-production, participatory governance, urban regeneration, climate change adaptation, planning practices*

Towards A Conceptual Framework For Implementing The Just Green Transitions In The European Union

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The European Green Deal promotes a twinned transition that pivots on a green transition and a just transition. Accordingly, the Member States have been preparing their Territorial Just Transition Plans (TJTP) (European Commission, 2021), the National Energy and Climate Plans (NECP), and the National Long-term Strategies (NLTS) (European Commission, 2018) in order to conceptualize and operationalize their Just Green Transitions (JGT) towards achieving the European Green Deal's carbon-neutrality by 2050 (European Commission, 2019).

This contribution aims to present a first attempt at constructing a conceptual framework that aims at forming a two-fold analytical grid which affronts the conceptualization and operationalization of the JGT of the 27 Member States to the Just Transition, Green Transition and Governance dimensions. The conceptual framework has been informed through mixed-method pivoting on desk research and data triangulations including: (i) a wide range of official publications of the EU and the member States, (ii) a theoretical framework which encompasses a critical interpretative literature review on the theoretical foundations of socio-spatial-temporal justice (Shaker & Berisha, 2024).

In order to build the conceptual analytical grid, a discourse analysis has been applied to a crosscutting between the 27 Member States' TJTP, the NECP and the NLTS in order to grasp how the MS stand from the conceptualization and the operationalization of the JGT in regards to the Socio-Spatial-Environmental-Temporal Justice dimensions.

The outcome of the conceptual framework is expected to be applied in the empirical part of the research considering a qualitative comparative analysis applied to a number of Member States of various levels of JGT advancements, different geographical location within the macro-regional sub-classifications of Europe, various positions within the Transition Performance Index, and of different Territorial Governance and Spatial Planning Systems in Europe (Nadin, et al, 2018).

Keywords : Just Green Transitions, Conceptual Frameworks, Twofold Analytical Grid, European Green Deal, EU Governance

All For One And One For All: How Co-Creation Processes Of Urban Nature-Based Solutions In The Netherlands Facilitate The Delivery Of Co-Benefits.

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Cities across the globe are struggling with finding appropriate responses to growing climate change effects in combination with other urban challenges, rising population densities, and contestations for space. Accordingly, government bodies on all scales call for more integrated and synergetic adaptative measures that can deal with multiple challenges simultaneously. While primarily intended to mitigate issues related to climate change effects, Nature-based Solutions (NBS) as cost-effective interventions inspired by nature are often characterised by their ability to provide multiple benefits to public, private and natural actors at once. However, these co-beneficial outcomes are not achieved automatically and require deliberate attention in development processes.

Currently, NBS initiatives are often characterised by top-down, technocratic and fragmented approaches, which pose structural barriers to developing NBS that deliver co-benefits (Dorst et al., 2022). In response, more collaborative approaches to developing NBS are proposed as a way forward that include a wider range of interests, knowledge types and benefits in decision-making. However, such approaches can also negatively impact NBS through power imbalances, problem-fixation and incomplete coalitions (Van Dijk, 2021). Hence, there is a lack of understanding of how different co-creation mechanisms either enable or hinder the delivery of co-benefits in NBS. Since the nexus between nature-based solutions and participatory approaches covers a relatively young field of research (Kiss et al., 2022), a recurring gap in literature revolves around a shortage of empirical evidence to establish "the actual contribution of diverse forms of citizen participation to achieve sustainability objectives'' (Kiss et al., 2022, p. 258) of NBS.

Hence, this research project focuses on the question ''how are co-creation processes for NBS in Dutch cities structured to facilitate co-beneficial outcomes?'' The research is in the first place an assessment of the co-creation process designs in Dutch cities. Additionally, it explores principles for achieving co-benefits and how different co-creation designs enable or hinder them and evaluates the extent to which co-creation processes in Dutch cities meet these principles. Exploring such linkages is an important step in understanding how co-creation processes lead to co-beneficial NBS in practice. This offers, next to overcoming a gap in academic literature, valuable insights for project managers and policy developers who work with NBS.

The research follows a multiple case study approach with a focus on small-scale urban NBS projects that have been recently developed in existing urban environments across The Netherlands. Based on their potential for offering co-benefits to a wide range of actors, the NBS that are included are rain gardens, pocket parks, bioswales, green roofs and water squares. In a first step, different structure possibilities for co-creation processes are captured in a conceptual framework, relating to questions on why co-creation processes take place, who participates when and how (Uittenbroek et al., 2019) and what is co-created. The framework links these variations to principles for achieving co-benefits, based on game theory, social choice dilemmas and boundary spanning theory (Haase et al., 2012; Kabisch et al., 2022). Next, these principles are developed into metrics to evaluate the extent to which co-creation approaches facilitate the delivery of co-benefits. For each NBS project, these structures are captured through semi-structured interviews with policymakers and project developers. Using a comparative analysis, the results show patterns of how co-creation processes are structured in NBS projects throughout the Netherlands, and where they can be improved to facilitate the delivery of co-benefits.

Keywords *: Nature-based solutions, boundary spanning, Co-creation, Climate adaptation, Co-benefits*

Authority Arenas And Innovations In Cairo's Climate Governance

Ahmed Tarek Alahwal (University Of Freiburg)

Climate governance is polycentric, with diverse standard-setting centers and no chains of delegation, and is transnational, existing outside of the realm of national states. This transnational and polycentric nature motivated innovations to accountability and authority that create bases of legitimacy parallel to representative democracy (Bäckstrand, Zelli & Schleifer 2018). Cities have often voluntarily adopted and helped create new forms of accountability and authority and engage in horizontal and vertical governance chains outside of nation-states.

Accountability and authority innovations stem from diverse urban climate governance rationales. Among these are democratization, entrepreneurialisation, decentralization, orchestration, or securitization. However, conflicts often arise between democratic legitimacy bases and those rooted in economic rationales, technocratic tendencies of climate governance, national security interests, or emergency approaches to the climate catastrophe (MIttiga, 2022).

Studies lack on how cities adopt climate governance mechanisms in nations without the representative democracy characteristic of free and fair elections. Transnational polycentric climate governance can present a tool for democratization that is especially valuable to such a context, or it can repeat existing patterns of power-sharing, dispossession, and marginalization. The paper explores this Hypothesis through the case study of the Greater Cairo region, one of the largest urban agglomerations in Africa. The scope of the study includes actions in Cairo that explicitly use climate change in their rationales, led by governmental and non-governmental actors of all scales. The representative sample includes projects of hard and soft intended impacts and climate change sectors.

The paper is the third of and builds on two other papers by the author that focus on Cairo's climate governance. The first maps the inclusion and exclusion of actors from climate actions, and the second analyses the types of accountability and authoritarian practices. Building on the analysis of inclusion and accountability, this paper explores how they lead to forms of authority through discursive legitimacies (Bulkeley 2012), the resulting control of resources (Purdy 2012), and centrality in governance networks (Di Gregorio et al. 2019).

Just And Ecological Transition Governance

Accelerating Energy Retrofits In Residential Buildings In Spanish Cities: Connecting Citizen Everyday Needs With 2030 Decarbonization Objectives?

Ana Correa do Lago (Universidad Politécnica De Madrid)

Climate action in cities is increasingly recognized as of strategic importance to accomplish the global governance of climate change (Bulkeley 2021; Hölscher, 2019). The building sector is pointed as a key lever to speed up the energy transition and deliver emission reductions by 2030 – in fact, 40% of Europe's energy demand comes from buildings (UNEP, 2022). Spanish cities are translating these objectives into local action by investing in energy retrofits in residential buildings, having been further supported by the stimulus package "NextGenerationEU."

However, despite the policies encouraging the deployment of retrofit interventions in the past decade (mainly financial incentives) retrofitting rates remain low: demand from citizens does not take off at the speed required to meet 2030 objectives (Green Building Council España, 2021). There are specific challenges within this particular sector, but the necessity of entering into people's homes and the need to conduct contentious processes within neighborhood communities brings to light the importance that the human factor plays in enabling energy retrofits (Abreu Oliveira and Lopes, 2017; Crosbie and Baker, 2010). Energy retrofit challenges illustrate a broader concern in urban climate governance literature regarding the gap between citizens' perception of what their everyday material priorities are, and the mandate that city councils need to comply with to speed up climate change action (Castán Broto and Westman, 2019; Acuto, 2014). In response to these challenges, this research asks: what policy instruments have city councils employed to persuade citizens to connect citizens' everyday needs with the intended material transformation of the residential building stock? To respond to this question we outline contrasting implementation strategies to accelerate residential retrofits in the cities of Madrid and Vitoria-Gasteiz, which are a part of the "EU Mission of Climate-Neutral Cities". The goal is to better understand the effectiveness of their corresponding methods of networked governance, and their capacity to address the inherent tensions present in this urban intervention.

The study examines through qualitative analysis from participant observation and interviews with city councils, community organizers, members of the Collaboration Platform for Climate Neutrality of Spanish Cities, reports and public documents. Expected outcomes are a combination of centralized and decentralized governance networks of implementation, complementary to the current financial incentives already in place.

Keywords *: planning practices and instruments, experimental governance, urban climate governance, building retrofits, carbon-neutral cities*

Informal Settlements And Greening Dilemmas

Elgar Kamjou (University College Dublin), **Mark Scott** (University College Dublin), **Mick Lennon** (University College Dublin)

Green interventions have been applied to a growing number of cities to address climate change adaptation, nature recovery and sustainable development. However, such interventions in cities of the global South can exacerbate inequalities and result in green gentrification, residents' displacement and the relocation of informal settlements (Anguelovski, Irazábal-Zurita and Connolly, 2019; Matsler, Meerow, Mell and Pavao-Zuckerman, 2021). Only recently have scholars paid attention to uneven land-use regulations in greening approaches toward informal settlements. Studies illustrate that eviction policies and the relocation of informal settlements have been justified by planning authorities under the banner of ecological improvement and climate adaptation. However, these are often resisted by the residents of informal settlements (Anguelovski, Irazábal-Zurita and Connolly, 2019).

This paper questions the inclusiveness of the greening approaches and their position regarding the marginalised groups of informal settlers in cities of the global South. It builds upon and extends this nascent bank of knowledge by mobilising the conflicting rationalities framework to illustrate how green interventions conventionally framed as a 'win-win' can exacerbate inequitable urban redevelopments, leading to exclusion and conflict (Yiftachel, 2020; De Satgé and Watson, 2018).

Drawing on a detailed documentary review and 39 interviews, the paper qualitatively examines a case of greening plans for the Farahzad informal settlement in the Tehran metropolitan area, Iran. It illuminates the conflicting rationalities shaping the discourse on green space within and between multiple planning actors including planning authorities, residents, planning consultants, the neighbourhood council, and NGOs.

The analysis reveals how conflicting rationalities perpetuate green inequalities in informal settlements, where authorities prioritise formal residents' interests over informal dwellers. The scarcity of green assets intensifies the struggle, rendering informal settlements susceptible to displacement. The paper discusses how such conflicting rationalities result from: the neglect of residents' claim to their self-built neighbourhood and properties; the differentially perceived role of residents in degrading/maintaining green areas; as well as negative presumptions toward residents of informal settlements.

Conflictual Natures: The Role Of Architectural Imagination In Building Paths For Ecological Transition In The City Of Goias – Brasil

Camilo Vladimir de Lima Amaral (Polito / Ufg), **Antonio di Campli** (Polito), **Elisa Veri** , **Rishabh Srivastava** (Polito)

The city of Goiás, Brasil, has evolved closely attached to its main River, the Vermelho River. Nevertheless, this relationship was conflictual and changed overtime as nature had different social meanings. Although the city started with the exploration of gold in the margins of the river, this was a dangerous place, occupied by slaves and diseases, so the city developed with its back to the river. In this colonial context, nature was seen on the one hand, as wild and a threat, and on the other hand, it was welcomed in backyards in the form of idyllic gardens that replicated gifts from God in a very catholic society. The 19th century saw a change in the subjective approach to nature. As society modernized, a series of government measures and law aimed to change the relation of the city towards nature as a source of romantic delights. Furthermore, current environmental crisis and subjectivities changes the values of urban nature, and local people engage in practices and new attitudes towards it, from new forms of valorization and conservation practices to new forms of green gentrification and privatization of nature.Based on a regressive-progressive history of the relationship between the city of Goiás and the Vermelho River, helps to read how what we see as nature evolves together with social relations. In this sense, different approaches to nature can be read as social innovation techniques that creates natures as a socio-natural phenomena. That allows us to conceive an approach to nature as an object of design.Thus, this paper aims to investigate nature as a social product, unrevealing the different social performances of nature at different moments of history. This grounds a right to nature in the same terms that for Lefebvre the right to the city meant the right to produce the city as a work of art. For exploring this idea, a design workshop in the city developed a photographic analysis to read different aspects of the social perception of the Vermelho River. This allowed to identify conflicting tendencies and views towards nature.Furthermore, the workshop aimed to explore the potential of micro-utopian perspectives to articulate counter-hegemonic approach to conceive political green transitions. In this sense, a micro-utopian perspective aimed to overcome utopia as an apolitical and abstract approach. For this it explored utopia in a dialectical approach, exploring the immanent potentials of the place in close relation to new conceptual perspectives, such as the commons, dark ecologies and post colonial perspectives. The aim was to investigate how these practices could challenge the reproduction of relations by the social performance of our ideas of nature, exploring how ideas of nature objectifies complex social relations. Ultimately, this perspective contributes to establish benchmarks for alternative modes of practice and to construct a socially active approach to ecological transition strategies.

Keywords *: environmental conflicts, micro-utopias, design-thinking*

Just Green Transition(S) In The Western Balkans: Pathways Towards Conceptualization And Contextualization

Fiona Imami (Polis University, Tirana), **Anila Bejko** (Polis University, Tirana), **Kejt Dhrami** (Polis University, Tirana)

Over the past decades, with accelerated warming affecting all countries in the world, the Western Balkans region has well significantly impacted by climate change, pollution, and its various environmental consequences. The lack of adaptation measures towards environmental challenges, poses on the other hand, risks such as economic losses, health impacts, and water scarcity.

On a global scale, the concept and approach of "Just Green Transition" are being introduced and embraced. Yet, as "transition" itself signals epochal change to various degrees, it unfolds at the same time uncertain futures for the affected economies, societies, and even the environment itself. It is in this fragile position that the WBs progress slowly towards transitioning, hindered especially by post-socialism transition legacies.

From a theoretical standpoint, the term "transition" denotes a dynamic process involving change, development, or transformation from one state, condition, or phase to another, extensively applied across disciplines such as economics, sociology, political science, and environmental studies [(Schumpeter, 1943), (Bridges, 2003), (Geels, 2002)] embracing a spectrum of shifts that can be gradual or sudden, deliberate or spontaneous, manifesting on scales ranging from the individual to societal or systemic contexts. For the WB countries, the term 'transition', was largely employed among scholars in political sciences and policy-makers as a concept encompassing the historical period after the fall of communism, to the extent that it would be used to label these countries as 'transition countries'.

In this context, this paper explores the complexities of conceptualizing JGT in the WB, considering the region's contextual factors, societal preparedness, and the challenges of achieving a purposive transition. The EU's Green Agenda for the Western Balkans is a crucial framework, yet the region lags in climate action, lacking a comprehensive approach and awareness. To address this gap, the paper aims to provide an overview of JGT in the WB, emphasizing the preparatory phase, societal roles, and economic impacts. It acknowledges the theoretical gaps in defining transition and justice while advocating for societal inclusion in envisioning localized Green Transition objectives.

Methodologically, the paper delves into theoretical concepts, summarizes WB's Green Transition efforts, and outlines key elements for a just and inclusive transition. Subsequently, the paper offers insights into green transition policies, stakeholders, and practices in Albania (AL), Bosnia and Herzegovina (BA), Montenegro (ME), North Macedonia (MK), and Serbia (RS), through a mapping process and employing a stakeholder network analysis tool.

This paper contributes to understanding the endogenous potential for JGT in the Western Balkans, highlighting contextual factors influencing innovation trajectories. The paper recognizes its originality in bridging theoretical concepts with empirical insights, but it also acknowledges limitations in achieving full case comparisons. The implications extend to policy recommendations for a just and inclusive green transition, emphasizing social justice and sustainability in the region's development trajectory.

Keywords : transitions, purposive, Western Balkan Countries, shifting, mapping policies

Facing Environmental Conflicts: Insights From Participatory Co-Design And Co-Production In Institutional Ecological Transition Initiatives.

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The imperative to address conflicts, contradictions, and agonistic alternatives in shaping urban spaces aligns seamlessly with the challenges encountered in implementing the ecological transition. In 2019, through the European Green Deal, the European Union formalized its commitment to achieving carbon neutrality by 2050. While the objectives of this strategy are clearly defined, the challenges lie in the intricate implementation methods. A significant hurdle pertains to the imperative of engaging citizens in decision-making processes, integrating them into a systemic transformation. Environmental issues, by their nature, span multiple scales, making them complex to define and interpret. This complexity often results in confusion, inertia, and, most significantly, conflicts. From this standpoint, active citizen participation in the co-creation of policies for ecological transition becomes an absolute prerequisite for both their success and the success of the various institutional projects interconnected with them.

Based on these principles, the PHOENIX project was initiated in 2021. The project, acronymically named "Participation in Holistic Environmental/Ecological Innovation," received funding from the European Commission under the research priority associated with the European Green Deal (EGD) within the H2020 Program. Its primary aim is to advance scientific inquiry about participatory processes and democratic innovations focused on environmental issues.

Following the description of the characteristics and research horizons of the PHOENIX project, the paper proceeds to detail the efforts conducted by the Department of Architecture at the University of Florence, a project partner, within it. It elaborates on their work, which involves experimentation with participatory practices designed to contribute to the ecological transition process in the city of Bologna, identified as the project's pilot territory. The described experience is interpreted paying particular attention to the ways in which environmental conflicts and tensions can be faced thanks to the principle of participatory processes co-design and co-production between civil society and public institutions.

The PHOENIX project, operating within Bologna's framework of ecological transition policies (including the 2030 Climate Mission and Citizen Assembly on Climate), grapples with challenges and tensions, particularly in relation to significant infrastructural projects. These challenges offer valuable insights into emerging contentious issues in urban development. Through its experimental governance initiatives, the project introduces novel patterns of interaction, contributing to a better understanding of the role conflicts and contradictions play in urban planning techniques and public policy instruments.

Just And Ecological Transition Governance

Experimentation In Energy Transition Planning: Reflections On The Regional Energy Strategies Planning Instrument In The Netherlands

Martijn Gerritsen (Radboud University Nijmegen), **Henk-Jan Kooij** (Radboud University Nijmegen)

Experimentalist governance has become more prominent in addressing planning issues at supra-national, national, and sub-national levels over the last two decades. Such experimentalist arrangements grant substantial policy discretion to lower-level planning entities and aim to incrementally improve planning through learning-by-monitoring and recursively comparing approaches across contexts (see e.g., Rangoni and Zeitlin, 2021).

So far, scholars of experimentalist governance have mainly studied the processes through which, and the conditions under which experimentalism occurs. However, the place-specific outcomes that experimentalism can have in space have remained understudied. As a result, experimentalist approaches to sustainability developments and transitions in society have been claimed to lack a form of 'spatial sensibility' (e.g., Coenen et al., 2012; Kivimaa and Morgan, 2023, p. 106).

This contribution reflects explicitly on the spatial implications of experimentalist governance. To do so, it presents findings of a research project on the Regional Energy Strategy (RES), a sub-national experimentalist planning instrument implemented in the Netherlands since 2019 (Gerritsen et al., 2022). Through the RES planning instrument, local governments and societal partners plan the spatial allocation of on-land renewable energy generation capacity in designated 'energy regions' until 2030. The governance of these energy regions and the adopted strategies are monitored and need to be revised every two years.

This paper offers insights into sub-national experimentalist spatial governance based on an analysis of interviews with key stakeholders, participatory observations of meetings in several energy regions, and policy documents and news items about the Dutch RES planning process in the past four years. The paper claims that the new planning instrument considered insufficiently how the strategies that were drafted would materialize in the regional contexts in which they are being implemented. The RES instrument de facto inhibited developing more comprehensive, longer-term views on the spatial outlook of energy regions by focusing only on the period up until 2030 and by considering only on-land wind and solar generation capacity as viable technological options. Additionally, the instrument overestimated the 'planning freedom' of individual energy regions and understated the need for all regions to timely transpose their regional policy ambitions into spatial plans at the municipal and provincial government levels. Next to this, the RES presents a balancing act including a dialectic between political- and societal support on the one hand, and progress and feasibility of the energy transition on the other. All in all, this contribution argues that the call made for a more 'place-based experimentalism' (Coenen and Morgan, 2020) also applies to the Regional Energy Strategy.

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Urban Intensification In Geelong, Australia: Drawing On Behavioural Insights And Attitude Theory To Explain Resident Responses To Higher Density Housing

Suzanne Barker (Monash University)

Resident opposition to urban intensification is often framed pejoratively as NIMBYism (Not In My BackYard) to describe where residents object to urban infill planning proposals with the assumption they are motivated by self-interests such as maintaining property values. Public commentators also identify resident opposition as an influential obstacle to urban intensification in Australian cities, which is exacerbating the housing affordability crisis in and contributing to a deepening intergenerational divide between older property owners and younger renters who have been locked out of homeownership. This characterisation however does not contemplate the possibility that resident attitudes towards densification are influenced by psychological or cognitive factors, or place attachment and care. This paper examines two case studies in the Australian city of Geelong. Geelong is the State of Victoria's second largest city, located about 70km from Melbourne. The municipal city council prepared and proposed two separate Urban Design Frameworks (UDFs) in line with compact city policies to intensify two inner city locations within Geelong. The research draws on the concept of place attachment and its sub-constructs: place identity; place social-bonding; place affect; and place dependence. The paper also considers the Heuristic Systematic Model (HSM), a theory of persuasion, to help understand resident attitudes towards the UDF proposals. The research utilises knowledge from judgement and decision-making and dual cognitive theories to explain how people process planning information. In particular, the research relies on behavioural insights to describe under what conditions the human mind utilises heuristics or mental shorts or cognitive biases compared with more systematic or deliberative thinking. The paper considers quantitative and qualitative data collected from surveys and interviews with residents from the West Geelong and South Geelong case study locations to show the usefulness of the HSM as a framing theory. The study reveals the importance of resident satisfaction with community engagement processes as a key factor to predict the likelihood of their support for the planning proposal. The paper considers the importance of community engagement processes in urban planning practice as a way to encourage systematic or deliberative thinking processes to counter cognitive biases.

Keywords : urban intensification, place attachment, cognitive bias, community engagement, behavioural insights

Paris' Bioclimatic Local Urban Plan In The Face Of Slab Communities: Limits And Adaptability

Clarisse Protat (Tongji University)

In order to face socio-environmental issues, Paris is planning to change its urban planning regulations: the local urban plan (PLU) will become a bioclimatic local urban plan by early 2024. The term bioclimatic refers to an architectural concept that adapts to the characteristics and particularities of the site: its climate, geography and geomorphology. A bioclimatic PLU will take advantage of the environment to achieve the most coherent design possible. As the Parisian PLU is the first to become bioclimatic, it seems relevant to confront the ambitions announced with the feelings of specific inhabitants' communities who are the most confronted to global warming effects.

In Paris, there is a significant amount of slabs and their characteristics present risks that are increasing with global warming. The inhabitants of these slabs can therefore be considered as particularly vulnerable communities. That is why we are going to focus on a series of communities that are both specific and very present in Paris: the inhabitants of urban planning slabs. The problem that will guide this master thesis will be therefore the following: What are the limits and potential adaptations of Paris's bioclimatic local urban plan to slab communities? Our case study will focus on the 8 slabs identified in the inner city of Paris.

Our methodology rests on a series of interviews, which allow us to ascertain whether these populations are aware of the risks to which they are exposed, and also to understand their lifestyles and their current and future needs in relation to the ambitions of the bioclimatic PLU. We thus aim to explore the potential and relevance of this city-wide regulations through specific territorial samples.

The results will show firstly that it not excessive to use the word "community" to talk about the inhabitants of the slabs, but also that specific lifestyles, habits or shared cultural elements constitute a real wealth that bioclimatic discourses must take into account. One of the main conclusions of this work is to consider the potential of slabs and renovate them, rather than treating them as obsolete objects and destroying them. If it seems urgent to change the layout of the slabs, today very exposed to the effects of global warming, it nevertheless seems important to preserve their specificities and adapting them. Although rehabilitation policies already take a primordial place in the future bioclimatic PLU, the desire to de-waterproof the slabs could legitimize their destruction.

Finally, we attempt to demonstrate that the bioclimatic local urban plan and all the communication that will come around can be a good opportunity to ensure the knowledge of inhabitants on these subjects. We can obviously say that this lack of knowledge, is an even greater problem for slabs communities that are most affected by climate change and who have fewer resources. Again, the PLU bioclimatic, and the means deployed for its communication, can be a good opportunity to reduce this gap.

Keywords : *local urban plan, bioclimatic, urban regulation, communities, slab*

Multi-Level Governance And Stakeholder Participation In The Development Of Local Climate Plans In Denmark

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Denmark is the first country in the world to have successfully involved all its municipalities in producing Local Climate Plans (LCPs) through a nationwide initiative, the DK2020 Project. The pilot project was established in 2019 with only 20 municipalities by Realdania, one of the most significant Danish philanthropic associations, and was later extended to produce climate action plans for all 98 Danish municipalities. By 2023, all local governments produced their LCPs according to a version of the C40's Climate Action Planning Framework (CAPF) (C40 Cities, 2020) adapted to the Danish context. The same year, the Region of Southern Denmark created a collaboration with the UNESCO Chair on Urban Resilience at the University of Southern Denmark and Aalborg University to produce an analysis of the CAPs of the 22 municipalities in its territory: the aim is to understand barriers and opportunities to shape its role in supporting to the subregional municipalities in the development and implementation of the plans. In Denmark, regional authorities have a less regulated mandate than in other European countries, creating the opportunity for a Region to steer and facilitate local climate action from a regional/territorial perspective.

The analysis considers document analysis and interviews with municipal climate coordinators. The LCPs and their integrating technical documents are the primary references, and the interviews serve as a complement to gain insights into the internal processes that lead to the production and enactment of the LCPs. Inspired by existing methodologies (e.g., Salvia et al., 2021; Reckien et al., 2023), a taxonomy is developed to structure the data collection into a database to include mitigation, adaptation, stakeholder involvement, and implementation information. The mitigation data is distinguished according to the three major emission sectors - Energy, Transport, and Agriculture, Forestry, and Other Land Use (AFOLU) – that represented the direct local emissions within Scope 1 and were compulsory to estimate, but also sectors pertaining to Scope 2 and 3 - Waste management, Wastewater, Chemical processes, and Other Sectors. For each sector, data is collected on each municipality's current emissions and estimated emissions in the scenario of action implementation. For the compiling of the climate risk assessments, adaptation goals, and actions, the concept of risk is intended as per the definition of the Intergovernmental Panel on Climate Change (IPCC, 2014) that determines it with three variables: hazard – which in the analytical framework is represented by flood from different sources, drought, extreme wind, temperature rise, heat wave, land degradation, saltwater intrusion, water acidification, wildfire, and vector-born disease -, exposure, and vulnerability. Stakeholder involvement is requested by the CAPF during the development of the plan, and, in the analysis, it is categorized according to governmental authorities (e.g., neighboring municipalities, national agencies), administrative bodies (e.g., internal departments), funders, civil society, and external professionals (e.g., businesses, consultants). Finally, means of implementation are scanned to check whether prioritization criteria, co-benefits, relevant Sustainable Development Goals, and Key Performance Indicators are transparently enumerated and whether elements such as responsible actors, timelines, funds, and resources are made explicit for every action.

The initial stage of the work produced an overview of the current local planned efforts, their potential effects, and the key challenges and conflicts encountered in both the planning process and the implementation (Tollin et al., 2023). In the next stage, we are going to engage with stakeholders with focus groups to jointly explore the possible role that the region can play to strengthen local climate action further, creating a space where competing interests can be discussed and resolved.

Keywords : *multi-level governance, local climate plans, climate adaptation, climate mitigation*

Re-Imagining The Energy Transition From An Urban Planning Perspective. The Case Of Denmark

Lasse Schytt Nørgaard (Aalborg University)

As urban areas are increasingly pressed to engage with the sustainable transition, the concept of Positive Energy Districts (PEDs) is gaining momentum as a potential game changing force. The complexity of PEDs is at the forefront of planning efforts as renewable energy production, energy balancing, and energy communities is becoming key within the urban context (Koutra et al. 2023, Matsson et al. 2023, Van Wees et al. 2022). This conference paper explores the transformative potential of PEDs as a planning approach beyond a matter of only an energy balance. By exploring a transdisciplinary perspective and emphasizing stakeholder engagement and co-creation processes, Positive Energy Districts can help shed lights on the complex dynamics at play in urban planning and the technical limitations that a sustainable transition is facing.

According to Koutra et al. (2023) current PED research is too limited focus on technological solutions, downplaying the importance of governance and socio-technical perspectives in planning. Additionally, Matsson et al. (2023) maintain that current definitions are ambiguous and that the district scale provides unique opportunities for planning and engaging local actors and communities of citizens. Lastly, emphasizing the complexity Van Wees et al. (2022), establish that the collaboration of citizens and stakeholders is an integral part of PEDs. This paper engages with a critical review of key texts about Positive Energy District research with the intent of investigating the meta-theoretical question "What is the purpose of working with PEDs, and what meaning does the concept potentially have for planning?"

By deconstructing the concept and reframing it as a vessel for the sustainable transition, this working paper explores possibilities to further develop collaborative planning and transition management perspectives and the limits and possibility of establishing a common ontology. The paper explores the PEDs in a situational case in Denmark by uncovering planning and governance frameworks and conditions to situate PED at the crossroad of divergent positions and interests – and open questions on who is responsible for advancing the sustainability of cities, while emphasizing new patterns of interaction in urban planning. The discussion extends to the role of conflicts and stakeholder input in expert-led technical analyses and how the co-production of strategies can become a tool of self-perpetuation in planning.

In conclusion, this paper positions PEDs as more than just an energy-efficient tool instrumental to the energy transition; but as a meeting point of energy and urban planning in the governance of the sustainable urban transition. By refocusing the PED concept on the overall goal of furthering the sustainable urban planning, we can uncover a massive potential in the diverse interests at play, which can become an intrinsic part of future planning practices. Despite the immanent challenges and overwhelming complexity, a collaborative planning approach to PED shows a potential to engage with progressive urban policies and encourage institutional innovation.

Keywords *: Positive Energy Districts, transdisciplinary, sustainable planning, governance, stakeholder involvement*

The Role Of Governance In The Sustainability Of The Port-City Relationship: Comparative Experiences

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The dynamic and evolving connection between ports and cities has created a complex, unique, and distinctive context. Presently, port cities stand as some of the regions most susceptible to the impacts of climate change. However, they also find themselves in advantageous positions with considerable influence, positioning them strategically to offer solutions to emerging challenges. In this regard, port cities emerge as key territories in pursuing enhanced sustainability (Sánchez and LeMaIRe, 2021).

In the pursuit of more sustainable port cities, one of the most important aspects is governance. Governance, as defined by Patrick Le Galès, encompasses the various forms of coordination and guidance applied to the diverse array of stakeholders within a territory, covering different sectors, groups, and society at large (Boussaguet et al., 2016). In this context, the significance of governance is underscored primarily by the diverse array of actors intricately engaged in the port city area.

Moreover, governance serves as the foundational catalyst for initiating actions and ultimately resolving multi-sectoral challenges, since these territories have issues related to different areas (Fenton, 2020), including territorial, social, economic, environmental, and cultural aspects. Governance is therefore a necessary and cross-cutting condition for the sustainability of port cities.

Despite this, what is frequently observed in various contexts is the prevalent difficulty or outright absence of governance among different actors. The difficulty or absence of governance often stems from a deficiency in integrated planning among the diverse authorities overseeing both port and local governments, compounded by a dearth of incentives for collaborative governance. In essence, when contemplating governance processes and the diverse stakeholders involved, there is an additional cost imposed on both the port and the city. Consequently, they may opt to operate in isolation, neglecting the involvement of other actor groups in the decision-making process.

On the other hand, with increasing recognition of the key role of governance in port city dynamics, there have emerged some notable positive initiatives (Zrari, 2016). This heightened awareness may, in part, be a response to conflicts observed between affected stakeholders and the governing authorities, underscoring the transformative impact of conflicts on governance processes (Torre, 2016). Whether stemming from a heightened consciousness or an attempt to avoid conflicts, port and municipal authorities are progressively advancing towards collaborative efforts and the integration of other stakeholders involved in this intricate relationship.

Within this context, this contribution aims to analyze the role of governance in the sustainability of port cities. Commencing with a concise framing of the topic, the study subsequently delves into an in-depth analysis of comparative experiences, encompassing both European and South American contexts.

Based on the analysis carried out, it is possible to reflect on important aspects related to governance in the port-city context, namely: the different types of port-city interfaces encountered over time and how these interfaces influence the relationships established; the role of governance as a key element in acting on multisectoral issues; the conflict as a starting point for changing behavior; the roles of the different actors with an emphasis on local actors; and the new forms of cooperation found in the experiences compared. It is noteworthy that this study forms an integral part of broader reflections generated within a dedicated program on the sustainability of port cities.

Keywords : port cities, sustainability, governance, comparative experiences

Renewal Of Local Governance

From Chaotic Construction To Coevolution: Tbilisi's 2019 Master Plan And The Right To The City

Evangeline Linkous (University Of South Florida)

Although planning in post-socialist cities has long suffered from a legitimacy crisis, recent research identifies a "cautious revival" for planning buoyed by strengthening economic conditions, urban activism, and European Union (EU)-led interventions (Slaev and Hirt 2022). This paper examines the revival of planning in post-socialist urban space through a case study of Tbilisi, Georgia's 2019 Master Plan—by all accounts a more comprehensive urban policy framework than any previous planning effort in Georgia post-independence. In response to the chaotic construction spawned by the aggressively neoliberal urban policy framework evident since the 2000s, Tbilisi's new plan posits a pragmatic right to the city agenda—fostering social inclusion, environmental protection, and livability—but in cooperation with market processes, private property rights, and multinational investment. The plan is also noteworthy for fostering a coevolution of local governance institutions and for its alignment with international best practices including EU accession criteria.

The case study draws on planning documents, media coverage, and interviews with 17 experts involved in Tbilisi planning conducted in 2022. The adoption and implementation of Tbilisi's plan has the potential to yield a coevolution of local governance institutions, now oriented for the first time since independence to administer long-term urban policy. While full implementation of the plan vision will likely be limited by existent processes of state capture, the plan offers a promising new framework for urban governance and the social function of urban space. Although Georgia exhibits troubling signs of democratic backsliding, Tbilisi's plan asserts alignment with international best practices including European Union accession criteria—thus serving as a potent geopolitical tool.

Towards Flexible Planning In Swiss Urban Densification Practice - Just, Or Just Compact?

Gabriela Debrunner (Eth Zürich), **Lidija Honegger** (Eth Zurich)

For many years, 'temporary use' has been utilised by municipal planners as a flexible and informal planning instrument to reactivate urban brownfields (Castells 1983; Bishop & Williams 2012). Recent examples of the Swiss urban densification context show, however, that 'temporary use' has recently changed its strategic function from being a catalyst for revitalization to testing new uses (Galdini, 2019), particularly in cities with high population growth and affordable housing shortages. Residential temporary use approaches (e.g., container or DIY-living, tiny houses), in particular, are increasingly applied by city councils and municipal planning authorities to transform industrial areas into mixed-use housing zones (Honeck 2017), providing a flexible planning solution to cope with contemporary affordable housing and land scarcity (Debrunner & Gerber 2021).

In this paper, we investigate the following questions: (1) How do municipal planning authorities apply temporary use as an approach to deal with scarcity of land and housing? (2) What actors are involved, and what strategies and objectives do they follow? (3) What challenges and recommendations result for sustainable land use and affordable housing policy? To answer these research questions, we follow a qualitative case study design of the Swiss City 'Kloten' (Steinacker area), where a 50ha transformation area owned by approximately 50 private landowners is planned to be densified. This example stands representative for 122 industrial zones in Switzerland, aiming to be transformed into mixed-use housing zones.

Results help us to reflect on effective land use planning approaches through the adaptation of flexible planning instruments, notably temporary use. We discuss the results in comparison with international case studies (e.g., London, Amsterdam, Helsinki), to elucidate prerequisites encompassing legal, planning, procedural, and other dimensions that must be satisfied to enable a sustainable transformation from an industrial area to a mixed-use zone.

Keywords : flexible planning, temporary use, densification, affordable housing, Switzerland

Governance In China's Urban (Re)Development: Rethinking State Entrepreneurialism From An Assemblage Perspective

Xiaoxia Zhang (Tu Delft)

China's (re)development is characterized by state-led, large-scale, and multi-level: The state usually plays the leading role in driving such practices to maintain strong control over changes regarding spatial, economic, and political landscapes; Such projects usually package a range of urban functions, including office and industrial buildings, commercial districts, housing, and various amenities and facilities; And (re)development activities might happen at multiple levels, covering region, urban, and neighborhood scales. The governance model in such practices has been identified as state entrepreneurialism, which combines planning centrality, market instruments, and observable social agencies. Previous studies tried to decipher the characteristics of state entrepreneurialism from multiple dimensions separately, e.g., the spatial dimension, the temporal dimension, or the relational dimension. However, an integrated perspective to portray the full picture of state entrepreneurialism is missing.Assemblage, in this regard, is a concept that is able to take all these dimensions into account. To be more specific, assemblage thinking, ontologically, emphasizes a framework to conceptualize socio-material entities as a set of relations across different spatiotemporal domains. However, for a long time, studies trying to introduce assemblage related perspectives to governance treated 'assemblage' more as a descriptive narrative to refer to the (high) extent of the complexity, and yet no substantive frameworks or prescriptions have been developed for it. Rethinking governance in China's (re)development from an assemblage perspective is of a twofold meaning: 1) integrating previous research dimensions to re-examine state entrepreneurialism; 2) combining empirical evidence to concretize the conceptualization of governance as 'assemblage'.

Keywords : *governance, urban (re)development, urban China, assemblage perspective*

The Tiers Lieux : Infrastructures For A "Situated Democracy" ?

Marida Borrello (Università La Sapienza And Amu)

In the face of the climate emergency, the necessity of a systemic transition in lifestyles (Avelino et al., 2015) calls upon national governments to integrate citizens into these processes.

However, the contemporary and escalating crises of representative democratic systems (Lardeux 2019, Bertolone and Winock 2015, Gallo 2021...) demonstrate a globalised issue of detachment of citizens from institutions.

The concept of "Situated Democracy," developed by the AMU-Civis research "Interstice" (1), seeks to highlight the need to return to a physical democratic infrastructure within territories, to a Political Materiality (Pilo 2020) co-constructed between institutions and citizens, which would take place in physical and shared spaces, materialising common desires and objectives capable of organically reaching various institutional levels.

With the Lévy-Waitz report (2021), French institutions have placed high expectations on the capacity of Tiers Lieux to "guide the sustainable transitions of territories." Despite doubts about the institutionalisation of the phenomenon that would affect their true experimental nature (Idelon 2020), these places are considered to be driving the capacity for hybridization of worlds (Gwiazdzinski 2016) and of a highly celebrated new way of being citizens by "doing" (Burret 2013, Bonnot 2019...).

However, the true diversity regarding the typology of citizens taking place here is not clear. Several have discussed their dangerousness in their re-placing gentrification of specific population types (Correia 2018, Watine 2020, among others...).

For Tiers Lieux to truly function as spaces of "Situated Democracy" and bring new substance to democratic and active citizenship, just as it would be risky to burden them with the responsibility for certain fundamental public services (Battesti 2012, Besson 2017, among others), would it also maybe be inappropriate for the institution to delegate to third-party actors the responsibility of ensuring the mixed component of these places ?

We hypothesise that, while remaining spaces for experimenting with alternatives, the democratic character of Tiers Lieux could be ensured by their network dimension within a physical and social infrastructure supported by the institution.

This is presented to be the case with the institutional initiatives of the "Wijkhubs" networks in the city of Rotterdam. These will be examined in comparison with certain French Tiers Lieux (and their networking attempts) to identify the advantages and disadvantages of institutional or hybrid approaches to their spatial and social devices, in order to enable or not the diversity, and thus foster the emergence of a new form of situated citizenship, truly transformative thanks to its multi-scalarity, and accessible to the majority.

***Keywords** : tiers lieux, Urban Innovation, democracy, materiality, City Network*

Track 07: Environment And Climate

ENVIRONMENT AND CLIMATE - Planning for resilience, sustainability, climate change and the environment

Chairs:

- Mauriel Maillefert, Université Jean Moulin Lyon 3

- Francesco Musco, IUAV Venice

- Subhashree Nath, Technische Universität Dresden

Keywords: circular economy models, nature-based solutions, socio-ecological-technical systems, planetary boundaries, resilience, biodiversity, urban greenery, urban metabolism, social and environmental justice, urban and regional planning, climate change mitigation, sustainability, climate action, climate justice

Faced with the challenges of climate change at different levels (international, national, regional), public policies and local authorities need to adapt quickly. Various legislative measures have already been put in place, particularly in France, in line with European directives. For example, the Lyon metropolitan area has proposed a territorial climate and energy plan and a health and environment plan to address the health issues associated with air pollution. Measures to reterritorialise agriculture, in line with the challenges of the circular economy, are also being taken. As far as businesses are concerned, circularity initiatives (Vallée de la Chimie) and even model transformation initiatives (textile revival, urban renewal, regeneration of urban wasteland) are under discussion or are starting to take effect.

Public authorities are also putting forward a new argument for accelerating change and making urban areas more resilient and less dependent: promoting a transformation in uses and lifestyles. For example, the city of Lyon offers training courses to its employees to raise their awareness and motivate them to take action. These actions support a number of different initiatives, such as the introduction of organic food programmes in school canteens, which is currently a very important issue, as it highlights different aspects of changing practices and access to healthy food, which also helps to address certain issues of equity in changing models for children.

In academic terms, these issues are addressed in a number of ways: through discussions on transitions, changes in models or, on the contrary, resistance to change. Through work on ways of bringing about change, in particular by favouring a more co-constructed vision of public policy that goes beyond the legal mechanisms for participation. Finally, field experiments are carried out at the local level to initiate and test model changes.

This track aims to address some main issues and innovations in spatial planning coping with current global challenges such as climate change. Theoretical debates and planning

practices that make urban and territorial systems more resilient and support the transition towards more sustainable scenarios on a local and global scale may be welcome.

Possible topics to include:

- Circular economy and new urban economic models

- Transition drivers for a sustainable development

- Local actions vs. global imbalances

- Spatial planning for climate resilience

- Methods, tools, and practices to address climate change and disaster risk

- And more.

Ecosystems And Spatial Planning

The Supply Of Ecosystem Services At The Urban Scale: Evidence From The Cagliari Urban Functional Area

Corrado Zoppi (University Of Cagliari), **Federica Isola** (University Of Cagliari), **Sabrina Lai** (University Of Cagliari), **Federica Leone** (University Of Cagliari)

This study proposes a methodology for defining an urban green infrastructure (UGI) in the spatial contexts of functional urban areas (FUAs) identified by the OECD and the European Commission in 2012. The methodology refers to UGIs as systems that integrate the characteristics of green infrastructures, as spatial networks of natural and semi-natural areas that provide a wide range of ecosystem services, and the properties of urban infrastructures, as devices that respond to the needs and expectations that, in different respects, are expressed by communities settled in cities (Geneletti et al., 2021). UGI is identified, in the context of a FUA, as a succession of green areas, spatially connected to each other, which contribute to the provision of certain ecosystem services. This infrastructure includes the connecting elements that are identified as urban ecological corridors. The methodology, which supports the spatial taxonomy of the UGI on the classification of the FUA territory proposed by JRC in relation to enhancing the resilience of urban ecosystems through UGIs, is applied to the FUA of Cagliari, located in the regional island context of Sardinia, with reference to the provision of some ecosystem services such as climate regulation, flood risk mitigation, outdoor recreation, and biodiversity and habitat quality enhancement (Isola et al., 2022). The application of the methodology, which supports the spatial taxonomy of the UGI on the land classification of the FUA proposed by JRC (Maes et al., 2019), offers significant results in relation to enhancing the resilience of urban ecosystems through conservation and increasing the availability of ESs structured in the UGI (Breuste, 2021). The study is implemented with reference to the spatial context of the Cagliari FUA, in the regional island setting of Sardinia, of which Cagliari is the regional capital city. The discussion highlights how the outcomes referring to the Cagliari FUA offer relevant urban planning implications for other FUAs, including in terms of future research developments (Zulian et al., 2021).

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Coastal Roads As A Socio-Ecological Transition Tool For Fragile Coastal Territories

Chiara Nifosì (Politecnico Di Milano - Dastu), **Federico De Angelis** (Politecnico Di Milano)

The presented research focuses on the "road space" as the "main everyday life infrastructure" and a crucial element for the socio-ecological transition of territories. Considering the pervasiveness of the road as a continuous artifact that characterizes the physical environment of our daily life, we believe that through its reinterpretation it is possible to pay attention to the quality of life and to the ecological and social transition of the whole territory.

This research hypothesis was referred in particular to the Italian coastal areas that can be considered most vulnerable to the anthropic pressure and the effects of climate change. The different fragilities and opportunities we consider find their location in the first coastline, in the different geomorphologic and settlement structures, crossed by the coastal freeway roads and the more urban roads, which are analysed within some significant buffers.

Before the great reclamation of the Italian coastline in the early 20th century, for many Italian regions, the coast was a place from which the city kept a distance. Except for port cities and established tourist destinations, large portions of coastal territory were in fact a mosaic of natural and rural landscape, wetlands, forests and small villages. Today, the European population living in coastal areas has more than doubled and the same trend - almost one third of the total - is also in Italy.

The concentration of population and economic activities along the coast has been, and still is, based on road transport. Lines, grids, combs of coastal roads have stiffened the coastline, reducing its natural thickness that governed the hydraulic regulation. A change in the biodiversity of coastal territories is underway: rising average temperatures, rising average sea levels, an increasing frequency of extreme events, the accentuation of problems of eutrophication in coastal biological systems and of erosion in the more humanized ones.

In response to these climatic stresses, animal and plant species are changing their distribution in territories (habitat migrations) and a combination of phenomena leads to the decrease or disappearance of biological or economic productivity of the soil (desertification). This profoundly affects consolidated economies and consequently also the exposure to risk or migration of people. To these issues, which are characterised by the strong co-action of anthropogenic and natural determinants clinging to coastal roads - to which climate change contributes directly and indirectly - we turn our planning attention, looking firstly at the 'balance' of water and its interaction with the soil.

How can the local needs for accessibility and enjoyment of the coast be combined with the protection of the environment from climatic emergencies? How can the securing of the coastal territory from the impacts of climate change be based on timely maintenance and regeneration of the existing roads, car parks and open spaces along the coast? What tools do we need to build, to coordinate funds, master plans, projects? Within this research framework, one of the main research goals is the construction of a trans-disciplinary Atlas, which relates coastal roads with environmental, demographic, and socio-economic issues, describing quantitative and qualitative aspects and showing criticalities and potentialities of the different territorial contexts. The atlas is proposed as a trans-disciplinary operational tool for interpretations on a national scale, and later also, on a specific places and relevant study cases, useful to orient policies and projects towards systemic knowledge and actions, to highlight the potential for new re-writes.

Note: The research is carried out by the author within the DAStU of the Politecnico di Milano and ESF REACT-EU ministerial program, referred to the green transition and the mitigation of climate change impacts, in cooperation with Tranform Transport and MAUDLAB.

How Planetary Boundaries Can Transform Urban Planning ? A Focus On Ecological Accounting Tools For City Development.

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In France, city development is often driven by public land developers. Those are in charge of planning and developing urban projects at a local level, from a few hectares to hundreds, whose global duration may last up to 20 to 30 years, hence linking this urban approach to planning questions.

The current situation is that public developers' economic model lies on the sale of building rights to real estate companies in order to finance unprofitable commons, such as green spaces or public facilities. This links urban design to construction, involving energy, materials and often land artificialization or negative impact on ecosystems. The increasingly stricter legal calls to reduce environmental impacts still struggle to manifest tangible transformations. Thus, urban development still embodies intensive and unsustainable use of natural resources, alongside a lack of consideration for non humans needs.

Following the net-zero climate agenda initiated by the European Commission, new regulations, such as a Net-Zero Artificialization Law (2021) and other texts designed for the reduction of ecosystem disruptions and the de-carbonisation of economic activities are presented as massive game changer for urban planning and urban development. If taken seriously, they destabilise the current business model of public land developers. They actually constitute a complex process for these actors: a clear push to urban reuse/redevelopment, whereas constructed land is obviously far more expensive than natural land.

How can urban development become a tool for ecological transition ? What kind of accounting schemes and practices can be used to move from a mainly financiary perspective to a diversified accounting integrating planetary boundaries ?

Getting back to the roots of accounting offers a fruitful reading of this challenge. Following Rambaud (2022), accounting schemes rely on 4 main functions: : taking into account (accountability as a representing system), counting (with metrics), being accountable and responsible, and accounting (reporting). In line with the field of critical accounting studies, this enables to go beyond the economic field and to tackle environmental subjects, invisible in usual balance sheets.

Drawing from that perspective, we have worked with public land developers to initiate an accounting-based ecological assessment of their projects. In this paper, we explore three experiments and their potential to transform urban planning, in Rennes, Paris and Lille.

The first experiment considers coloring the current monetary assessment to reflect impact on soil, biodiversity, water, carbon and material. For each usual expenditure, the impact on those categories is evaluated as favorable (green), neutral (grey) or unfavorable (red). At the end of the exercise, expenditures are sorted by impact and category.

The second aims at introducing in the usual economic balance the necessary price to maintain or restore the ecosystems on which our urban lives rely. Inspired by CARE scheme (Comprehensive Accounting in Respect of Ecology), the question is not to give a price to priceless living systems, but to value the cost of maintaining the functionality of an ecosystem, resulting from a collective agreement (Levrel and Missemer, 2019). At the end, items tackling the respect of planetary boundaries are integrated within usual expenses and radically transform the costs of urbanization.

The last is a fully non-monetary assessment based on physical metrics. Inspired by territorial ecology, this approach considers the physical parameters affecting the metabolism of an urban project. Translation into economics parameters comes next.

The paper discusses the transformations these schemes may generate on urban projects and the conditions of replicability of these accounting tools at the level of local authorities.

Keywords : ecological accounting system, city design, planetary boundaries, economic model

Urban Food Production – Potentials Explored, Environmental And Social Impacts Assessed

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The paper is the result of the research conducted (2022-2025) in the project "U-GARDEN: Promoting capacity building and knowledge for the extension of urban gardens in European cities," which has been funded by the Joint Programme Initiative Urban Europe with the grant of ERA-NET Urban Transition Capacities. The international and interdisciplinary team of researchers from Poland, Romania, Spain, and Sweden aims to promote the implementation of urban gardens and agroforestry as critical components of sustainable urban development in Europe. The results of this research were developed from an international perspective against the background of four European cities, including Warsaw, Brasov, Valencia, and Goteborg. In these four cities, we explored potentials and found that social demand and environmental capacity confront urbanization trends. With different conditions in each city, we have observed a variety of traditions, public policies, and citizens' activism. Food production in urban areas means something else for each community, but nonetheless, in all of them, it can play an essential role concerning citizens' well-being. Beyond the main goals of food production, promoting healthy eating habits, or reducing food insecurity (Stubberfield et al. 2022) – urban gardens provide several ecosystem services. Social cohesion and integration, belonging and community development, social interaction increase, learning and education, maintenance of cultural heritage, reducing urban heat island effects, improving urban biodiversity, increasing the water retention capacity, reducing the carbon footprint of food production and distribution, improving soil quality, reducing greenhouse gas emissions – are a selection of many benefits to urban life (Dorr et al. 2023). Can urban gardening become a game changer in turning city landscapes into more friendly, sustainable environments with ecological and social benefits?

The capacity of urban areas to provide food for city dwellers is being questioned (Grafius et al. 2020). Our research reveals that the situation may be quite far from our expectations in some specific European cities. The scale of potential gardening development is enormous in many of them. Also, from the social point of view, there are rising trends initiated by the pandemic (Sanudin et al. 2022) . However, public policies do not always correspond to potentials and needs (Vara-Sánchez et al. 2021). We have found that there is a wide range of attitudes towards gardening among municipality officials. It is not surprising as they have to respond to contrary trends in urban life. First of all, urbanization trends have revealed the conflict between different social, economic, or environmental goals. Urban gardens were always a component of most European cities' traditional urban and peri-urban landscapes. But now the situation is changing in all directions: spontaneous trends decrease or increase the availability of space for gardening, public policies protect areas of gardens or support their disappearance. Then, describing gardening's future in European cities is a complex task.

Our comprehensive study explores environmental, spatial, social, and legal conditions for the future expansion of gardens. We have built GIS databases to analyse potentials and draw a complete picture of capacities waiting for sustainable development. We were not limited to understanding the physical or technocratic dimensions. The other side of the gardening phenomenon – gardeners – was also investigated. We have listened to representatives of all stakeholders to understand their dreams, opinions, obstacles, and fears. Nothing will be developed without their passions, knowledge, and abilities to change wastelands into fruitful and blossoming landscapes.

Keywords *: ecosystem services, urban gardening, food production, Sustainable urban development, urban resilience*

Responding To Ecological And Climate Challenges Through Spatial Planning: A Case Study Of Karamay City, Xinjiang, China.

Hang Li (Tongji University), **Lingzhi Zhang** (Tongji University)

In the context of intense national land space development, pervasive extreme weather events, and the significant erosion of ecosystems, the strategic planning for ecological restoration of territorial spatial has ascended as a pivotal tool for China to address climate change, ensure the stability and security of ecosystems, and fortify urban resilience. This approach is a fundamental component of China's territorial spatial planning system, emphasizing the integrity of ecosystems to achieve integrated management of all elements such as "mountains, water, forests, fields, lakes, grass, and sand."Territorial ecological restoration planning is a specialized planning that integrates the application of ecological thinking and planning thinking.Karamay City in Xinjiang, an engineered oasis birthed from oil and gas extraction, stands as a critical petroleum city with substantial strategic significance. Yet, it contends with acute challenges such as scarce water resources and a particularly fragile climatic and environmental state. Accordingly, this study, spotlighting Karamay City, summarizing China's current territorial spatial ecological restoration planning system and international practices, assessing resource and environmental capacities, and evaluating the developmental adaptability of the national land space. Concentrating on four major spaces: ecology, agriculture, urban, and industrial-mining, it identifies key ecological issues and core ecological resources, constructs an ecological restoration framework, and delineates nine pivotal ecological restoration zones.The study probes into ecological restoration methodologies tailored to specific ecological and climatic challenges, thereby constructing an "analysis-evaluation - problem identification - pattern construction - zonal strategy" framework for territorial spatial ecological restoration planning. The research results show:(1) The overall ecological state of the study area is relatively good, with ecologically highly sensitive areas accounting for 6.24%, primarily being extremely vulnerable areas of land desertification. The ecological source lands are concentrated, and ecological corridors are mainly distributed in the northeast of the city, currently facing ten core issues including land desertification, oil and gas extraction pollution, and soil salinization. (2) An "one city, two corridors, multiple zones, multiple points" ecological security layout has been constructed. (3) By considering the ecological, economic, and social dimensions within the four major spaces and nine key areas, the study underscores the significance of cross-departmental collaboration and social capital involvement. It presents a series of actionable ecological restoration strategies aimed at enhancing urban resilience and adaptability to ecological and climatic dynamics. This research not only provides vital technical and strategic support for ecological restoration planning in Karamay but also aspires to serve as a practical and replicable model for other urban areas addressing ecological and climate-related challenges, thereby contributing to the broader goal of sustainable urban development.

Keyword *: Ecological and climate challenges, Ecological Restoration, Spatial Planning;, Karamay City,Xinjiang,China*

Greening The Void: Actions For The De-Sealing And Renaturalisation Of Soils In Brownfield Regeneration Processes

Emanuele Garda (University Of Bergamo)

The decommissioning of large industrial sites has started a long and complex 'season' in which different actions for their reuse and regeneration have emerged. In addition to the preservation of existing structures and the construction of new buildings (obtained after the demolition of existing facilities), projects have emerged that have chosen to combine the actions with specific soil desealing interventions. This 'demolition without reconstruction' has generated a new permeability of soils previously 'sealed' by built volumes or surfaces and created the conditions for the construction of new public facilities (e.g. public parks), the partial renaturalisation of areas, and the creation of new Ecosystem services. The analysis of a selection of brownfield redevelopment experience, characterized by a common interest in the partial de-impermeabilisation of soils, makes it possible to compare both the spatial effects produced by these processes and the relative variety of planning policies adopted to foresee and implement these interventions. The contribution proposes the identification, analysis, and comparison of some regeneration processes of large brownfield sites, selected in different Italian cities (Milan, Turin, Trento, etc.), which are characterised by the promotion of partial soil desealing interventions and the implementation of Nature-based Solutions. The contribution also intends to analyse the correlations between planning policies and de-sealing, highlighting the objectives sought, the results obtained (in terms of green areas), and any concepts/terms considered to support/guide this type of intervention.

Keywords : brownfield, de-sealing, Nature-based Solutions, Urban regeneration, urban planning tools

Ecosystems And Spatial Planning (2)

An Analysis Of Current Integration Of Urban Agriculture And Domestic Garden Into Urban Planning: The Case Of Île-De-France Region

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In this contribution we question the role that urban agriculture and private garden have in the city fabric. On one hand, more than a passing trend, urban agriculture (UA) has become a part of modern cities. According to some authors, it provides some ecosystem services (well-being, food, carbon storage, water captation, biodiversity...) contributing to create more livable cities (Stella et al., 2022). Local stakeholders enhance and implement agricultural activities into urban and periurban areas to expect different functions. Although these functions are recognized, they cannot be generalized. Not all forms of urban agriculture provide the same services. Unfortunately, reliable methodologies to characterize and quantify these services are still lacking. On the other hand, Urban Domestic Gardens (UDG) – understand as private houses' yards – are an important part of urban green infrastructures (Mathieu et al., 2007) and also contribute to ecosystem services provision (Cameron et al., 2012). At urban planning scale, those functions -and particularly the food auto-production one- are still not recognized as they should by cities to enhance local resilience. How municipalities take into account UA and UDG into territorial project ? Which issues and functions are related to UA and UDG ? How does territorial context determine the consideration for those functions ?

Based on the analysis of urban plans, we detected the role attributed to urban agriculture and UDG. We carried out a thematic analysis following an occurrence analysis of key words (collective or private or community or allotment garden, urban or micro farms, roof top, etc...) within the plans (52 for UA and 200 for UDG) focusing on the Ile de France region. We selected this area based on several criteria. First is the region that concentrates the most UA projects, around 900 according to the French Professional Urban Agriculture observatory. Second, it is the most populated area and most of the population lives in an urban unit. Finally, the urban tissue is very heterogeneous including many private gardens. We also realized a statistical processing cross-referencing the results to external and territorial context. We delved deeper with some interviews to local stakeholders (10 for UA and 17 for UDG).

It emerges that the main issues related to urban agriculture and private garden are :

1-Urban agriculture and private gardens contribute to the resilience of cities in the face of global changes in particular « urban greenery » and « climate change mitigation ».

2- Re-territorialization of agriculture is related to the possibility for accessing to local food in order to promote food production resiliency.

We note that some factors influence the consideration of those issues and urban agriculture and private gardens. Generally speaking, allotment gardens are the forms of UA best taken into account in the planning document (Consalès et al., 2018) thanks to their origin, legal protection and size. Their are more related to quality of life or environmental issues (ex. biodiversity or green and blue grid). The community garden or urban microfarms are more related to social cohesion and educational issues but are less present in those documents. Perceptions of UDG are ambivalent: between a land available for urban densification and a biodiversity corridor that needs to be preserved. We also observed correlations between the socio-political profile of municipalities and the integration of those topics into the territorial project. We noted that these topics are treated more in the presentation part of the plan that remain more declarative than operational and regulatory. There seem to be contextual and technical constraints on the implementation of regulatory mechanisms to preserve and develop these areas.

Keywords *: urban planning, resilient cities, agricultural and natural areas*

Planning For Urban Afforestation: The Role Of Social-Ecological Innovation In Implementing Micro-Forests In Paris

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As many European cities, Paris is engaged in planning for new green infrastructures in order to mitigate the local effects of climate change, biodiversity loss and offer new amenities to urbanites. Urban afforestation is one of the nature-based solutions praised by the European Commission since 2015 and it is on the Paris political agenda ("Plan Arbre", 2021 and "Plan Biodiversité", 2018). If the quantitative goals are clearly stated (e.g. 170,000 newly planted trees by 2026), the planning discourses fall short on the expected ecological benefits as well as the governance path to implement new urban forests. Based on a qualitative inquiry from 2019 to 2022, I explain how a civic group has contributed to new planning proposals through experimenting a new micro-forest planting practice (The "Miyawaki method") on three pilot sites. We describe the collaborative governance process that emerged from the participatory budget and grew through the implementation of multi-actors' partnerships between civic leaders and technical managers of the Paris municipality. Through experimental and collective practices, this experience highlights the combined role of social-ecological innovation and new institutional arrangements in designing more inclusive nature-based solutions in cities.

Keywords : *urban green infrastructure, collaborative governance, micro-forest, nature-based solutions, social-ecological innovation, urban planning, Civic initiatives*

Design For Multiple Ecosystem Services Informal Green Spaces: Case Study Of Amsterdam

Sitong Luo (Dr.)

Informal Green Spaces (IGS) refer to green areas within cities that are undeveloped and unplanned, often lacking regular maintenance and covered by spontaneous vegetation (Rupprecht and Byrne, 2014). Examples of IGS include vacant lots, brownfields, overgrown street or railway verges. Preliminary research indicates that IGS provide a wide spectrum of ecosystem services, for instance, the overgrown vegetation helps reduce the urban heat island effect, the natural environment provides shelter for urban wildlife, and in some cases, allows citizens to enjoy a restorative experience in these natural environments (Robinson and Lundholm, 2012; Threlfall and Kendal, 2018; Vereecken et al., 2021).

Given the competitive land use in modern cities, there is a growing recognition of the value of ecosystem services provided by IGS (Lokman, 2017), and a number of academic researches have explored design and management strategies that enhance the ecosystem services provisioning of IGS ((Luo and Patuano, 2023) . Examining existing studies, one area that lacks attention is how design can simultaneously facilitate multiple ecosystem services within an IGS, as trade-offs among ecosystem services can be triggered by design (Haase et al., 2014), for example, increasing cultural services of an IGS for citizens may decrease the habitat service for wild flora and fauna.

This research explores design solutions that intergrate habitat, cultural and urban cooling services for a case study IGS located in the Amsterdam Bijlmer neighborhood using the method "research-through-design". Initial design tools for each ecosystem service, developed from an literature review, were combined along twoiterations. Design and test stages alternated in every iteration in order to systematically develop and test design hypotheses. In the end, three key design lessons emerged from the research-through-design:

Maximizing Natural Elements: Incorporating natural elements into the design wherever possible is crucial. Natural elements function better in reducing the urban heat island effect, and a diverse array of plants can provide shelter and food resources for insects, birds, and small mammals.

Strategic Programming: Strategically placing programs aimed at hosting human activities or supporting urban wildlife, along with implementing cooling strategies in strategic locations, enhances the multifunctionality of the space.

Cues for Care and Cultural Reference: Introducing cues for care and cultural references that encourage the acceptance and appreciation of wilderness can foster local involvement in ecosystem maintenance. This involvement can lead to the increase of biodiversity and social cohesion of local groups.

Keywords : *Ecosystem services, Informal green space, Research through design, Urban environment*

Ambivalence In Urban Ecologies In The (Wet)Land Backwaters Of Karachi.

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(Wet)land landscapes embody a fundamental material ambivalence. This hybridity, of being neither water nor land, has meant that they are sites for ecological and urban imaginaries. On one hand they represent thriving and diverse ecological and natural, protected landscapes and on the other, they represent a potential for conjuring land and water-front property. The ambivalent logics of the (wet)land landscapes extend to the governance of these urban ecologies and the humans and non-humans who inhabit them. Ambivalence has also been studied as a post-colonial condition as explored by post-colonial scholars. The colonial city is a site for the production of ambivalence, which is part of the making of the spaces and its subjects.

The aim of the paper is to look at how ambivalence is not only a part of physical and material (wet)land landscapes but also the ecological governance landscape that results in exacerbating social and ecological injustice. How do state institutions and state adjacent institutions mobilize ambivalence to allow some forms of urban wetland development and hindering others? How do local actors take up ambivalent attitudes to assert control and hegemony?

To answer these questions, taking a political ecology approach, this paper analyses the wetland backwaters around Kakapir village, Karachi, in the larger context of coastal wetlands of Pakistan. Tracing the land-water assemblage to understand how the coast is produced, ambivalent narratives are studied around mangrove forests and wetland landscapes and their development and environmental protection. Drawing on ethnographic research in Kakapir village, the political ecology analysis shows the power structures embedded in the making of the wetlands and how they have emerged from the colonial and post-colonial constructions of landed property, and the making of the environmental subject. Further, mapping the land/sea frontiers in the backwaters of Karachi reveals the governance processes that perpetuate ambivalence. It shows how informality and formality are treated and how the rhetoric of sustainability/environmental protection is used for legitimacy.

Unpacking the ambivalent logics of urban ecologies, this article, expanding on materiality, urban governance and administration, informality and injustice, shows that ambivalence is a defining characteristic in the production of (wet)land ecologies and can be labelled as a technology of wetland governance. Ambivalence is mobilized to lend legitimacy to the making of land for elite development and to dispossess local human and non-human actors.

Keywords : ambivanlence, wetlands, ecologies, political ecology

Developing Urban Green Infrastructure In The Context Of Climate And Demographic Change

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The paper presents an integrative approach to spatial planning that considers climate and demographic change together. Urban areas have similar climate change challenges despite their highly differentiated biogeographical regions. Increasing urban sprawl is turning green spaces into grey spaces, making urban areas more vulnerable to the adverse effects of extreme weather events. Cities face growing urban heat island effects and flooding, leading to air pollution, health problems, reduced biodiversity, and increased energy demand. At the same time, cities have to cope with demographic decline, aging, and a change in the population's age structure. A well-connected, multifunctional network of green spaces considerably increases the effectiveness of these spaces. The socio-demographic profile of residents is essential when assessing the availability, accessibility, and attractiveness of urban green spaces and the provision of ecosystem services. Improving access to green spaces for different age groups and planning people-oriented green infrastructure can significantly contribute to social well-being and improve the quality of the living environment. City governments are implementing nature-based solutions (NBS) and green infrastructure (GI) to enhance their resilience to climate crises (European Commission, 2021). The process of planning the implementation should include social aspects. The authors present the web-based GreenScape CE Visual Mapping Platform (GVMP) developed within the Interreg Central Europe project "Climate-proof landscape through renaturing urban areas in Central Europe" (GreenScape CE). The project aims to propose an approach for evaluating and integrating GI/NBS into planning and management processes. Partners are considering spatial, financial, and social conditions that can lead to the mainstreaming of climate resilience solutions in urban areas. The GVMP integrates geoprocessing simulation tools to support the development of approaches for the assessment and integration of GI/NBS into planning and management processes and to facilitate communication about the importance of GI to local governments, citizens, and other stakeholders. The platform has been developed using open-source software. It primarily uses existing and open environmental and spatial planning data in the pilot cities of Milan Metropolitan Area, Ptuj, Szeged, Warsaw, and Zagreb. The GVMP simulation tools focus on landscape connectivity and multifunctionality, taking into account that space in urban areas is limited. Geosimulation tools calculate the accessibility of the population to green spaces, support the planning and evaluation of NBS, and analyze the connectivity of the GI network. During the project, the partners successfully overcame the challenge of testing these tools in different urban environments with different legal frameworks, implementation rules, nature-based solutions, and especially data availability.

Keywords : climate change, demographic change, planning green spaces, geosimulation tools, measuring accessibility

&Quot;Urban Chlorophyll: Cities That Grow With Photosynthesis&Quot;

Lucrezia Gelichi (Doctoral Student)

The increasing urbanization and climate change, warn cities to overcome increasingly complex challenges, requiring innovative strategies to ensure integral sustainability - environmental, social and economic - against air pollution, promoting resilient urban environments. Cities, in the last fifty years, are becoming densely populated again, becoming major urban metabolisms in greenhouse gas emissions. However, they can also become areas of opportunity to implement solutions that reduce environmental impact, adopting sustainable solutions to ensure the quality of urban life, lighting an integrated dialectic between natural actions and human interventions. The study aims to explore the crucial role that plants can play in the formulation of sustainable cities, providing an overview of innovative strategies to mitigate pollution, ensure air quality, promoting urban biodiversity. The subject studied and taken into consideration is nature, as a landscape dimension, and the laws that govern it, master the design of social spaces, increasingly combining architecture and nature, artificial intelligence and natural intelligence in an intimate bond. A search for harmony between living beings, human and non-human.

Urban green is no longer just an aesthetic element, but a key component of sustainable urban design, also using advanced green technologies at our disposal, connecting urban material and plant component, such as investing in vertical gardens on green walls and roofs, significantly contributing to reduce the negative impact of the construction process on the environment. A crucial aspect in addressing climate change in cities is also, and above all, the creation and growth of green spaces. Parks, gardens and ecological corridors not only increase urban biodiversity, but also act as green lungs, natural filters that absorb polluting gases, including nitrogen dioxide and fine particulates, such as pm 2.5 and pm 10, fine particles very harmful to health. Vegetation, thanks to photosynthesis, a key process in plants, contributes to the reduction of carbon dioxide levels and pollutants, and acts as an effective natural cooling system, mitigating the effects of heat islands, growing phenomenon in heavily urbanized cities.

Plants contribute to the psychophysical well-being of the community, playing a crucial role in promoting the mental and physical health of citizens; the creation of green spaces accessible to all fosters a sense of well-being and social cohesion, counteracting the typical isolation of modern metropolises. The natural dimension becomes at this point the transversal, holistic and diachronic thread, with which to build an interconnection between the human and the natural world. The plant component intrudes and takes over, presenting itself as a "germinal transknowledge" in which several disciplines meet: from urbanism, to culture, to technology, to the environment. In conclusion, the creation of sustainable cities requires an integrated approach that carefully considers the role of plants in mitigating pollution and promoting a healthier and more livable urban environment, knowing the vegetation at our disposal, protecting it.

Cities are no longer anthropocentric living spaces, but synthetic, artificial and natural landscapes, in which only with the collaboration of multiple forms of life we can take care of the planet. Learn new design indicators, mixing ecological and human needs. Nature must be understood as technology and productivity, teaching us a new language and learning from it a culture of regenerative development. Investing in nature-based solutions is not only an effective response to current environmental challenges, but also contributes to shape a more sustainable future for generations to come,to build new views converging new ways of thinking and different fields of knowledge, lifting us from the upheaval of the natural balance of nature.

Keywords *: Urban environmental sustainability, Cultural based solution, Break down climate change, Natural based solution, Urban chlorophyll*

Ecosystems And Spatial Planning (3)

Urban Planning In Times Of Climate Adaptation: Anticipating Green Gentrification While Implementing Nature-Based Solutions In Vienna

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Many European cities are increasingly focusing on greening to improve individual well-being as well as to respond to the negative consequences of a warmer climate. Aware of this risk, urban policies and planning practices have shifted from general strategic plans towards a stronger orientation at climate change adaptation and mitigation strategies, including the mainstreaming of greening and nature-based solutions for instance (McPhearson, Kabisch and Frantzeskaki, 2023). And yet, a significant policy challenge today is how to ensure a climate resilient city without increasing the risk of displacement of vulnerable groups. So-called green or environmental gentrification is a serious social justice issue in different urban regions across the globe (Anguelovski et al., 2022). However, there is still a) limited information on how local policymakers on different policy levels perceive the risk of green gentrification (Shokry et al., 2022); and b) how policymakers can strategically account for the risks of green gentrification while implementing necessary actions against climate change (Beretta and Cucca, 2019). Against this background, the aim of the paper is to explore possible challenges at the crossroads of urban greening strategies, strategies to prevent or avoid gentrification, and possible multilevel governance constraints and conflicting interests. Based on a qualitative analysis of over 30 expert interviews among planners, policymakers, and other relevant stakeholders in Vienna, the paper will focus on policy makers' awareness of unintended effects resulting from implementing nature-based solutions, such as socio-economic exclusion. We will show whether policymakers are aware of the social justice implications of urban greening for and vis-à-vis Vienna's main housing market segments and whether greening policies are considered as important drivers of increasing gentrification and decreasing housing affordability. Vienna, in that regard, is an interesting case study because a large part of the housing stock still is social housing (around 40%) in the form of municipal housing and limited-profit housing, whereas the private housing market is increasingly exposed to risks of gentrification (Friesenecker, Thaler and Clar, 2023). They main findings of our analysis show that most policy makers recognize a risk of gentrification in the private rental housing market or similar tendencies. However, it is also acknowledged that the effects of possible displacement are attenuated through the considerable segment of social housing, which is considered a safety net. However, policy makers do not consider these risks on the private rental market to be associated with greening either at public sites or at the building itself. This is largely explained because of a deregulated, but still existing national tenancy law, building regulations at state level that aim to minimise rental price exploitation and the fact that location surcharges – which are also regulated in the national tenancy law – for proximity to green areas are not possible. For the social housing segments, risks of green gentrification cannot apply per definition, challenges rather arise from trade-offs between providing affordable housing while at the same time developing additional green. The case of Vienna, which has its origins in a strong housing policy, presents a resilient policy mix to limit unintended effects of urban greening, such as green gentrification. For Vienna, the danger is rather that green spaces for reducing the heat load for vulnerable groups in urban heat islands are not planned quickly and strategically enough.

Exploring Drivers And Barriers Behind New Models For Circular Transition In Urban Food Systems: The Case Of Karşıyaka, Izmir

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The world is struggling through a period of "multiple crises" encompassing ecological and climate crises and economic and social crises along with them. Cities, as the places of consumption, are places where the multiple crises deeply manifest themselves. Among these crises, the food crisis manifests itself deeply in cities, especially on the issue of sufficient food provision and equal food access. The unsustainable production and supply structure of the food system intensifies the challenge of access to clean, healthy, nutritious, and affordable food products. The market-driven restructuring of the agri-food system, increasing commercialized retail chains in food provisioning also increased these inequalities in food access. Coupled with economic stagnation, high inflation and decreased purchasing power, food inequalities, inability to access food and malnutrition become inevitable in urban settings.

Addressing these crises necessitates a holistic approach beyond production, incorporating issues of food access, food justice, and equal distribution. This study argues that the circular food system helps to build a more sustainable, resource-efficient and socially just and equitable approach. Circular model requires reconsideration of urban consumption to accelerate transition as consumption have great importance on the (re)constructing of the complex social practice of consuming food and the downstream practices it connected to. Novel consumption models are needed to foster sustainability and circularity within food systems, ensuring food safety, social justice, and ecological harmony. In this manner, a public model that brought alternative models for consumption while supporting local producers and building bridge between production and consumption is indispensable. Focusing on urban consumption requires the implementation of local retail structures that redefine the production-consumption relationship and restructure access to food.

The detailed exploration on the case of Karşıyaka, Izmir, shed light on the public model providing alternatives to existing food provision and urban consumption mechanisms. Karşıyaka represents an urban sub-section with limited local self-sufficiency in food supply, resulting in limited public access to local, clean and ecologically produced food. Moreover, the distance between food production and consumption is considerably evident, as the local food supply is limited within the borders of the district. Yet, Karşıyaka hosts consumption practices with alternatives to commercialized forms and maintain alternative markets and food consumption culture in the public sphere. However, despite the ambitious studies on food sustainability, the initiatives remain fragmentary, lacking widespread adoption. Therefore, these initiatives fall short in the implementation of a holistic, sustainable, and circular food system. Consequently, this underscores the need to explore the possible drivers for new models that support circularity and sustainability as well as the barriers that prevent their proliferation. The aim of this study is to uncover shifts in traditional technologies, lifestyles, consumption patterns, food provisioning, retail strategies, supply chains, as a driver of change, while assessing obstacles within organizational, regulatory, institutional, and political structures as barriers for circular transition. Essentially, based on qualitative and exploratory research methodology with a case study on Karşıyaka, this research aims to examine the barriers and drivers in reference to the changes in existing patterns of food supply, retail and consumption and highlights the role of new models in advancing or hindering the transition to a circular food system. The aim is to look for ways of a more coherent, collaborative effort towards the realization of a sustainable and circular food system in Karşıyaka, by examining the strategies, limitations, and successes within the existing practices in relation to the local food system.

Interurban Dynamics And Regional Planning: Challenges For Spatial Sustainability In The Region Of Ribeirão Preto, Sp - Brasil

Luciana Varanda (Mackenzie Presbiterian University / Leibniz Universität Hannover)

Urbanization is a significant driving factor contributing to climate change. It tends to induce the expansion of urbanized areas and the degradation of the surrounding natural environment, mainly rural land. The expansion of urbanized areas in Latin American cities has negatively impacted built-up and rural areas, creating a porous, diffuse, and fragmented urban system (Reis, 2006).

Extensive urbanization has been the "mode of urban development of contemporary capitalist societies" and defines current metropolisation processes worldwide (Cardoso & Meijers, 2021). While each region has its unique history, culture, economic dynamics, environment, and context, some general patterns and trends can be observed in the urbanization processes of Latin America, Europe, China, Africa, and North America. Given that much of the urbanization is yet to happen in developing countries due to population growth pressure, metropolisation (from an institutional perspective) presents an opportunity for constructive and positive change, given that it brings together urban and regional scales and has implications for spatial planning policies.

Latin America is generally characterized by systems in which cities "swallow up" rural land while leaving behind empty, underused, and segregated territories. As such, traditionally shaped by intensive and expansive agriculture activities, rural territories in Brazil are under transformation and resignification. To better comprehend the urbanization processes in different contexts, it is necessary to develop novel approaches. This research aims to identify changes, their significance, and how the urbanization process spatially structures the metropolitan region of Ribeirão Preto, São Paulo State, Brazil. The region of Ribeirão Preto is a global agribusiness hub with high population growth rates. It has expanded the urbanized areas significantly over the last decades, but it does not present a context of conurbation yet.

In Brazil, Metropolitan Regions function under the Metropolis Statute (Federal Law N° 13.089/2015), guiding integrated cooperation across federal, state, and municipal levels for managing and planning metropolitan areas. The Statute addresses public interests like land use, sanitation, transport, and housing through integrated plans. Complementary state laws enforce these plans, requiring municipalities to align local master plans with established metropolitan guidelines.

Regional strategic spatial planning especially plays a crucial role in addressing the challenges posed by the growth of metropolitan areas, promoting sustainable development, efficient resource allocation, and guaranteeing the quality of life in newly institutionalized metropolitan areas. Strategic spatial planning involves carefully allocating land use to balance the needs of a growing population with environmental sustainability.

The research investigates spatial attributes within the urban-rural gradient related to mitigating climate change (and its adverse events). It explores planning strategies for more sustainable and resilient regions and governance at the interurban scale. Understanding the complex interaction between urban and rural, at the local and regional scales, is necessary to identify regional design opportunities and sustainably transform urbanized, newly urbanized, and future urbanized areas in cities in Latin America.

The study employs qualitative, quantitative, and spatial analysis methods within a Geographic Information System (QGIS) environment for assessing urban population growth, land consumption, and urban expansion trends. The research hypothesizes that achieving regional resilience and sustainability in the Ribeirão Preto metropolitan region requires strategic-specific planning that regulates and governs the interurban territory. The methodology aims to develop spatial indicators to be used as a tool for informed planning decisions and compare scenarios to explore possibilities for sustainable development.

Keywords : land consumption, climate change, regional planning, spatial analysis , intermediate cities

The Self-Government Approach To The Planning Of The Gran Sasso Laga Park As A Socio-Cultural-Ecological System

Giovanni Ottaviano (University Of Molise), **Luciano De Bonis** (University Of Molise)

The contribution describes the approach to planning the Gran Sasso Laga National Park envisaged by the authors in the framework of a collaboration agreement between the University of Molise and the Park Authority. The park plan has been proposed as a coordination tool for the territorial co-planning process, based on a non-hierarchical interpretation of the replacing function of all the other planning tools, attributed to the park plan by the Italian legislation. The general purpose of this approach is to foster self-governance patterns of the Gran Sasso Laga Park, directly involving members of the communities that live and act in the protected area. The latter is conceptualized as a Socio-Cultural-Ecological System (SCES), that is, as a complex of (human) social relations mediated through interactions with non-human entities (both biological human and non-biological). More precisely, it is intended as a SCES where the cooperative aspect of the above relationships is key. In reference to the interactions between human and non-human factors that characterize it, it could also be asserted that the cooperative SCES can be considered a landscape (sensu European Landscape Convention). Furthermore, since it is a system that includes humans as an eco-factor, it seems more appropriate to refer to it as eco-diversity than simply bio-diversity. In this sense, the process of co-planning and territorial co-design can be seen as an inherent part of the broader relationship dynamic between humans and the non-human elements of the environment, leading to the establishment of coevolutionary paths within the SCES. In other words, the continuous co-planning and co-design process has then necessarily been intended as a dynamic, flexible, and adaptive way to manage the resources and envision territorial evolution.

This innovative approach has been fitted into the existing institutional and regulatory framework of Italy's environmental planning, which, on the other hand, is really rigid and unwilling to rapid changes. Several issues arose during the long-lasting procedures that have been needed in order to achieve the final approval of the park plan, much of them related to the reluctance of many institutional actors, representing different NUTS levels, to agree upon a plan proposal that leaves a lot of space to the local subjects for the implementation of its provisions and the achievement of the objectives. A key element that supported the approval of the park plan by the three Regions in which the park spans has been the highlighting of the potential of such a dynamic planning to quickly respond to specific local issues avoiding the need to fulfill a comprehensive revision of the whole plan. Moreover, the agreement tools through which the co-planning and territorial co-design process could be implemented have been linked to some objectives of the Biodiversity National Strategy in the monitoring of the park plan effectiveness provided in the Strategic Environmental Assessment. Thus, the worth of the theoretical approach has been demonstrated, even if its empirical application still remains mostly unexpressed due to several factors, starting from the unwillingness of the Park Authority to trigger the process of co-planning and co-design of the territory.

Keywords *: Natural parks, Self-government, Territorial co-planning and co-design, Coevolution*

Analysis And Evaluation Of The Quality Of Public Space In Relation To Its Degree Of Naturalisation, Its Physical Qualities And Uses And Activities.the Case Of The Northern Border Area Of The Municipality Of Fuenlabrada (Madrid, Spain) In Its Contact With The Area Called Bosquesur And The Case Of The Cities Of The Dutch Randstad And Their Mediation Or Buffer Zones.

Lucila Urda Peña (Urjc), **Javier Malo de Molina** , **Emilio Ontiveros**

The aim of this paper is to define a methodology for analysing the quality of peripheral public space in municipalities surrounded by natural spaces of environmental value, in order to evaluate their potential quality as environmental corridors, civic axes and natural gateways. The case of the northern boundary of the municipality of Fuenlabrada (Madrid, Spain) with the Bosquesur Periurban Forest Park and its comparison with the areas of intermediation between urban-natural-rural spaces in Dutch cities belonging to the area known as Randstad Holland.

Understanding the city as an ecosystem implies redefining our conception of the urban from a holistic approach to the dialogue between nature and the city. The return to nature, its recovery or reintroduction on the support of the consolidated city, situates our research in the contemporary framework of the renaturalisation of cities. Urban renaturalisation is a multiple challenge: economic, social and physical-spatial. Economic, because it involves reversing a development system linked to the urbanisation of grey infrastructure. Social, because of the need to transform the collective thinking that links progress with consumption and individual freedom towards a purpose of environmental commitment. And physical-spatial because all regeneration relies on existing support, image and formalisation of decision-making over decades that have not had the possibility to build with nature. The emergence of the concept of 'nature-based solutions' has meant the integration of multiple strategies with a multi-scalar multi-functional and place-specific approach. In addition, we can add the conditions of connectivity, strategy, inter- and transdisciplinarity, and social inclusiveness (Tzoulas, et al. 2021).

Freed from the intellectual straitjacket of a profoundly anthropocentric outlook, contemporary environmental activism has begun to move away from conservationism towards a more belligerent role that also advocates reversing the process of deterioration in certain areas in order to recover the environmental values that would allow nature to recover. It is no longer a matter of conserving, evoking or reconstructing a longed-for landscape, but of renaturalising, that is, of building the environmental values that make wildlife possible. In this sense, the public spaces of our cities can be evaluated to assess their condition as "renaturalising elements". To do this, it is necessary to use a specific methodology that can draw on already tested models of urban vitality (Gehl, 2010) or the impact of implementing nature-based solutions.

The edges of growing cities are often areas of ambiguity, particularly unstable in their forms and uses. Many of the peripheries of post-industrial Europe's urban areas show considerable differences with those built along the growth of industrialisation: unstructured territories, made up of pieces of fragmented urbanisation in their forms and functions, physically connected -or segmented- by motorways, roads or railway lines. The underlying territorial processes have been overwhelmingly dominated by markets, often under conditions of high uncertainty, and with environmentally unsustainable outcomes (Teixidor, 2014).

This is the case of the city of Fuenlabrada, of agrarian origin and with an enormous industrial development, which has required the construction of numerous infrastructures that now fragment the entire natural open space surrounding the municipality. This type of situation has given rise to comparable scenarios that have been treated with solutions whose effectiveness must be evaluated in order to be able to assess their replicability in Spanish cases. In this sense, the tradition developed by Dutch planning in the area known as Randstad Holland is particularly relevant. In this area, each of the urban enclaves that form it are separated from their neighbours by naturalised areas that mediate between the intensely urbanised space of each enclave and the surrounding landscape, a protected space known as the Greenheart.

Towards The Policy Integration Of Pes Regarding Water And Forest Conservation In Agroforestry Systems Development: An International Outlook

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The problem of natural resources' conservation is a highly topical issue both for human survival and biodiversity conservation. From the perspective of the overall sustainability of socio-ecological systems, the nexus between water capture and food production is particularly evident in rural-urban regions. Secure potable water provision is a multifaceted priority in the global urban agenda (UN-HABITAT, 2023), in line with the UN SDG 6. Agriculture is the largest consumer of freshwater resources at the global scale (La Rosa, 2023; Dinis Ferreira et al., 2018; Mateo-Sagasta et al., 2018) and conventional farming often uses toxic substances (Schreinemachers and Tipraqsa, 2012) that are filtered and absorbed by soil, contaminating both underground and surface water courses, thus putting at risk the supply of drinking water for millions of people (UNITED NATIONS, 2022). The increasing use of pesticides, fertilizers, and emergent pollutants is often combined with poor management of wastewater and agricultural drainage. From this perspective, organic agriculture is clean-water-friendly and can be developed at a small scale within agroforestry systems, by supporting environmentally sustainable practices, in the logic of agri-environmental payments (Mateo-Sagasta et al., 2018).

Agricultural land uses have replaced forest cover all over the world and the increasing demand for food makes the reversal of this trend unrealistic. Therefore, innovative and complex solutions, including territorial planning efforts, environmental measures and ad hoc integrated projects, appear as essential to challenge the impacts of forest cover loss, water pollution and unhealthy foods on human survival and biodiversity conservation.

The present work focuses on the nexus between PES (Payments for Ecosystem Services) regarding water conservation and agroforestry development, which is fundamental for ecological balance maintenance and restoration. Both water conservation and agroforestry development are targeted by public policies in different countries worldwide, but they are not treated jointly.

To do so, the paper connects to two relevant cases, one of water PES in the municipality of São Paulo (Brazil) and one of agroforestry development in the Veneto Region (Italy).

They are significant case studies for the water public PES policy implementation and the public funding for agroforestry development, respectively. Neither of the two cases is one of a kind, but they represent two specific trends. São Paulo is one of the municipalities which has decided to proceed, independently from a binding federal legislative framework. The Veneto Region represents a typical European region carrying out the rural development policy. More in general, Brazil is a reference country for public PES, especially in the water sector, and has recently begun to develop a legal framework in this regard. Further, the Atlantic forest, the typical forest biome in Southeastern Brazil is the most degraded and, because of that, it has benefitted from several conservation projects (Guerra et al., 2020; Rezende et al., 2018; Strassburg et al., 2016). This makes Brazil a meaningful case to contextualize the potential of agroforestry development, for which Italy is a reference country. On the other hand, Veneto is also a region dramatically affected by water pollution (Müller, 2017) and represents a fruitful occasion to contextualize the water PES opportunities.

Keywords *: Payment for Ecosystem Service (PES), water conservation , agroforestry development, São Paulo metropolitan region (BR), Veneto Region (IT)*

Hubs, Logistics And Stakeholders: Drivers Of Circular Economy Flows In The Construction Sector

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The building sector is a major contributor to environmental impacts, accounting for 39% of global CO2 emissions and 70% of annual waste production in France. Faced with these environmental challenges, public and private players are increasingly turning to the circular economy, which promotes the optimized use of resources, recycling being the most common practice (Blanquart 2019).

Several cities have decided to launch government-supported circular economy hubs (physical platforms) as a key enabler for construction material and equipment circularity, as illustrated in France by cases in the Paris region, Toulouse, Bordeaux or Strasbourg. These policies seem to imply that there are an untapped supply and demand of secondary resources that lack an open physical hub at close distance to meet (Institut Paris Région 2023). However, some authors have shown that there are other criteria which can influence the flows and loops of secondary building resources, in particular the coordination logics of the different players (Mongeard 2017).

In this work we aim to identify the key drivers of material flows and circularity for secondary resources in the building sector, using the case of the Paris Region. Given their relevance for public policy, we have chosen the physical platforms of circular economy as an entry point for our analysis. This term can cover a wide range of realities: we can define it as an infrastructure through which secondary resources from deconstruction or building site pass and/or are transformed, with a view to their reuse or recycling.

In this research, about 100 platforms are mapped out and identified using criteria such as address, surface area, logistical connections, type of organisation, materials, operations... This allows us to suggest a typology of platforms, mainly based on their business models, resource type and operations. It appears the Paris Region is already well meshed by a wide range of these platforms controlled by a variety of players, most of them private, organizing their own circularity loops outside the scope of public action. These platforms are evenly spread across the inner suburbs, but are also present in city centre, albeit on a smaller scale: the city of Paris accounts for 10% of these hubs, but only 3% of their surface areas. While access to the river seems a key factor in the choice of location for suppliers, platforms specializing in reuse only have road access.

In a second step, interviews are conducted with a selected panel of platform managers, to identify their upstream sources and downstream outlets, their links with the players involved, and the obstacles they face in 'closing the loop'.

This quantitative and qualitative data is analysed using the typologies of proximity in its geographical, economic, organisational and institutional dimensions: we suggest an adaptation of these typologies used in the case of waste management by Bahers et al. (2017) and recycled gravel by Mongeard (2017). The aim is to analyse both the materiality of the circular economy in the building and public works sector and its socio-economic dimension. In this context, we explore the role that a government-supported circular economy hub can play and whether it can lead to new economic models for regional sustainability (Maillefert 2020).

Keywords : circular economy, Construction industry, hubs, proximity, transport & logistics

Planning Adaptation And Tools For Resilience

Analysis Of Thresholds In Carbon Emission Changes Based On Spatial Structure And Population Planning: A Case Study Of South Korea

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It was recently reported that the global average surface temperature was the highest since observations began in 1940. The international community rewrites records every year by reevaluating each summer as the 'hottest summer ever.' Ultimately, the environmental problem we used to call 'climate change' has now reached a situation called 'climate crisis.' In order to adapt to and respond to the damage caused by these natural disasters, it is necessary to transition to a carbon-neutral society where net carbon emissions are zero by 2050 (IPCC, 2018). At this time, planners must successfully respond to the climate crisis through efficient spatial planning. Therefore, we must consider various planning factors to realize a carbon-neutral city. In this study, we aim to reveal a vision model for a carbon-neutral city, focusing on urban spatial structure (mononuclear/polynuclear) and population. This study has two research questions. First, if the distribution of carbon emissions varies depending on the spatial structure of mononuclear or multinuclear, which point is it based on? Second, when planning a city, what criteria should the population be planned for in terms of carbon neutrality? In this paper, we first analyze urban polycentricity and carbon emissions distribution through GIS analysis targeting si/gun/gu(city level) in South Korea(Zheng et al., 2023). Using a dynamic panel threshold model, we would like to analyze the threshold at which carbon emissions worsen according to changes in two factors: spatial structure and population. The reason for using the threshold model is that since the degree of effect decreases at the threshold position, it is possible to identify the need for regulation based on that point(Huang and Liao, 2021). As a result of the study, population and urban spatial structure have a significant impact on carbon neutrality, so urban planning and land-use planning that take these into account are necessary. The results of this study are expected to serve as a basis for supporting the feasibility of carbon-neutral cities, which are being discussed for sustainable cities today.

Keywords : Carbon Neutrality, Spatial Structure, Urban planning, Population planning

A Gis-Based Method For Prioritizing Brownfields Transformation Into Multifunctional Urban Green Infrastructure: The Case Of Rouen Metropolitan Area, France

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Cities spatially expand as the global population increases. This brings significant environmental challenges and growing demand for enhanced residents' well-being. The EU has therefore declared its policy of No Net Land Take by 2050, which France adopted in its national law with the policy "Zéro Artificialisation Nette" (ZAN). Both policies encourage the reuse of developed lands. In Rouen Metropolitan Area, more than 400 brownfield sites were identified (CEREMA, 2023), which is subject to regenerate brownfield measures. Influenced by the 19th-century industrial expansion of textile production, which took advantage of the hydraulic power provided by the rivers, the area experienced the emergence of brownfields after the closure of textile factories in the 1960s (Rouen Metropolitan Area, 2020). The aim of this study is to present a practical tool for decision-makers and researchers aimed at transforming brownfields into multifunctional urban green infrastructure. It involves moving beyond random allocation in green infrastructure planning and propose a systematic assessment of land suitability and urban demands to prioritize brownfield sites. In response, this study was conducted for the Rouen Metropolitan Area, France, using a GIS-based multi-criteria evaluation method to calculate the coupling coordination degree between site attributes and urban functional demands (Feng et al., 2023). Large volumes of spatial data and multiple criteria were assessed to rank the site suitability (Aburas et al., 2015). Furthermore, urban demands (Korkou, Tarigan and Hanslin, 2023), including local temperature regulation, flooding reduction, habitat connectivity improvement, and air purification, were taking into account to carry out spatial priority areas towards green infrastructure planning. According to obtained results, despite some sites displaying high value independently in either site suitability or urban functionality, the new approach identifies sites with a high coupling coordinate degree, indicating their high value in both site suitability analysis and multifunctional urban demands. Through this method, sites were categorized into high, medium and low priorities. This approach is in line with the principles of sustainable development, as the implementation of urban green infrastructure not only addresses various environmental challenges, but also provides significant social and territorial benefits. The presented GIS-based analysis technique can be used as part of a spatial planning process, applicable to any city that faces similar problems. It provides support to identify suitable areas for green infrastructure expansion.

Keywords : brownfield, urban green infrastructure, spatial planning

Unveiling Spatio-Temporal Resilience Patterns For Planning: Human Activity Responses To Extreme Rainfall Events

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Climate resilience, as a strategic approach to mitigate risks and address unpredictable disruptions, has gained widespread international attention.

The measurement and mapping of resilience are pivotal in augmenting spatial planning and regulatory frameworks(Rodríguez-Izquierdo et al., 2022). These efforts aim to characterize the impact of disturbances, facilitating a comprehensive understanding of improvement targets and operational frameworks for enhanced effectiveness. However, current methodologies primarily focus on static indicators, in that the times and locations of people are considered fixed, providing limited insights into the dynamic evolution of urban areas during disasters. In reality, urban mobility under disaster is nonlinear, chaotic, and spans across temporal and spatial scales(Li & Yan, 2024; Yabe et al., 2023).

The utilization of big data presents significant potential for analysing and predicting urban mobility patterns under extreme events, particularly leveraging human mobility data(Haraguchi et al., 2022; Rajput et al., 2023). Our study seeks to establish an empirical research method for characterizing urban resilience through the analysis of mobility data. We aim to assess spatial heterogeneity to identify vulnerable regions within the city which that may experience significant disruptions in traffic flow and mobility pattern, enabling the formulation of targeted planning strategies.

To demonstrate the practical application of this approach, we conducted a case study in Zhengzhou, a city in China that encountered a once-in-a-millennium rainfall event in 2021. Utilizing a comprehensive dataset of smartphone signalling records from July 11 to 31, 2021, we examined how human activity patterns changed before, during, and after this extreme weather event. Then, the changes in mobility served as a key indicator and resilience index with spatio-temporal attributes was calculated at the grid-level for describe the disparity and resilience mechanism. Furthermore, our study involved an examination of the gradient change in resilience characteristics extending from the city centre towards various directions. This analysis aims to elucidate the influence of the urban polycentric development strategy on resilience.

Our analysis sheds light on the spatio-temporal characteristics of resilience patterns, providing valuable insights for future urban planning in regions prone to such disturbances. We observe that resilience levels do not uniformly decrease from the urban centre outward. Communities near urban sub-centres display higher resilience levels. Despite experiencing a decline in activity intensity and flow after the storm, these neighbourhoods show a lower magnitude of change in their temporal patterns, indicative of higher resilience. Conversely, areas situated in urban centres with a single residential function exhibit longer recovery periods following brief emergency population stagnation during storm events, suggesting lower levels of resilience. With that said, the polycentric development strategy indeed plays a crucial role in bolstering the urban resilience of areas adjacent to the subcentres.

This approach holds the potential for generalization to other cities and disasters, thereby contributing to the shared principle of enhancing urban resilience through spatial strategies.

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Keywords *: climate resilience, human mobility, planning strategies for risk management*

The Increasing Entry Of The Energy Subject In Spatial Planning Policies: New Visions For Energy Landscapes

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The energy topic is of great concern to our society, because of the increasing tensions of fossil resources supply and emission of greenhouse's gas to the atmosphere resulting in climate change. The landscapes we live in are transforming and becoming increasingly complex in their relationship to energy, combining functions related to energy production from renewable sources, reduction of energy consumption as well as the optimization of energy flows (Stremke et al., 2022)

Under the impulsion of these emission reductions and climate mitigation strategies, we can observe an evolution of the European and national directives and laws progressively increasing the place and importance of energy in spatial planning policies (Lopez et al., 2019). These transformations have also shaped new connections between energy and landscape, where landscape, increasingly entering the spatial planning systems (e.g. Alur law in France), goes beyond the preservation of exceptional landscape and in the direction of a more operational and extended concept of ordinary landscape resulting from nature and human actions (Council of Europe 2000). The spatial planning documents participate in changes and the evolution of landscapes (Labat and Donadieu, 2013) and they are developing new visions for future energy landscapes, which call for new energy spatial representations and new professional expertise and data.

The research explores and compares the spatial planning system in France and the Netherlands, through scales (from national to municipal) enabling to follow the evolution of two different planning cultures, as they incorporate new relationships between energy and landscape. Both nations are committed to renewable production and reduction of energy consumption goals but with differences in their spatial planning approaches, also resulting from different dimensions and geographical characteristics, allowing to get broader insights.

Results show that in both nations, even if there is an increasing compulsory demand to include energy in the planning instruments, its connection to landscape differs greatly according to the scale of the planning instrument (e.g. national, regional, municipal) and it remains mostly associated with the renewable energy technology implementation. Nevertheless, in the Dutch context, with the progressive entry into force of the Environmental act [Omgevingswet], could be observed a connection between reduction of energy consumption and landscape. Indeed even if renewable energy technologies are visible in landscape energy savings measures remains one of the major challenges for the years to come, requiring a profound restructuring on how to plan, design and inhabit our territories, cities and their landscapes.

Keywords : France,, Netherlands, renewable energy production, energy saving

Methodological Exploration To Integrate Urban Green Infrastructure With Spatial Planning And Decision-Making Process: A Literature Review

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In recent years, Urban Green Infrastructure (UGI) has been recognized as a cost-effective nature-based environmental solution. It combines the benefits of the existing built environment with those needed to improve the quality of residence and ecosystem health (Osmond and Wilkinson, 2021). Although the contribution of UGI has been widely discussed, the disconnect between theory, policy, and management has resulted in UGI being relegated to a secondary position or neglected in urban planning decisions. However, there is a research gap in the contemporary planning literature on how UGI enters the planning and decision-making process. Therefore, this study aims to identify the current barriers to UGI's entry into the planning decisions and the solutions to these resistances. The study firstly summarizes the literature on the UGI systematic review to clarify the direction of the current research issues. The present problems of UGI mentioned in the issue are further classified into two categories: clarified and yet to be clarified by reviewing the literature on their corresponding methodologies. Finally, the methodologies that are missing and need to be strengthened for the future development of UGI are proposed. This research suggests that ambiguous definitions and design principles (Monteiro, Ferreira and Antunes, 2020) and a lack of interaction with other disciplines (Hansen et al., 2019) act as barriers for UGI to enter the planning decision-making process. In particular, the economic and socio-benefits of UGI have been underestimated due to the lack of clarity. The existing research on the economic-social aspects of UGI focuses on five themes: 1) the spatial justice of UGI; 2) the indirect impacts of UGI on housing prices and investment; 3) UGI performance and cost-benefit analyses; 4) assessment of the economic and social values of UGI ecosystem services; and 5) the bio-economic value provided by UGI. The results show that the existing economic benefits of UGIs are assessed by quantifying the ecological benefits of UGIs (e.g. carbon sequestration, air purification, quality of the residential environment, etc.) into specific monetary values, and by rating extant UGI projects using SWAT analysis and weighted scores. Social benefits were assessed in terms of the number of people positively impacted by UGIs and in terms of UGI spatial justice. The complexity of socioeconomics increases the need to evaluate the economic and social benefits of UGIs. This study will provide a research direction for incorporating UGIs into urban planning decisions.

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Keywords : *urban green infrastructure, spatial planning, Literature Review*

Nature-Based Solutions To Climate Change Adaptation In Urban Areas: A Norwegian Planning Perspective

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Over the last decade, scholars and policy makers have recognized the Nature-Based Solutions (NBS) as key-tools to challenge climate change mitigation and adaption, as well as underpinning the Sustainable Development Goals (by supporting e.g. vital ecosystem services, biodiversity, and access to fresh water, improve livelihoods, food security from sustainable food systems, United Nation Global Compact, 2019). Despite the rise and active promotion of NBS in the international and local debates, relatively little is known about what has been effectively done (and not yet done) at the different levels of planning - from the planning strategies to detailed regulations. The aim of the study is to fill this knowledge gap by providing an overview of the development of NBS in the Norwegian planning context. The research was conducted by an interdisciplinary group of experts on climate, water and ground water management, urban planning and laws, from NIVA, the Norwegian Institute for Water Research (NIVA), and from Norwegian University of Life Sciences (NMBU) and commissioned by the Norwegian Environment Agency (Miljødirektorat). The study first includes a review of studies focusing on the challenges in implementing NBS in planning (e.g. impacts on conceptualization of NBS, existing barriers, role of planners and other practitioners, including private actors). Second, the study presents the main outcomes from the four selected municipalities of Trondheim (in central Norway), Stavanger (in south-western Norway), Indre Østfold (in south-eastern Norway) and Bodø (in northern Norway). A planning document analysis, which encompasses all levels of planning, and five among focus groups/interviews with the municipal managers (experts on urban planning, climate, environment and water security) were conducted. The main findings reveal that the municipalities have acknowledged the relevance and need for NBS to tackle the climate changes. To this end, a variety of NBS have been identified in the planning strategies of the four municipalities that contribute to ecosystem restoration, habitat, flood protection and water retention, as well as soil restoration and heat regulation. In addition, the planning regulations and the most recent detailed plans show some provisions and guidelines for an effective implementation of NBS (with a major focus on storm water management), and with local variations among the four municipalities (see e.g. the state of the approval of detailed plans). The study shows also that there are other planning tools and concepts, such as blue-green factor, blue-green structure and ecological compensations (so-called in Norwegian arealnøytralitet), which are currently used for integrating climate change adaptation in land use planning. Nonetheless, there are still barriers for implementing NBS that are linked to the understanding of the concept itself among practitioners and local private actors, the use of other notions adopted in earlier plans and current legislation, including need for long-term investments for NBS and uncertainties related to the maintenance of NBS themselves. The study contributes to the current debate on the implementation and upscaling of NBS to further address climate, biodiversity, water and health issues in planning.

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Urban Greenery To Counter Homogenization Of Urban Form?

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Urban landscapes across the globe are undergoing significant transformations, leading to the homogenization of urban form (Lemoine-Rodríguez et al. 2020). Homogenization of urban morphology also leads to converging patterns in the natural environment within cities (Lokatis and Jeschke, 2022). The implications of urban morphological homogenization stretch beyond environmental implications. Indeed, a recent study identified a loss of emotions in residents when experiencing homogenous peri-urban landscapes, thus affecting people's place attachment as well as their willingness to engage with places (Grêt-Regamey and Galleguillos-Torres, 2022). Not only urban built environments affect human well-being, but also urban greenery.

Urban green spaces offer a range of environmental and health benefits. For instance, access to greenspaces has been identified as crucial for physical and mental health and wellbeing (McDonald et al., 2023). Exposure to urban green space has been shown to contribute to stress reduction through its calming and restorative effects (Hedblom et al., 2019). While the restorative effect of urban green spaces has been demonstrated in previous studies, little is known about how the interaction between urban form and greenery affects peoples' responses to urban residential environments. The present study employs an experimental approach combining physiological and cognitive measures to assess people's responses to urban residential scenes within virtual reality environments. The scenes represent five different types of neighborhoods varying according to three scenarios of greenery (no green, tidy green, biodiverse green). Measurements include electrodermal activity, a measure of unconscious physiological response used as an indicator for affect, as well as preference and self-rated emotions, representing cognitive responses.

Findings indicate that adding greenery to a place indeed does improve the perception of a place, although not as much as places that were already positively rated without added greenery. Therefore, to improve people's well-being, it is important for planners to focus on the character of a place and get away from planning homogenous neighborhoods.

Keywords : *urban greenery, biodiversity, homogenization, urban form*

Planning Adaptation And Tools For Resilience (2)

Contextual Prerequisites For Implementing Web-Based Tools In Urban Climate Adaptation

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The number of digital and web-based tools aimed at supporting climate adaptation planning and climate-resilient development is steadily rising (e.g., Balogun et al., 2020). Many of these tools initially focused on informing the public sector, like local municipal authorities and planners, but in recent years, there has been a shift towards tailoring these tools for community-based organisations and locally led adaptation planning processes (Brzoska et al., 2022). This shift could facilitate more bottom-up, people-centric approaches to adaptation planning, especially in municipal regions facing declining capacities in the public sector or under-resourced communities like informal settlements. Yet, many barriers and challenges remain, as the effectiveness of web-based tools for urban climate adaptation hinges not only on their technical capabilities but also on fulfilling the socio-ecological-technological (SET) prerequisites of the context and user groups they are intended to serve (e.g., McEvoy et al., 2018). Foremost is the critique of the potential of these tools in fostering a technocratic approach, at the expense of political, cultural, and/or social considerations (e.g., Young, 2021). The next challenge is that adaptation decision-making power is not always decentralised. In cases where it is, local power dynamics often influence who is identified as requiring adaptation support, measures adopted and the outcomes (Nath, 2024). Arriving at consensus with diverse actors and stakeholder groups involved also remains a major challenge (e.g., Allen, 2006). Therefore, this paper discusses the prerequisites for web-based tools to be effective in supporting climate adaptation in under-resourced communities by taking the case of under-resourced communities of two distinct natures and user groups: one focusing on financial and human resource-strained municipalities in small and medium-sized towns in Germany and another in the context of slums in India. It reviews grey and scientific literature, reporting on user evaluation of web-based tools to gain insights into the factors influencing their usability, focusing on tools targeting local actors and stakeholders. Findings from the literature are measured against what is currently being practiced by climate adaptation tool developers, by interviewing researchers of the German research project KlimaKonform, under the umbrella BMBF funded project of RegIKlim. To assess the applicability of these tools in slums, key informants involved in slum upgrading were identified and interviewed. The paper concludes by emphasising that for web-based adaptation decision support tools to be effective, they must be part of a larger participatory and reflexive process, rather than a one-off solution. It also highlights that although these tools are promising, ground realities like digital literacy, ICT penetration, or community priorities can deter their adoption.

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The Ecological Transformation Of Urban Parks In Taipei: Assessing The Transformative Capacity Of Cities For Mainstreaming Nature-Based Solutions

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While the multiple benefits of Nature-based Solutions (NBS) for climate change adaptation, biodiversity, and human well-being are widely acknowledged, the integration of NBS innovations into mainstream urban policies and practices remains ambiguous. The mainstreaming of NBS is often impeded by place-specific structural conditions and barriers, such as the pre-existing governance model and rigid regulations hindering NBS implementation and upscaling (Dorst et al., 2022). Therefore, cities need to foster their 'transformative capacity' to surmount these barriers and identify levers and pathways that can drive sustainable urban transformations. In this article, we illustrate how urban parks, a common form of green infrastructure in the city, can serve as experimental sites for testing NBS innovations 'on the ground' and as crucial 'game changers' that positively contribute to urban resilience. Traditionally, urban parks are green spaces in densely built urban environments hosting diverse daily activities like sports and leisure for local residents. While their design may emphasize functional or aesthetic dimensions, a recent trend is emerging to re-nature urban parks through NBS for heat mitigation, habitat restoration, stormwater management, and social mobilization. Applying the conceptual framework of 'transformative capacity' (Wolfram, 2016), we explore the governance structure, key actors, experimenting and learning processes, and cross-level interactions that have the potential to mainstream Nature-based Solutions. For detailed analysis, we selected two urban parks, Daan Park in Taipei City and Zhonghe No.4 Park in New Taipei City, which represent large-scale urban parks in an East Asian urban context with high population density and limited open spaces. In Daan Park, community groups and NGOs have advocated for ecological restoration through constructed wetlands and natural habitats since 2016. The transformation of Zhonghe Park began in 2020 when the Taiwan Forestry Research Institute introduced close-to-nature forestry management as a strategy to enhance biodiversity and ecosystem services delivery. To gain deeper insights into the transformative process of the two parks, government documents, newspaper articles, scientific reports, and social media posts were collected and analyzed. Interviews with government staff, landscape architects, community members, and park volunteers were conducted for understanding personal experiences and social networks. Through a qualitative assessment and comparison of the transformative capacity embedded in the two cases, we identify four main challenges that must be addressed: (1) enhance inter-governmental and cross-level integration; (2) support citizen engagement, including residents, NGOs, and the private sector; (3) facilitate knowledge translation and communication among stakeholders; (4) recognize the crucial role of intermediaries for upscaling NBS (Frantzeskaki and Bush, 2021). Although initial and partial transformation in the four domains have been observed in our case studies, these practices are far from routine activities and may face the risk of reverting to business as usual. Our findings on the transformative capacity of cities can thus inform policy recommendations and guide future research directions for mainstreaming Nature-based Solutions.

Keywords : Urban transformation, Transformative capacity, Nature-based Solutions

Re-Definition(S) Of The Role Of City Centers And Central Business Districts Under The Effect Of Extreme Heat Conditions And Climate Change: Evidence From The Mediterranean Context.

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Central Business Districts have always been the loci of major transformation, redevelopment and constant re-definition(s) regarding their role within large urban territories. Climate Change combined with Urban Heat Island, could render CBDs particularly vulnerable to extreme heat conditions and persistent heatwaves, affecting their key functions and quality of life. This work investigates the above issue through a case study in Athens, a densely populated Mediterranean urban agglomeration. Methodology involves identification of key aspects of the CBD structure that increase its vulnerability to extreme heat waves and related hazards and pressures. Our conclusions state that Climate Change could eventually lead to changes in urban structure, affecting existing CBDs and possibly favoring relocation of activities towards other city zones, where climatic conditions will be more favourable.

Keywords : climate change, urban planning, heatwave, central business district, Athens, urban structure

Urban Spatial Patterns And The Urban Heat Island Effect - Evidence From German Regions

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The urban heat island (UHI) effect, known as the temperature gap between urban and rural areas, has been widely observed in human settlements of all sizes. The adverse influences of the UHI effect have been widely documented, as it raises energy consumption, worsens air quality, and increases risks of heat-related mortality. For a long time, city planners and policymakers have debated whether well-designed urban forms can potentially reduce the UHI effect. A wide-ranging study has suggested that high-density and compact urban development can increase urban heat intensity. However, others have concluded that low-density and dispersed development may also exacerbate the urban heat intensity due to higher energy consumption per capita and expanded urban impervious surface. This inconclusive debate between urban density and the UHI effect has led to a dilemma in optimal urban management, calling for more efficient spatial strategies in urban thermal planning.

Several studies have proposed that polycentric spatial development may offer a promising alternative that reconciles this dichotomy, as it assumes to integrate the benefits of both compact and dispersed development (Han et al., 2022). A polycentric urban system encompasses multiple centers, characterized by a more evenly distributed employment and a network of interconnections among these centers. This concept embodies two aspects of urban activities: decentralization and compactness. "Decentralization" suggests that households and firms are less concentrated around a single center but dispersed across extensive suburban areas. "Compactness" implies that these decentralized activities re-agglomerate outside the traditional urban core to form urban centers. Consequently, polycentric regions distribute urban activities across multiple centers rather than a single center, resulting in lower densities in urban cores and reduced spatial aggregation in urban footprints. These considerations suggest that polycentric spatial development offers a more sustainable and efficient approach to urban thermal planning.

As far as we know, Germany-based investigations on the relationship between urban spatial patterns and the UHI effect mostly focused on case studies, thus lacking universal conclusions that can be generalized to a broader range of metropolitan regions. Furthermore, existing studies have primarily examined mitigating urban heat intensity through the lens of "compactness versus dispersion" utilizing "traditional" landscape metrics. The effectiveness of polycentric urban configuration has received limited empirical testing.

This study aims to achieve two objectives. First, we assess whether the more compact or fragmented urban forms can contribute to the UHI effect, employing five "traditional" landscape metrics. Second, we investigate the capacity of polycentric spatial patterns to mitigate urban heat. We utilize city regions (Großstadtregionen) as the spatial unit and the MODIS land surface temperature (LST) dataset to obtain the UHI measures. We quantify five traditional landscape metrics based on McGarigal & Marks (1995) and the degree of polycentricity following the works of Green (2007). For empirical testing, we employ both naïve and multivariate OLS regressions to analyze the influences of urban spatial configuration on the UHI effect. We further utilize nonlinear local weighted regression and kernel density estimates to compare temperature variations between polycentric and monocentric regions.

The results indicate that certain features of urban fabric, including fragmentation, mixed land use, and regular-shaped urban patches, have the potential to mitigate the UHI effect. Moreover, dispersing multiple smaller greenspaces throughout the urban area demonstrates a greater cooling effect compared to having a single large and more aggregated park. This study confirms that polycentric development yields greater benefits in reducing urban heat for large-sized city regions compared to medium- and small-sized ones; and its effectiveness is mostly pronounced near urban center(s).

Can The Sdgs Indicators Become A Policy Tool At The Local Scale? A Support Study For The Regional Strategy Of Sustainable Development In Lombardy

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In 2022-2023 as members of the research unit in the CST - Centro Studi sul Territorio "Lelio Pagani" of Bergamo University, we led a study financed by ANCI Lombardia (the regional branch of the Italian Association of Municipalities) on the role of the local institutions in the implementation of the Regional Strategy of Sustainable Development (SRSvS) for Lombardy Region, in the larger framework of the Sustainable Development Goals of UN-Habitat.

The research focuses on the tools and knowledge needed by the administrations to strengthen the Administrative Capacity Building (ACB) of local governments. In this light, we deepen on two main issues:

on the indicators and the role assumed in the regional strategy as a support in local government decision-making processes,

on the potential that indicators could have in the definition of planning and innovative forms of collaboration in territorial governance, at local and supra-municipal scales.

During the development of the study, we assumed the perspective of the small and medium municipalities (almost 70% of the 1.506 municipalities in Lombardy have less than 5.000 inhabitants). Therefore, we assumed that a large part of local institutions can't afford analytical-quantitative tasks, because these operations are very demanding in terms of resources and processing capacity, and, there is a lack of technical competencies and resources at this level to develop those assignments.

The first step of the research was a critical reading of current approaches to the indicators development and how they should be useful tools to support the definition of integrated strategies and planning, not only for quantitative analysis. This reading concerns the general role of indicators in the field of SRSvS and, when possible, a potential and innovative application within the strategy. The study was carried out through a comparative methodology and made it possible to trace a state-of-the-art on the development of regional indicators and dashboards in the Italian regions (and two autonomous provinces). We identified some recurring issues (analysis fields, scales, use of dashboards and indicators in decision-making processes, etc.) and how different institutional bodies involve indicators in their policy development.

Therefore, we introduced the municipal perspective, recognizing the limitations and potential of current tools. Through them, we recognized the critical aspects of consolidated approaches and outlined a roadmap to overcoming them. This in-depth study carried out thanks to a bibliographic analysis and a set of interviews with administrators and civil servants, made it possible to define the needs and the priorities expressed by the territories when they implement the SRSvS.

The third part of the research includes a selection of indicators based on a multicriteria analysis. They came from available data, that could be adopted by the Municipalities to develop actions and policies, in the framework of the regional strategy thanks to a dashboard powered by Lombardy Region, aimed at supporting all the local administrations in this effort.

In the conclusion, we reflect on the effectiveness of the indicators in representing the conditions of the municipalities in the field of sustainability and how they can report their evolution.

Local bodies could use a dashboard based on the proposed set as a support for their policy design paths, and to compete for regional calls for actions in the field of sustainability. From the regional perspective, the region could use the dashboard as a protocol for certifying the results achieved and the impacts expected from the proposed projects, in a rewarding perspective that could support the implementation of further interventions in the territory and access to additional resources for their development.

***Keywords** : Sustainable Development Goals, Indicators, Lombardy Region, Local scale, Municipalities*

The Role Of Regional Funding Policies In The Creation Of Renewable Energy Communities In Italy

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In the last years, in Italy, several regional and municipal governments and private donors mobilised to financially support the activation of the Renewable Energy Communities (RECs) on the national territory. Regarding public authorities, on the one hand, several municipalities took into consideration promoting and leading the local REC establishment process. On the other, some regional authorities decided to allocate public monetary resources, for their set-up. With regard to private donors, a list of bank foundations launched calls for funding for this purpose, compensating in some cases the absence of similar initiatives carried out by public bodies.

These calls for proposals and funding mostly identify as eligible subjects the RECs' lead partners, which are often municipalities. Evaluation of applications is characterized by a range of indicators, such as criteria, requirements, and rewards, declared in each call. The analysis of the formulation of these indicators and the consequent evaluations of applications represent a valuable opportunity to better understand the resource holders' orientation concerning public spending for the support of RECs' establishment.

More specifically, the identified criteria, requirements, and rewards – included in the calls – may or may not prioritise the achievement of such social benefits as the alleviation of energy poverty. In doing so, these indicators can clarify which connotation of energy poverty is preferred. In this regard, Großmann and Kahlheber (2017) point out that the factors affecting energy poverty are insufficient income, housing accessibility, quality and affordability, energy policy and tariff. However, not just one aggregated indicator can measure energy poverty which also affects such aspects as human health and social stigma (Parreño-Rodriguez et al., 2023).

All this considered, this paper presents the analysis of the various approaches, indicators and the corresponding rating scores awarded to the proposals, criterion by criterion. The results of the analysis are collected in a unique database to provide a comprehensive assessment and comparison of various funding opportunities. This allows for identifying differences and recurrences to determine the general direction of the public action(s) concerned, in Italy over a given period. Furthermore, this analysis provides interesting elements to discuss alternative approaches to the definition of the RECs' social benefits and in particular, to the management of the energy poverty phenomena, from the perspective of energy justice (Jenkins et al. 2016).

In fact, the issue of social benefits is framed within a broader reflection on a just energy transition, i.e. the fairness of the transition. Hanke, Guyet and Feenstra (2021) provide a useful classification of energy justice, which can be procedural, distributional, or recognitional. Procedural justice refers to equitable procedures that allow all local stakeholders to engage and participate in the energy transition in a non-discriminatory and inclusive way. Distributional justice investigates where energy injustices emerge, both in production and consumption. Recognitional justice refers to sections of society where social needs are ignored or misrepresented. This classification will orient the discussion regarding the above-mentioned direction of public action addressed to the RECs' activation in Italy.

Planning Adaptation And Tools For Resilience (3)

The Nature Based Solutions Framework As A Tool To Assess The Benefits And Co-Benefits Of The Modernist Housing Estates In Bałuty, Lodz, Poland

Malgorzata Hanzl (Lodz University Of Technology)

The European Union has been promoting the concept of Nature Based Solutions (NBS) as a tool that enables a comprehensive assessment of the benefits and co-benefits of green infrastructure in cities (Raymond et al., 2017). This topic is of particular interest in the context of areas that, during the period of post-war reconstruction, were transformed from urban and suburban, relatively densely built 19th-century urban fabric into housing estates built according to modernist principles (Hanzl, 2022). The latter led to an utterly different organisation of space and introduced ample green spaces between buildings and on the outskirts of newly constructed super-blocks. The housing norms imposed the inclusion of green areas as a protection against pollution from urban traffic. The organisation of open spaces, often partially haphazard, stemmed from the overlap of previous urban fabric, including the formerly existing street system, and the new concepts and rules of modernist fabric.In the current paper, we look closely at the role and forms of open space and green infrastructure for the local residents of the housing estates Zgierska-Stafana and Inflancka in Bałuty, Łódź. We apply the frameworks for the analysis based on earlier methodologies developed by Raymond et al. (2017), Kabisch et al.(2016), and Keestra et al.(2018) to understand how the modernist approaches comply with contemporary urban planning and societal goals. These tasks are of utmost importance because over one-third of citizens of Lodz and other Polish major cities live in modernist structures. In the case of analysed estates, an additional component is the role of former, fragmented, 19th-century structures, which we perceive as a chance to retrofit the transformed areas. Our goal is to propose guidance on how to transform the modernist urban fabric into more contemporary city structures without losing the opportunities of NBS.

Keywords : Nature Based Solutions, Modernism, socio-ecological systems

Exploring Multi-Scalar Adaptation: Unveiling Opportunities In Emilia-Romagna'S Climate-Resilient Governance

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The escalating challenges posed by climate change on various territories demand meticulous consideration and immediate action (IPCC, 2022). Increasingly frequent and intense extreme weather events, such as floods and inundations, are putting regions with advanced urban planning, like the Emilia-Romagna region in Italy, to a stringent test.

The research investigates the correlation between climate change adaptation planning and multiscale approaches, utilizing the Emilia-Romagna region as a case study. Despite its reputation for innovative urban planning practices, the region faced a recent flood event in May 2023, compelling a rigorous examination of its adaptive planning capabilities. The aftermath raised a significant question: what scales and planning tools of territorial governance are necessary and most suitable to promote effective and multi-territorial adaptation?

The study aims to analyse the concept of multiscale governance and understand how to incorporate international or global guidelines to promote concrete and adaptive climate policies on the ground. Emilia-Romagna's innovative approach, as outlined in its regional urban planning law, LR 24/2017, exemplifies the evolution of territorial planning to address contemporary urban challenges. The law emphasizes principles focused on climate change adaptation, safeguarding ecosystem services, and managing urban and territorial metabolism. This legislation, directly addressing municipal levels, revolutionizes the discipline of territorial governance by introducing the General Urban Plan (PUG), replacing the old Municipal Structural Plan (PSC), Urban Planning Regulation (RUE), and Municipal Operational Plan (POC) outlined in the previous LR 20/2000. This innovation is particularly noteworthy in the Italian regulatory context, as the regional law explicitly requires municipalities to actively incorporate cognitive frameworks, strategies, and adaptation actions to climate change within their territorial management plans.

Presently, after the recent flood event, it is imperative to assess whether this regulatory approach has indeed fostered a comprehensive understanding of the territory to make it resilient and conscious of challenges. Consequently, a reconsideration of the structure of climate policies becomes necessary.

While the region demonstrates virtuosity by establishing a direct link with the local level, obligating it to adapt, there is a need to understand the strength and opportunity of a multiscale approach that considers levels between regional and local. The broader metropolitan scale can and should be a viable action space. The research thus poses the question of whether municipal-level reasoning is sufficient or if alternative approaches involving different territorial systems are beneficial. In the context of adaptation, does the aggregation of numerous small, resilient local municipalities prove more efficacious, or does the territory necessitate a cohesive, larger-scale approach to fortify its systems?

It is essential to examine the governance structure of the Emilia-Romagna region, understanding the dynamics of relationships among the various scales of spatial governance. At the same time, it is useful to explore the consequential and morphological correlations of the territory to assess different spatial responses. From coastal areas to the Apennines, understanding the relationship between governance and resilience enables the construction of specific and resilient climate policies.

The flood event serves as a backdrop and a starting point for contemplating the appropriate scale for effective adaptation. Emilia-Romagna's innovative planning tools become a test case for inventive land-use planning approaches, setting a precedent for other urban areas requiring advanced strategies. In light of events in Faenza, Cesena, Forlì, and other areas in the region, the need for a shared, multiscale, multi-system effective approach to climate change becomes increasingly urgent. Emilia-Romagna's experience is intriguing to explore further as it underscores the necessity of integrating climate adaptation principles into governance and spatial planning to build resilient and sustainable communities facing escalating climate risks.

Keywords : adaptive planning, adaptive territorial governance, Multi-scale approach, Resilient planning, Large-Scale Urban Planning

Changing Perspectives: Assessing Regional Potentials For Green Hydrogen Infrastructure Planning

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In the process of global sustainable energy transition, green hydrogen is often referred to as a game changing technology. As a carbon-free energy carrier, green hydrogen not only provides storage options for intermittent renewable energy production, but is also considered an integral part of sector coupling. However, the role of green hydrogen in future energy systems remains controversial, due to uncertainties about supply, demand and system integration costs during the ramp-up phase (Dou et al., 2023). This poses major challenges for the development of hydrogen infrastructure, which requires a stable and long-term framework for initial investments.

Several European countries have published strategies to increase green or low-carbon hydrogen production capacity. For example, the German National Hydrogen Strategy doubles the target for the expansion of electrolyser capacity to at least ten gigawatts by 2030 (BMWK, 2023, p. 1). With the expected increase in green hydrogen production and imports, there is a growing need for infrastructure to transport green hydrogen from areas with high renewable potential to demand centres. Transport via existing natural gas pipelines is considered the most cost-effective option for distances of less than 3000 square kilometres (Lipiäinen et al., 2023).

In this context, different planning approaches for the development of a green hydrogen infrastructure can be observed in the hydrogen strategies of the European Union and Germany. While long-term initiatives such as the European Hydrogen Backbone or the German Hydrogen Core Network take on a centralised approach by planning large interconnected transport networks, there is also a need for local hydrogen clusters. Especially in the initial phase, local hydrogen valleys will be developed with decentralised production, consumption and distribution network systems (European Commission, 2020).

The choice of the suitable approach for hydrogen infrastructure planning usually takes into account the potential for green hydrogen supply and demand, as well as the potential for renewable energy production. The regional scale often plays a secondary role in this assessment. The aim of this paper is to develop a concept for assessing hydrogen supply and demand potential from a regional perspective. The concept also takes into account a wider range of influencing factors, such as socio-economic indicators, which will enable holistic sustainable hydrogen infrastructure planning. In addition, it is possible to analyse which regions could be prioritised for infrastructure development in order to accelerate planning.

The assessment concept was applied throughout Germany at the NUTS-3 (Nomenclature of Territorial Units for Statistics) level. A theory-based analysis was conducted to examine relevant indicators. Indices were then constructed and calculated to reflect regional supply and demand potential using multivariate statistical techniques. A subsequent cluster analysis allowed regions to be classified according to specific local circumstances and requirements for green hydrogen infrastructure planning.

***Keywords** : regional planning, planning methods, green hydrogen , energy infrastructure, assessment concept*

Potential Of Hydrogen Production By Wastewater Treatment Plants (Wwtps) - Technologies, Benefits, Challenges And Limitations Using The Example Of The Wastewater Treatment Plant Straubing

Christian Großhauser (Technische Universität Dortmund)

Due to an ever-increasing change towards a circular economy and energy self-sufficiency, energy production and use must be redefined. This does not stop at the water- and wastewater industry, which responsible for a large amount of a municipality's energy consumption. However, WWTPs can also make a significant contribution, as many different material flows comes together there. Sustainable hydrogen, produced decentrally, regionally and for regional consumers, will play a important role in the energy supply of the future. The National Hydrogen Strategy focuses on green hydrogen (Schuberth et al., 2023) and its production potential. By 2023, instead of 5,000 MW, 10,000 MW of capacity is to be created (Federal Ministry of Education and Research – BMBF et al., 2023). This abstract aims to show possible potentials and technologies for local production, but also challenges and limitations with regard to hydrogen production possibilities at the more than 10,000 municipal WWTPs in Germany. Until the infrastructure is set up in Germany, it is also necessary to consider whether the hydrogen produced locally could not be used more effective for other processes. For this purpose, biomethanation is an interesting area of application, in which hydrogen and carbon dioxide are converted into methane.

It is difficult to provide exact figures on the production volumes at WWTPs, as different amounts of H2 and different by-products are produced depending on the process, or H2 itself is only a by-product. For comparability, the electricity demand of different H2 generation processes can be used and considered. Water electrolysis requires many times more electricity than processes that generate H2 from nitrogen-rich side streams (Synreform GmbH et al., 2022), for example.

Nevertheless, cycles can be closed in the sense of the circular economy. In addition, WWTPs are given great potential (Jentsch et al., 2019). Regional electricity surpluses can also be used, and CO2 emissions and energy dependencies are reduced.

In addition to green hydrogen as a possible energy carrier, the oxygen also obtained during water electrolysis can be used in the biology of the wastewater treatment plant or as a starting material for a so-called fourth purification stage in order to remove further pollutants from the wastewater stream. The resulting wastewater is purified in the sewage treatment plant and thus serves as an additional raw material. The electrolyser waste heat can also be used in the wastewater treatment plant. Nitrogen-rich side streams in the WWTPs have great potential to produce hydrogen from them. This also applies to the resulting sewage or biogas. Furthermore, wastewater or sewage sludge can also be used as sources of supply for extraction via biological or thermal processes.

Challenges are, depending on the federal state and the responsible licensing authority, requirements and regulations. It is important to involve the public, associations, nature conservation organisations or the surrounding residents in the process at an early stage in order to minimise fears, resistance, misinformation or lawsuits as they arise. Of course, the process must be economical and be able to compete with established, mostly fossil, technologies. Partners from industry or suitable (IPCEI-) funding opportunities are also highly important.

Likewise, the transport and marketing of hydrogen must be organized and ensured. Network operators or suppliers must work hand in hand with WWTPs, authorities and other important stakeholders and define solutions on an equal footing. Therefore, local production and consumption are very important.

In order for all this to succeed, funding opportunities must be expanded, awareness must be increased and any barriers for the application must be set at a lower threshold.

***Keywords** : waste water management, circular economy, hydrogen production, sustainability*

Place-Making And Place-Taking: Water Geographies In Reaction To Changing Flood Management In Dakar.

Evelien Van den Bruel (Uclouvain)

In the past decades, flooding events have become increasingly prominent in sub-Saharan areas. The extent of flood victims and material damage in Senegal spreads like ink stains over different urban areas during the winter season. The growing population and urbanization, along with the lack of urban planning and flood prevention, climate change, and the increase in major urban infrastructure, are considered the most rooted causes. Consequently, over time, urban flood resilience programs became a key item on the Senegalese urban planning agenda. In Dakar, planning strategies shifted towards the facilitation of stormwater drainage (Bottazzi, Winkler and Speranza, 2019). Climate change and reduced infiltration opportunities are the main causes. Due to the lack of central drainage systems, a drainage network—either formal or informal—is under construction in various places. The city is thus overgrown with plans and construction works for underground drainage systems that aim to reduce the flooding problem at a local level (Cissé and Séye, 2015). The decrease in natural areas is significant, and the natural water system is heavily disturbed.

The premise of this paper is to analyze two 'reactions' on institutionalized stormwater management and water drainage systems: place-making and place-taking. Using fieldwork outcomes, the aim is to explore how water bodies gain or lose their place in the city. In addition, the work seeks to characterize co-production in place-making reactions and nature-based solutions in place-taking reactions. This may lead to further understanding of these systems' sustainability (Faldi, Ranzato and Moretto, 2022; Woroniecki et al., 2022). The paper departs from fieldwork observations and explores different scales on which the flooding strategies can be projected and critically described. Different cases in the Dakar region were selected based on the involvement of citizens, the inter-scalar actions towards flooding issues, and the specificity associated with a particular period in the history of Dakar. With this approach, the importance of framing a site-specific context to understand urban planning is considered (Faldi, Fisher and Moretto, 2021). The cases demonstrate that major infrastructural interventions and residential land intake are the main drivers of the spatial changes that cause flooding. Herein, the importance of citizen involvement—defined as co-production in this paper—is pointed out.

The paper aims to analyse the historical evolution of these two types of action as they reveal the connection between human beings and nature. Historical research on the spatial and environmental development of Dakar discloses significant changes in the natural water system. These site-specific changes have played a major role in the spatial development of the urban territory. For example, during the 1990s, Senegal experienced a 70-year-long drought period in which many former wetlands were developed for housing. In this paper, the author aims to put forward some of the main outcomes of the spatial analysis over time at the scale of the urban area. A buildup of map analyses on flooding issues and flood prevention strategies in the past can give more insights about their flexibility in any future scenarios. Hereby, situating flooding issues in time and through place-specific analysis can work towards a better understanding of the visible outcome of flood prevention strategies.

Keywords *: flood resilience strategies, dakar, co-production, Nature Based Solutions, Sustainable urban drainage system*

Agrivoltaics In The European Energy Transition: Policy Recommendations

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In response to the challenges caused by climate change, the transition towards renewable energy production is a central pillar of the European Union (EU) energy transition strategy. Despite the broad scope of energy policies, critical trade-offs such as competition for land use between energy, food production and biodiversity preservation, have largely been overlooked within the ambitious objectives outlined in the EU's energy and climate plans (Skjærseth, 2021). The significance of energy policies for facilitating the energy transition is increasingly evident in contemporary discussions, particularly concerning the sustainable siting of solar power plants (SPP) (Moore-O'Leary et al., 2017; Pascaris, 2021). This issue is gaining relevance amid reports of controversial land use changes such as implementation of SPPs in agricultural and protected areas (Hernandez et al., 2015). The anticipated growth of SPP installations in the coming years is projected to occupy an estimated land footprint of approximately 2% of the EU territory (van de Ven et al., 2021). In light of this, agrivoltaics presents a promising dual-use approach, fostering sustainability while mitigating conflicts related to land use, by integrating photovoltaic technology with agricultural land on shared space (Oudes, van den Brink and Stremke, 2022). Given the policy-driven nature of the energy transition, the role of planning frameworks emerges as an imperative factor for the effective implementation of agrivoltaics (Pascaris, 2021).

This research presents the outcomes of a literature review exploring policy frameworks regarding agrivoltaic development and identifying prospects and challenges. The results reveal a lack of adequate attention given to agrivoltaics within existing energy policy frameworks, emphasizing the need for transformative changes in spatial planning, and identify opportunities for policy transfer from successful examples. The key outlooks, challenges and recommendations have been formulated for an agrivoltaic policy framework to propeller the integration of agrivoltaics in energy policies and expedite the energy transition.

Keywords : *solar energy, energy transition, agrivoltaics, energy policies, spatial planning*

Planning Adaptation And Tools For Resilience (4)

Analyzing Governance Models And Institutional Capacity For River Management In Southeast Asia: A Comparative Study Of Hong Kong And Shenzhen

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Rapid urbanization and population growth have brought significant transformations in the built and natural environment in Southeast Asian cities. Due to the intensity of land use, rivers are crucial in alleviating the negative impacts of urban development, primarily in relationship with flood prevention, recreational space provision, and agricultural production. Previous research has provided ample knowledge about river management's ecological and economic impacts; however, limited attention has been given to the governance model and institutional capacity. This research employs content analysis of policy documents and semi-structured interviews of knowledgeable informants to produce a longitudinal comparative study of the river management policy evolution in two densely inhabited and highly urbanized Southeast Asian cities, Hong Kong and Shenzhen. The research elucidates the socio-environmental effects of river policy in the two mega-cities within the Greater Bay Area. It illuminates the driven factors of river management policy, meticulously scrutinizes the structures of water governance and institutional capacities, and conceptualizes their policy-making models. Understanding river-management-related policy-making and governance models, in their differences and effectiveness, is essential for healthy urban development and the long-term well-being of the urban inhabitants. The findings can also provide policymakers, planners, and stakeholders insights on achieving socio-environmental responsive river management policies and integrated urban planning strategies in Southeast Asia.

Resilient Design And Anti-Fragile Environment: Developing A Complementary Relationship In The Public Realm

Francesca Sartorio (Cardiff University)

Much has been written on resilience in planning and the built environment and some attempts have been made to define antifragility in our disciplines and theoretically link these two concepts. This paper builds on theories of (dynamic non-equilibrium) resilience to analyse three case studies of adaptation to coastal flooding. It presents a short review of theories, illustrates the cases and their relevance and draws conclusions aimed at providing practical recommendations for the production of antifragile public spaces in our towns and cities.

Within this contribution, we understand resilience as the general adaptive capacity of a complex system (with agency, evolutionary and with learning capacity) and antifragility as an inherent characteristic to benefit from instability (stable, non-dynamic, available in 'fixed quantities' from the beginning) belonging to material objects. Both relate to the ability of a community to shape and re-shape its spaces and places to face new challenges.

Developing the approach that dynamic non-equilibrium resilience of planning and decision-making systems and antifragility of the built environment could be studied as complementary sides of the same coin (Sartorio et al, 2021), the paper will present initial findings from three case studies in Wales where built environment adaptations took place to enhance community resilience to unexpected natural crises. The cases have been chosen as exemplary of the issues many coastal communities face in the UK but also as they show what is possible, even within tight resource constraints, within a responsive governance environment. It is argued that successful adaptation is the result of both effective adaptive capacity and antifragile environments, well interconnected and bridged through innovative governance arrangements.

The focus of the contribution rests on developing methodological and theoretical links between the concepts of resilience and of antifragility in developing space and place through local governance arrangements.

Keywords : *Resilience, antifragility, public space, coastal flooding, innovative governance*

Urban Heat

Franklin van der Hoeven

In the past two decades, the urban heat island has emerged as one of the major health implications of the climate crisis. It began with the European heatwave that occurred in the summer of 2003, serving as a massive wake-up call. This event resulted in an estimated 30,000 to 80,000 deaths throughout Europe, disproportionately impacting the Paris metropolitan area. Subsequent heat events occurred in Western Europe in 2006 and Eastern Europe in 2010. Russian authorities reported 55,000 deaths above the usual mortality in 2010 due to the heat and smog generated by forest fires that year.

In response to the loming climate crisis, meteorological institutes began developing long-term scenarios. During the 20th United Nations Conference on Climate Change, the World Meteorological Organization asked weather presenters from each country to prepare a bulletin for the month of August 2050. TF1 presenter Évelyne Dhéliat, representing France, was assigned to create a report for August 18, 2050, based on a temperature map provided by Météo France. In a later interview, she recalled calling Météo France, exclaiming, "Wait, you've marked it at 40°. Are you aware? It's impossible; it's madness."

Subsequently, the summers of 2018 and 2019 shattered temperature records across Europe, with soaring temperatures surpassing 40 degrees Celsius for the first time in countries that had never experienced such extremes. In France, the warning for 2050 had already become a reality, only five years after the 2014 when the scenario was presented at the world stage.

The speed in which the changes are taking place is unprecedented.

Keywords : *Urban Heat Island Effect, heatwaves, climate change*

Assessing Urban Flood And Drought Content In The Nationally Determined Contributions (Ndcs): A Multi-Hazard Perspective

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The intensifying impact of climate change on the global hydrological cycle has manifested in heightened intensity, frequency, and duration of extreme hydrological events worldwide, posing significant challenges for urban resilience and sustainability. The latest Intergovernmental Panel on Climate Change Report (IPCC, 2023) highlights the rising frequency and intensity of compound events, such as floods and droughts, occurring simultaneously or in close succession, further exacerbating these risks.

Floods and droughts, prominent climate hazards affecting the global population, are more destructive when occurring together, with devastating impacts on communities and ecosystems (IPCC, 2023; Tabari et al., 2021). These events have disproportionately affected urban areas, where urbanization, together with climate change, intensifies temperature and precipitation patterns, leading to concentrated, intense precipitation and extended drought periods (United Nations Office for Disaster Risk Reduction, 2023).

Despite the recognized interconnectedness of floods and droughts within the hydrological cycle, current research, policymaking, and practice, particularly in urban areas, often fail to adequately integrate these hazards. While floods and droughts exacerbate each other's impacts, worsening extremes and affecting the average values of their records, they are typically treated separately in water management planning. Moreover, partly due to the immediacy of flood impacts, which attract more research attention, droughts' delayed and widespread consequences, often overlooked, are equally critical to address in comprehensive water management strategies.

This disparity in attention is partly attributed to the immediacy and visibility of flood impacts, which tend to garner more research attention than the slower onset and broader effects of droughts. However, droughts' delayed and widespread consequences extend across a larger spatial scale, making them equally critical to address in comprehensive water management strategies.

To address these gaps, this study aims to analyse how floods and droughts are addressed, both as standalone occurrences and interconnected phenomena, within the Nationally Determined Contributions (NDCs). The primary objective is to identify shortcomings in multi-hazard analysis and foster the development of policies informed by a holistic, multi-hazard perspective.

This research draws upon the comprehensive NDCs Urban Content Analysis framework developed by the UNESCO Chair on Urban Resilience, UN-Habitat, and UNDP between 2016 and 2023. The most recent report, released in 2022, analyses 194 NDCs submitted to the UNFCCC Secretariat by June 27, 2023 (Tollin et al., 2022). The report reveals that water and infrastructure are consistently identified as the most critical sectors for addressing urban adaptation challenges and responses, while flooding emerges as the most frequently mentioned climate hazard in urban contexts. This follow-up study specifically highlights the interplay between floods and droughts in urban settings.

The results highlight a limited focus on urban floods and droughts in NDCs, both as standalone and interconnected phenomena. However, consistent themes related to both hazards emerge, encompassing shared impacts, the need for common monitoring and evaluation systems, integrated water management, shared loss and damages, and the persistent lack of data.

In conclusion, strengthening the incorporation of floods and droughts in the policy-making process is crucial to bridging the gaps between national policies and urban strategies and practices, ensuring the resilience of cities in the face of climate change-induced extreme hydrological events.

Keywords : *Climate change policy, Nationally Determined Contributions (NDCs), Compound events, Flood and drought, Urban resilience*

Nourishing Urban Resilience Through A Territorial Food Systems Approach

Daniel Maia (Citta - Feup)

The global scientific and political discourse on sustainable urban transition has gradually acknowledged the significant role of food in enabling a more equitable, just and ecological scenario for city-regions. Emerging research and policies underline the effectiveness of adopting a food system perspective to address food sustainability's complex nature, providing ways to understand and analyse barriers and synergies within food scenarios (Sonnino, 2023). The system perspective provides a holistic scope accounting for all food-related socioeconomic activities and stakeholders participating in (producers, delivery companies, resellers, and consumers) or influencing (policy-makers, advocators, organisations) the food supply chains (Cabannes & Marocchino, 2018). However, translating such a comprehensive approach into policy frameworks involves significant challenges. In such circumstances, cross-scale and multidisciplinary planning can help overcome sociopolitical and institutional limitations and resistance to change in planning systems (Béné et al., 2019; Kassis et al., 2021). Therefore, the current international food debate supports integrating food and spatial planning policies as a means to promote and implement a food system perspective in policies.

Spatial planning can offer procedures to protect and manage peri-urban and rural farmlands and reconnect them to the nearest cities through a food relocalisation process, allowing physical and cultural proximity between producers and other food stakeholders (Brandt et al., 2019). Nevertheless, policy frameworks with such integration are scarce and often limited to sectoral approaches, lacking a more significant commitment to a food system perspective, such as in the Portuguese context.

In Portugal, the COVID-19 pandemic scenario sped up the creation of the first National food strategy (Estratégia Nacional de Segurança Alimentar e Nutrição), explicitly but timidly referring to the food system and food relocalisation in their guidelines (Portuguese Government, 2021). The strategy acknowledges local-regional self-provisioning as crucial for a just, sustainable, resilient food transition. Nevertheless, the National food policy framework still needs to refine the approaches to translate the strategic plan's vision and goals into local actions and establish methods to monitor the policies' progress and effectiveness.

Given those circumstances, the present project aims to analyse to what extent the current policy frameworks in Europe support food and spatial planning's policy integration and how it can promote a more sustainable, just, and resilient food transition. The research argues that spatial planning can significantly contribute to creating territorialised/localised food systems, fostering linkages between urban centres and agricultural landscapes and territorial cohesion. Therefore, this research will conduct a literature review examining the contextual policy frameworks in which i) food planning embraces a systemic perspective, ii) spatial planning procedures contribute to the territorialisation of food systems, and iii) food planning practices inform spatial development strategies. Moreover, the literature review's results will help illustrate the primary rationales and practices while developing a conceptual framework related to the food system perspective and spatial planning. The conceptual framework will assist in a deeper analysis of the Portuguese scenario, considering its differences in spatial planning systems and governance to elaborate a new conceptual proposal for promoting food relocalisation strategies at a city-region level across the country.

***Keywords** : Food Systems, Spatial planning, Policy integration, innovative territorial planning tools*

Planning Adaptation And Tools For Resilience (5)

Use Of Technology-Based Citizen Participation Methods And Instruments For More Inclusive And Just Cities, A Critical Literature Review

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One of the fundamental principles of realizing an inclusive and just city involves designing an accessible environment for all, including physically disadvantaged groups, such as the elderly, children and people with a physical disability (Martin et al.,2019). This paper offers a critical literature review on technology-based citizen participation methods and instruments designed to enhance the accessibility of open public spaces - streets, parks, squares - for all inhabitants, including physically disadvantaged groups. Digital technologies, such as AI, can be powerful means to facilitate active and effective citizen participation in design and planning decision-making processes (Goodspeed, 2015). However, these technologies often have limitations for those disadvantaged groups due to the following: (1) these groups often have limited access and capacities to use new technologies (Vaportzis et al., 2017), (2) lack of diversity and biases in datasets used for technology development (Münster et al., 2017), and (3) there are different levels of trust in technologies in different political and cultural contexts (Aristeidou et al.,2017). Improving digital technologies and tools for active citizen participation is crucial in achieving inclusive and just cities by efficiently involving disadvantaged groups throughout urban design interventions' design, testing, and evaluation processes.

This paper presents a critical literature review on existing technologies for citizen participation, particularly for disadvantaged groups, to develop a conceptual framework linking accessibility, representation, and utilization of emerging participation technologies. This framework provides insights into the complexities of integrating emerging participation technologies into cities' social and spatial landscapes. Additionally, it aims to guide future research efforts towards creating citizen participatory technologies that are technologically advanced and, at the same time, socially equal.

Keywords : inclusive urban design, citizen participation, just city, digital technology

Planning Tools And Building Regulations Towards Greening Densely-Built Greek Cities: Scales Of &Quot;Urban Green Grabbing&Quot;

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"Green" urban development is the dominant "paradigm" in spatial planning and is determined by changing overarching concepts such as sustainability, resilience and more recently climate neutrality. As the Greek spatial planning system has incorporated the objectives of "greening" cities, the paper highlights the need to assess new tools of urban development and planning regulation in Greece in terms of their cumulative impact on the urban landscape, both in terms of the image of the city and their actual contribution to the pressing goals of improving environmental conditions and adapting to climate emergency. The paper activates the concept of "urban green grabbing" (Garcia-Lamarca et al. 2022) that studies green urban development through a socio-political lens and highlights the grabbing of urban common resources that is promoted in the context of environmental protection and energy conservation.

Green grabbing (Fairhead, 2012) is related to land privatized, enclosed or otherwise exploited for environmental goals, such as energy transition (wind farms and photovoltaic parks, energy plantations, CO2 sequestration etc). "Urban green grabbing" as introduced by Garcia-Lamarca et al (2022) refers to the credibility and extra value added residential real-estate developments, through the incoroporation of 'green' strategies and/or their location in 'green' areas, as well as to the related forces of "green gentrification". The paper suggests extending the use of the term to discuss urban green grabbing that is facilitated, through planning tools and building regulations that give incentives to investors to incorporate "green" features to their developments.

Through this perspective, the paper studies a) the environmental incentives of the greek New Building Code as introduced in 2012, and b) major urban development projects promoted through Special Urban Plans that can bypass existing regulations in force, inter alia, on the grounds, of environmental protection and the management of natural disasters.

The period of the economic crisis, which started in Greece in 2010, was rich in the production of laws and regulations for space and land development. Despite their often environmental objectives, the dominant aim of this period was to accelerate the implementation of urban plans, to facilitate land development and to "improve the business climate". Environmental incentives given to private investors, during the crisis are mostly related to increased plot ratios and permissible building heights or to legitimizing exceptions to regulatory plans in force. As construction activity was frozen during the crisis, the effects of the new planning tools and building codes and regulations have started to become visible in cities only after 2020. It is argued that, in both scales of urban space, i.e. of the development of the individual urban plot and that of large-scale urban interventions, different versions of locally produced urban green grabbing is legitimized, with negative impacts on the urban landscape and the environmental conditions of everyday life in the city. The paper first delves into the idea of urban green grabbing. Then, presents the nature of environmental incentives and planning tools related to environmental protection that were introduced during crisis. Finally, it discusses the outcomes of such tools in the urban environment of densely built greek cities. It is argued that through such legitimate green grabbing, it is not only land that is being usurped but also, urban commons, like the urban landscape and the image of the city.

***Keywords** : urban green grabbing, environmental incentives, building regulations, greek cities, image of the city*

Climate Tests In The Montreal Area: Towards A New Assessment Tool For Urban And Real Estate Developments?

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As the effects of global warming are becoming more significant and visible, climate change is set to be one of the most important stakes of our era. Modeling and research have shown that it has direct and long-term impacts over biodiversity, health and human economies (Meadows and Meadows and Randers, 1972). It is now inevitable for decision-makers to assess the extent how their actions contribute to climate change. In other words, they must find solutions and methods to anticipate the impacts of their decisions on the environment (Bourg and Papaux, 2015).

In Canada, the environmental issues are assessed at different scales. At the federal level, the Impact Assessment Act demands an environmental study for infrastructure projects, in order to reach "carboneutrality" by 2050. At the provincial level, each sets its own regulations and evaluation tools. In Quebec, the Environment Quality Act (EQA) defines the standards for environmental assessment for large-scale projects, such as mines or power plants. While it is proven that urban and real estate developments play a major role in climate change (Hoornweg and Sugar and Trejos Gomez, 2011) and can help mitigate it (Desjardins, 2011), the EQA explicitly exempts from environmental assessment "all [...] structures intended for dwellings, wholesale and retail trade, or [...] offices [...]".

Within Quebec, local governments are free to set the regulations and tools they chose to anticipate climate change effects. As the provincial law (the EQA) does not apply to urban and real estate projects, municipalities are on the front line to assess the climate impacts of these developments. In this context, several Quebec municipalities started using "climate tests" in the late 2010s. Due to their recent adoptions, these tests are poorly documented. Yet, they are rapidly expanding: in 2024, more than three large cities use a climate test to assess the climate impacts of their decisions.

This contribution explores the origins, construction and current uses of climate tests in the Montreal area, where both the municipal government and local districts have (or are) set(ing) their own climate tests. The study relies on a methodology that focuses on a field approach: first, the analysis of several climate tests that are publicly available, or that the authors obtained from the municipalities; second, the conduction of 15 interviews with academics, public and private-sector professionals working on or with climate tests. This unique combination of data brings new perspectives for the study of climate tests in Quebec.

The discussion gives a historical perspective of the rise of climate tests in North America. In particular, it suggests that the Montreal tests derived from a combination of US and France climatic models, environmental grids and assessment tools. It also shows that the adoption process of the climate tests share similarities, although their day-to-day use is influenced by political strategies. Secondly, it gives an extensive analysis of the current (Q4 2023) climate test that is designed and updated by the City of Montreal, focusing on the indicators and the uses of the climate test. Third, it presents the climate assessment tools that are adopted by three Montrealer district-level governments: Rosemont - La Petite-Patrie, Le Plateau and Sud Ouest. It shows that the rise of such tests gives complementary assessments while possibly complexifying the decision-making process.

After a brief mention of the limitations of its data (the constant and rapid evolution of climate tests) and methodology (the need to limit the analysis to a specific step of the climate tests' development), the contribution concludes giving perspectives on the future evolutions of climate tests and their role in the assessment of the climate-related impacts of urban and real estate developments.

***Keywords** : climate change, climate test, environmental assessment, real estate development, urban development*

The Role Of Planning For More Resilient Low-Medium Altitude (Snow-Related) Communities. Insights From The Beyondsnow Project.

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In recent years, mountain communities related with the snow tourism sector has been dealing with various and in some cases highly challenging trends. Above all, climate change effects, especially increasing temperatures and decreasing snow-reliability, have been already observed and are expected to intensify in the future (Marty, 2013). This, accompanied by social and demographic changes, can lead to a potential decrease in the attractiveness of snow tourism destinations (hereinafter STDs) and a consequential weakening of their local economies. Analyses from the ongoing European Alpine Space project 'BeyondSnow' indicate that the most afflicted are potentially the smaller, lower-altitude ones. The cascading effects of the lack of snow and climate change more generally, however, also impact directly or indirectly on the community key infrastructures and on settlements making these communities even more vulnerable. Following the IPCC (2022) definition, vulnerability is defined as "the propensity or predisposition to be adversely affected, a quality shaped by diverse factors, including exposure, sensitivity, and adaptive capacity" recognizing the intricate interplay between environmental shifts and societal dynamics. These dynamics have evident reflections on planning. However, are the actual planning tools and practices for these small alpine mountain areas at low-medium altitude adequate to effectively deal with them? Which planning innovations can contribute making these communities more resilient to climate change and in particular to its effects in the winter tourist season? If "nature-based solutions for adaptation hold huge potential to work right now to buffer the impacts of climate hazards for frontline communities (FEBA, 2017), how do they relate to planning in these contexts? What can be the relationship between planning and ad-hoc local/regional transition strategies reducing the vulnerability of STDs? Starting from the insights of the BeyondSnow project, authors aim at giving a contribution to support planning efforts for community adaptation transition paths towards more resilient scenarios and sustainable development.

Keywords : *Climate Adaptation, Mountain Communities, Transition Strategies*

Moving Waste Storage Towards A Circular Economy: Stakeholder Perspectives

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Many countries are moving towards a circular economy, yet many wastes continue to be landfilled despite often containing valuable resources including critical metals and aggregates. We face also serious strategic challenges with the future supply of these materials. Conventional landfills are unsustainable and many countries have adopted targets to reduce the amount of waste being deposited in them, but alternative solutions are not practical for many wastes and we need to find a more sustainable solution for managing the continued multimillion tonne annual arisings of industrial, mining and mineral wastes. Conventional landfills are also unpopular with local communities, causing negative impacts on the environment and wellbeing, and the associated stigma, during their operation and long-term management making it hard to secure the necessary permits. One alternative is to design waste repositories for industrial and/or mineral-rich wastes in such a way as to build in future resource recovery, thereby moving towards a circular economy solution for materials that would otherwise go to conventional landfill (Sapsford et al., 2023). In these repositories wastes would undergo biogeochemical engineering to separate and concentrate resources and contaminants enabling their extraction, use and/or treatment in the future. At the same time, sites could also be managed to achieve other policy objectives, including for nature conservation and recreation.

This research uses the Q Method to examine differing perspectives on this concept. The Q Method is particularly suitable for issues where there is no consensus of opinion. We asked residents of seven areas in England and Wales with a history of industrial and mining waste disposal, and practitioners working in the waste management sectors to 'sort' a series of statements based on the extent of their agreement with the participant's perspective; this is the Q sort. The statements were drawn from interviews with professionals and covered a range of opinions on this alternative waste management, including its value for resource recovery, who should be responsible for its development and long term management, priorities for industry, local people and policymakers. Analysis of the Q sorts revealed differing perspectives on this concept, and provides insights for researchers and policymakers considering more sustainable alternatives for the long-term management of industrial wastes.

Keywords *: Critical materials, Waste management*

Quantifying The Effects Of Spatial Determinants On Cooking Fuel Choices In India

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Household energy consumption constitutes approximately 30%, of India's overall energy consumption, with cooking alone accounting for about 40% of this household energy usage. According to the recent consumer survey of India, approximately 30% of the population is still using polluting fuels in India, and several policies like the Pradhan Mantri Ujjwala Yojana have been launched to improve the penetration of LPG as the primary cooking fuel in households. While studies have examined the influence of socio-economic factors on household fuel choices, research focusing on spatial socio-economic dynamics remains limited. This study seeks to fill this gap by investigating the role of regional economies in shaping household cooking fuel preferences, thus addressing concerns related to sustainability and indoor air pollution. This study hypothesises that regional economies might play a significant role in influencing the cooking fuel choice of households. Given the fact that the subsidies and policies governing the cost and distribution of fuel are implemented on national or regional levels, coupled with existing regional disparities in India, studying the influence of spatial variables is imperative. Utilizing Spatial Regression Analysis, specifically the Spatial Lag Model, this research examines the impact of various regional variables on household fuel choices. Findings indicate that GDP per Capita, Built-up Area per 100 sqm, Percentage of main workers in the district and Percentage of households with land ownership exceeding 1 Ha significantly influence the prevalence of LPG usage as the primary cooking fuel in Indian households. For instance, an increase of INR 20,000 in GDP per capita of a district causes a 1% rise in LPG adoption among households in that district. Furthermore, the spatial lag coefficient highlights the spillover effect, indicating that a 1% increase in LPG usage among all the neighbouring districts leads to a 0.42% rise in LPG adoption among the households of the target district. This study underscores the implications of improved technology or new policies on energy usage patterns, suggesting a need for nuanced policy measures tailored to regional disparities. The insights generated from this analysis offer valuable guidance for policymakers and regional planners in formulating targeted interventions to address regional inequalities and promote sustainable development. Additionally, this spatial perspective enables an understanding of resource allocation for efficient regional development. Future research could enhance these findings by incorporating more detailed datasets and refining the Spatial Weights Matrix to account for factors such as connectivity and policy influences.

Keywords *: Cooking Energy, Household Energy, Spatial Regression Analysis, Cooking Fuel Choice, Geospatial Analysis, Regional Planning*

Planning Coastal Regions

Vulnerability Assessment And Resilience Planning Strategy For Coastal Zones Of Urban Agglomerations Based On The Invest Model — A Case Study Of Ghm-Gba, China

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Climate change and urbanization have caused coastal areas to be vulnerable to natural hazards. The article evaluates the coastal vulnerability of the Guangdong-Hong Kong-Macao Greater Bay Area (GHM-GBA) with the Integrated Valuation of Ecosystem Services and Trade-offs (InVEST) model and proposes targeted resilience planning strategies.

The Coastal Vulnerability Index (CVI) used in this study refers to measuring the vulnerability of coastal zones to sea level rise and storm surges based on paying full attention to the development of social dimensions in coastal areas (Ai et al., 2022; Caro et al., 2020; Hopper et al., 2016). The CVI includes an exposure index(EI), sensitivity index(SI), and adaptive capacity index(ACI): EI and SI refer to the propensity of coastal populations and properties to be adversely affected by natural disasters, while ACI refers to the ability of coastal communities to reduce the impact of natural disasters. Therefore, the study chose to measure CVI based on the Coastal Vulnerability model in the InVEST software to quantify the vulnerability of GHM-GBA 's coastal zones and identify urban areas susceptible to marine disasters in developing urban agglomerations. In terms of data, EI data includes wave exposure, wind exposure, natural habitat and terrain data. The SI is characterized by population density, which comes from the GHM-GBA Statistical Yearbook. The ACI is characterized by the spatial pattern of transportation facilities and medical facilities, which can be obtained by writing Python code for Point of Interest. The specific analysis method is as follows: First, obtain vector graphics of coastlines, natural habitats, sea level change rates, sea level digital elevation models, and point data of storm wind speeds and surge levels. Secondly, the ArcGIS platform is used to visualize economic and social data, such as population density, GDP per capita index and distribution of hospitals. Finally, the coastal vulnerability assessment module imported into InVEST calculates a comprehensive vulnerability index to predict areas at high risk of inundation or erosion during storm surges (Figure 1).

The GHM-GBA is a national strategy personally planned, deployed and promoted by General Secretary Xi Jinping. It is also a new practice that promotes the development of "one country, two systems". The GHM-GBA is an urban agglomeration composed of Guangzhou, Shenzhen and Zhuhai and Hong Kong and Macao's two special administrative regions (Figure 2). It has a total land area of approximately 57,000 km2, a total population of approximately 86 million people in 2020, and a regional GDP of US$1,668.8 billion. Because coastal urban agglomerations gather high-density populations, industries, and facilities, when facing marine disasters, the degree of damage is much higher than that in inland areas. In 2018, climate disasters caused the total economic output of the GHM-GBA to reach 15.92 billion yuan. From 1949 to 2008, 125 storm surge disasters occurred in the GBA. The coastal areas of the GHM-GBA have become the "hardest hit areas" affected by floods and lowland inundation, posing a massive threat to infrastructure and the sustainable development of cities. Therefore, studying the assessment of GHM-GBA coastal vulnerability and discussing planning strategies to improve coastal resilience will be helpful for disaster prevention and ecological restoration of coastal urban agglomerations.

Figure 1 Research Framework

Figure 2 Study Area

Reference:

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Arid Urban Deltas: Towards A Framework Of Sustainable Development

Gabriel Schwake (Vu Amsterdam)

This paper discusses the transformative potential of arid deltas as catalysts for social and environmental urban revitalization. Focusing on the dry urban deltas, characterized by their aridity on the one hand and intermittent flooding on the other, the study addresses neglected river deltas that disrupt urban landscapes, posing flood risks intermittently. Using a comparative research approach across analogous yet different geographical contexts, this paper discusses three case studies in the Eastern Mediterranean, Southern Mediterranean, and the US-Mexican border: Nahariya (Israel), Souse (Tunisia), and Reynosa (Mexico). Each of these case studies is characterized by a dry river delta that is integrated into the urban settings, forming neglected and desolate areas during most of the year and sources of flood hazards during the wet periods. As such, they form a rupture in the urban fabric and everyday life. In doing so, the paper aims to shift the perception of these arid water sources from urban nuisances to resilient backbones supporting sustainable everyday life. Unique to this study is its focus on the fast-changing transition from dry to overflooded conditions in these contexts, a scenario that remains largely unexplored.

Contrary to prevalent strategies dealing with water abundance or scarcity, this paper advocates for recognizing the hidden potential of arid delta rivers within urban environments. It emphasizes leveraging these overlooked resources to create vibrant urban ecosystems, which is crucial for mitigating climate challenges and fostering social inclusivity. Accordingly, the main research question this paper sets to explore is how could the arid water source which flows through the city be transformed from an urban nuisance and hazard into a resilient backbone supporting an environmentally sustainable and socially inclusive everyday urban life.

Embracing the "living with water" approach (de Jong, van Rooy and Hosper, 1995), the paper first discusses how one lives with water, when there is either little or too much of it. Therefore, the emphasis is on using these desolate areas to contain and manage flooding during the wet seasons while functioning as the centre of urban activities during the dry seasons, i.e., most of the year. Relying on the conjecture that walkability, social interaction, biodiversity, and communal multi-functional green spaces form the pillars of a healthy and sustainable city, this project relies on four layers of interventions – water, community, city, and ecology, each with its set of spatial tools, which we are applying both on the macro and micro level; making sure that all layers are present throughout the town. To merge these layers into a consistent planning strategy, this project endorses a data-based approach that relies on user patterns, seasonal flow rates and water velocity, connectivity, visibility, greenery, and land use, which corresponds with the aforementioned layers. In doing so, we are proposing a methodology that generates a variety of spatial interventions, according to the prioritized proportion between the different layers.

The project's significance lies in addressing the vulnerabilities of dry urban deltas in the face of urbanization, population growth, and climate change. By advocating for transformative data-based solutions that integrate social sustainability, urban livability, and resilient water management, the project fills a crucial research gap in the under-explored setting of arid urban deltas. Consequently, it brings forward a new theoretical and methodological framework that could be applied in a variety of comparable contexts, supporting current and future climate change challenges while contributing to social inclusion and urban livability.

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The Governance Of The Coastal Region In Portugal: Landscape As A Catalyst For Change.

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Most European coastal regions face multifaceted governance challenges due to climate change and to high levels of coastal landscape transformation, which are expected to increase considerably in areas with high population and infrastructure concentration (Williams et al., 2022). Despite long-term political and scientific claims advocating for the obligation to protect and enhance coastal regions, their attractiveness for human activities continues to rise. Moreover, several pressures persist, contributing to the ongoing transformation of their character. The need for substantial reform of their governance systems is evident and well-documented (Kelly et al., 2019).

The current scientific debate emphasises that coastal governance reform requires recognising the boundaries and dynamics of the coastal socio-ecological system and incorporating its specific coastal condition into the governance system, especially in planning and management instruments (Van Assche et al., 2020). In landscape research, there is a growing perception of the advantages of a landscape-governance approach. Landscape governance is advocated as being the spatialisation of environmental governance, reconnecting the politics of scale (multi-level governance) with the natural conditions of places (Görg, 2007). Landscape governance relies on the contemporary conceptualisation of the landscape concept as a bridging concept between natural and social sciences. At the European level, the Council of Europe Landscape Convention sets a robust political framework for its implementation.

So far, empirical research on landscape governance primarily focuses on landscape forest restoration in the Global South, with discussions on coastal landscapes remaining limited (Gonçalves and Pinho, 2022). This trend is also observed in coastal governance and coastal and landscape planning and management research. Considering the theoretical advantages of employing a landscape-governance approach, it is fundamental to expand our empirical understanding of the role that landscape thinking has been playing in the governance of the European coastal region.

To address this gap, we conducted an explanatory multiple case-study research in Portugal with the aim of understanding how the landscape concept has been integrated into the governance of the coastal region and to what extent this consideration has impacted its outcomes. Portugal faces several challenges regarding coastal governance and climate change, making it a pertinent case. Three Portuguese municipalities - Vila do Conde, Póvoa de Varzim and Esposende - were selected because, between 1977-1978, the landscape architect Ilídio de Araújo produced the seminal study "Coastal Zone Landscape Survey between Caminha and Cortegaça", ordered by the General Directorate of Urban Planning. This study, a rarity for its time in Portugal, serves as a valuable resource to explore the introduction of landscape thinking in the planning governance system. The unit of analysis is the governance system, encompassing the planning instruments and actors and their effects on the system to be governed (the coastal landscape). The temporal analysis spans from the 70's to the present day.

Results reveal variability in the integration of landscape thinking in the governance of the coastal region over time, strongly influenced by the European policy agenda. Additionally, protected areas set up decades earlier were fundamental to safeguarding the coastal landscape, which, combined with mandatory landscape instruments, have been essential to protecting the coastal socio-ecological system from urban developments. It also became evident that if landscape thinking had prevailed in the governance of the coastal region, it could have been a game-changer for a more sustainable coastal region. While acknowledging the limitations of generalisation from a case-study research, our conclusions point out the need for a transformative paradigm shift towards coastal landscape governance, anchored in the Council of Europe Landscape Convention.

The Italian Way Of Planned Retreat. Coastal Settlements Retreat As A Multi-Purpose Strategy: The Case Of Lecce

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After introducing the main adaptive strategies for coastal areas, the contribution focuses on the planned retreat (or managed retreat) strategy and reconceptualizes its possible application in the Italian context.

The planned retreat strategy reduces exposure to hazards by moving assets, activities, and people to safe areas. For this reason, it is considered the 'last option' among the internationally codified adaptive strategies when protecting is too costly and adapting buildings and infrastructures is infeasible. It has an opposite approach compared to strategies that aim to resist (protect), it substantially differs from strategies that aim to implement resilience (advance, accommodation, ecosystem-based adaptation), and it requires spatial planning choices that go to transform rather than modify the status quo.

Our first assumption is that the planned retreat is a strategy not strictly related to environmental risks and climate change. Even though all the strategies may have other purposes, coastal defence and adaptation always have an unavoidable linkage with specific hazard scenarios. Instead, the planned retreat can be an opportunity for a radical transformation regarding spatial justice, landscape restoration, and environmental conservation. The planned retreat can also be seen as a redemption opportunity when rethinking past socio-spatial wrongdoings. This interpretation of planned retreat presupposes the collective admission of past failures and the ratification of new civic pacts. In this sense, we could see it as a social adaptation strategy based on new socio-ecological responsiveness and on the awareness of the possible collective gains that can descend from it.

The second hypothesis is that there is a specificity of the planned retreat in Italy. Italian coasts are among the geographic contexts most transformed during the last century. The conquest of the sea is relatively recent in the history of Italy due mainly to balnearization following the economic boom. Italian coasts today are highly inhabited territories with a high degree of urbanization. Unlike other world regions where coastal retreat essentially aims to reduce exposure to environmental risks, in Italy planned retreat is a multi-purpose strategy aimed at addressing several issues that go beyond climate change and environmental risks: low accessibility to sea and difficulties in promoting sustainable coastal mobility; public land reduction due to coastal erosion and anthropic activities; landscape and environmental degradation; the presence of thousands of unauthorized constructions in contrast with the provisions of the past and current urban planning schemes.

The last part of the paper presents how the objectives mentioned above have been translated into the General Urban Plan (PUG) of the municipality of Lecce, where ecological, social and climate issues related to the sea level rise level have been blended to improve and reorganize the existing unauthorized coastal settlements.

Keywords : *planned retreat, coastal settlements, climate change, adaptation, unauthorized construction*

Towards Improved Flood Resilience: Integrating Flood Protection And Spatial Planning In Urbanized Deltas.

Max de Vries (University Of Twente)

In urbanized deltas around the world, flood resilience is under pressure due to climate change, urbanization, and other societal developments. Especially in the Netherlands, flood risk management (FRM) has long relied solely on flood protection through the construction of engineered structures to prevent floods from happening (Verweij et al., 2021). However, focusing on flood protection only is not sufficient in the future due to climate change and increasing urbanization (van Buuren et al., 2016). In light of these challenges, the multi-layered safety approach was introduced in the Netherlands in 2009, which complements the prevalent first layer in the Netherlands, 1) flood protection, with two additional layers: 2) resilient spatial planning, and 3) emergency management (Oukes et al., 2022). The addition of these two layers exemplifies the shift from traditional FRM towards integrated FRM. This is also referred to as the diversification of FRM strategies, which has the potential to enhance flood resilience (Hegger et al., 2016). However, despite its potential, the integration of flood protection and spatial planning has proven challenging and remains underutilized. The flood resilient landscapes approach is seen as a promising concept that tries to address that gap by integrating flood protection and spatial planning as a means to enhance flood resilience. Unlike traditional FRM methodologies, which mainly focus on hydrological scales, the flood resilient landscapes approach applies to a landscape scale and aims to create additional public value through the realization of co-benefits and synergies. Besides that, it explicitly takes the future into account in spatial developments. However, the implementation of flood resilient landscapes does not fit the status quo in FRM in the Netherlands.

This research takes the urbanized deltaic region of Zwolle in the Netherlands as geographical scope and focuses on three main directions that currently hamper the implementation of a flood resilient landscapes approach. First, we see that in integrated FRM a governance context that facilitates cross-sectoral collaboration is necessary to enhances resilience. However, in the prevailing governance context a multitude of actors are present that are mainly working in their own sector only, which indicates that integration is currently hampered. Therefore, we try to identify if actors have the capacity to work on interconnected societal and climatic issues by conducting a social network analysis of actors and policy issues present in the governance context. Second, drawing boundaries and identifying which internal and external factors to include in processes leading toward flood resilience is challenging due to the complexity of the social-ecological systems they are implemented in. Through literature review and qualitative research methods we try to demarcate this system and identify which goods and services to include, or not, in integrated FRM approaches. Lastly, we notice that assessment frameworks are mainly costs centered, focusing on short-term process values such as efficiency and effectiveness. However, considering both climatic and societal uncertainties, flood resilient landscape alternatives should be forward-looking by actively taking into account the future. Through qualitative research methods we develop a forward-looking assessment frameworks that support decision-makers in making future-proof decisions that facilitate the implementation of flood resilient landscapes. Based on the abovementioned three main study directions this research aims to identify opportunities, bottlenecks, building blocks, and pathways for the implementation of a flood resilient landscapes approach that contributes to improved flood resilience of urbanized deltas.

Keywords *: Flood resilience, Spatial planning, Forward-looking, Climate adaptation, Integration*

Coastal Regions and Territorial policies

Navigating Urban Futures: Towards Sustainable And Resilient Coastal City Of Izmir

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This study delves into the repercussions of urban issues with the growing climate emergency, a water problem illustrated by major floods and periods of drought, an agricultural problem, industrialization, spotlighting migration, overurbanization, and pollution while exploring solutions through sustainable and resilient initiatives. In this study, we focus on Izmir: a coastal city, emphasizing the unique challenges and considerations associated with its geographical location. The study begins with an analysis of the Izmir Metropolitan Municipality, particularly its endeavors to create a smart and inclusive city. The primary objective is to scrutinize the aftermath of industrialization, emphasizing migration, overurbanization, and pollution, and subsequently explore sustainable and resilient initiatives. This study aims to provide insights into the challenges and opportunities associated with urban development, with a specific focus on Izmir. The research employs a dual methodology, incorporating a comprehensive literature review and a case study centered on the city of Izmir. Theoretical frameworks from urban studies, environmental justice, and sustainable development guide the analysis of global urban dynamics and the specific case of Izmir. Global urbanization rates have surged, with cities consuming disproportionate amounts of energy and contributing significantly to carbon emissions. Despite cities generating substantial GDP, they simultaneously pose ecological challenges. The study critiques prevalent "smart city" development models, advocating for a paradigm shift towards inclusivity and participation. It underscores the necessity of recognizing environmental justice, particularly concerning class, gender, and geography, for global sustainability. Limitations include potential biases in data sources and the inherent challenge of predicting future developments accurately. Future research should delve into the practical implications of sustainability initiatives, especially within marginalized communities. The study implies that addressing these limitations is crucial for developing effective urban policies. Transparent, democratic, and participatory processes are deemed essential for smart city development. The paper contends that technological advancements should not overshadow the socio-political and economic structures integral to cities. It urges a reevaluation of current urban development approaches to address political, geographical, and financial challenges. Sustainability initiatives carry the potential to influence societal attitudes, corporate social responsibility, and environmental consciousness. The paper calls for a departure from purely technological solutions, advocating for an inclusive, justice-oriented approach that accommodates diverse social groups' vulnerabilities.

This paper contributes by critically assessing existing smart city models and championing a more inclusive, participatory approach grounded in environmental justice. Emphasizing the need to balance social, economic, and environmental sustainability aligns with the UNDP's Sustainable Development Goals. The case study on Izmir provides practical insights into the challenges and opportunities inherent in implementing sustainable and resilient initiatives within a specific urban context. In conclusion, this study provides a comprehensive exploration of urban challenges and potential solutions, with a particular emphasis on the dynamic landscape of Izmir. The paper advocates for a holistic approach to urban development, acknowledging the intricate interplay of environmental, social, and economic factors.

Digital Seascapes: Digital Technologies For Building Resilience Of Coastal Environments

Ashita Gupta (University Of Plymouth), **Katharine Willis**

Global strategic goals for creating sustainable resilient cities and growing concern over the climate crisis, including human impacts upon coastal waters and degradation of marine environments, requires that coastal cities empower and inspire communities to cherish city seascapes by developing innovative solutions. (Leyshon, 2018, Toomey et al., 2020, Fletcher and Potts, 2008, Zsamboky et al., 2011, Nursey-Bray, 2017). Place based digital technologies in this regard have the potential to create marine citizenship by building and nurturing relationships between people and marine environments to establish and care for the sea as a shared resource. (Cigliano et al., 2015, Conrad and Hilchey, 2010, Kelly et al., 2020, Willis and Gupta, 2023, Holland, 2021)

This research used a community co-design approach in Plymouth- UK's first national marine park to explore whether place-based digital technologies can engage communities with the marine spaces and make coastal areas more accessible; especially for excluded neighbourhoods close to the sea. Using the collaborative community-led concept of a city marine park (Pittman et al., 2019), it also explored the role of digital technologies within marine spatial planning practices for creating marine citizenship against the challenge of building coastal resilience.

By facilitating access to temporal and biodiverse marine spaces such as rocky shores (inter-tidal rockpools), place-based digital technologies can create new ways for communities to access and engage with the sea/marine environment; in turn establishing a sense of place. We argue this can contribute to coastal resilience by establishing stewardship of city seascapes as a 'blue commons. Further, an integrated approach using digital placemaking within marine spatial planning can help build community capacity and the necessary cross-sector collaborations for addressing challenges around resilience.

Keywords *: deprived coastal neighbourhoods, digital technologies, city marine park , Coastal resilience*

A Research-Driven Approach To Develop Odense (Dk) As A Resilient Port City.

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Port cities, historically hubs of global trade and commerce, are experiencing profound transformations, driven by geopolitical changes, technological advancements, demographic trends, and environmental challenges such as sea-level rise. With the changes in the maritime industry and migration of port functions away from central urban areas, numerous waterfronts, which once hosted traditional port activities, are now characterised by underutilised land and infrastructure (Girard et al., 2014, Hein, 2016). As a result, architects, planners, local governments, and private stakeholders continue to embrace urban regeneration, transforming their waterfronts into vibrant urban areas.

The process of waterfront regeneration often entails repurposing former port infrastructure and land for mixed-use development, including residential, commercial, and recreational purposes (Giovinazzi and Moretti, 2010). However, since waterfront regeneration projects often prioritise real estate development and mass tourism, they can also have negative social and environmental impacts (Moccia, 2012, Hein, 2016). To facilitate truly sustainable and resilient waterfront regeneration projects, there is a need for a paradigm shift towards a more holistic planning approach.

The project case study is located in Odense, the third biggest city in Denmark, and its port is changing from a productive and industrialised harbour into a residential one. These urban development transformations require a deeper understanding of the local dynamics (environmental, social and economic) and external ones, such as climate change.

The research aims to reveal common features of resilient port cities, drawing upon case studies, mapping techniques, and a design-based methodology to inform the development of sustainable urban strategies for enhancing the quality of life for the community of Odense Port.

Keywords *: Port cities, Regeneration, Resilient, Design approach, Climate change*

Mapping And Assessing Ecosystem Services To Support Territorial Planning Strategies: A Case Study In Friuli Venezia Giulia Region, Italy

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Ecosystem services (ES) mapping and assessment is an important tool for policy- and decision-makers to better understand the spatial links between ecosystems and their benefits for society. These benefits include climate change mitigation and adaptation, environmental risk reduction (e.g., reducing air pollution, improving water quality), resource supply (e.g., food and water), biodiversity support, and nature-based recreation opportunities, among others.

The use of ES mapping and assessment methods is therefore essential for ensuring proper consideration and integration of ES into (spatial) planning practices that involve the development and management of land and human assets, including but not limited to land use, infrastructure and mobility, landscape, and conservation planning.

For example, spatially explicit mapping and assessment of ES can be used to spot problem areas in need of intervention, to identify current and potential ecologically valuable areas that should be safeguarded or enhanced, or to assess the impacts of (future) development. Their use as a planning support tool can thus lead to more informed decisions dealing with the spatial allocation and prioritization of planning strategies and interventions aimed to tackle sustainability objectives and development options, address societal challenges, and provide socio-environmental benefits (also) through ES.

This study presents an application of ES maps and assessments to support the definition of integrated planning strategies aimed at both improving sustainable mobility networks (in particular water and cycle routes) and conserving and enhancing the natural/seminatural ecosystem assets in the coastal area of the Friuli Venezia Giulia Region, Italy.

This area presents different valuable ecosystems (e.g., coastal lagoon, river, inland wetland, terrestrial, and karst ecosystems) – some of them already included in a protection scheme such as Natura 2000, regional natural reserves and parks, protected natural biotopes – that are extremely important not only for biodiversity but also for their scenic beauty and the opportunities offered to people for nature-based recreation activities. In addition, the Region is highly committed to supporting and improving sustainable mobility and tourism (especially bike tourism), also taking advantage of the highly attractive natural assets and cultural heritage disseminated throughout the region, including in the coastal zone and immediate surroundings. However, given its characteristics (e.g., many coastal areas are well below sea level), this is also one of the regional areas that are (and will be) more prone to suffer from climate-change-related impacts, especially due to projected sea level rise, the high risk of coastal and river floodings, and wildfires.

The overall aim of this study is to support the development of win-win planning strategies dealing with the development of territorial projects that entail a sustainable mobility network system (which can serve both tourism and, to some extent, everyday use) that also considers the role of ecosystems in delivering ES (e.g., environmental risk reduction, recreation, biodiversity support) through greenway-like routes. It is a win-win strategy since the benefits are multiple. Because greenway routes are rich in nature and wildlife, they can supply several ES and support biodiversity. For the same reason, they are more attractive to people, increasing walking and cycling trips.

The potential of ES maps and assessments will be shown to inform the definition and indicative spatial allocation of different nature-based measures that should be applied along with the development of the sustainable mobility network to ensure that ES are considered an integral part of the territorial strategy. Results will be discussed in light of the potential of developing greenway-like sustainable mobility networks to address the environmental challenges of this coastal area, with special attention to climate change adaptation.

Keywords *: ecosystem services, ecosystem-based adaptation, strategic planning, sustainable mobility*

Rethinking The Waste Of Planetary Urbanization For Urban Challenges: Potential, Strategies And Governance In Terrain Vague Projects

Krystallia Kamvasinou (University Of Westminster), **Lorenzo Stefano Iannizzotto** (Iscte - University Institute Of Lisbon)

We live in a world of Planetary Urbanisation (Brenner & Schmid, 2011) a process increasing the pressure on undeveloped spaces in cities. Perceived as wastelands, such spaces are often of unacknowledged socioenvironmental value. Conceptualised as Terrain Vague (Solà-Morales, 1995), Vacant Lots, or Urban Voids, they lie in a state of neglect or underuse, temporarily cut off from capitalist space production processes and planning control. They are liminal spaces: between rural, wild, and urban dimensions, built and void, center and periphery, local and global, temporality and long-term vision. Terrain Vague spaces have great potential to address current urban challenges - the right to the city, spatial justice, urban ecology - representing a rare opportunity for social and ecological interests to meet. However, due to their unstable nature, they are fragile and in danger of disappearing, and risk being "reinserted into the speculative dynamics of capitalist urbanisation at multiple scales" (Gandy, 2022). To activate and enhance the potential of the Terrain Vague, an approach is needed that preserves its current value as a place of daily appropriation, informal uses, activities not permitted elsewhere, and a refuge for spontaneous nature, which can grow undisturbed here, far from human control (Kamvasinou & Roberts, 2014). Approaching the Terrain Vague as Urban Commons can enhance and generate ecological, social, and economic benefits that are usually not considered or calculated, for example "water recycling, soil and biodiversity improvement" (Petrescu et al., 2021), or artistic and participatory design experimentation through tactical and guerrilla urbanism.

This paper aims to demonstrate how the Terrain Vague can be activated and enhanced through alternative repurposing strategies and governance, addressing current urban challenges. Methodologically, after an introduction to the theoretical context and definitions of Terrain Vague, we present a qualitative and comparative case study analysis of three projects indicative of diverse strategies adopted, chosen intentionally from different European contexts: Porto Healthy Corridor, a nature-based solution designed as part of URBINAT research project, a green corridor in the city of Porto, realized through co-creation processes; R-Urban (2013-2017), a community garden in Colombes, near Paris, with agriculture and cultural events, managed as Urban Commons; Cody Dock, a community-led regeneration, river revitalisation and social enterprise project on a post-industrial site in Newham, East London, that emerged in 2009 at the time of global financial crisis and represents a slow process of placemaking. The analysis shows how rethinking the waste of planetary urbanization through commoning practices of care can support the circular economy, biodiversity, urban ecology, community development, and sustainability against climate change.

Keywords : Wastelands, Strategies of repurposing, socioenvironmental value, urban commons, urban ecology

Strategies To Mitigate The Urban Heat Island Effect In Mediterranean Promenades Of France, Italy, And Albania.

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Climate change, urban heat islands (UHI), and cooling systems in the built environment have been extensively studied in developed nations over the past few decades. Cities are currently facing a multitude of challenges arising from climate conditions, urbanization, and urban design, which are leading to escalating social, health, and economic concerns. The presence of distinct urban features has a direct impact on the microclimate of outdoor areas and, in addition, influences the overall climate of the city. Various decision-makers fail to take into account the climate and urban texture standards when designing. This study focuses on the Mediterranean coastal promenades as a distinctive form of constructed surroundings, with a specific examination of the coastal promenades in Albania, France, and Italy. The objective of this study is to investigate the impact of various cooling systems on thermal comfort at the pedestrian level, taking into account climate data.

The study is both quantitative and qualitative, and three main methodologies are merged in terms of complexity: experimental, semi-experimental, and comparative research. An assessment of the urban texture is undertaken, followed by field measurements of the microclimate using climate measuring tools and climatic data from the nearby weather station on the promenade. At the same time, thermal cameras are used to take field measurements. Computer simulations are run with ENVI-met for a part of the promenade based on the actual circumstances, with a focus on PET (Equivalent Physiological Temperature) and STS (Material Surface Temperature from the simulation). Different scenarios are developed by considering some mitigation solutions for preventing UHI, which include the regeneration of the promenades by replacing existing pavements with cool pavements, adding green spaces and trees, using water bodies and water spray, increasing the presence of artificial and natural shading, and providing smart technologies for cooling systems. The results obtained from these scenarios are compared with the basic scenario (actual situation), focusing on the two aforementioned parameters, PET and STS.

Mediterranean cities are renowned worldwide for their "La Dolce Vita" lifestyle, characterized by a preference for leisurely walk along the seaside and spending more time outdoors than indoors, thanks to the pleasant Mediterranean environment. The architects, urbanists, and decision-makers shouldn't ignore the significant potential of this. They must take into account not only the aesthetic and practical features, but also the means to ensure thermal comfort and livability all year round. Evaluating the thermal comfort of the promenade is crucial in promoting extended outside activities and discouraging reliance on indoor air conditioning. In the future, this research has the potential to encompass more Mediterranean countries and might be suggested as a fundamental methodology for countries with varying climates.

***Keywords** : Mediterranean coastal promenades, urban heat islands (UHI), outdoor thermal comfort*

Planning Processes And Polices (3)

The Role Of Metropolitan Actors In Spatial Planning For Climate Adaptation And Resilience: Insights From Three European Cases

Margherita Gori Nocentini (Politecnico Di Milano)

The presentation discusses the results of an ongoing research project on climate adaptation planning in metropolitan areas, with a particular focus on the role taken on by metropolitan-level institutions. Urban areas are increasingly vulnerable to climate impacts such as urban heat island effect, flooding, and extreme weather events. In response, cities around the world are engaging with climate adaptation, for instance by integrating this approach in their spatial planning and management of the built environment. Most adaptation plans have been carried out by municipalities (Nalau et al., 2015), which however face a series of barriers to adaptation connected to issues such as a lack of resources and capabilities, which are especially challenging for smaller municipalities (Reckien et al., 2018), as well as the transboundary nature of climate phenomena and the need to mobilize competencies which are distributed across government levels.

Subnational actors, such as metropolitan institutions, are increasingly involved in and responsible for adaptation policymaking, for instance producing specific plans or mainstreaming adaptation in their own spatial planning (Committee of Regions et al., 2016; Olazabal et al., 2019). Metropolitan institutions have also been suggested to have the coordinating and governance capacity to promote climate adaptation efforts across entire metropolitan regions (Shi, 2019), as well as to provide guidance and assistance to municipalities. However, the presence of political fragmentation and administrative boundaries, as well as the persistence of inter- and intra-municipal divergences and inequalities within metropolitan contexts, still often represent an obstacle to effective and inclusive adaptation across these regions.

Based on an in-depth exploration of three case studies (the metropolitan areas of Milan, Stockholm, and Amsterdam) and using a policy analysis approach, this research discusses current efforts to steer urban climate adaptation by metropolitan institutions through spatial planning instruments. The choice of diverse case studies (though all can be considered as "frontrunners" of adaptation) provides an account of adaptation planning processes in different institutional contexts and planning cultures. Particular attention is given to the actual and potential role that metropolitan institutions play in integrating climate adaptation and resilience in spatial planning agendas and to their capacity to steer municipalities and promote the uptake of adaptation measures. By analyzing one "flagship" adaptation planning process developed at the metropolitan scale in each case study, the research discusses the main instruments used to promote climate-proofing of the city, the outcomes of the process in terms of the effect on municipalities and on inter-institutional relationships, and persisting outstanding issues and bottlenecks.

Keywords : climate change adaptation, urban and regional planning, metropolitan areas

Examining The Synchronization, Correlation, And Interconversion Of Urban Growth And Shrinkage In China Over The Past Decade: A Literature Review

Kai Zhou (Hunan University)

The scientific inquiries into the shrinking cities of China have emerged quite recently and rapidly from the critical reflections on its rapid urbanization process since the 1980s. Comparing the demographic data collected from the fifth and sixth national censuses at various geographical scales, researchers (Wu et al., 2015a; Long and Wu, 2016) revealed that a large number of administrative units (about 180 cities or counties and 39,000 districts, towns, or villages) lost population between 2000 and 2010, in sharp contrast to the general image of China's prosperity and growth during the same period. To uncover this so-called other facet of urbanization of China (Long and Gao, 2019), a loosely organized researcher group, the Shrinking City Research Network of China (SCRNC), was established in 2015 by young scholars enthusiastic about this topic. Their investigations identified multiple factors that have caused the depopulation of cities or regions in China, including (1) a slowing economic growth at both regional and local levels (Wu, 2019; Wu and Wang, 2020); (2) fluctuations in the global market caused by either financial crises or changes of supply chains (Wu and Wang, 2020; Li, Du and Li, 2015); (3) a sharp drop in the fertility rate as a result of the one-child policy introduced in the early 1980s (Zhou, Qian and Yan, 2017); and (4) uneven regional impacts of changing national, regional, or local development policies (Zhou, Yan and Qian, 2019). These studies predicted that maintaining the double-digit economic growth and rising population may be too optimistic for most areas in China. Regardless of a prevailing pro-growth mindset, the alternative development scenario featured by a stagnating or shrinking population in the near future seems inevitable for some big cities, many medium-sized and small cities, and almost all rural areas. How can academic studies and planning practices on shrinking cities of China contribute to the international shrinking city research? This research aimed (1) to provide an overview of the urban shrinkage in China; (2) to briefly review the literature of shrinking city studies of China, from which we argued: (1) China is an appropriate place to investigate the impacts of national policies and centralized planning power on the development of shrinking cities; (2) the partial, short-term, and periodic declines of Chinese cities against a general trend of rapid urban expansion in the last decades provides vivid samples for examining the synchronicity, correlation, and interconversion of growth and shrinkage; (3) shrinking rural areas and depopulating villages are other significant features in the Chinese context, especially in a time dominated by the prosperous urban economy, when rural areas and their settlements are becoming dilapidated in large parts of China.

Australian Planners And Urban Designers: Barriers And Enablers To Climate Change Action

Alan March (University Of Melbourne)

Australian Planners and Urban Designers: Barriers and Enablers to Climate Change Action - Alan March
The 6th chapter of The Intergovernmental Panel on Climate Change's (IPCC) Sixth Assessment Report, "Cities, settlements and key infrastructure" (2022), establishes that planning and urban design are fundamental aspects to climate change action, but that impediments to this action need to overcome (p.6-93). In this context, ways for practitioners to act on climate change often remain unclear, particularly within complex urban management processes and systems (IPCC 2022: 6-90, 6-105).
The results of a study into the barriers and enablers to climate change action as described by urban designers and planners in Australia are reported. First, the practices of planning and urban design are considered, with emphasis upon goals and challenges. Second, the literature considering planning and urban design's role in addressing climate change action is considered. A description of the Australian context is provided, including professional roles, alongside typical procedural and regulatory settings.
Five broad themes are then established as conceptual starting points for the study. First, inter-relationships and integration challenges recognises that planning and urban design exists in complex arenas of diverse interests, agents and responsibilities (Elrahman and Moureen 2021). Second, diverse scalar connections and systems recognise the breadth of concerns. This means that practice seeks to deal with ongoing complexities of integration, frustrated by incomplete powers, information, and interest clashes (Sorkin 2013). Third, are the increasing diverse goals sought by individuals and agencies. Fourth, practitioner action is generally expected to seek out public values through regulatory structures sanctioning state interventions (Carmona et al. 2021). Fifth, practitioner action is often required to temper and align others' ambitions towards public or common values (Carmona et al. 2021).

Practitioners from diverse locations, agency and firm types within Australia were interviewed. The semi-structured interviews included questions focused on participants' own professional practice, their organisation, and the profession at large, oriented to the barriers and facilitators to climate change action in the built environment. Qualitative thematic analysis techniques were used following a quasi-inductive or abductive approach (Piekkari 2018).

Six key themes emerged: Value Alignment, Incentives and Accountability; Economics and financial; Information and Feedback Loops; Influence, Culture and Leadership; Regulation; Temporal and Spatial Scales. These key themes show that strong leadership, whether it was at state or local government level or within the private sector is a key enabler. Setting of key targets and firm regulations alongside financial and other incentives were seen as pivotal. The existence of trustworthy and appropriate information for both decision makers and practitioners was considered fundamental. Finally, culture and organisational leadership, alongside government provided opportunities for integration emerged as strong findings. The findings show that most action is oriented to adaptation, rather than mitigation, while practitioners strongly believe in seeking long terms public-value oriented outcomes. Overall, most practitioners considered that the full potential of planning and urban design is not being met.

Built-Up Area Use In 800 European Urban Areas In 2020 And Radial Scaling Law

Axel PECHERIC (Université Of Rouen - Umr 6266 Idees Cnrs), **Rémi LEMOY** (University Of Rouen - Umr 6266 Idees Cnrs)

Most cities in Europe, even those with a decreasing population, tend to spread out with a growing urbanization. The constant growth of cities reveals sustainability issues in the housing and transport sectors by challenging the spatial organization of cities, for example by increasing travel times (Weiss et al., 2018) and car use. Cities are major sources of pollution, even more in the context of climate change and the health of city residents. Moreover, heavy urbanization and the constant increase in built-up area create profound environmental consequences (impacts on fauna and flora, urban heat islands...). To gain a deeper understanding of built-up land in urban areas, it is important to compare cities and identify general forms and patterns on a large scale.

We use a comparative analysis of the evolution of built-up area in the largest European cities, focusing on center-periphery organization. The center-periphery analysis constitutes the first spatial differentiation for cities (Guérois and Pumain, 2008).

We use urban scaling laws to compare cities that are difficult to match in terms of size. Urban scaling laws make it possible to transform a set of objects from one spatial scale to another without changing their structure, thus facilitating comparative analyses of cities (Batty, 2015).

This study focuses on built-up area in 2020, in 786 European urban areas with more than 50,000 inhabitants. We use GHSL built-up data (a globally harmonized database) at a spatial resolution of 100m. The built-up area is expressed as a continuous value representing the proportion of building footprint in the total cell size. To enable comparisons across our extensive dataset, we designate the city hall as the reference geographical center. Then, concentric rings of 200 m are made around the city hall to calculate the share of built-up area in these rings. The average share of built-up land in the city center of European cities is 37.5%, irrespective of city size.

The main result of this work is that the center-periphery organization of built-up land successions occurs at the same rate if we cancel out the size effect of urban areas. Thus, the built-up area per inhabitant is generally the same for all cities and is proportional to the population.

Up to the first 30 kilometers, there is a fairly significant decrease in the built-up area. There is a common (exponential) characteristic shape that is more or less the same in all cities. It is a fundamental characteristic of the internal structure of cities, which can be measured by a characteristic decrease distance l.

However, coastal cities have on average a characteristically low distance l. This indicates that the share of built-up land decreases rapidly away from the city center. In contrast, polycentric cities have a high characteristic distance l, which indicates that the share of built-up land decreases more slowly away from the city center.

There are also distinctions between countries: Turkish cities have fewer built-up areas than the European average, while Italian cities have more. Quantitative characteristics specific to the different countries are linked in particular to differences in GDP per capita, household size and housing overcrowding rates.

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Understanding Policy Mixes In Urban Climate Adaptation: The Case Of Porto, Portugal

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The focus of climate change debates has shifted from mitigation towards adaptation to unavoidable changes. In this context, urban areas have been recognised as leaders in both increasing climate change and uncovering solutions for addressing their subsequent challenges. This recognition has promoted climate adaptation to the forefront of urban planning considerations. Nevertheless, two main challenges arise. The first challenge addresses the recent recognition that the degree of adaptation needed in specific systems might not always be compatible with the limits of such systems, implying the need for a systemic change (Wolfram et al., 2019). The second challenge relates to climate adaptation strategies. It comprises two main concerns: (1) climate adaptation strategies have been piled up in complex and potentially conflicting policy mixes, which can contribute to their ill-defined action and hinder their expected outcomes; and (2) climate adaptation strategies have not been articulated with other urban policies, which can result in conflicting strategies that hamper each other's aims and outcomes (Lorencová et al., 2018). These challenges highlight the need for transformative capacity in climate adaptation policies. This capacity enables systemic change as well as the breakage of existing lock-in characteristics and exogenous and endogenous stressors that hinder adaptation. To this end, the literature on both adaptive and transformative capacity points out urban policy articulation as part of the solution. Generally, it refers to the vertical and horizontal articulation of different policies and is particularly essential in policy mixes, such as those formed by climate adaptation policies. Research has shown that one of the key features that can enable the transformative capacity of urban policies is their vertical and horizontal articulation alongside multi-system approaches and concerted actions at the planning level (Wolfram et al., 2019, Woodruff, 2022).

There is a common understanding that urban policy articulation might benefit climate adaptation policies since it may promote self-articulation and their articulation with other urban policies. However, there is still a lack of understanding of how climate adaptation policy mixes work (Ulibarri et al., 2021) and the role of policy articulation in them. Thus, this research aims to map and analyse the policy mix related to climate adaptation policies implemented in the case study of Porto, Portugal, focusing on the relationship between climate adaptation policies and urban planning and policy. The goal is to understand the interactions between these two spheres and how their interplay hinders or boosts urban climate adaptation.

Keywords : *Policy mix, Climate adaptation, Urban planning and policy*

418

Comparative Analysis Of Net Land Take In Portugal'S Metropolitan Areas

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Urban development in Europe is being shaped by the "No Net Land Take by 2050" target, set by the 2011 Roadmap to a Resource Efficient Europe [1] and reinforced by the EU Soil Strategy for 2030 [2]. In pursuit of sustainable use of soil, this strategy recommends that Member States set, by 2023, their targets aimed at net land take reduction by 2030 and report on their progress by making measurable contributions towards the 2050 target.

Land take means the "loss of undeveloped land to human-developed land" [3, p. 4] over a given period. Net land take accounts for the difference between land take and re-naturalization of developed land, which is the reverse process of land take. Reducing net land take can be achieved through the reuse of already developed land, or an increase in the re-naturalization of developed land, which is rarely practiced [4]. Soil sealing is considered the most intense form of land take, as it causes a total and irreversible loss of ecosystem services and functions provided by soil.

To limit land take and soil sealing, the soil strategy also proposes the adoption of a hierarchy in land use planning that prioritizes the reuse of developed land. Whenever land take cannot be avoided, measures should be implemented to compensate for the loss of ecosystem services (e.g. green buildings or green roofs).

The main objective of the research was to quantify and compare the land take, re-naturalisation, and reuse of developed land between 2007 and 2018 in Portuguese metropolitan regions: Lisbon Metropolitan Area (AML) and Porto Metropolitan Area (AMP).

This study aims to contribute to (1) assess the situation of the above regions and their municipalities regarding the 2050 target; (2) deepen the knowledge about the drivers of net land take in both AML and AMP, to support the setting of regional and local targets, which have not been defined yet; (3) raise awareness among decision-makers and public authorities about the processes addressed.

The assessment was based on the Portuguese land cover/land use maps (known in Portugal as COS). It is worth noting that this study assumed that the COS classes relating to artificial surfaces represent developed or urban land and that the remaining COS classes represent undeveloped or non-urban land.

Between 2007 and 2018, the increase in artificial land surface area was 4.6% in AML and 4.9% in AMP, slightly lower than in mainland Portugal (5.7%). The rate of land take represented an average expenditure of undeveloped land of 0.85 ha/day in AML and 0.64 ha/day in AMP. Re-naturalisation and reuse of developed land rates were 0.14 and 0.03 ha/day, respectively, in AML, and 0.05 and 0.02 ha/day in AMP, showing the shortage of their practices. Thus, to meet the 2050 target, the net land take rate in both Metropolitan Areas (0.7 ha/day in the AML and 0.6 in the AMP) still needs to decrease.

The main drivers of land take in both AML and AMP were the new industrial and commercial sites, transport networks, construction sites, and dispersed residential areas, although their relative importance changes.

Keywords *: Urbanisation, Reuse of developed land, Re-naturalisation of developed land, Urban land use efficiency*

A Conceptual Framework To Analyse Political Processes In The Field Of Regional Open Space Policy And Planning

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Green open spaces provide important ecosystem services. They are a substantial part of green and blue infrastructure and play an important role in climate change adaptation and mitigation. Nevertheless, as a consequence of soil sealing due to mobility, industrial, and settlement infrastructure, these open spaces are constantly threatened by powerful interests, especially in densely populated areas such as conurbations. Surprisingly, there are positive examples where green and blue open spaces are secured, protected, and enhanced. But what are the political dynamics leading to far-reaching decisions, allowing a network of open spaces to emerge and evolve over time?

Unlike at the urban level, where green open space planning and the underlying political dynamics have been widely studied, open space networks at a regional scale are rarely looked into from a political perspective (Keil & Macdonald 2016, p. 1518). The aim of the presentation is to introduce a framework that allows for analysing the political processes that lead to establishing and further developing regional open space concepts. It draws on political process theory, namely the Multiple-Streams-Framework developed by the US-American political scientist John W. Kingdon (1984). This framework consists of five key elements that have been adapted to suit the characteristics of regional space policy. Processes can be analytically separated into three streams: the problem stream, the policy stream and the political stream. Coupled with the help of a policy entrepreneur, the streams can converge and a window of opportunity opens where a substantial change in policy is possible to occur.

By adopting a systemic perspective evolving over time (Orach & Schlüter 2016, p.18; Zahariadis et al. 2023, p. 12), the adapted Multiple-Streams-Framework can take into account the following features of regional open space policy:

intertwined regional and municipal governance structures

actors, namely from the public and private sectors, and their specific institutional configuration

past and current environmental and spatial planning policies and their translocal mobility

bounded rationalities and power asymmetries in planning processes

The specific conceptual approach is currently being applied to three cases in Germany: the Emscher Landscape Park, the Regional Park RheinMain, and the Green Ring Leipzig. The presentation will conclude by giving insights into the operationalisation of the adapted framework and preliminary results from the qualitative empirical research so far.

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Keywords : *green open spaces , conurbation, policy-making, planning process analysis*

Planning Processes And Polices (3)

Analyses Of Age Factors Of Urban Structural Changes In Kyoto City

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In the first two decades of the 21st century, urban structural changes in Kyoto City, Japan, were widely recognized, but there are few empirical discussions of the factors. This presentation hypothetically starts discussing the age factors of the younger (15 to 64 years of age) and the older (65 and over) generations in Kyoto City to understand the urban structural changes. The author will point out that the younger generation has been migrating back to the city center while the older generation has moved out or passed away.

Based on this hypothesis, this presentation aims to make some analyses through empirical data using national and municipal statistics. First, through the analysis of the resident registration, the author finds how the younger generations migrated back to the central two wards, the Nakagyo and Shimogyo wards, in these two decades. Second, the author analyzes why lodging houses increased in the Nakagyo and Shimogyo wards after 2016. According to the multiple regression analysis, the factors affecting the increase in lodging houses were identified as the attribute as historic districts, the number of railway stations, the decreased ratio of older adults of sixty-five years of age and over, and the number of low-rise houses. The author understands that the historic districts represent the existence of tourism resources. The number of stations is an indicator of the convenience of the districts. The decrease in older adults means an increase in vacant houses and the resources that can be converted into lodging houses. And the decrease in low-rise houses has the same effect as older adults.

Thus, the increase of the younger generation and the decrease of older adults in the city center affected on the structural changes of Kyoto City in these twenty years.

***Keywords** : urban structure, age factors, decrease of the elderly*

Exploring Resilience, Utopian Visions, And Realities In French Urban Projects Within Flood-Prone Areas

Maliheh Hashemi Tilenoi (Sorbonne Université)

The escalating global frequency and magnitude of floods, combined with the limitations of traditional risk management strategies, emphasize the critical need for adopting methods that bolster system resilience (Kotzee & Reyers, 2016). The pursuit of resilience in the face of environmental, socio-economic, and political uncertainties has gained attention across diverse disciplines (Meerow et al., 2016).

In practice, this concept has been widely embraced by cities and urban networks globally. Since 2010, the International Council for Local Environmental Initiatives (ICLEI) network of local governments has organized congresses on "resilient cities." Paris joined the "100 Resilient Cities" initiative in 2015, progressively integrating resilience into crisis management protocols. The approval of the "Resilient Neighborhoods" charter for floods in 2018 (DRIEE, 2018) further exemplifies this trend. Despite rapid adoption in scientific research and its impact on management and urban planning documents, practical challenges persist.

This study aims to assess the tangible contributions of resilience compared to past environmental theories and flood management approaches. Additionally, it seeks to elucidate how this theory translates into actionable strategies within flood crisis management documents in the Parisian region and its implementation at the local level. Villeneuve-Saint-Georges, a city south of Paris with approximately 33,000 residents that has faced multiple floods, serves as a case study. Ongoing major urban projects in its flood-prone zones provide opportunities for in-depth analysis.

The research methodology is anchored in discourse analysis, encompassing a wide range of assessment targets that include individuals, institutions, and urban documents. Data for this study are systematically collected from various sources, including structured interviews and existing datasets. This comprehensive approach ensures a nuanced understanding of the multifaceted aspects of the research subject.

Identifying Best Practices In Achieving Carbon Neutrality In European Cities

Michael Boswell (California Polytechnic State University), **Diana Reckien**

IntroductionIn 2022 the European Union (EU) launched the EU 100 Climate-Neutral and Smart Cities (EU 100) program with the goals to (Q&A: Selection of 100 Cities for EU Mission):•   Deliver 100 climate-neutral and smart cities by 2030; and•   Ensure that these cities act as experimentation and innovation hubs to enable all European cities to follow suit by 2050. Achieving carbon neutrality requires a drastic reduction in carbon emissions, which is challenging in urban areas, where most of the energy consumption and carbon emissions occur and changes of long established and densely built structures will be needed. Therefore, it is crucial to identify best practices for achieving carbon neutrality in European cities to meet the EU's carbon neutrality target. This study is a comparative analysis of selected European cities to identify best practices for achieving carbon neutrality.

The study identifies a set of case study cities that show the key progress indicators towards achieving climate neutrality to serve as exemplars. Each city is subject to an in-depth case study to illuminate the complexity and nuance of policy development and implementation. Of particular focus are policy instruments especially climate action plans (CAPs) (see Boswell, Greve, & Seale 2019; Salvia, Reckien, et.al. (2021)). Preparation of a climate action plan has become a common practice for cities that want to address the problem of climate change. This study builds most directly on the work of Bassett & Shandas (2010); Huang-Lachmann & Lovett (2016); Boswell, Greve, Seale (2019); Liao, Warner & Homsy (2020); and, Salvia, Reckien, et.al. (2021).

ObjectivesThe primary objective of this study is to identify best practices for achieving carbon neutrality in European cities. The following are the specific objectives of the study:

•   Identify the challenges faced by European cities in achieving carbon neutrality.•   Analyze the policies and strategies adopted by selected European cities to achieve carbon neutrality.•   Compare the effectiveness and transferability of the policies and strategies adopted by selected European cities in achieving carbon neutrality.•   Develop recommendations for cities to achieve carbon neutrality based on the best practices identified in this study.

MethodsThis study uses a mixed-methods approach, including a literature review, content analysis of selected CAPs, and interviews.

We are interested in cities that show current progress towards climate neutrality, policy innovation, and usefulness of policies for other cities in the program. We selected 10 cities as a purposeful sample that also respects geographical diversity; the study is not based on a random sample. Initial screening was conducted by examining the list of cities in the EU 100 program (https://eurocities.eu/latest/the-100-climate-neutral-and-smart-cities-by-2030/) and identifying which of them have a climate action plan.

The CAP content analysis captures three types of data: basic CAP information; summary of policies, with focus on policies that close the gap on residual ("last 20%") emissions; and, policy implementation "robustness" score. The interviews are conducted with municipal staff in charge of the climate action and carbon neutrality programs.

Data AnalysisData analysis involves a comparative analysis of the policies and strategies adopted by the selected cities. The effectiveness of the policies and strategies is evaluated based on their impact on carbon emissions reduction, cost-effectiveness, equity, and other standard policy evaluation criteria. The findings are analyzed using statistical tools and qualitative analysis techniques.

ResultsAchieving carbon neutrality in 100 European cities by 2030 is an ambitious goal that if achieved will provide lessons for cities around the globe. The intent is that results of the study will be reported in a useful manner to guide policymakers, city officials, and other stakeholders in developing effective policies and strategies.

Keywords : carbon neutrality, climate action, climate change, Europe, policy

Co-Designing Indicators For Turin's Just Green Transition: The Case Of Greenforce Summer School

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The European Union's Just Green Transitions are expected to pave just, fair, and inclusive pathways leading to climate-neutrality by 2050. The European Commission and the Member States have prepared their territorial just transition plans progressing the European Green Deal and operationalizing their dual transitions (European Commission, 2021).

Subsequently, Turin together with Piemonte Region, has been preparing its Climate Change Adaptation Plan (Municipality of Turin, 2018) and developing several Green Local Visions to achieve the climate-neutrality strategies of 2050 in accordance with the European Green Deal (European Commission, 2019). One issue is how to implement and monitor the progress of such transitions ensuring a just outcome for every person and region (European Commission, 2019).

This contribution discusses what could be the possible indicators to potentially measure the advancement of the so-called Just Green Transitions. It is partially elaborated on the results achieved by an intensive summer school organized on the topic in Turin, 2023. Through a co-design process involving a wide range of expertise and disciplines, including spatial governance and territorial systems (Berisha, et al, 2021), territorial resilience, GIS, and earth observation satellite systems, cost-benefit analysis and socio-economic targets, a set of initial indicators have been explored for measuring the progress of the transition in the city Turin.

Accordingly, this contribution aims to: (i) discuss a set of qualitative and quantitative indicators for advancing the Just Green Transitions in general and in Turin, particularly (ii) discuss which indicators could cover the social, spatial, and environmental justice when it comes to the localization in Turin.

Keywords : Just Green Transitions, Turin, Indicators, European Green Deal, Just Transition, Green Transition

Implementing Germany-Wide Targets For A Sustainable Energy Transition At State And Regional Level: An Overview

Sarah Friese (Tu Dortmund)

The advancing global climate crisis has brought the urgency of a sustainable energy supply into focus. Germany has set itself ambitious federal targets to drive the expansion of renewable energies forward. My research is dedicated to analyzing and discussing the implementation of these targets at various spatial planning levels in Germany.

The expansion of renewable energies is not only a technological challenge, but also requires careful coordination at the spatial planning level. Due to their often low energy density, renewable energies require a lot of space, which means that the energy transition requires a great deal of control and coordination, which spatial planning must ensure with sensible and fair spatial distribution control (Bruns et al., 2016, MKRO, 2022)

Germany has committed itself to meeting a large part of its energy needs from renewable sources and aims to be climate neutral by 2045. In my research, I am investigating how these ambitious targets have been and will be realised through cooperation between the federal, state and local governments. At the federal level, policy guidelines and support programmes are crucial for the expansion of renewable energy. My presentation will highlight the current policies and strategies aimed at promoting renewable energy sources while ensuring sustainable development. The challenges and opportunities arising from the political decisions will also be critically analysed.

Implementation at state level plays a crucial role, as different regional circumstances and needs must be taken into account. My research analyses how the federal states interpret the federal targets and which individual approaches they pursue to support the expansion of renewable energies. Best practice examples were also identified in order to highlight successful strategies.

A special focus is also placed on the municipal level, where concrete local implementation is crucial. I shed light on how cities and municipalities are adapting their spatial planning to enable the expansion of renewable energies and promote local energy transition initiatives. Citizen participation and the integration of renewable energies into urban infrastructures will also be considered.

A case in point is ground-mounted photovoltaics, which is increasingly being used as a new use for solar power generation in outdoor areas. Due to the many competing land uses and conflicts that arise there, active spatial planning control is required. The regional planning level is particularly well suited for this with its cross-sectional, supra-local approach with a still sufficiently precise territorial scale (ARL, 2022).

My presentation will conclude with an assessment of the progress made so far and a critical reflection on possible obstacles and challenges at the different spatial planning levels. Furthermore, first recommendations for future measures and a more effective cooperation between federal, state and local authorities will be presented in order to successfully realise the federal targets for the expansion of renewable energies in Germany.

This presentation provides a comprehensive insight into the spatial planning aspects of renewable energy expansion in Germany and helps to understand current developments and identify forward-looking solutions.

***Keywords** : spatial planning, renewable energy*

Commodifying Biodiversity? The Role Of Ecological Consultants In The English Planning System

Emma Street (Associate Professor In Urban Policy And Governance), **Gavin Parker** , **Sarah Wood**

The paper reports on research exploring the work of ecological consultants in the English planning system in an era where biodiversity has been effectively commodified. Drawing on interviews with active ecologists the paper provides insight into how ecological knowledge is being applied and altered as a result of changing system requirements and technologies of performance in the formal land use planning system in England. We consider the tensions and impact of techne on the telos of planning, whereby the techne involves a field dependent toolkit or ensemble of methods, practices, concepts and tactics (i.e. across planning authority, developer and ecologist fields). This also informs and sustains the idea of detached knowledge in application (Zanotto, 2019) to planning issues and activities. The foundational concepts derived from regulatory codes, and institutional arrangements that surround them, are crucial in shaping such practices and, in turn the effectiveness of the planning profession. This is particularly so in terms of actualising real world benefits. There is a clear danger that the orientation or trajectories of the techne (the technocratic) affect the telos, which normatively include questions of the public interest, social, economic, and environmental justice and well-being (Knox, 2022; Wargent, Parker and Street, 2020). In this light we reflect on how nature actually benefits from the institutional 'superstructure' that has been developed after the 2021 Environment Act which is geared to deliver 'biodiversity net gain' and how this reflects nature's interest.

Keywords *: biodiversity, spatial planning, consultants*

Planning Processes And Policies (3)

The City Of Tomorrow Is Already With Us

Margarida Calmeiro (University Of Coimbra)

This vision, launched in November 2003 in the new Athens Charter proposed by the European Council of Town Planners, seems to be irrelevant to what we do on a daily basis, as well as to a series of guiding documents and regulations that emphasize the need to impose a transformation, not just of cities, but of ways of life in order to guarantee the desired sustainable development, set out in 2015. But, no, this statement in no way opposes what has been defined and only alerts us to something we already knew: the past offers lessons for the future and that the city and its urban heritage are the basis on which we build the city of the future.

Some of the great challenges facing humanity today have to do with cities, which is why the 2015 SDGs advocated the need to Make cities and human settlements inclusive, safe, resilient and sustainable. We know that they are the human habitat par excellence, but we also know that they have to change, that the green transition is urgent and desirable. It's not just a question of calling for more environmentally friendly public transport planning, or the introduction of green or natural-based solutions, but of a transition of the city and its society, which together uses the beautiful and the sustainable to create a new physical and social reality, as advocated by the New European Bauhaus.

However, in this construction, culture, the knowledge accumulated over the years will certainly play a crucial role, and this is what the history of the transformation of cities, or their urbanism, has revealed to us, and it is with this awareness that we must prepare the response to the radical transformation that the city needs. But will it be so radical or will the approach be radical? We believe it will be precisely that, and that's precisely what the title of this essay tells us. What we create will be radically new, but it will be a construction based on what exists today. Let's not fool ourselves, it's not about avoiding change, on the contrary, it's already necessary and desirable, let's not resign ourselves to it, but it is necessary to work with what exists today so as not to compromise either the sustainable future or identity.

As Carl Elefante stated " The greenest building is the one that already exists " with this in mind we what to discuss how we can build tomorrows city with the one we already have today.

Keywords : *rehabilitate, circular, Sustainable cities*

The Portuguese Adoption Of The Council Of Europe Landscape Convention: Between Over-Protected And Over-Neglected Landscapes

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The Council of Europe Landscape Convention (Council of Europe, 2000, 2016) was the first international treaty devoted exclusively to landscape matters. It aims to promote landscape protection, management and planning, as well as to facilitate European cooperation on landscape issues. A fundamental aspect of the Convention is the call for a paradigm shift from the dominant approach, which emphasises protecting landscapes of exceptional beauty or with rare ecological or cultural value, to advocating for the protection and enhancement of all landscapes, whether outstanding or ordinary (Conrad et al., 2011).

In the realm of scientific research over the past twenty-four years, the Convention has left a significant impact on landscape research, adopting both an interdisciplinary and transdisciplinary perspective, as indicated by Pătru-Stupariu and Nita (2022). The author's literature review identifies landscape sustainability science and landscape governance as emerging research trends, aligning with broader discussions in the landscape research debate (Gonçalves & Pinho, 2022; Wu, 2021; Zhou et al., 2019).

However, despite the Convention's impact on scientific research, its effects on the planning systems of signatory nations reveal variations in terms of implementation and outcomes. De Montis (2014) indeed demonstrated that the successful implementation of the Convention strongly depends on local government systems and on the prevailing practices that dominate their landscape planning.

In the Iberian context, Portugal was one of the signatory countries of the Council of Europe Landscape Convention. The Convention was officially enforced in Portugal in 2005, with the upcoming year marking its 20th anniversary. Recent research argues that the Portuguese trajectory differs from European landscape trends (Gonçalves & Pinho, 2023). Despite the influence of the Council of Europe Landscape Convention, the Portuguese legal framework continues to emphasise the protection of outstanding natural and cultural landscapes rather than adopting an integrative approach able to address all types of landscapes.

The influence of the Convention on Portuguese scientific research has yet to be thoroughly investigated, making it an unexplored but seemingly crucial topic. This significance is particularly notable when considering the observed landscape changes in the Portuguese continental context over the last few decades and the substantial implications of climate change. The 20th anniversary of the Convention in Portugal offers an opportunity to delve into the Convention's impact and relevance within the Portuguese context over the past two decades. Through a literature review, our results provide a comprehensive understanding of how the Convention has influenced scientific research in Portugal. This enables us to identify critical areas for improvement and contribute insights for shaping future research and policy directions.

Keyword *: Landscape research, Landscape sustainability science, Assessment, implementation*

Renewing Regional Economic Planning By The Ecological Justification

Thibaud Bages (Sorbonne Université)

Since the 1980s, the French regions have benefited from a growing devolution from the central State. In this context, economic competence has become central to their interventions and dedicated budgets. There are several ways of analyzing this intervention. The first examines the positioning of these policies between vertical and horizontal industrial policies (Cohen, 1992). While the regions seem to use these two aspects, the European normative framework, notably through Smart Specialisation Strategies (S3), encourages them to develop focused intervention in economic areas considered strategic (Tödtling and Trippl, 2005; Foray et al., 2009). The second grid of analysis is that of the instruments developed by the Regions, in a context of budgetary weakness and renewal of national instruments and the affirmation of European instrument such as IPCEI. Finally, the third analysis grid raises the question of the justification for the intervention of the regions. If the promise of job creation is attached to any economic policy, the inclusion of this intervention in the ecological transition seems to offer the Regions an opportunity to legitimize and renew their intervention (Desjardins and Estèbe, 2021).

The aim of this paper is to examine the role of ecological transition in the recent renewal of regional economic policies. While all French regions are required to write economic planning strategies, many Regions are articulating them with more global strategies dedicated to the ecological transition. This is the case of the Region Hauts-de-France, which has been rebuilding its economic policy over the past ten years through the concept of third industrial revolution. This is also the case for the Region Occitanie, which has decided to support some economic sectors by embedding them in its REPOS strategy (for Positive Energy Region). However, this new justification raises the question of the sincerity of this objective. Does the introduction of the ecological transition objective offer an opportunity to renew the objectives and instruments of economic intervention (Veltz, 2021)? On the contrary, is the vocabulary of ecological transition being used only to seize the growth opportunities offered by the green economy (Depret and Hamdouch, 2012)?

This paper will be based on a series of interviews conducted in 2022 and 2023 with public stakeholders as part of a thesis work. The aim of these interviews is to question national and regional stakeholders on the construction of regional economic policy in general, and hydrogen policy in particular. Three regions were specifically studied: Hauts-de-France, Pays de la Loire and Occitanie.

Keywords *: French regions, Ecological transition, Economic policy, Regional planning*

Climate And Transport Planning: A Messy Junction

Luciano Agustin Pana Tronca (University Of Trieste And Iuss Pavia)

The European Union aims to be climate neutral by 2050. The EU Parliament and Commission have agreed to the European Green Deal in 2020 (EU, 2019). While National Governments are required to develop national long term strategies, cities and local authorities are the ones dealing with actions to decarbonize urban transport, housing, waste, etc.

Transport in cities play a very important role. The global transport sector is responsible for a quarter of EU CO2 emissions, and while most sector have started a downward trend to decarbonise, we find that in road transport this is not the case (European Environment Agency, 2022).

Some cities are implementing measures to try to achieve some reductions but these are scattered and a systems approach is needed, not only to think about the technologic or operational solutions (innovations) but also to be more democratic and ask the stakeholders their views.

Moreover, all sectors need to be working in collaboration to achieve a net zero goal for the whole city. Therefore, at the strategic level, Sustainable Urban Mobility Plans, Transport Strategies, Local Transport Plans, need to be integrated into Climate Plans.

The Climate Plan and Transport Actions database is a set of spreadsheets that contains data 50 European Climate Plans approved after the EU net zero target. The user can search for transport actions and identify which cities are planning to apply them. Once the city/cities were identified, the user can use the third sheet to get a link to the Climate Plan, with further information about that action. The goal of the database is to help cities to identify suitable transport actions to include in their climate planning strategies.

The database is made of 3 sheets:

Grouped actions: this spreadsheet includes the list of aggregated transport actions from 50 European climate plans. Categories were created to aggregate similar actions from different cities. Actions are categorized using the Avoid-Shift-Improve approach. This sheet can be used to search for categories/actions and identify which city is planning to implement them.

Individual actions: this spreadsheet includes the full list of actions from 50 European cities action plans without being aggregated.

Cities Climate Plans: this spreadsheet is based on a CDP database(CDP, 2024). The spreadsheet was completed by reviewing all Climate Plans. It includes a weblink for each plan. User cities can assess whether the actions and cities are closer to their local environment or landscape by using a city with a similar population, similar strategic planning background, level of autonomy index, etc.

The analysis of the database shows that while transport is a key component of Climate Plans, the link between strategies is less obvious. It is unusual to have an only Transport Decarbonisation Plan, therefore, to reduce the need of resources and promote system thinking (the city and its functions as a whole) we need to ensure strategic alignment between both tools.

A majority of plans does not include citizen participation, nor an assessment of synergies, trade-offs or co-benefits of specific actions at the planning stage. However, plans do consider monitoring and evaluation and have some assessment of the level of impact that climate change will have on their territories.

Many plans do not go beyond specific actions, or how those actions would impact on other systems outside their own.

While most cities have at least one previous experience in planning related to climate change, public sector alone won't suffice. With private sector, NGOs, research facilities and public sector requiring employees with new skills, medium to long term strategies and goals are needed to incentivize an uptake on certain skills.

Examining The Effect Of Flood Risk Perception On Migration And Urban Form In Us Counties Between 1990 To 2019

Juanbo PU (Hong Kong University Of Science And Technology)

Diverging from previous literature that discusses the relationship between urban form and flooding risk solely from the perspective of physical factors such as the built environment, this study integrates human behavior and migration into the framework. It argues that migration stimulated by perceived flooding risk has the potential to reshape urban form and subsequently react on flooding risk. It examines the effect of flooding frequency and intensity on migration and urban structure in 2378 counties across the United States from 1990 to 2019. The preliminary results demonstrate that flooding frequency and intensity reshape urban structure and flooding risk through different mechanisms. While frequency alone does not directly impact urban structure, it exhibits a negative correlation with net migration, and migration is negatively related to the fragment dimension of a city. However, migrants play a mediating role in the relationship between flooding intensity and urban structure. Specifically, while flooding intensity tends to make cities more compact, human behavior, represented by migration, acts as a counterforce, leading to urban sprawl and increasing flooding risk.

Keywords *: urban form, flooding risk, migration, risk perception*

Climate Justice And Public Urban Spaces: Unequal Experiences Of Thermal Discomfort.climate Shelters, Public Services, And Innovative Solutions To Address Social-Environmental Vulnerabilities.

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The year 2023 has been confirmed as the warmest on record, driven by human-caused climate change. The phenomenon is prominent in urban areas where the heat island effect led to local microclimates characterized by higher temperatures and increased frequency and duration of heat waves. Extreme temperatures disproportionately affect individuals. The elderly, children, and individuals with disabilities or chronic diseases are the most exposed, but also social positions and housing inadequacy can exacerbate vulnerability to climate risks.

Efforts to integrate climate mitigation and adaptation actions into urban policies and urban structure are burgeoning globally and many cities are rethinking their public spaces and urban amenities amidst climate crises (McShane & Coffey, 2022). Cities like Barcelona and Paris have created a network of climate shelters, a relatively low-cost strategy that can utilize existing indoor and outdoor infrastructures (civic centers, libraries, museums, sports centers, schools, gardens, and urban parks) to provide thermal comfort to the population while maintaining other uses and functions and be relatively easily implemented by a variety of stakeholders.

At the same time, awareness is increasing about narrative and analytical review methods that present justice only in terms of accessibility by proximity and vulnerability as age and health status.

In operationalizing justice-oriented climate adaptation strategies, poor attention has so far been paid to the ability to walk distances with no heat stress or intersectional inequalities (e.g. race, gender or income) (Amorim-Maia et al., 2023; Melnikov et al., 2022).

Based on these considerations, the paper aims to analyse the role that climate shelters can actually play in promoting justice in climate adaptation. The Italian city of Turin is used as a case study for a couple of reasons: on the one side, according to future climate projections this city is going to face increasing hot waves and heat urban islands, which can increase mortality risks for vulnerable population; on the other side, Turin is redefining the mission of its public libraries as community hubs, which could play also as climate shelters.

Therefore, the paper examines the actual spatial and socio-economic accessibility of these libraries to over-65 people, who are the most vulnerable subjects to extremely hot summer days. The spatial accessibility is verified considering the real walking speed of the elderly, as well as their path choices (which can prioritize longer but more shaded routes) based on thermic comfort (Willberg et al., 2023). The socio-economic accessibility will be inspected by crossing the profile of traditional users of Turin's libraries with the intersectional features of subjects more impacted by climate change (over-65 which are also women, low-income, poorly educated etc.). These analyses will be used to identify which areas of the city of Turin are more exposed and vulnerable to climate risk and at the same time less covered by libraries as climate shelters; proposals for increasing their spatial accessibility (by increasing walkability and thermal comfort of streets) and/or their socio-economic accessibility (through communication campaigns for increasing their availability, complexification of offered services etc.) will be developed to increase climate justice of these adaptation actions.

Finally, based on the results of the case study analyses, a few reflections are proposed regarding the importance of a multi-dimensional approach to the accessibility of urban indoor and outdoor amenities and facilities in promoting adaptation strategies to face climate change.

Keywords *: heatwaves, intersecting vulnerabilities, climate shelters, Turin*

Removing Cultural Barriers To Climate Change Adaptation In Tuscany

Giulio Giovannoni (Università Degli Studi Di Firenze - Dipartimento Di Architettura)

The paper investigates the role that cultural and affective factors exert, in Tuscany and more generally in Italy, in hindering policies of mitigation and adaptation to climate change. The underlying thesis is that the importance and 'weight' that the established historical landscape exerts in this geographical context makes it difficult for local society to accept the transformations necessary to adapt the landscape to the new climate. After reviewing available data on climate transformations in Italy and Tuscany in recent decades and taking stock of the status of mitigation and adaptation planning, some projects for the construction of renewable energy production facilities are analyzed. In order to highlight the cultural roots of inertia to adaptation policies, the debate that has developed in the media over these projects and the legal and bureaucratic oppositions to them are analyzed. The discussion of cases is made using the concept of sostalgia developed by Glen Albrecth and relating the idea of landscape that implicitly emerges from the debate with the static and musealized conception of the same that has been established in Italy through the protection laws enacted since the 1930s. The concluding section of the paper discusses the policy implications of the present work.

Keywords : urban landscape, climate change adaptation, cultural barriers, Tuscany, Italy

Track 08: Public Space

PUBLIC SPACE - Planning for cultural diversity, peace and the experience of places

Chairs:

- Dimitra Kanellopoulou, Ecole Nationale Supérieure d'Architecture Paris-Malaquais

- Christine Mady, Aalto University

- Margherita Gori Nocentini, Politecnico di Milano

Keywords: *care, culture, digitalisation, diversity, identity, inclusion, memory, political urban space, spatial justice, temporality, transformation*

Public spaces were always at the forefront of urban life, playing significant roles and functions in shaping urban settings. Although the progressive complexity of a clear definition of what public space is, the track draws on the hypothesis that this polysemous concept is exemplary in expressing political and social realities but also thrives debates around physical, tangible space as a pillar space of urban experience. Our first encounter with cities and urban experiences occurs in their public spaces. These spaces represent current lifestyle trends but also echo memories. Public spaces are often "game changers" that herald alternative urban realities. One example includes transformations following the COVID-19 pandemic. Public spaces accommodate a panoply of activities, from mundane acts of conviviality to demonstrations or endeavours that try to belong and partake in democracy and different expressions and claims for spatial and social justice. Public space as a "game changer" is ironically the time-space of conflict and its dissolution. These spaces reflect the discourses and practices of tolerance towards differences and display or disguise the tensions immanent in encounters and exchanges across diverse urban cultures.

Several authors in urban studies have underlined public space as a central element of the built environment for the community and public life. Since the 1990s, the concept has attracted researchers from diverse disciplines, leading to the emergence of transdisciplinary debates on public space. Several scholars have had critical insights on the social impacts and risks associated with the profound transformation of urban public space, especially with recent environmental constraints and challenges on life quality faced with increasing densities in global metropolises. The complexity of the open public space's landscape underlines the elusive character of the subject while continuing to stimulate new streams of methodological investigations and theories.

This track aims to engage in a debate confronting contemporary realities of mass immigration, global conflicts, recurrent financial crises, and environmental urgency. We

are particularly interested in discussions highlighting the potential of public space as an act of negotiation of territorial thresholds at different scales. Within a more homogenised world (through the globalisation of trends, norms, and costumes), we seek to revisit the discussion on public space planning and the significant challenges of addressing questions of appropriation (from minorities or marginalised populations), dominance (of gender, political groups), and belonging (ethnic, geographical, cultural, religious groups). The entry of cultural diversity could be a legitimate one to unveil dynamics of creation, practice and representation of public spaces outside the geographical dominance of the Western world but also by tending to bridge regions with significant differences in terms of political and social organisation (for example countries of the Mediterranean Bassin). The continuing debate and understanding of public space as a construction of tremendous volatility could offer the necessary decentring of planning to questions of tolerance, differentiation, civic power, and justice. This 'step aside' will allow Occidental and European planning to learn by examples of Global South & East regions and establish dialogue on new toolkits of analysis and understanding of public space through citizens' aspirations, engagements and beliefs.

This track invites abstracts that explore the construction of peace or "game-changing" at different scales and through diverse disciplines to reflect the position of urban studies within this process and build on observations, experimentation, and narration of the transformative power of peace within public spaces. We particularly encourage papers that examine how bottom-up initiatives, out-of-the-box policies, and internationally constructed movements find anchorage in public space transformations and shaping within their political position, cultural identity, and the demand for peace.

Peace & Inclusion

Repurposing Abandoned Infrastructure As Social Infrastructure Towards Social Inclusion: The Case Of Baana, Helsinki

Christine Mady (Aalto University)

Within globally increasing challenges for the role of public spaces and their contribution to inclusion and justice within urban settings, this article examines the repurposing of transport infrastructure to provide car-free walking and cycling public spaces. Based on their planning and design, such spaces do not only cater for necessary functions but enable optional and social activities as explained by Jan Gehl. Spaces with safe walking and cycling routes enable inclusion, encounter and allow for spontaneous activities to occur. They allow users to experience the city at a different pace. These aspects support public familiarity and potentially the provision of spatially just urban environments. While the promotion of non-motorised mobility is often referred to in relation to reducing car-dependency and improving the quality of the urban environment, more could be explored on the role of such spaces as part of urban social infrastructure, using the lenses of just cities and the mobility turn (Sheller and Urry, 2006). Planning the integration and connectivity of a car-free safe space within the urban fabric and designing an environment conducive to non-motorised mobility, are factors that encourage panoply of activities by diverse users (Blitz and Lanzendorf, 2020; Maciorowski, and Souza, 2018). Moreover, perceptions of the space by pedestrians are affected by its walkability, the relation to the surroundings as well as the space's cultural significance (Koohsari, Karakiewicz, and Kaczynski, 2013; Scarponi et al., 2023). This research investigates the case of Baana in Helsinki, Finland, a former freight railway conduit that was transformed in 2012 to a dedicated cycling and pedestrian route linking the city's western part to the centre. This linkage is between the western seafront with the more recently developed residential and mixed-use areas, and the cultural hub of Helsinki. This hub has at its centre the largest linear park in Helsinki, and is flanked by the parliament, the main library Oodi, the Music House, and is in proximity to the central railway station, several museums and cultural buildings. The current 1.5 kilometres route is connected at several crossings to the surroundings, and is designed with the integration of vegetation, urban furniture and some sports areas to encourage usage for different activities. In addition to the reviewed literature, the review of the planning process and observations over a period of half a year serve to provide information on the types of users and activities along this space. Findings indicate that Baana is not only a space of transit. The design of the route, the generated atmosphere, the introduction of art, and its maintenance are assessed in terms of their impact on users' activities and perceptions of safety. The findings serve to explore opportunities for identifying other potential abandoned infrastructure sites towards their conversion to serve as social infrastructure.

Keywords : Helsinki, built environment, social infrastructure, walkability, inclusion

Regenerative Public Space As A Game-Changing Option For Thriving Communities

Karina Landman (University Of Pretoria)

The world is witnessing many volatile situations. Wars are raging, populations are fighting for political justice, and in cities and towns, people are facing desperate conditions in a struggle for survival. These events give rise to growing insecurity and the re-negotiation of territoriality at many scales. Re-territorialisation concerns more than just countries and regions but also spaces within cities. Public spaces are often reconsidered or re-negotiated through appropriation, either by those without space for survival or those who want to reserve the space for a select few through fortification. Hence, public space has become a place of selection based on the various needs contained within the survival or fortified city, and more often than not, creating a maze of juxtaposed entities varying between these two opposites. These trends raise many questions for the future of public space as a common collector and facilitator of inclusion, spatial justice and transformation in many contemporary cities.

Regenerative development and design extend the work of sustainability and resilience. The emphasis is shifted from existence to potential and recognises the interdependent web of multileveled structures of complex living systems. Regeneration acknowledges the unrealised potential inherent in a given system and its broader system. Its exploration enables the residing systems to evolve by expressing their latent potential (Hes & Du Plessis, 2015; Mang et al., 2016; Du Plessis, 2022). Finding the potential paves the way for a trajectory of responsible design, moving from conventional and green practices to restorative and reconciliatory practices toward regenerative development and design (Reed, 2007). Such an approach is relevant to address the challenges facing public space and urban transformation (Landman, 2019).

This paper focuses on regenerative public space in South Africa and its ability to contribute to thriving communities. Drawing from lessons from four case studies in the City of Tshwane (municipal area including Pretoria), South Africa, it unpacks an alternative paradigm for public space, proposes a different process for (re)development and design and offers examples of a few regenerative public spaces. By exploring the paradigm, process, and product, the presentation shares critical challenges facing public space development in the Global South while offering pathways for regenerative development and design applicable everywhere globally. The paper argues that regenerative public space can become a game-changer for peace construction and inclusion in diverse societies and contribute to healthy and thriving communities.

In The Name Of Peace - Sanitise

kundani makakavhule (University Of Pretoria), **Kwazi Ngcobo** (University Of Pretoria)

Sanitised space is a concept that is quickly gaining momentum in the disciplines of urban planning and architecture (Bergamaschi, Castrignano and De Rubertis, 2014; Smith and Walters, 2018) and also in the social sciences (Buffel, Phillipson, and Scharf, 2013; Di Molfetta, 2023) where the focus is on the relationships between people and their cities. It refers to the process in which urban space is 'cleansed' from all things that make it dirty, undesirable, and differentiated. The process can involve the use of soft power or coercion, such as imposing penalties, fines, policies, and by-laws against certain activities and uses (Huey, 2009). Alternatively, it can also be achieved through hard power. This refers to the use of physical building structures, fencing, landscaping, and other forms of physical design, defensive architecture, and in extreme cases, through the use of violence (Smith and Walters, 2018). The sanitisation of space seeks to create a particular image of space legitimised by planning, political and capitalist norms, values, and rhetoric (Mashayamombe, 2018). It acts as a tool for urban organisation and social 'normalisation', which refers to the efforts made towards establishing spatial relations that encourage behaviours that are repeatable, predictable, and compatible with the dominant social roles and rules of engagement (Stavrides, 2015). More recently, we have witnessed these efforts of normalisation through the use of surveillance cameras, biometrics, and other forms of technology that shape human behaviour and sanitise public space.

Through the use of semi-structured interviews, observations, and spatial analysis techniques, this paper seeks to showcase the various efforts by different municipalities in South Africa to sanitise space in the name of peace and security. With the use of examples from train stations, public parks, and sidewalks, the paper argues that although the sanitisation of space is done in the name of public interest, peace, and security, it often conflicts with the public experience. The paper grounds its argument by drawing a parallel between the conception of conceived space by Henri Lefebvre and the concept of sanitisation to demonstrate how ideas of planning, order, and desire signify a re-emergence of discourses and practices that South Africa experienced during its colonial and apartheid period, where public spaces were a clear demonstration of state power, oppression, and control. The paper concludes by identifying clear patterns of continuities and discontinuities of practices of symbolic public violence in public spaces – designed in the name of safety and security. It offers moments of reflection, (re)learning, and questioning of planning ideas and decisions that seem peaceful at face value but have unintended consequences.

***Keywords** : Public space, Symbolic violence, safety and security, peace, sanitisation*

Library As An Urban Experience: Convivial And Enclosed

Laura Berger (Aalto University)

This paper takes up the Helsinki Central Library as a 'key' for analysing the role of a public building within the city fabric. The library was opened in 2018, designed by ALA Architects, and the building was given the name Oodi (Ode). Its neighbours include the Helsinki Music Centre, Finlandia Hall, and Kiasma, the Museum of Contemporary Art. Opposite Oodi is the Parliament Building. As a project, Oodi associates with other new libraries which have been built during the 2000s to capital cities as Amsterdam or Oslo.

The motivation to focus on Oodi is based on the notion that this library is often described, and indeed appears to function in a manner that recalls an urban square, rather than an enclosed building. According to Oodi's webpages "It is a library of a new era, a living and functional meeting place open for all. ... Oodi is a venue for events, a house of reading and a diverse urban experience." The openness is highlighted by the head architect of the building, who states: "Oodi is one of the most open buildings of Helsinki, even of the Nordics, where the user can do multiple things, and take initiative of what they wish to do." As a point of comparison, for example, Acar et al. (2020) describe urban squares in a way, that could easily be from Oodi's webpages, if the word square was replaced with library: "squares define the focal points in gathering spaces within the urban texture, and that the presence of occupants in the squares and the surrounding buildings renders the space a safe and welcoming environment."

Two approaches are used to unravel the notion that Oodi is inherently open and public. First, a theoretical term which is helpful for analysing what the building aims to 'do', is conviviality. The term has been used in urban studies internationally, while it appears to have been under-used in the Finnish context. (In Nordic context, for example Arp Fallov & Jørgensen (2018) have written about societal integrative processes, also referring to conviviality.) Conviviality, defined as art and practice of living together or as character synonym of sociability, describes extremely well how people are expected to behave in this library – and for almost all the time, they appear to conform with the expectations.

The other, more practically orientated method to analyse what Oodi 'does' as part of the city fabric, is studying the alternative sites that were considered for the new central library. The debate for the site of a new library took several decades, during which several suitable sites were proposed.

In sum, this paper proposes that a physical, tangible space can stand as the pillar space of urban experience, thus flipping around the notion that an ideal type of open public space would be a square. Instead, a truly open space where individual people can spend time together, choosing themselves whether to take contact to the others, can exist within the enclosed walls of library.

Superdiversity In Public Spaces: Urban Practices For Religious Plurality In The Contemporary City. The Experience Of The &Quot;Sustainable Religious Tour&Quot; Project In Torpignattara, Rome.

Sara Altamore (Sapienza University Of Rome), **Marta Scialdone** (Sapienza University Of Rome)

Inspired by this conference track, the paper discusses the relationship between the concept of superdiversity and public urban space, starting from a university-funded engagement project entitled "Sustainable Religious Tour: An Itinerant Path to Discover the Sacred in Tor Pignattara", led by the authors. Tor Pignattara is a neighborhood of Rome characterized by strong religious and cultural diversity due to increasing migration flows. The project aimed to actively engage the local community, schools, businesses and the third sector to enhance the material and immaterial heritage of the neighborhood through free public walks connecting the various 'invisible' places of worship in Tor Pignattara.

A striking body of work in urban planning analyses the multicultural city (Baumann 1996; Sandercock and Lyssiotis, 2003; Fincher and Iveson 2008; Fincher et al. 2014). This paper seeks to add to the debate using the concept of superdiversity (Pemberton, 2022). In particular, the paper focuses on the relevance of co-creating knowledge, intercultural dialogue, and active citizenship in the making of a 'superdiverse' public space.

Public space is a complex system of interactions, practices of use and hybrid material and immaterial spaces. Religious diversity in urban contexts - especially the superdiversity resulting from the increasing mixing of people from different ethnic and religious backgrounds (Vertovec, 2007) - implies that urban dwellers coexist and share space. Thus, public space represents the arena where superdiversity becomes visible through the interplay of religious spatial strategies and urban structures (Becci et al., 2017).

In light of this, the paper analyses the practices promoted by the Sustainable Religious Tour project and their contribution to the creation of an inclusive public space, and offers some ongoing lessons on:

Disseminating the practice of narration and self-narration as a model for understanding places and intangible heritage,

Reformulating conventional practices of urban space use to promote social cohesion and negotiation between different types of users,

To develop a model of social and cultural sustainability.

Finally, the "Sustainable Religious Tour" project is leading to an unplanned outcome: the creation of a collective project proposal for the realization of a "Garden of Religions". The proposal, which is still under development, involves neighborhood committees in the adoption of a green space where a plant/tree symbolizing each religion present in the neighborhood will be planted, thus addressing issues of appropriation, and belonging.

Keywords : public space, cultural heritage, urban practices, superdiversity

Enhancing Suburban Life With Victor Gruen: Lessons From Two Tuscan Malls

Giulio Giovannoni (Università Degli Studi Di Firenze - Dipartimento Di Architettura)

The essay investigates the role of shopping centers as suburban collective spaces through the analysis of two case studies located in the Florence-Prato-Pistoia plain, in northern Tuscany. The underlying thesis is that cultural, technical, and political elites have failed to grasp the social relevance of these commercial containers and treated them as merely technical artifacts, to be only regulated in terms of supply of retail floor-space, effects on mobility, and needs of parking facilities. To support the thesis of their social significance, the research uses an ethnographic approach based on structured observations and open-ended interviews with different types of users. The social significance that emerges from their users' spatial practices is contrasted with political and journalistic descriptions, in which shopping malls are often labeled as non-places (Giovannoni 2019). In Lefebvrian terms, this corresponds to contrasting lived space with imagined space (Lefebvre 1991). Such negative characterizations preclude, on the discursive/argumentative level, the possibility of elevating and qualifying malls through regulations and design. In the second part of the essay, the policy implications of the analysis are discussed, drafting out some tentative regulatory actions. In particular, the lesson of Victor Gruen is rediscovered, considered by many to be the inventor of the American shopping mall (Gruen and Smith, 1960). We show that by translating Gruen's planning and design criteria into actual planning and design regulations, the social collective function of shopping malls could be properly fulfilled and maximized addressing a largely unsatisfied need for high-quality collective spaces for the suburbs. Although the discussion is based on two Tuscan cases, its implications can be extended to most suburbs in Western countries and beyond.

Keywords : shopping malls, Victor Gruen, Tuscany, collective spaces, public space, lived space, planning regulations

Approaches

Tracing The Societal Production Of Public Gardens: Analyzing The National Garden Masterplan Design Process In South Korea

Park Jihee (Seoul National University)

This study delves into the transformative process by which public gardens evolve into social productions, scrutinizing the National Garden Masterplan Design Process in South Korea. As South Korea's standard of living improves and interest in quality of life increases, the demand for gardens has steadily grown. Gardens, positioned as catalysts for enhancing daily life, fostering local tourism, and invigorating the economy, have become central to the realization of green welfare at both national and local levels. In response to this societal shift, the Korean government has sought to introduce a rational land use model, utilizing local ecological resources through the establishment of 'national(local) gardens', operating under legislative frameworks.

The establishment of the first national garden in Suncheon in 2015 marked the initiation of this transformative trend, with two national gardens presently operational in South Korea. Simultaneously, a nationwide effort is underway, with approximately 33 local gardens in progress, aspiring to attain national garden status. To qualify for national garden designation, certain prerequisites must be met, encompassing criteria related to the garden's size, composition, organizational structure, personnel, amenities, and operational performance. Unlike local gardens, which rely on local government funding, national gardens receive support from the central government budget, prompting a surge in garden creation across the nation. However, the elevation of everyday spaces to the national level lacks comprehensive reflection on the roles and implications of national gardens. Government initiatives emphasize the financial self-sufficiency of local gardens, discouraging the establishment of additional national gardens. In contrast, some localities seek national garden status to alleviate operational and financial burdens. The tendency to prioritize minimal requirements for national garden designation, rather than tailoring garden designs to suit local contexts, underscores the conflicts arising when gardens transition into public spaces. This challenge is mirrored in the garden master planning process, where the architect, wielding authority over the plan, engages in a dynamic contest with various planning agents, including government officials, citizens, and experts.

This study endeavors to meticulously trace the societal production process whereby gardens evolve into public spaces, transcending mere personal luxury or aesthetic sanctuaries. By analyzing a one-year master planning design process for a local garden, the paper revisit the intricate production dynamics of public gardens. Adopting Henri Lefebvre's analytical framework, which views spaces as both 'political productions' and 'strategic spaces,' layered with multifaceted sociality, the analysis interpret the garden: ① 'Spatial practice,' where vibrant experiences precede conceptualization through garden visitors, ② 'Representation of Space,' shaped through competition among design entities, and ③ 'Representational Space,' newly defined by garden users. Through the exploration of the dialectical relationships between these three conceptual spaces, the paper trace the process by which public gardens are newly produced within the Korean social context. This contributes to a comprehensive understanding of the subtle conflicts inherent in the garden creation process, surpassing conventional interpretations.

Keywords : Landscape Planning, Public Space, Social Space, Henri Lefebvre, Production of Space

Management And Publicness Of Public Space: Changes And Challenges

Antonella Bruzzese (Politecnico Di Milano)

Public space has always been capable of conferring quality to the urban environment, being the basis of the urban structure, offering material support for communal life, representing civic and religious powers and values, and the place of social gathering where it is possible to encounter the unexpected. In a city that does not expand but regenerates itself, the public space has taken on a new role in the practices of urban transformation, both in the more ordinary and small ones and in the larger ones. Current contingencies - the growing uncertainty due to climate change, pandemic crises, migration, wars, and their effects on economic and geopolitical conditions - represent the backgrounds and, in many cases, the amplifiers of ongoing dynamics that also affect public space.

The case of Milan is an interesting field of observation from this point of view. It makes it possible to reflect on the ways and intensity with which public space has changed its role and meaning in the city on the new questions it poses to city government. Ultimately, it is a testing ground for many changes in the 'game'.

Two aspects serve as background and driving forces for change.

The first aspect concerns the progressive scarcity of resources available to the public administration in the ordinary city management. This scarcity affects economic and human resources and skills and is increasingly driving the outsourcing of services and the management (Carmona, 2008; Marcuse, 2014). The second concerns the collaborative practices that the public administration shares with the private or third-sector actors. That has enabled many fertile areas of bottom-up experimentations, from the management of common goods to forms of participatory budgets, from community gardens to various participatory practices. At the same time, it has facilitated the spread of public-private partnerships and the participation of private individuals - developers and managers - in public space management (London Assembly, 2011; de Magalhães, Freire Trigo, 2017). Both aspects highlight a different way of approaching the governance of public space, with potential and criticalities.

These aspects are found in two scales of intervention, clearly visible in some Milanese experiences.

At the scale of minute and diffuse interventions, the case of Piazze Aperte is emblematic. It is an intervention program that, since 2018, has modified about 40 Milanese public spaces with the modalities of tactical urbanism and, thus, with low-cost interventions, the involvement of citizens in associated forms. In those same years, following the pandemic restrictions, the use of public space changed thanks to the public land occupation permits given to economic operators. All this changed the public space with temporary elements introducing new rules and procedures in the realization processes.

In the major urban transformation projects affecting Milan, the role of public space is crucial. Public spaces or spaces for public use are managed by private actors who maintain them because their quality guarantees the value of investments. Still, they pose some questions regarding management and maintenance of the publicness.

The paper will reflect on how the design and management of public space have changed and highlight the challenges to face to ensure its publicness.

Catholicism, Violence And Institutions: Drivers Of Informal Settlements' Public Places In Caracas

Gabriela Quintana Vigiola (University Of Technology Sydney)

This presentation discusses the findings published in [construction of the] public realm in infor- mal settlements in Caracas, Venezuela and the social and institu- tional drivers underpinning its development. Public spaces in informal settlements are usually conceived and constructed by residents, sometimes with the help and support of diverse institu- tions. These places created by people can be considered public realm from their genesis, as the community have built and experi- enced them since their staFrt. A qualitative study with a case study design informs this paper. In-depth interviews, mapping and a photographic survey were carried out. The focus on the physical space, religious activities and psychosocial meanings in an informal settlement in Caracas led to understanding the constituents of the public realm and their drivers. The community's solidarity and collaboration and their religiosity shaped the construction of the public realm. Simultaneously, governmental and ecclesiastic insti- tutions played a fundamental role in its development. The paper adds to the knowledge about the creation of the public realm in informal settlements by discussing residents' stories related to this process. The public realm in informal settlements is created through resident-driven approaches founded on social aspects and influenced by institutional factors that go beyond the design and construction of the physical space.

Public Spaces And Territoriality: A Study Of The Banks Of The Ibiraquera Lagoon In Santa Catarina, Brazil

Sergio Moraes (Federal University Of Santa Catarina), **Cláudia Aparecida Souza Ferreira** (Federal University Of Santa Catarina), **Luciana Alves** (Federal University Of Santa Catarina), **Vanessa Helena NASCIMENTO** (Federal University Of Santa Catarina)

The main objective of this study is to explore strategies that can help develop public policies to ensure quality public spaces on the banks of the Ibiraquera Lagoon, while preserving its cultural landscapes and traditional life dynamics. The lagoon, which covers an area of 900 hectares, is located in the municipality of Imbituba, in Santa Catarina State, Brazil, and is connected to the sea by a narrow channel.

Fishing has been the driving force behind the development of this region, and the edges of the lagoon are dotted with fishing support structures that form interesting groups inserted into the landscape. These structures consist of three characteristic parts: the "trapiche" (access walkway deck to boats), the "fishing ranch" (warehouse for storing boats and equipment), and the "sarilhos" (boat lifting mechanism). These complexes still house traditional Portuguese canoes and centuries-old indigenous canoes.

The landscape composed of these fragile architectural ensembles affirms an "identity territoriality" and belongs to the residents' collective heritage. The areas around these facilities have been appropriated as public leisure spaces due to their landscape character that incorporates sensitive aspects such as colors, odors, movements, sounds, and organization. The presence of "sarilhos" and ranches uniquely demarcates the landscape, operating in the duality between urban equipment for contemplation and leisure and equipment to support artisanal fishing.

However, rapid urbanization has had significant impacts due to an occupation that neglected environmental and cultural structures. The phenomenon of gated condominiums has contributed to the privatization of banks, compromising fishing territories by altering and suppressing traditional paths that led to artisanal "fishing trapiches". This situation accentuates socioeconomic inequality in the region.

While gated condominiums provide a range of leisure spaces and exclusive access to the lagoon, the traditional population has a shortage of meeting places within the public domain. Those who do not live in the gated communities look for the few streets with free access to the lagoon. Invariably, these few streets merge with the traditional trails where fishermen access fishing spots and ranches, and thus the spaces on the banks of the lagoon around the "sarilhos" and "fishing ranches" are transformed into "plazas", places where you can rest, contemplate the landscape, and have social meetings.

What concerns us in this context is understanding the effects of the loss of "territoriality" or "identity space" of the local community. This process, which Haesbaert (2002) calls "deterritorialization", is related to inequality and social exclusion and is structured at different levels and rhythms. According to Guattari and Rolnik (1986, quoted in Haesbaert and Bruce, 2009), territoriality is not linked to the physical limits of the land but related to the individual's social practices and the set of factors that produce their reality and make sense at that particular moment. The presence of "sarilhos" on the banks of the lagoon linked to traditional paths can illustrate the resistance of traditional communities where it still exists, and its annihilation where the "modernity" of gated condominiums imposes itself; it remains to be determined how much of the legacy still exists.

In this sense, this work aims to map these fishing equipment and understand how the surrounding space can be constituted into multifaceted territorial units incorporating cultural, environmental, and landscape structures.

Here, There And Everywhere – Negotiations On The Redistribution Of Street Space

Mareike Schmidt (Technical University Of Munich)

Many cities aiming for climate adaptation pursue, amongst others, the strategy of redesigning streets by reducing the amount of on–street parking to implement more nature-based solutions. Their implementation alternates the primary use of streets to a different share of space for traffic and for staying and recreation. Consequently, the mix of users of public space shifts radically, along with the intensity of its use.

This is what the urban living lab "aqt" carried out temporarily in Summer 2023 in two neighborhoods in Munich. The transdisciplinary research project aims to find answers to how the livability of a neighborhood may be increased by reducing privately used cars in street space. What's specific in this case of the aqt urban living lab is that the neighborhoods are the adaptive type, according to Försters typologies of neighborhoods. (Förster, 2023) They are characterized by a relatively constant social environment, demanding much participatory work to increase acceptance in adapting to change. Offering little spatial resources, they have high requirements for climate adaptation.

During the project's runtime, the daily life of the neighborhoods and the practices and routines of the residents in public spaces changed dramatically. This caused a conflict between some of the directly affected residents, criticizing and objecting to the mutations, and those who quickly adapted to the change, playing with kids or relaxing in the green spaces. Conflicting stakeholders' interests and their moderation are a daily business in urban planning. Nonetheless, executing an urban living lab in an adaptive neighborhood is highly challenging because of the complexity of the environment and the diversity of stakeholders involved. Thus, to make the findings of an urban living lab transferable to different contexts and to scale them to enable the successful climate adaption of existing neighborhoods, it is essential to better understand the relation between the actual impact that the urban living lab had and the specific role of locality defined by the particular context of the two neighborhoods.

The basis for the conducted impact analysis is a qualitative text analysis of the collected data applying the "embedded actor perspective." The EAP is a "socio-spatial framework for scaling transitions." (Bögel et al., 2022): It was developed to analyze the impact of urban living labs by putting the socio-spatial and socio-psychological dimensions in relation. (ibidem) The analysis is guided by the research questions: What aspects of daily life and what public space features are emphasized by citizens, and how do they describe them? What forms of scaling, e.g., new practices, can be identified? (von Wirth et al., 2019)

The results give valuable information on the impact assessment of urban living labs. Enabling transdisciplinary collaboration, improving communication, and, thus, the transformative literacy of stakeholders involved in an urban living lab. Those learnings contribute to the increase of acceptance for redistribution of street space by giving an outlook on what these findings may imply for future urban living labs in adaptive neighborhoods and for urban transformation in the long term.

Keywords : transdisciplinary research, urban living labs, embedded agency perspective, Munich, car-reduced neighborhoods

Evaluating The Impact Of Spatial Interaction On Human Capital'S Sense Of Belonging To The City: The Case Of Kutahya

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Urban public spaces that are inclusive are crucial for fostering a sense of spatial belonging. Several factors impact the level of spatial belonging, such as the increase in urbanization leading to a rise in the population living in cities and changes to people's living spaces due to reasons like migration and natural disasters. These public spaces take on various forms and serve various functions, providing many advantages to urban dwellers. High-quality urban open and green spaces and pedestrian-friendly neighborhood areas can facilitate positive social connections (Stanley, 2012). When people interact in public areas, they are more likely to participate in society, increasing social connections. Moser et al. (2002) suggest that social ties are critical to feeling a sense of belonging in one's community: as the density of local relationships grows, so does the proportion of people who feel completely at home (Rollero, 2010). Public spaces in cities should be accessible to all individuals. This way, people from different socio-economic backgrounds are encouraged to come together and utilize the same spaces. For sustainable urban development, individuals living in the city must have access to public spaces and feel a strong sense of belonging. This research aims to analyze the relationship between the level of spatial interaction of human capital living in Kutahya, a middle-scale city located in the Aegean Region of Turkey, and their sense of attachment to the city. The importance of quality public space interactions for city attachment has been highlighted in various studies some of which are presented above. Kutahya is facing a severe problem of losing its human capital, which is hindering its developmental capacity. The analysis are conducted through GIS-based interviews. The study consists of three parts. The first part includes literature reviews and case studies that examine the relationship between urban public spaces and spatial belonging. It also explores how spatial belonging changes based on different components. The second part covers the methodology used to conduct the survey in the study area, Kütahya, using the participatory geographical information system software Maptionarre. Lastly, the survey results were analyzed and discussed through a focus group to examine the reasons for low spatial belonging in public spaces. The literature research and survey results were evaluated together to determine what changes are needed in public spaces and what policies should be developed to increase the sense of belonging among people with low levels of spatial belonging.

Keywords : City attachment, human capital, quality public space, sustainable urban developlment, city attachment, human capital, quality public space, sustainable urban development

Approaches, Gender &Age

Playful Urbanism In Diyarbakır: Dynamics Of Power And Play In Public Space Design

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Public spaces act as mirrors, reflecting the intricate power dynamics which are shaped by governmental, societal, and representational factors. They are filled with political and social life, shaped by the complex interplay of knowledge and power that seeks to organize our cities into specific patterns and structures (Foucault, 2008). Urban designers are influenced by these power relations, thus creating spaces that convey an idealized lifestyle and a particular set of behaviours, which in turn are influenced by power relations in urban management, societal morals, and capitalist economy. However, these ideal lifestyle expectations often diminish in everyday life and are disrupted and reshaped by playful actions, leading to different experiences (Lefebvre, 1991). Play theory brings attention to unplanned and informal activities, providing a new outlook on power structures and public spaces, and unveiling social dynamics between people and public spaces. This approach advocates for an innovative method in the design of public spaces (Stevens, 2007). The main goal of this article is to define activities considered as 'play' and to highlight their significant role in building social connections and enhancing urban life. By examining the intricate interplay between various interpretations of play and power structures, this article illustrates how play moves beyond the constraints of everyday life to become a substantial force in shaping social interactions and transforming the urban landscape.

The research is centred on Seyh Said Square in the Sur district of Diyarbakır, Turkey's largest Kurdish city, known for its rich cultural, archaeological, and ethnological heritage, and the surrounding parks near the Diyarbakır walls of historical significance. The study encompasses field research, observations, and surveys. The area is notable for its vibrant culture and diverse societal and political representations (Diken, 2002). The space's unique character facilitates a distinctive kind of connection among users, authorities, and urban designers. Play is recognized as an essential component of urban design that values everyday life, meets needs and aspirations, reassesses the environment, respects the collective memory of individuals and communities, and incorporates them into the urban design process (Boano, Talocci, 2014). This study aims to explore alternative narratives in urban design within the context of social engagement and public space usage. It adopts a holistic and participatory design stance, framing the discourse around the concept of playful activities and their importance in fostering participation and shaping urban design.

Keywords : play theory , power relations, social interaction, participation , urban design

Unveiling Urban Engagement: A Comprehensive Study Of Older Adults' Interaction With Public Spaces

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The global demographic landscape is undergoing a significant shift towards an aging population, particularly in urban areas. Eurostat's data from 2023 reveals that the proportion of individuals aged 65 and over in the total population of EU countries has increased from 18% in 2012 to 21.1% in 2022. Addressing the unique needs and challenges of older adults is crucial for creating inclusive and age-friendly environments that promote active and healthy aging, aligning with the goals of the UN Decade of Healthy Aging (2021–2030). Urban environments play a pivotal role in shaping individuals' quality of life, with older adults being particularly sensitive to the design and functionality of public spaces. Understanding how older adults perceive, navigate, and engage with public spaces is essential for developing interventions that cater to their specific requirements, fostering environments that promote physical activity, social connectivity, and overall well-being.

This micro-scale ethnographic study explores the multifaceted engagement of older adults with public spaces through one-to-one interactions. The research delves into preferred locations, the rationale behind these choices, and the diverse activities undertaken within these spaces. The study leverages three theoretical frameworks - Hägerstrand's (1970) time geography, Giddens' (1984) Model of Structuration, and Lynch's (1960) concept of 'mental maps' - to enhance the understanding of older adults' engagement with public spaces.

Hägerstrand's theory has been extensively used as a comprehensive model for examining accessibility in various studies (Patterson & Farber, 2015). Its framework is instrumental in exploring how older adults manage their time in relation to public space engagement, hence facilitating the analysis of the temporal patterns of their activities, the duration spent in different locations, and the temporal constraints influencing their mobility within public spaces. Giddens' Model of Structuration, on the other hand, helps in understanding how social norms, cultural expectations, and institutional arrangements influence choices, preferences, and behaviors within urban environments. Giddens' concept of the "duality of structure" is particularly relevant in exploring how older adults navigate and contribute to shaping the social structures embedded in public spaces. In turn, Lynch's notion of mental maps refers to the cognitive representations individuals construct of their spatial environment. Examining the mental maps of older adults sheds light on their subjective perceptions, preferences, and cognitive strategies when navigating and interacting within urban environments.

To achieve the overarching aim, we conducted qualitative and ethnographic face to face and online interviews with a cohort of 12 participants aged 65 and above, located in Lisbon, Portugal. The research methodology encompassed cognitive mapping exercises, and in-depth interviews based on the three theoretical frameworks. This study is part of ongoing research, and the comprehensive examination of gathered data is yet to be finalized. Anticipated findings will be available shortly, contributing to a more comprehensive understanding of the spatial experiences of older adults by delving not only into the tangible features and physical aspects of public spaces but also the cognitive representations shaping their perceptions and behaviors.

This study represents a significant step towards comprehending the intricate relationship between older adults and urban public spaces, hence contributing to the broader discourse on creating inclusive and supportive spaces that enable an active and healthy ageing, aligning with the goals of the UN Decade of Healthy Aging and Sustainable Development Goals.

Keywords *: older adults, public space, accessibility*

Hybrid Temporary Urbanism And The Governance Of Fragments In Hong Kong And Chinese Cities

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This paper explores how temporary urbanism and particularly the latest trends of hybrid temporary urbanisms (comprised of both bottom-up and top-down arrangements) have been spreading in cities, in periods of crisis and disruptions. While a significant amount of work has been produced on European and North American cities, far less is known about the temporary reutilization of under-utilized open spaces (including temporary architectural interventions) in Hong Kong and China's mainland, and particularly how they are set up, negotiated hence governed and with what legacy. We will label those spaces 'urban fragments' referring to Colin Mc Farlane's work. In such contexts, hybrid temporary urbanism occurs in response to issues of liveability, well-being and local needs (i.e. filling gaps in service provision and tackling community well-being). This paper will be answering the following three questions: How to reconnect people and under-utilized urban fragments with low-cost interventions? How temporary urbanism could promote alternative uses in public open spaces? How to challenge outdated design guidelines and rigid planning rules by using pilot urban projects? To do so, it will build on fragments and assemblage theory and deconstruct hybrid temporary urbanism interventions through three dimensions: a spatial dimension (the nature and characteristics of unused spaces), a political/governance dimension (related to power, regulations, and landownership) and a knowledge dimension (related to skills and social networks).

This paper will mobilize a set of case studies in Hong Kong, Shanghai, and Chengdu.

Hong Kong is a world-class metropolis characterized by an extreme form of vertical urbanism. In this intense urban context, public open spaces are very limited, especially in old urban areas. Furthermore, most of these spaces were created by adopting a rigid, top-down approach by applying standard solutions to a variety of different sites and urban conditions. These valuable but often underutilized open spaces do little to serve residents' needs, as they neither facilitate social interaction nor encourage community activity. We are here using two pilot interventions 'Nullahplace' and 'CWLane Reading Space'. Both responded to the need of having high-quality open spaces that can become new gathering places for the community by making use of existing but dysfunctional public open spaces.

Shanghai, shifting its focus from solely economic development to urban quality improvement and people-centric development, has embarked on micro-regeneration temporary initiatives as an alternative to traditional urban regeneration methods. These projects, including '345 Xinhua Rd' and 'College Student Community Garden Competition in Dongming,' focus on renovating, repurposing, and reimagining community public spaces. They not only aim to enhance these local areas but also align with Shanghai's people-oriented urban regeneration agenda. Through temporary uses, these projects engage local communities and non-state actors in a collaborative process allowing for the continuous evolution and redefinition of public spaces.

Chengdu, characterized as a liveable city with robust grassroots planning practices, exhibits a paradigm shift in China's modern top-down planning dynamics. Traditionally, the local planning authorities take charge of the refurbishment of public spaces. However, in Chengdu, neighborhood committees have evolved into active facilitators, mobilizing residents to engage in community activities through alternative governance mechanisms, hence fostering neighborhood micro-regeneration. Here we examine 'Grandma's Kitchen,' a resident self-built collective occupying unused public spaces for gardening purposes. Led by retired workers, the community vegetable farm grows, and harvests products used to prepare meals for elderlies in need through the goal of 'young seniors helping old seniors'.

***Keywords** : Temporary urbanism, Small scale architectural/urban interventions, urban fragments, Hong Kong , China*

Learning From Everyday Placemaking For Inclusive And Socially Sustainable Places

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By 2050, the global urban population is projected to reach 6.7 billion, with nearly 90% of the growth expected to occur in Africa and Asia (UN DESA, 2018). Given this rapid growth, two things are evident. For one, infrastructure that secures livelihoods must be built and maintained. At the same time, the importance of qualitative aspects such as the increased quality of life in cities needs to be focused on. In order to strengthen urban quality of life, the development needs to be people-centred, should enable participation and promote responsibility for public spaces (i.e. United Nations, 2016). Therefore tools are needed that foster social sustainability, inclusion and bottom-up approaches to create places that are tailored to the peoples' needs. This is particularly true in fast-growing cities.

Based on these premises, this contribution takes the people-centred development of urban spaces as its starting point and asks the following question: What can be learned from everyday patterns (everyday placemaking) in order to achieve an inclusive and socially sustainable design of places (strategic placemaking)?

Placemaking can generally be classified into two approaches: the everyday and the strategic. Everyday placemaking refers to the sociocultural appropriation of space. It is assumed that social structures can be experienced in spaces and that every society produces its own places. Therefore, places are not only physical but also social constructs that result from human interactions and are structured and shaped by a community's habits and routines (i.e. Healey, 2010; Lefebvre, 1991). Strategic placemaking is a spatial design strategy guided by planners and implemented by the community. Its aim is to enhance the quality of life and place by integrating creative, cultural, and social processes. This approach transforms physical spaces into socially meaningful places. Placemaking is an integrative planning approach that has been increasingly discussed as a possible effective instrument to enhance socially sustainable urban development (i.e. Healey, 2010; Schneekloth and Shilbley, 1995).

To answer the initial question, urban studies in the public spaces of mixed-use areas in two fast-growing cities - Phnom Penh in Cambodia and Hanoi in Vietnam - were conducted. A team of local researchers participated in the life in six different places for six days and analysed the places' rhythms using methods such as mapping, observing, and photographing. The places observed were community spaces, urban kitchens, living and dining rooms at the same time; many doors were open, which is a symptom of a neighbourly community and a signal of mutual trust. Despite the dominance and loudness of traffic, community life and social practices took place in front of the house. Thus, in addition to people who care about each other and their place, what is needed is an opportunity and a place that allows for appropriation and offers an invitation to linger and meet others. The place studies showed that in this regard the best places are the most easily accessible ones - those in front of houses and those that give people space to express themselves. Hence, an essential task of planning in the sense of placemaking is to strengthen the connection between people and places through a bottom-up process and to take the rhythm of a place as the baseline for future improvements.

The contribution concludes with a manifesto for strategic placemaking to achieve inclusive and socially sustainable places in a rapidly changing world, based on experiences gathered in the given place studies.

***Keywords** : placemaking, social sustainability, peoples' urban spaces, (case) place studies, everyday patterns*

Production Of Public Space In Community-Based Urbanizations In Chile

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The reality of public space in Latin America is contrary to the conception of European culture in that it is challenging to build inclusion and where the common emerges as a space of daily interaction: they are urban spaces where notorious dynamics of self-segregation and in which it is complicated to embody anonymity (Araujo, 2019). Our reality is strongly linked to the community: a small-scale society mediated by solidarity and self-organization (Garcés, 2002; Skewes, 2005).

In deprived and self-constructed urbanizations in Chilean cities, the street ("Calle") or the soccer field ("Cancha") are placed with an intense load of memory and a sense of belonging for their inhabitants and where it is possible to constitute a shared space in a very characteristic way. The street is the place that allows commerce under specific rules (flea markets). The soccer field, a multipurpose rectangle barred all around with high bars that allow it to be locked, is a device for indoor games, sports, and entertainment, but always in the logic of different audiences that share the space gradually.

The research project presented here explains how specific spaces, such as the street and the field, are produced and inhabited; it studies them empirically, establishing contrasts and coincidences with the global north and south theories. It analyzes them as everyday spaces, reflecting a memory of co-production and conviviality. At the same time, the question arises if building a public sphere in them is possible despite the community regime in which they were created.

The approach of this study recognizes that the term "public space," coming from the global north, has conquered the Latin American sphere. However, it realizes that, at the same time and as various Latin American authors maintain, this European ideal of public space has been incomplete in interpreting how Latin American societies are produced and deployed in these spaces (Deutsche, 2018; Magalhães, 2010). In line with Hérnández García, the focus is instead on their condition as "open spaces" - avoiding the discussion on ownership (Hernández García, 2012). We adhere to a view on "collective spaces," emphasizing the appropriation of space for private purposes or a limited group (Duhau and Giglia, 2008). Moreover, we are concerned about their condition as "co-places" - which are not only co-inhabited (use) but also co-produced and, in doing so, give meaning to the experience of space (Rocca, 2020).

At the same time, the notion of community in Latin American cities is strained by the values that the cultural model of modernity introduced: the logic of privatization, as well as territorialization and life in "islets of sociability" (Delgado, 2019; Araujo 2019), and also a territory available for the agency of "hyperactor" individuals (Araujo and Martucelli 2010) who open themselves to new rules of interaction and social agreement in a reality already influenced by more global phenomena.

The theoretical-methodological key in studying these spaces is the analysis of appropriations, whether those constitute domination or possibilities of emancipation (Bordieu 1991, Chombart de Lauwe 1979). Through interviews with inhabitants and commented tours, the vision and experience of the public and community are understood from the perspective of inhabitants of different ages, differentiating the perspective of boys and girls, as well as adults. The perception of the inhabitants is complemented with a spatial analysis of the spaces, objects of appropriation, and uses given to the spaces.

Unveiling The Queer Migrant Experiences In İstanbul

Omer Melikoglu (Istanbul Technical University), **Zeynep Günay** (Istanbul Technical University)

Within the realm of queer existence, the notion of "home" extends beyond the confines of traditional bricks and mortar, evolving into a multifaceted entity that not only encompasses the emotional sanctuary within, the physical dwelling, and the supportive communities fostering a sense of belonging but also incorporates the transformative role of digital spaces. These virtual environments, emerging as alternative public spaces, play a crucial role in the contemporary definition of home, especially for queer migrants. In this expansive context, home transcends its conventional boundaries, integrating the digital realm as an integral component. It becomes a dynamic convergence of emotional resilience, physical space, and virtual communities. The study aims to reveal the novelties of digital spaces and collaborative endeavors that serve as an alternative public space, constituting a method of digital home-making for queer migrants.

At this juncture, this article delves into the unique experiences of queer migrants in İstanbul, drawing inspiration from the personal migration story of the author and the narrative of a queer Syrian refugee who sought asylum in Istanbul following the tumultuous Syrian civil war. Focusing on home-making practices, the research concentrates on the digital ways that queer immigrants create and redefine spaces that not only serve to find shelter but also function as sites of identity expression and resilience. In this context, employing both narrative and auto-ethnography methods, our focus is on discerning how digital spaces and tools evoke a sense of home and communal belonging that queer migrants may not have experienced during their constrained urban encounters. This investigation sheds light on the instances where digital spaces and tools serve as alternative ways for home-making, shaping the sense of belonging for queer migrants through digital means. In conjunction with this exploration, we aim to highlight how digital spaces effectively instill feelings of solidarity and communal connection that bridge the perceived lack of connectivity experienced during the limited urban engagements of queer migrants in Istanbul.

Keywords : queer migration, home-making, digital space

Gender & Age, Transformations

Spaces Of Being In Between: A Multi-Ethnographic Exploration Of Migrant Women'S Experience In Virtual And Physical Spaces

Shiva Nouri (The University Of Melbourne)

Migration and digital technologies are two linked processes that shape the urban experiences of our time. Today, social media goes beyond being a mere medium of communication, rather it mediates people's everyday activities within cities, influencing how people experience the place. Recognizing the embeddedness of social media in cities calls for urban planning scholars to explore new approaches to understanding the urban experience. Focusing on Iranian migrant women living in Melbourne, this research explores their multidimensional lived experience in the context of different forms of connectivity facilitated by social media in cities. The overarching question that this research seeks to answer is: how social media is affecting migrant women's experience of public spaces?

To address this, I employed a methodology that integrates both the materiality and meaning of migrant women's practices occurring within the realm of public space and social media to generate embodied-affective data in situ (Knudsen and Stage, 2015). Employing a multi-ethnographic approach, I combined online and offline ethnography (Miller et al., 2016; Pink et al., 2016). I conducted walking interviews with participants, during which I collected data on their experiences of public spaces and social interactions (Kusenbach, 2003). I then conducted social media ethnography to collect data on participants' online activities and to observe their interactions with the physical and social environment as shared through social media.

I draw on the concepts of translocal space and affect to conceptualize 'the spaces of being in between', including all material, symbolic, and spatial dimensions of space, as experienced by these women (Jackson, Crang and Dwyer, 2004; Low, 2016; Åhäll, 2018; Ivanova, 2022). 'The spaces of being in between' connect different localities and blend the virtual space with physical space through the affective processes and time-space compression (Massey, 1994). This paper takes on two tasks: first, it offers a nuanced narrative of the experience of Iranian migrant women while navigating between two worlds, living both 'here' (Melbourne) and 'there' (Iran). Second, it expands the concept of place by exploring 'the spaces of being in between', where these women negotiate their sense of belonging and find a sense of home away from 'home'. Affects transmitted through social media, memories, and physical spaces, find their way into these women's everyday lives, and become powerful agents, shaping their everyday politics and interactions in the multiple spaces they inhabit.

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Keywords *: public space, social media, migrant women, multi-ethnography, affective spaces*

Women, Urban Commons And Everyday Life: Updating Interpretive Categories With Competent Activists

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The research is embedded in the intense relationship between feminisms and the commons, aiming to reflect on the real and potential role of women in experiences of mutualism that nourish forms of collective life and paths of re-appropriation of spaces, resources, practices, and rights. By a situated approach, researchers decided to investigate these topics through the vibrant political landscape concerning urban commons and feminisms in the city of Naples (Italy), and to develop in a collaborative way updated interpretative categories as expressions of social, cultural, and political theorisation of everyday life involving key players on the local scene.

The well-known phenomenon of the commons and the multiplicity of practices developed under this umbrella offer the possibility to reflect on the interpretation of the multifaceted role of women in the city, capturing the rainbow of diversities and complex dynamics. In this context, a gendered vision is consistent with the theory of commons, perceived as an alternative to capitalist individualism and isolation, as it can give voice to a new debate on fairer and more effective management of resources and spaces.

Since women are the main players in care, productive, and reproductive everyday life sectors, their commoning concerns the quality of relationships, cooperation, and mutual responsibility. It also constitutes a counter-power both within domestic life and community life, and represents a real possibility to activate processes of self-valorisation and self-determination. Therefore, through the choice of the binomial 'women-urban commons' we are supposed to be able to reflect on a different gender perspective, bridging the personal sphere and the political one, on the one hand, activism with the reproduction of everyday life, on the other.

Following a season of listening campaigns, engagement and collaborative processes to address the complexity of urban regeneration processes in deprived and contested contexts, the research team activated a situated mutual learning process with a group of activists with specific professional expertise about the research issues. The co-design activities, which include focus group meetings, are aimed at obtaining shared results through interaction, discussion, and the systematisation of different theoretical backgrounds and experiences of competent activism.

Keywords *: feminism, commoning, everyday life, competent activism, situated mutual learning process*

From Rural Legacy To Suburban Living: The Evolution Of Public Spaces In Polhograjski Dolomiti Through Smoties Experimentation

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In the context of the contemporary challenges in public space design, Smoties is a transformative project that is part of the EU's Creative Europe's programme. It unfolds within the picturesque Landscape Park Polhograjski dolomiti (KPPD) in Slovenia within wider international endeavour experimenting with innovative approaches to co-creating public spaces in small and remote settlements, collaborating with cultural sector stakeholders through hands-on activities with communities.

Located in a region with a rich agricultural legacy, Smoties project in Slovenia navigates the delicate balance between preserving cultural heritage and addressing the diverse interests of local inhabitants and spare-time visitors from nearby urban centres. The region's cultural landscape, shaped by historical settlement structure scattered across hilly topography of forests and grasslands, has transitioned from traditional agricultural practices to a fusion of suburban and rural living, due to the development of urban centres in the lowlands in the last decades. The whole area is nowadays welcoming many regular visitors which find spare time and recreational haven there. The traditional community and the newcomers have various perspectives on how the area shall be used and developed in the future.

The project's foundation lies in mapping physical, social and cultural assets, utilizing concepts of place attachment and urban design analytics, in order to understand the possible roles and forms of future public spaces. Heritage mapping is crucial to understanding the material and immaterial assets in the landscape, while mapping contemporary recreational activities provides insights necessary for reimagining public space planning and fostering tolerance among users.

Commencing in 2021, Smoties activities materialized as various experimental forms of social construction of public space. The Sprehosad initiative invited people to seed honey-plants across meadows, fostering biodiversity and promoting shared responsibility for the landscape. Discussing the future of orchards as potential semi-public spaces opened dialogue on preserving traditional fruit-tree varieties and integrating art interventions. Recognizing forests as potential public spaces, the project encouraged contemplation and self-reflection within the community. A distinctive aspect of Smoties is the acknowledgment of local heroes—residents with deep insights into local life and environments, contributing to the discourse on public space's volatility. Built and natural heritage was also recognised for its potential to be renovated and repurposed, transformed into inviting public spaces, bridging the past and present and negotiating territorial thresholds.

This contribution will review the experimental activities that took part in the 2021-2024 period within a broader conceptual framework of social and physical (re)construction of public space in remote areas. It will critically asses the potentials for the creation of meaningful public spaces in remote populated areas in line with contemporary needs. The aim is to contribute to the ongoing debate on planning for cultural diversity, addressing challenges of appropriation, dominance and belonging. The presentation will showcase that through community-driven initiatives it is possible to preserve cultural heritage as well as craft resilient, responsive and enriching public spaces embodying the ideals of a just and green future of rural communities and places.

On Freedom, Public Space And Women's Experiences Of Prostitution. The (In)Visible World Of The Bois De Vincennes In Paris.

brigida proto (Cems, Ehess)

Prostitution constitutes a public problem, a moral controversy as well as an urban and territorial issue. On the one hand, in public spaces diverse social groups, considered "undesirable" or "deviant", experience prostitution by practicing their own forms of territorial appropriation but also of resistance and assertion of their rights. On the other hand, a public debate trapped in the ideological opposition abolitionists/pro-sex workers and, therefore, in the binary logic forced/free prostitution, tends to invisibilize experiences that question what human freedom means in the face of the extreme situations of human rights violations taking place in cities.

It was in the days of the Chicago School of Sociology that the urban and regional consequences of the moral crusades against prostitution were studied and the abolitionist model of care was questioned (Reckless, 1933) while the creative deviant young women's ability to reinvent themselves dealing with different desires and impulses was highlighted (Thomas, 1923).

Tarrius (2022) has currently investigated the movements between the Balkans and Spain and the "moral spaces" traced by migrant women who reinvent themselves as prostitutes by adapting to different forms of cooperation between organized crime, migrant populations, illicit trafficking and local politics.

Based on the provisional results of a pragmatist, ethnographic and participatory, inquiry in progress, the article will focus on the Nigerian women's experiences of prostitution in a public space, the Bois de Vincennes: (a) the largest green area in Paris, but also (b) area of Francophone street prostitution in caravans; (c) key territorial reference in international networks of Nigerian street prostitution.

Attention will be given to the Bois de Vincennes as a "milieu of life" (Cefaï, 2019) where Nigerian women, dealing with moral, affective and cognitive troubles, as well as with concernments and problematic situations, try to keep the peace by practicing, in and outside networks of prostitution, different orders of transaction, cooperation and interdependence with human agents (e.g. "mamas", " cult " groups, clients) - and non-human agents (e.g. money, caravans or institutional arrangements to exit prostitution).

How do Nigerian women's experiences in the Bois de Vincennes change in the face of events of international significance such as the 2018 Oba of Benin pronouncement against human trafficking, the Covid-19 pandemic or the forthcoming 2024 Olympic Games? Or, in the face of local events such as the police raids or the violent acts perpetuated by clients? Or, again, because of changes in the legal regulation of prostitution such as the 2016 introduction of client criminalization? What are the networks - local, national and international - where Nigerian women live in? To what extent does the exit from prostitution translate into an expansion of their margins of freedom?

Public space thus becomes for Nigerian women a "precarious habitat" that permanently exposes them to the risk of expulsion and extreme human rights violations but also an "in-between space" where women deal with the conflicting impulses, emotions and desires of their "multiple Self" (Proto, 2023).

As the women of the Bois de Vincennes seem to suggest, public spaces help create just and inclusive cities only if they regain their political value: that is, when interdisciplinary policy approaches will assume that human freedom is rooted in people's life histories, rather than treated as freedom of the will. Thus, it is connected to the people's ability to deal with troubles and problematic situations, manage the forces of desires and integrate conflicting impulses, creatively transform attachments, envision life possibilities and cooperatively transform their environment. This sense of freedom, however, requires more than the ideological opposition abolitionists/pro-sex workers on which the public debate on prostitution still relies.

Keywords : *Public space, gender, marginality, Social Justice*

Integrating Critique As A Game Changer: Using Universal Design (Design For All) To Inform The Scholarship On Public Space

Niraj Verma (Virginia Commonwealth University), **Corey Nolan** (Virginia Commonwealth University)

As an avowedly interdisciplinary area of inquiry, the scholarship on public space has been informed not just by urban design but also by the social sciences, public health, engineering, law, and other disciplines. Such a marriage of traditions has changed the game multiple times and, in some cases, eventually transformed the field. This paper will explore how this game-changing might become more systematic – an arranged marriage rather than an extended courtship! – so scholars and practitioners studying public space might effectively integrate tensions and criticism from related fields.

Our example comes from universal design (also called design for all) and urban design's critique of its rigidity and one-size-fits-all stance (Nelischer and Loukaitou-Sideris (2023). The critique mocks the universal design of physical, tangible spaces that facilitate access and use by people of any age and ability (Lynch et al. 2018). But, while an imaginary, generic user may not be appropriate, embracing inclusivity and access is certainly consistent with urban design's ethos. How might our thinking on public space credibly address this criticism without dismissing it altogether? How might we endogenize this conflict within our scholarship?

We respond to this in three parts. First, drawing on previous scholarship (Verma 2011), we use Sunstein's idea of incomplete theorization to develop a set of dialectical tensions or dilemmas between urban design and universal design. Next, we address these dilemmas and cast them as "essential tensions" for the scholarship on public space (Verma 1995). Finally, using the case of fair housing laws in the United States (Nolan 2023), we illustrate how these ideas might help to include some lessons from fair housing in the design of public spaces.

Transdisciplinary Education In Living Labs: Participatory Skills For Sustainable Urban Governance

Nadia Charalambous (University Of Cyprus), **Christina Panayi** (University Of Cyprus), **Michalis Psaras** (University Of Cyprus)

Participation stands out as a crucial approach to city design and governance, addressing contemporary urban challenges and enhancing social sustainability. In urban decision-making, both authorities and professionals often embrace community engagement practices to cultivate a sense of belonging and provide sustainable, inclusive solutions. Despite efforts to integrate community engagement and transdisciplinarity into architectural pedagogy, the academic response to contemporary challenges remains slow, raising concerns about the preparedness of future architects and urban planners.

This paper explores the methodology of the Erasmus+ research project "Education in Living Labs: Participatory Skills for Sustainable Urban Governance_PS-U-GO." The project aims to embed community engagement and transdisciplinarity into architectural education, equipping future professionals with the skills needed to navigate modern challenges. Additionally, the project strives to systematize collaboration among individuals with diverse cultural and social backgrounds, highlighting the significance of local and historical heritage in addressing urban challenges, enhancing social sustainability, inclusivity, and fostering a sense of belonging.

To foster innovative learning practices, PS-U-GO proposes the establishment of user-centered Urban Living Labs (ULLs). These labs will serve as learning environments for students to experiment with new ideas and test solutions in real-life settings. The project will implement a participatory action-based training program, exposing students to authentic environments, enhancing their soft skills, and redefining their future roles as mediators of democratic practices in architecture, urban planning, and governance. The ULLs will serve as spaces for youth participation in democratic life, allowing students to express their views and influence decision-making while acquiring the skills necessary for active engagement in civic life. This process will equip students with transferable skills through a challenge-based approach, expanding their understanding of planning and steering the green transition. It fosters innovation by guiding students through the complexities of idea development, implementation, regulatory compliance, financing, and consensus-building in diverse participatory initiatives.

PS-U-GO's pedagogical methodology draws inspiration from the community-engaged design studio, Cocreation, at the Department of Architecture, University of Cyprus. This studio adopts a transdisciplinary approach, involving diverse participants in various decision-making levels to co-design and co-implement green public spaces. This paper presents and analyzes the co-creation framework of the studio as a case study, reflecting on its iterative implementation and discussing its potential and limitations as a pedagogical tool. Ultimately, this approach encourages on one hand a sense of community and empowers citizens as decision-makers responsible for their residential environment while exposing future graduates to a collaborative, co-creation framework in real-world conditions, fostering interaction with various agents, disciplines, and practical challenges.

Cultures

Exploring Child-Friendly Waterfront Public Spaces Using A Photovoice Study: A Pilot In The Yangpu Waterfront, Shanghai, China

Zhenming Yang , Yifan Yu

Child participation is crucial for honouring children's rights and plays a significant role in fostering the development of sustainable built environments. Despite the continuous involvement of children since the Child Friendly Cities Initiative, UNICEF reports little influence of children's voices in urban planning. This limitation stems from the inherent immaturity of children's cognitive and expressive skills and a deficiency in appropriate participatory approaches, leading to passive responses during participation. Consequently, there is an urgent need for more appropriate and effective participatory methods that inspire children to observe and reflect through real scenarios, express themselves through hands-on experiences, and take the initiative in expressing their ideas.

To address this gap, this study introduces child participatory research methods, employing the photovoice approach. The aim is to investigate children's perceptions of urban public spaces and examine the applicability of children's participation in child-friendly regeneration. This paper illustrates this through the child-friendly regeneration of the Yangpu Waterfront in central Shanghai, using the waterfront public space as a case study due to its significance as a blue-green resource for children's healthy development and its unique status as a specific space in Shanghai. In November 2022, a child participation workshop was conducted, involving 35 students tasked with capturing at least six photographs of waterfront spaces over a week. Subsequently, they marked their travel destinations, routes, and favorite places on a map and described the features and feelings of the photographed built environment in individual interviews.

A systematic analysis of 35 maps, 210 photographs, and their descriptions revealed a decreasing subjective rating order of safety, health, inclusivity, and play. Specifically, the health score was higher due to the greener environment and the availability of physical activities such as cycling. Conversely, the inclusivity score was lower due to the longer waterfront space with fewer services; 21.8% of the children expressed a need for more toilets and convenience stores. Additionally, dissatisfaction with the materials and color scheme of the well-designed reused industrial heritage space was noted. The lowest score was for play, with children highlighting the lack of activity areas or play facilities for children and preferring natural play areas with some challenge.

Based on these findings, we propose strategies to enhance the child-friendliness of waterfront spaces, including improving the playability of the local industrial heritage and natural landscapes, optimising the layout of child-related facilities, and improving inclusive design by considering children's preferences in materials and colours. Importantly, photovoice emerges as a catalyst for encouraging children's critical thinking and positive suggestions about public spaces, thereby identifying issues often overlooked by adult perspectives. This paper not only contributes to summarising the significance and feasibility of applying a child participation approach to child-friendly regeneration practices but also provides valuable references for subsequent participation initiatives.

Keywords : Child Friendly Cities, child participation, photovoice, waterfront public space, child-friendly renewal

Public Space In The Polycrisis Era

EVANGELIA-MARIA KOUVARA (Aristotle University Of Thessaloniki), **EVANGELIA ATHANASSIOU** (Aristotle University Of Thessaloniki)

We are living in an era of successive global crises: climate and environmental crisis, financial crisis, COVID-19 crisis, cost of living crisis, war. Each of them may be expressed in different time periods and in different regions. However, they are not independent. Every crisis is superimposed on, interacts with and reshapes the other, composing what has been termed, the "polycrisis" (Lawrence, Janzwood and Homer-Dixon, 2022). Polycrisis is not a new term, but it has recently become common in both scientific literature and public discourse. Different terms like permacrisis, multicrisis, reflect, with small nuances, the general understanding of our current urban condition as exposed to and affected by a series of successive unpredictable and unsettling events of different nature. Nevertheless, the term "crisis", it has been argued, needs to be further studied, not only to better define it, but most importantly to agree on its appropriate use (Hupkens, Neuhold, and Vanhoonacker, 2023). This condition of multidimensional crisis decisively affects people's everyday life and therefore every aspect of social life and urban development. In this context, cities transform and change, each time trying to cope, recover or harmonize with the new condition. After all, the condition of crisis tends to constitute the new normality (Andreou, 2022). Furthermore, in many cases a crisis is operationalized as the trigger for further investment activity (Klein, 2008), inevitably reshaping public space.

Public space is a critical terrain on which economic, environmental and social changes are produced, reproduced, reflected, and confronted. During a crisis, it can be transformed to a field of conflict or contestation, a field of reconciliation and solidarity or a space of risk and insecurity. In the last 15 years, typical crises that have been dynamically expressed in public space are: during economic crisis, public space became a place of protest and in the same time a place of disinvestment and investment; during COVID-19 crisis, parks and squares became a critical place to exist; in recent expressions of climate crisis, public space becomes a refuge in situations of emergency (Diane, 2020), but also the place where emergency occurs. However, in many cases of crisis outbreaks, there is a detected gap between crisis/polycrisis -specifically in long-term challenges- and the planning and management of public space (Duivenvoorden, 2021). It is important to understand in what ways polycrisis affects public space and what is the role of public space in crisis management. Thus, we can begin to explore ways in which public space can be planned and managed taking the new normality of polycrisis in to account.

This paper discusses the relationship between polycrisis and public space. On the one hand, the paper concerns the ways polycrisis affects public space. On the other hand, it focuses on the ways, in which it is understood to the management and improvement of the polycrisis. First, we embark on a literature review concerning (poly)crisis to dig deeper into the discussed term. Then, the role of public space in planning responses to successive crises, will be examined. Finally, Greece, as a country deeply affected by successive crises, during the last 15 years, will be used as case study. Planning responses to these crises will be reviewed and charted with respect to i) the varied ways in which they define, operationalize and address each crisis ii) to their understanding of the role of public space.

Keywords *: polycrisis , public space, risk*

Urban Parks Through People's New Lens: Opportunities Behind Covid-19 For Public Spaces' Policies In Costa Rica.

Karla Barrantes Chaves (University Of Costa Rica), **Nidia Cruz Zúñiga** (University Of Costa Rica), **Erick Centeno Mora** (University Of Costa Rica)

Public spaces played a crucial role during COVID-19; they contributed to meeting social needs and physical activities and positively affected users' health (Lin et al., 2023). However, each country approached its restriction measures during the lockdown differently. In Costa Rica, access to many open spaces such as beaches, National Parks, squares and urban parks was limited or denied. The access to large urban parks within the Greater Metropolitan Area (GAM) was strongly reduced during 2020 and 2021; sometimes, there was no access at all; others, a visitation schedule was enforced for weekdays, and no visitation was allowed during the weekends.

This study focused on the three large urban parks within the GAM; it aims to analyse user's visitation patterns and place appreciation one year after the government lifted COVID-19 restrictions. Research suggests that urban residents might have a reappraisal of green local spaces in the early stages of the pandemic (Alizadehtazi et al., 2020). This research intends to understand if urban park users perceive those places as more valuable today than before the lockdown and to reflect if any change in planning policies must be implemented to embrace that fresh lens.

This research is mainly based on 8575 in situ surveys carried out between January and August 2023 in the largest urban parks of the GAM: La Sabana, La Paz, and Parque del Este. The sample included teenagers from 14 years old, adults and people over 65. Additionally, between 2018 and 2019, just months before the spread of COVID-19, our team conducted an exploratory study in the same urban parks to examine visitation patterns and user perceptions with a sample of 491 individuals. In the 2023 survey, we repeated the same questions as the previous study and added specific enquiries regarding visitation and perceptions before and after the pandemic. Therefore, this paper analyses participants' new perspectives while considering views from the same places before the outbreak.

The findings suggest that COVID-19 was a game changer in people's visitation patterns and appreciation of large urban parks within the GAM. The results show that 50% of participants state that they visit the park more often today than before the outbreak; that behaviour was even higher in teenagers, with 56% assured of having increased their visitation frequency; 48% of the sample shows that the appreciation for those spaces is higher now than before the pandemic, this feeling was slightly higher for women. Individuals over 65 years were the group that missed the urban parks the most; 88.6% mentioned that they missed open spaces or they were looking forward to them being opened. These findings contribute to understanding the effect of COVID-19 in Latin American public spaces. Although more research is needed, some examples show an increase in visitation patterns in local parks in Brazil after the lockdown (Freires et al., 2022) or a decrease in Puerto Rican parks by 2021 (Luengo-Duque and Crespo, 2022). In Costa Rica, despite the self-reported increase of visitation post-pandemic, planning policies in urban parks face challenges; private cars are the dominant mode of transport to get there, there are safety concerns, infrastructure and accessibility issues. Public policies should focus on promoting more accessible and secure urban spaces aiming to ensure a better quality of life for its residents. For instance, how to promote a richer intergenerational exchange by taking advantage of teenagers' increase in visitation? Which activities would keep the interest of older people in those spaces? How to promote new ways of commuting and reduce access inequalities? Public spaces are volatile places (Jacobs,1961); therefore, new users' attitudes also bring new opportunities that cannot be missed.

Keywords : COVID-19, urban parks, Costa Rica, public spaces

The Public Space Between Land And Sea. Quarteira'S Case

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This article is inscribed in the research project "MAR - As Marginais Atlânticas Portuguesas. Leitura interpretativa e Projecto em contexto de Alterações Climáticas. / The Portuguese Atlantic Seashore Streets. Interpretative reading and Design in Climate Change context", and the embryo project "[ENTRA]MAR. Sea intertwined city. Interpretation and Design of Portuguese Seashore Streets vulnerable to sea level rise" coordinated by Sérgio Barreiros Proença, funded by FCT exploratory projects through CIAUD - Research Center in Architecture, Urbanism and Design at the Lisbon School of Architecture, Universidade de Lisboa (Portugal).

The research presented in this article describes two different architectural design approaches to urban public space between land and sea; case study is the Portuguese coastal city, Quarteira. On the Quarteira seafront, the fixed linear infrastructure system of seashore streets (east of the city) and a dune park Passeio das Dunas (west of the city) succeed each other, separated by the city port area.

The objective of the research is to define, through comparison, the compositional design principles of the two public spaces.

We observe in Passeio das Dunas project, PROAP's design purpose to recognise the transformative process that the marine environment entails and thus propose in the project a dune landscape in continuous transformation. Rigid infrastructures, such as the seashore street, in fact, become ruins over time.

If in the competition phase the Passeio das Dunas was conceived as non-linear forms and paths related to working with living and evolving ecological systems such as green and blue infrastructure, in the realisation phase the same forms were realised through rigid systems that block the dune.

Methodologically, drawing allows us to decompose the urban space into different layers and isolate the public space, representing the different phases of construction and transformation, and then placing it in relation to the maritime urban landscape. This process of elemental decomposition (Viganò, 1999) is a necessary tool to highlight the material and immaterial characteristics of the space between the land and the sea.

In conclusion, we believe that the study allows for the comparison of different spatial design approaches - at the scale of public space - allowing for an understanding of contemporary design principles and critical issues that can be observed in the spaces at the margins between the city and the sea. Although the Passeio das Dunas was not constructed as designed, we consider that it remains an initial starting point for a long theoretical discussion and one of the possible paths on the future formal definition of the vulnerable public space, between the city and the sea, of the effects of climate change.

Keywords : Public Space, Seashore Street, Passeio das Dunas, PROAP, Quarteira, Portugal

Public Open Spaces As Game-Changer In The Post-Covid City

Lucia Nucci (Roma Tre University)

The paper will examine how public open spaces can be game changer in the multiple ongoing transitions. Increasingly, people demand an approach that restores balance to urban ecosystems and reconstructs the natural environment. However, the issue is more complex than it initially appears due to uncertainty, to unexpected events such as the outbreak of the COVID-19 pandemic in 2019, or intense stormwater in urban area.

Furthermore, managing urban ecosystems has become more challenging and more inspiring. Therefore, planners must fully understand the complexity of nature mechanisms to achieve an holistic approach in urbanism. Low Impact Development (LID) is an ecologically-based stormwater approach favoring soft engineering that remediates polluted runoff through a network of distributed treatment landscapes. This approach act as game-changer in public open space design for the post-covid city. LID concepts are scalable to various sized projects and land-use types. The goal is not just to minimize impact, but to develop regenerative and productive urban landscapes that continually renew ecosystem functioning.

The paper explore the construction of "game-changing" at different scales and through diverse disciplines and examine how bottom-up initiatives, out-of-the-box policies find anchorage in public space transformations.

Heterotopy And Transformations

Catarina Todorovic Caldeira (Faul), **Ljiljana Cavic** (Faul)

Heterotopy and Transformations of Public Space
In the contemporary context of a profound crisis of public spaces in general and the Portuguese context in particular, questions of intensive touristification, fast gentrification, and concentrated immigration are reshaping the use and values of traditional urban spaces. The introduction of new public actors, new communities, and associated different social practices, often lead to feelings of estrangement and alienation within local communities while overlooking the potential of these reshaped public spaces to expose our limitations to accept and integrate a difference. On the other hand, the estrangement of urban spaces leads to the discovery of different 'of-map' and 'invisible' places whose use and value are also currently being rediscovered and/or shifted.

In this context, we propose the use of Foulcault'sheterotopia as a framework for the exploration of bothtraditional and invisible public spaces. We argue that due to its complexity and ability to embrace contradictions and conflicts, Foulcault's heterotopia can be used as a valuable concept for describing, analyzing,and creating speculative designs for a new democratic city. Through the positive lens of heterotopias, we analyze twenty publicly accessible spaces in the citiesof Lisbon and Cascais, both traditional and invisible, trying to tackle their fragility and explore how theirconceptual redefinition can contribute to the idea of the social city. Moreover, we propose several architectural-artistic ad-hoc speculative designs based on the very contradictions and fragility of the analyzed spaces.

Keywords *: Heterotopy, Transformation , portugal, Public space*

Exploring User Preferences And Place Attachment In Urban (Public) Spaces: A Case Study Of Kadıköy Historical City Centre, Istanbul, Türkiye

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Different user groups perceive urban (public) spaces and interact with them in different ways. This experience is influenced by complex interactions of cultural, economic, environmental, geographical, political, social, and technical factors. These interactions shape the attachment individuals develop to these spaces, rooted in both direct and indirect physical and social engagements in their daily routines. In this context, this study aims to explore the preferences of different user groups for urban (public) spaces, as well as their selective behaviours within these spaces, by analysing and comparing the place attachment these groups develop with them. The study centres on the Kadıköy Historical City Centre (KHCC) in Istanbul, Türkiye, as it accommodates multiple user groups from different socio-cultural and socio-economic backgrounds and has been one of the most important sub-centres of the Istanbul Metropolitan Region since the 19th century. A total of 473 participants, encompassing residents, employees, and visitors, were engaged in a public online survey aimed at understanding their preferences and sense of attachment to public spaces. To analyse the survey results, a rigorous approach was adopted, utilizing techniques such as descriptive statistics, discourse analysis, and mapping, to provide a thorough understanding. It was found that there were significant differences in terms of urban space preferences among those living and working in KHCC and visiting it, and that the physical and social relations established by different user groups with the space were diversified and differentiated. The emotional and social ties of residents with the place were very strong, and the meaning they attribute to the urban space was determined considering these premises, whereas visitors mostly referred to the physical elements of the urban space when describing the KHCC. In addition, when a detailed analysis was made in terms of the purposes for coming to KHCC by the visitors, it was also determined that there were subdivisions in terms of their spatial preferences, revealing that the different sub-regions of KHCC were intensively used and preferred by different user groups. In other words, different user groups are clustered in different regions of this urban space, interact with different parts of it, and have different spatial experiences. Likewise, the public spaces of KHCC host different user groups despite the coastline, which is the main common public space for all types of users. Considering the transformation that KHCC is currently undergoing, it stands out that there is a high need to design and plan urban (public) spaces that are inclusive of all user groups and respond to their needs and demands. Furthermore, these findings are expected to significantly contribute to the international urban planning discourse, emphasizing the importance of socio-cultural diversities in shaping the future of urban spaces and placemaking.

Keywords *: urban (public) space, user preferences, place attachment*

Transformation, Typology, Morphology

Spaces Of Diversity: An Analysis Of Amenities Promoting Mixing Among Residents With Varied Income And Backgrounds

Olena Holubowska (Ku Leuven), **Ate Poorthuis** (Ku Leuven)

The portrayal of diversity within urban contexts often unfolds through two contrasting narratives, highlighting the tension between celebration and socio-spatial separation. On one hand, there is a narrative that celebrates diversity and cosmopolitanism, envisioning interactions among residents from various backgrounds as a potential source of hybrid cultures and creative enrichment (Beauregard, Body-Gendrot, and Beauregard, 1999). Conversely, a prevalent media portrayal emphasizes socio-spatial separation among diverse groups within cities, resulting in reduced community cohesion (Phillips, Davis, and Ratcliffe, 2007). Despite these differences, both narratives underscore the significance of group coexistence and interactions in the pursuit of social cohesion.

These perspectives find their roots in Allport's seminal work, "The Nature of Prejudice" (Allport, 1954), where inter-group contact is seen as a mitigating force against prejudice, fostering positive attitudes and reducing inter-group conflicts. This theory, advocating for enhanced personal attitudes toward individuals translating into positive attitudes toward entire groups (McLaren, 2003), has influenced policymakers and urban planners. Consequently, there have been efforts to design spaces that encourage inter-group encounters. However, practical evidence supporting the ability of specific spaces to increase inter-group exposure remains ambiguous (Houston et al., 2005).

The evaluation of group coexistence extends beyond the residential domain. While significant work has been done on measuring residential segregation, examining why it emerges and what attracts specific groups to neighborhoods (Bettencourt, Dixon, and Castro, 2019), there is a pressing need for new evidence on the aspects of areas that attract certain groups to visit them. Understanding the dynamics of segregation in visited areas is crucial for enhancing diversity in public spaces.

Given that group segregation often occurs along multiple dimensions (Manley, Johnston, and Jones, 2019), it becomes essential to identify areas where income-diverse individuals or individuals from different backgrounds intermingle. This analysis aims not only to pinpoint areas of inter-group mixing but also to establish connections between these findings and the characteristics of a given area, shedding light on the amenities that encourage social mixing.

In an era where urban centers are expected to accommodate a diverse resident population, the design of public spaces that foster intermingling becomes a potential avenue toward greater social cohesion. A fundamental prerequisite for achieving this objective is understanding which amenities have the capacity to attract residents from various backgrounds. Conducting an empirical analysis by analyzing visitor demographics in each of Auckland's neighborhoods and cross-referencing these findings with neighborhood characteristics, we found that areas drawing residents with divergent incomes tend to have more consumption-oriented spaces. In contrast, areas fostering mixing between residents with migratory backgrounds and residents born in New Zealand tend to have a higher prevalence of places of worship. Remarkably, regions promoting both dimensions of social mixing present a varied array of amenities. Moreover, areas encouraging different forms of social mixing are closely situated, indicating that geographical proximity alone does not suffice to explain the pattern.

To quantify the diversity of visitors, the Shannon entropy measure was employed. Visitors were categorized based on either the average income in their neighborhoods or the proportion of residents with migratory backgrounds. The entropy measure yields its highest value when visitors are proportionally representative of all three groups, indicating a location with visitors from low, middle, and high-income backgrounds. Conversely, the lowest score occurs when all visitors originate from the same group. This approach provides a nuanced understanding of the diversity dynamics within urban spaces, offering insights for urban planners and policymakers to foster more inclusive and cohesive communities.

***Keywords** : human mobility , residential segregation, Activity patterns, migration , intergroup exposure*

Balance Of Commercial Gentrification And Community Preservation: Transformation Of Street Spaces In Xiaoxihu, China

Kexin Cheng (Rwth Aachen University)

Residents in historic city centres face increasing pressure to relocate due to the rising tendency of commercial gentrification, which is the conversion of local businesses into chain stores, boutiques, trendy restaurants, and cafes (Marcuse, 1985; Zukin, 2009). In the Global South, the commercial substitution process has typically been promoted by state intervention from the supply side (Lees, Slater and Wyly, 2022). In China, state-led redevelopment has frequently transformed historic inner-city neighborhoods into tourist attractions with 'authentic' cultural features during the country's unprecedented urbanization process over the past 20 years (He, 2019). The process has improved urban vibrancy by attracting tourists and the new middle class to the area at the cost of the complete resident displacement and loss of genuine community identities.

Over the past eight years, the incremental regeneration of a deprived neighborhood, Xiaoxihu in Nanjing, reflects the local government's attempts to limit the negative effects of historic area regeneration. Its revitalization aims to strike a balance between improving the degrading physical environment and preserving the local communities. The project is one of a few shantytown redevelopment cases in China that succeeded in having more than half of its residents stay voluntarily. Through the revision of planning regulations and policies, a public space system has been established in alleys inside the neighborhood through the injection of commercial functions and the update of municipal infrastructure. That is a drastic change for staying residents, as in the traditional neighborhood the alleys are treated as the extension of the living room, where the home storage, bike parking, and daily conversations happen. After regeneration, however, these semi-public alleys become shared urban spaces by locals, business owners and tourists.

In this context, this study addresses the following questions to understand how the transformation of street space affects the social perceptions of both remaining community members and newcomers: How has the commercial structure changed on relevant alleys? How do tourists and shop owners perceive these changes? Is there emerging displacement pressure on remaining residents in the neighborhoods? The change in the commercial structure may enlarge the displacement pressure on residents through increasing prices, diminished connections with local shops, and the proliferation of high-end shops. Conversely, the upscale commercial environment may incentivize shopowners to establish their businesses within the community and attract visitors. Initially, three criteria are used to identify the various business categories: "scale of ownership, quality of products and atmosphere, and type of promotion"(Zukin et al., 2009, p. 58). Then, the commercial structures before and after the regeneration process are compared by mapping the businesses at various stages of the project. Finally, structured surveys with passersby and shop owners are conducted to analyse their perceptions of these changes, and residents who remain in the neighborhood are interviewed in semi-structured interviews to see whether and to what extent displacement pressure exists.

The study intends to find how the evolution of the commercial environment impacts the move-in or relocating intents of shop owners, the motivations of citizens to visit this neighborhood, and the perceptions of remaining residents regarding the regeneration process. It articulates to which extent commercial gentrification as a concept describes the processes in Xiaoxihu to contribute to gentrification discourse in Chinese secondary cities. In this way, it explores the application of commercial gentrification theory to the initial incremental transformation of historic neighbourhoods in Global South cities. Furthermore, since most gentrification research in Nanjing is at the municipal level and focuses on well-gentrified areas, this neighbourhood-scale empirical investigation in the neglected historic neighborhood fills this research gap.

Continuing Community Spirit: Study On The Public Space Of "Pu Jing" Community In The Ancient City Of Quanzhou

Yan Zhou (Southeast University), **Xinjie Shen** (Southeast University), **Hong Jiang** (Southeast University)

Exploring and continuing the spiritual connotation of community public space is of great significance to shaping the place identity, particularly in the context of China's current urban renewal wave. "Pu Jing", the grass-roots organization system of Quanzhou in the Ming and Qing dynasties, created the "Pu Jing" community, a governance unit that combined official administration and folk beliefs, and had a profound impact on the public space system of urban communities. The purpose of this study is to interpret the building ideas of public space in "Pu Jing" community by analyzing its physical characteristics and cultural connotations. Taking "Sanjiao Pu" community as a study case, the research examines the composition of its public space by analyzing the spatial carriers and social factors, and explores the spatial structure of the public space by analyzing the relationship, accessibility and scale. Based on this, the formation logic of the community public space is then summarized. The study reveals a public space system with the Pu Jing Temple as the core, the streets and alleys as the link, and the sacrifice circle as the unit was formed in "Pu Jing" community under the combined effect of official management and civil autonomy, creating a stable sense of spatial domain for the residents' ritual and daily activities. The public space of "Pu Jing" community has long played an important role in maintaining neighborhood relations and supporting social activities, and thus serves as a vital connection between individuals and their surroundings, allowing the residents to gain a sense of belonging. Overall, the wisdom of place-making implied in the public space of "Pu Jing" community provide inspiration for contemporary community governance.

Keywords : community public space, place identity, spatial characteristics

The (Spoiled?) Legacy Of Lisbon 2023 World Youth Day: Unraveling The Influence Of Media And Public Opinion On Opportune Urban Planning

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World Youth Day (WYD) is a relatively recent and understudied mega-event, gathering the Pope with worldwide young Catholics, bishops, and priests for a week of religious and cultural activities. Compared to other major events, it usually resorts to minimal human resources and requires reduced public investments. Yet, it involves mass concentrations in time and space of thousands to millions of people—crowds that are extremely rare in Europe.

Lisbon, hosting WYD in 2023, departed from traditional approaches and, rather than using existing/temporary facilities, took the opportunity to redevelop a waterfront site and use it as the event's main venue. Originally a landfill, the site had been earmarked for transformation since 1999, as part of the uncompleted Expo'98 plan. WYD thus appeared as a great opportunity to finalize the plan and turn the landfill into one of the city's largest urban parks.

However, public uproar ensued when the event's budget, particularly the cost of a colossal stage, was disclosed, sparking intense public debates, scrutiny and widespread media attention—especially due to comparisons with the cost of the event's previous editions. In response, a consulting team of specialists and academics was tasked with estimating the event's economic return to clarify the reasonableness of the investment. Conclusions showed returns much higher than investments, but the media deliberately decided not to disclose them. As a result, the pressuring public opinion seeking justifications for the stage's investment ended up influencing the future of the site, inducing the political decision to continue utilizing it for events rather than progressing with the park's development—even though the stage was removed. Currently, the park remains undeveloped, with most of the area closed to the public, awaiting a large biannual music festival that was relocated from its usual venue.

As part of the consulting team, the author of this paper contributed by analyzing the coherence of the urban interventions with the prevailing national to local spatial planning instruments with effect over the designated area, also highlighting the intervention's main urban impacts and legacies and emphasizing the event's catalyst role. Findings indicated a high level of alignment between interventions and existing plans, with works focusing on site preparation for the park's post-event development—namely soil decontamination, urban space liberation and provision of basic infrastructure. Furthermore, they showed how the interventions contributed for the environmental restoration of the Tagus waterfront, paving the way for the future establishment of green spaces and public facilities, seamlessly integrated into the urban landscape and existing mobility systems. Collectively, these interventions significantly contributed to brake physical barriers in between urban settlements and the waterfront, thus enhancing community access to the riverbank. The construction of the stage, however, was not completely coherent with spatial plans. While its cultural and leisure functions align with strategic goals and the proposed land uses, its magnitude greatly exceeds the scale of the planned facilities, meant to be of a more local and municipal scope. This might explain why dismantling the stage after the event was always an intention.

Despite being evident that the overall intervention brings positive environmental and social impacts, to use the site for future large events will probably compromise the development of the park, as these are two incompatible functions due to the different urban designs needed for logistical and security reasons. With that in mind, this paper shows how a long well-planned urban intervention morphed into a kind of free-wheeling and directionless project due to the influence of uninformed and overstated public opinion, fueled by sensationalist media coverage—which can reasonably share blames if the park's future development and its enjoyment by the population is adversely impacted.

Keywords *: World Youth Day Lisbon 2023, Mega-event Planning, Waterfront Regeneration, Public Opinion*

Exploring Urban Transformations: An In-Depth Analysis Of Festival Des Cabanes As A Co-Production Of Public Spaces In Lille

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As part of a collaboration between MetroForum (the Chair for Metropolitan Transitions at the University of Lille) and WAAO (the Lille Centre for Architecture and Urban Planning), we are offering a presentation and analysis of public spaces based on the Festival des Cabanes. The Festival des Cabanes is a year-long event that brings together local authorities, associations, architects and the general public to design, build and install huts (cabanes) in various public spaces across the city.

This paper is an opportunity to present a reflexive study of public space(s), which we are questioning on the basis of fieldwork and the discourse of those involved, in order to provide "food for thought" on this polysemous concept. Public spaces are understood here as 'physical place(s) that create(s) social links (the public square)' (Aubin 2013: 2). Taken together, these elements make it possible to move away from the 'classic' software of planning and construction, proposing a break with the past by creating spaces for experimentation, sharing and co-elaboration in the city.

Through the construction of huts, archetypal architectural objects considered a priori for their own sake, the project in reality embodies a much broader form of production of public spaces and involves co-production between players (metropolis, towns, companies, associations, the public, etc.).

We approach this initiative as a moving process that raises questions at every stage. From the search for sites to set up the huts to the life of the huts after the festival, not forgetting the guided tours, the relationship with the landscape and mobility... We see these huts and their integration into the chosen environment as a way of awakening imaginations and collectively questioning our everyday natural environment.

The huts are experiments that call into question the "role of the designer, negotiating the consideration of different types of knowledge (professional, user, political), but also, in the background, different representations and images of the city" (Bacqué and Gauthier 2011: 23). The route will be unique in that it will run along the banks of the Deûle (canal) through ten or so communes.

From negotiation with elected representatives to define the public spaces that are available and appropriate (safety, regulations, conflicts of use, etc.) to their appropriation by residents (a category that we are defining on the ground), this initiative highlights the complexity of public spaces as places to live, to pass through and to experience conflict. In Lille, for example, they will be installed in urban gaps to revive neglected living spaces.

Finally, the reflective work carried out alongside the installations, through the involvement of residents and users and the dissemination of its productions, is also designed to raise public awareness of the research and reflection process around our ways of living in the city, and to give the festival a dual dimension of experimentation and collective reflexivity.

Keywords *: metropolitan transitions, social links, experimental spaces, public spaces, urban planning*

Analytical Study Of Hospitality Culture And Urban Identity And Its Impact On The Future Of Marine Tourism In Red Sea Coastal Port Cities: Case Study Of Jeddah Saudi Arabia

May Saeedi (Queen's University Belfast), **Tom Jefferies** (Queen's University Belfast), **Sean Cullen** (Queen's University Belfast)

Jeddah, 'the Bride of the Red Sea' is the oldest and most famous coastal port city in Saudi Arabia. Around 3000 years old, it has hosted pilgrims and visitors and developed, spatial and cultural approaches to welcome visitors. This is currently termed religious tourism, as the number of pilgrims from outside the Kingdom this year reached 1,660,915 through various ports and 6,831 through sea ports(Statistics, 2022).

This research positions this growth strategy within the cultural heritage traditions and spatial, cultural, and social identity of hospitality in future passenger port in Jeddah and Saudi Arabia. It seeks to design the forward-facing context for Jeddah as part of the repositioning of Saudi as a global tourist destination by developing a better understanding of the culture and spatiality of Saudi hospitality coastal city designs.

The Kingdom of Saudi Arabia is currently developing actions in relation to its Vision 2030 policy, introduced in March 2017, that aims to reshape the Saudi economy away from extractive industries. A critical part of this policy is developing tourism as a major aspect of future activity(Vision, 2017). Since the launch of cruise trips in the Kingdom, 170500 passengers have taken part in 65 trips(CruiseSaudi, 2024). This will lead to major development in Jeddah significant development to accommodate cruise liners and their passengers as an outcome of this, with a goal of increasing the number of visitors by one million by the year 2025, as part of the Kingdom's Vision 2030 initiative on Quality-of-life programs.

This study presents findings based on a literature review that charts the evolution and development of hospitality in Jeddah, identifying developments and changes to spaces of hospitality over time with a particular focus on the forms of building and urban space that have been created during this process. Additionally, how is this modernity affecting the identity and user experience in the space compared to how they used to be and considering them now as non-places? (Auge, 2010).

The work will enable future developments to be positioned effectively within the context of Vision 2030 in addition to the significant changes to hospitality, arrival infrastructure and passenger demographics that will arise in future. The result is a critique and dialogue between past rituals, culture and future aspirations, thus improving the quality of tourists' experiences during their visit to the Kingdom.

Keywords : Passenger experience, Port cities, Culture, hospitality spaces, Jeddah

Typology, Morphology, Arts & Media

The Impact Of Online Social Activities On Public Spaces In The Digital Era: A Case Study Of Guochuang Park In Nanjing

Qianhui He (Southeast University)

In the digital era, public spaces are not only significant venues for daily recreational experiences in the physical world but also the focus of online social platforms. Social media platforms are increasingly becoming mediums through which the public understands place and culture. Moreover, online social activities significantly alter public lifestyles and the utilization of physical spaces. This study takes the public spaces of Guochuang Park in Nanjing, China as a case study, utilizing user-generated content（UGC）of the Xiaohongshu platform for semantic analysis and image recognition. Combined with field research and interviews, this study investigates how online social activities facilitated by social media platforms change public usage of public spaces and the subsequent impacts on the vitality of these spaces and local culture, and it proposes strategies to cope with these changes.

The research indicates that "photography," "checking-in," and "city walks" are the primary activities conducted by platform users in the streets of Guochuang Park. Social media platforms have shifted some public activities and social interactions online, making physical spaces the backdrop for digital social interaction. Users seek specific angles for photography, upload them to the Xiaohongshu platform, and construct virtual social circles through likes, comments, and shares, thereby enhancing their identity in the "platform society" and continually attracting others, thus increasing the vitality of public spaces.

However, the activities of platform users are often dominated by capitalists and influencers, who establish the modes of participation and aesthetic standards. They utilize platform users to enhance the depiction and representation of space, portraying Guochuang Park on social media as a space that is "Americanized," "trendy," and "retro." Consequently, under the discourse constructed on the Xiaohongshu platform, the industrial historical culture of Guochuang Park is marginalized or even dissolved. External cultures and internet culture increasingly dominate the discourse, transforming the industrial historic district into a space landscape that meets the public's demand for symbolic or heterogeneous photo opportunities. Such superficial and homogenized construction may lead to the district losing its charm for sustainable development.

Therefore, this study calls for attention to the necessity of integrating digital activities with physical public spaces in the planning process, incorporating both online and offline social interactions into urban scenarios to enhance spatial vitality. Furthermore, it advocates for effective guidance and control measures to steer the content of social media and oversee its construction of discourse, preventing the passive dissolution and alienation of local culture and guarding against physical spaces becoming mere appendages to virtual spaces.

***Keywords** : Social Media Platform, Digitalisation, Online Social Activities, Public Space Vitality, Local Culture*

Assessing Effectiveness Of Public Space Regeneration Through Computer-Vision-Based Behavioural Analysis: Evidence From Daxianglu Street, Nanjing

Chuan Wang (Southeast University), **Minhao Wu** (Southeast University), **Hanqi Li** (Southeast University)

At the forefront of urban life, public spaces are constantly modified or even redeveloped to meet the needs of current lifestyle trends. How can to create better public space for everyone? It is a persistent and core question in planning and design practice for public space. This research focuses on streets - one of the most common public spaces – and uses a street regeneration project in central Nanjing as an example to explore the response to this question. Since public spaces accommodate a panoply of activities, their quality is unquestionably determined by their users, or simply, depends on how people use public spaces. Therefore, behaviour observation is a key approach to measuring the quality of public spaces (Kaparias et al., 2015, Motomura et al., 2022). Particularly, in the regeneration of public spaces, the comparative observation between the original environment and the renovated one can evaluate the effectiveness of its planning and design objectives.

Previous research often assesses public spaces by calculating behaviour-related indexes through observing recording and/or interviewing (Mehta and Bosson, 2021, Gehl and Svarre, 2013), and have been applied to assist regeneration design or to evaluate the regeneration's achievements in vitality, safety and walkability (Kang, 2019, Kaparias et al., 2015). However, most of these studies based on public space activities are either time-consuming or limited in location inaccuracy. In recent years, the vigorous development of computer vision (CV) algorithms in behaviour recognition and trajectory tracking has made it possible to detect and analyse more detailed behaviours in public spaces more efficiently and accurately.

This research develops a new tool based on CV technology to automatically detect, trace and classify activities in open public spaces, at the precision level of decimetre. This precise large-scale data offers an opportunity to explore the relationship between human behaviours and spatial elements. This approach is applied to and tested in a regeneration project of Daxianglu Street, a deteriorated residential street in central Nanjing. Its relatively short duration of project planning, design and construction (less than six months) offers this research the chance to discover the relationship between spatial alteration and behavioural changes in analogous socio-economic settings.

The natural experiment includes four steps in the case of the Daxianglu Street regeneration. First, unmanned aerial vehicles are used to capture videos on key street segments at the request of planners and designers. The videos are processed through CV technology (YOLOv5 and StrongSort++) to detect pedestrians, cyclists and cars and trace their trajectories. Second, the Random Forest machine learning algorithm is applied to classify pedestrians' activities into eight categories depending on their status (standing, lingering, walking) and belonging group size (solo, small group, large group). Third, it provides precise and dynamic mapping and analysis of complex street activities based on the regeneration plans. Lastly, this research attempts to explore the relationship between spatial alterations and behavioural changes.

This research expects to offer a new approach to efficiently and objectively assess people's activities in urban streets. This can help to discover the relationship between spatial elements and human behaviour in public spaces. The comparative data on various real regeneration projects have the potential to contribute to effective planning and design processes in future projects.

Keywords *: public space, urban regeneration, behaviour detecting, activity tracing, urban street*

The Open Orchestra Project In The Public Spaces Of Athens: An Urban Utopia With Transformative Power?

Ifigeneia Kokkali (University Of Thessaly)

The Open Orchestra is a group of 150 professional artists and amateurs, founded in spring 2021, in Athens, Greece. Its establishment is directly correlated to the Support Art Workers Action Group that has emerged during the pandemic of Covid-19, as a way to resist to the depreciation of culture and art-workers. More importantly, the Open Orchestra (O.O./ A.O. in Greek) comes as a continuation of the Paris Occupation of Odeon on March 27, 2021. Following this, in spring 2021, the Support Art Workers Action Group gathered in Athens and sang the piece "El Pueblo Unido Jamas Sera Vencido", exactly as the solidary orchestra at Odéonhad done some months earlier.

This has been the start of the A.O., which is called "Open", because anyone who wants to rehearse with it, can do it at any time: there is no limitation on artistic level or degree of commitment. Organizationally, there is a solid core of 100 people, who rehearse every Sunday at the Filopappou Hill, in central Athens. Decisions are made collectively through open circles organized regularly, in which the whole group participates. This is particularly relevant to the organization of different projects. Every one or two months, rehearsals take place in a deprived neighbourhood of Athens (Victoria square, Perama, Amerikis Square, etc.), instead of the regular one, while messages such as "Lively Squares" or "We want to danse in squares, streets and neighbourhoods" are delivered in any possible means (e.g. banners, posters, etc.). The A.O. gives an open concert every June, yet, most importantly, it provides solidarity to several people and events, such as trials of public interest (e.g. trial for the murder of the LGBT artist Zac/Zackie; trials for victims a sexual violence, etc.), as well as campaigns for social justice and peace, with the most recent example concerning the war in Gaza and Palestine.

The aim of this presentation is to explore how this impulsive bottom-up initiative can/has become "game-changer" at the local (city) and the very local (neighbourhood) level, essentially as an antidote to the harsh regeneration and touristification policies that hit actually the Greek cities. Building upon my own participation to the A.O. during 2021-2022, I seek to understand to what extend such an initiative – a community of joy, care and solidarity, and an urban utopia, as I would like to call it – may be capable of transforming, in the mid-term, both public space and the relations performed within public space. Considering its ephemeral and sporadic performances and actions, to what extend can an initiative such the A.O. play a role in shaping the neighbourhood and the city fabric overall? I am particularly interested in examining the potential of such initiatives yet also the significant challenges they pose as regards appropriation, belonging, and reclaiming the city. They promote interaction among diverse people, while challenging the established status quo. After all, what would be needed, from a planner's perspective, to enhance and leverage such initiatives in a view of coming closer to the ideals of the Just City and the Right to the City? Can planners take under consideration such initiatives in decision-making processes?

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Urbanism, In Practice. A Planning Experience On Public Space And Urban Regeneration In Milan

Gabriele Pasqui (Dastu _ Politecnico Di Milano), **Laura Montedoro** (Dastu_politecnico Di Milano)

The paper reflects on ordinary urban planning practices and governance of public spaces starting from an experience carried out by the Authors as consultants for one of the 9 Municipalities of the City of Milan. The two authors have coordinated between January 2013 and January 2014 the drafting of a document called "Studio d'Area StAR" (Area Study South of Romana Railway Area), which focused attention on a large urban context undergoing transformation in the south-eastern area of the Municipality of Milan. The Area Study focused on the challenges and problems of the urban design of open and relational spaces, within the framework of a strategy to plan and govern widespread regeneration, over the medium and long term.The paper describes the context, the actors and the implementation process of the preparation of the Area Study, in the more general framework of the planning policies undertaken in the Municipality of Milan in recent years. Secondly, the paper investigates the forms of widespread regeneration underway within the project and describes the investigation strategies and forms of design exploration carried out for the preparation of the area study.Problems and challenges of this urban planning initiatives will be studied with a particular attention to the fragility of planning and urban design tools for public spaces with respect to the economic processes of urban transformation.In conclusion, starting from the description of a concrete case, the paper aims to offer a theoretical reflection on the concrete practices of urban planning today and on the need for innovative intermediate tools, in a context of reduction of the skills, resources and powers of public actors and the prevalence of fragmentation and privatization of urban regeneration choices such as that of Milan.

Keywords : Urbanism, Urban regeneration, Planning practice

Urban Landscapes: Women And Possibilities For The Public Realm

Miza Moreau (University Of Glasgow)

There is a re-emergence of interest in relationships between gender and urban space, especially regarding women's inequitable representation and experience (Kern, 2020). This interest comes after a dormancy in planning and design research and practice on how gender inequalities are reproduced in urban space. While scholarship between the early 1980s and early 2000s was prolific (Little, 1994; Fainstein and Servon ,2005), it was followed by a marginalisation of feminist urbanism rather than a transformation of planning and design practices. Although interest in women and urban space is now revitalised, it is still lacking engagement with pertinent questions regarding the public realm. Urban landscapes and urban nature, two key areas identified as important to our spatial restructuring in the face of environmental challenges (Gandy, 2020), seem to be absent. This absence is especially conspicuous when considering urban landscapes in transition, those sites that were once considered degraded, polluted, and undervalued but which are now terrains of novel socio-natural assemblages. The aim of this paper is to examine relationships between gender equity and co-productions of new urban landscapes, and to reflect on the practical and theoretical implications of these relationships.

While the paper is theoretically motivated, it also illustrates its points and propositions through empirical examples from Glasgow. The empirical focus is on urban landscapes in transition, as a crucial part of the public realm, and inclusive democratic society. In 2022, Glasgow City Council passed a motion to adopt a feminist approach to city planning and design. As a city with historic environmental pollution and widespread socio-economic deprivation, Glasgow has a large amount of derelict vacant land (Kintrea and Madgin, 2019). The path for reimagining these sites has often involved grassroots initiatives and community engagement. Literature on women and urban spaces has primarily focused on how professional and government planning has failed to address the needs of women. Much less attention has been paid to grassroots and co-production practices, which are now highly relevant to Glasgow's ambition of becoming a sustainability leader and a feminist city.

Keywords : urban landscapes, feminist urbanism, co-production, public realm, Glasgow

Infrastructure

Assessing The Social Outcomes Of Social Infrastructure: Testing, And Implementing A Method Within London'S Local Authorities.

Patricia Aelbrecht (Cardiff University)

Social infrastructure holds a prominent position on the urban agenda in numerous countries, cities, and communities (Fjellfeldt, Högström and Berglund Snodgrass 2022). It is increasingly recognized as a key component across all three dimensions of sustainable development - economic, social, and environmental (Klinenberg 2018). This acknowledgment is often reflected locally in development plans, nationally in national planning and social welfare policies and frameworks, and internationally in Pan-European Social Cohesion Agendas and the UN's Sustainable Development Goals (SDGs). However, there remains a limited understanding of what qualifies as social infrastructure, its values, benefits, and how it can be effectively assessed or provided (Latham and Layton, 2019).

This paper aims to address these questions by presenting the findings of a project partnership between a multidisciplinary research team of academics based at Cardiff University and the Greater London Authority (GLA). The objective is to establish innovative links between current research, practice, and policymaking on social infrastructure. The primary goal of the project is to test and implement an assessment method and indicators developed earlier by the research team (Aelbrecht and Stevens 2023) within London local authorities (LAs) to evaluate and compare different types of social infrastructure. The focus is on assessing the extent to which these infrastructures achieve intended social outcomes and support social cohesion. To achieve this, the developed assessment method attempts to create new connections between specific theories and methods of data collection and analysis (POEs, behavioral and spatial analysis, interviews) and policies. This allows simultaneous focused attention on the materiality of public space settings, their social affordances, and people's varied cultural, social, and biographical perspectives and roles.

Two types of social infrastructure, a public library in Camden and a market in Hackney, were selected as case studies due to their designation as pilot areas for the Mayor's Social Integration Lab. The former represents formal infrastructure (i.e., formally provided, publicly delivered, owned/managed, and funded spaces and services), while the latter exemplifies informal infrastructure (i.e., informal provision by private sector independent businesses and social enterprises, including spaces, networks, and support). Therefore, this project will benefit from insights gained through the implementation of previous projects by the GLA.

The methodology presented in this paper makes a meaningful contribution to future social infrastructure assessments, policies, and guidance. It establishes a new conceptual and evidentiary base, offering an interdisciplinary methodology that advances criteria, indicators, and measurements for evaluating the role of social infrastructure in promoting social cohesion. Moreover, the project successfully fosters collaboration between academics and policymakers, creating a close tie between research and policy agendas at the local, national, and international levels concerning social infrastructure and social cohesion, and demonstrating the benefit of interdisciplinary research.

Keywords: social infrastructure, social cohesion, London, local authorities, assessment methods

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Keywords : *social infrastructure, social cohesion, London, local authorities, assessment methods*

Exploring Green, Blue, Grey Infrastructure And Neighbourhood Satisfaction, Quality Of Life, Health And Wellbeing In Bristol, Uk

Issy Bray , **Danielle Sinnett** (University Of The West Of England), **Harry West**

The health and wellbeing of urban populations is an urgent issue for public health. Mental and physical health of urbanites is reported to be lower than their rural counterparts (Schwartz, 2017; Graafland and Lous, 2019). However, there is evidence that of green (e.g. parks, trees), blue (e.g lakes) and grey (e.g. travel routes) infrastructure provide benefits for people's health and wellbeing. However, often these elements of our cities are examined independently.

In this study, funded by the RECLAIM Network, we use data from a repeat cross-sectional survey to explore the relationships between Green-Blue-Grey Infrastructure (GBGI) and self-reported neighbourhood satisfaction, health, wellbeing and quality of life. We use data from the Bristol Quality of Life Survey collected between 2011-2022, from a random sample of residents from across the city. The survey receives responses from around 6000 residents each year on their levels of satisfaction with a variety of facilities, services and amenities in the city (e.g. greenspace, cultural venues, public transport), levels of safety and maintenance as well as their behaviours (e.g. greenspace use, travel modes) and sociodemographic characteristics. These subjective measures of GBGI were combined with a suite of objective measures such as tree density, distance to quality green and blue spaces, and the presence of historic buildings and transport infrastructure in GIS. Using GIS and logistic regression we explore relationships between objective and subjective GBGI features and the outcomes neighbourhood satisfaction, health, wellbeing and quality of life. Accounting for sociodemographic characteristics and neighbourhood deprivation, we find that there are statistically significant relationships between many of the GBGI features and neighbourhood satisfaction, but that only satisfaction with access to greenspace is significantly related to health and wellbeing measures. It appears that GBGI features are important in determining neighbourhood satisfaction, but that relationships with general health, wellbeing and quality of life are indirect.

Keywords : Green infrastructure, Nature Based Solutions, Healthy places

Building Resilient Public Spaces: Lessons From A Cooperative Farmers' Market

Roza Tchoukaleyska (Western University)

This presentation examines the role of farmers' market in sustaining urban public space during the COVID-19 pandemic. While outdoor and indoor markets are often viewed as important social, cultural, and economic venues (Everts, Jackson, and Juraschek, 2021), during the pandemic such public spaces became sites of complex negotiations that were at once essential economic and food provisioning locales, important sites for sociability and connection, and yet potentially sites of pathogen transmission (Van Eck, Van Melik, and Schapendonk, 2020). Building on Latham and Layton's (2019) work on social infrastructure, the presentation will draw on qualitative research completed with vendors, staff, and visitors to the St John's Farmers' Market in Newfoundland, Canada, between 2020 and 2022. During a series of lockdowns and shifts in public health restrictions, vendors and market staff used a range of approaches to sustain a sense of community and create opportunities for a diverse range of users (in terms of age, ability, health, and economic capacity) to engage with the market. The presentation will conclude with some lessons-learned about the role of farmers' markets in building community resilience, and the importance of collaborations between municipalities and organizations such as the St John's Farmers' Market in moments of crisis.

Keywords : public space, farmers' markets, cooperatives, community resilience, Canada

Designing The 'Right To Mobility': A Holistic Analysis To Rethink The Public City And Fighting Heat Waves In Urban Areas

Gregorio Pezzoli (University Of Bergamo), **Emanuele Garda** (University Of Bergamo)

While the future of the cities seems to be based on sustainable and active mobility, the effects of climate change are worsening especially in terms of rising temperatures and heat waves (IPCC, 2023). For this reason, new strategies are needed to promote a soft mobility that consider the effects of climate change designing 'spaces for mobility'.

Cities and their vitality are central to society, but are they available and accessible to all? There are big differences in mobility needs, which a 'just city' must take into account. It is a mobility issue, but also a matter of equity and justice. Even if the spatial justice problem is to be addressed to social institutions (Moroni, 2023), the way we share and distribute public space is a matter of social equity. If we interpret mobility as a chain with an odd number of links, where each link is a different type of mobility, the odd numbered links always represent a pedestrian movement (Busi, 2011). This underlines the importance of designing pedestrian routes that are accessible and suitable for all.

How public space is used changes depending on the characteristics of the person moving around. People with temporary or permanent mobility impairments, the elderly, parents with children, pregnant women, etc. may have different needs than the city can provide.

The use of public space also changes over the course of the day and the seasons because of the influence of different temperatures on our behaviour. High temperatures in cities, which can partially be attributed to the Urban Heat Island (UHI) effect, can reduce mobility acting as a 'social barrier' for specific categories of people. Built environment materials - especially those designed for soft mobility - architectural barriers, and heat waves exacerbate the UHI effect, affecting mobility and slowing down city users. In this context, it is essential to analyse the urban environment in order to ensure accessibility and preserve the 'right to mobility' for all citizens, identifying barriers and UHI's triggers and mitigators.

A research protocol is presented to analyse the space for soft mobility, using a district of Bergamo (IT) as a case study. The protocol is divided into two methodologies. The objective methodology consists of several analyses carried out using public open data and field-collected data. The subjective methodology is based on interviews with local stakeholders to confirm or modify the results of the objective methodology.

The data is then interpreted and combined, highlighting the strengths and weaknesses of the area's walkability system, and providing a comprehensive analysis of the urban public realm. Through the analysis of the case study, the contribution aims to identify the key elements for the redesign of mobility spaces to reduce physical barriers, limit the impact of UHI as a 'social barrier', and preserve the right to mobility of the most vulnerable groups.

Keywords *: Urban Design, Walkability, Urban Heat Island (UHI)*

Marginality In Train Stations – The Making Of The Norm In A (Simili-)Public Space.

Thibault CARCANO (Sorbonne Université)

Train stations – those dedicated to passengers – host a variety of uses and interactions. As such, they are a social laboratory and their study reveals the dynamics of inclusion and exclusion as well as individual and collective mobilisation.

They are not public spaces, but "mass private properties" (Shearing and Stenning, 1983): external visitors are massively welcomed, provided they comply with the normative regime established by the landowner.

However, the "universal hospitality" that characterises public spaces according to Joseph (1998, p.23) is an ideal type that does not correspond to any empirical reality. Access to and use of public spaces are always conditioned by norms (Pellegrino et al., 1990). Even the Greek agora or the European city squares – often held up as models of public space – are very unequally accessible (Blanchard et al., 2021).

Thus, the characteristics of the most-public part of the station (i.e. spaces and temporalities that are accessible to the general public without any condition of status nor any transaction) are more or less those of a public space: urban places that offer multiple affordances (Gibson, 2014[1979]) and virtualities (Lévy, 2013).

As a (simili-)public space, the station is therefore organised according to "stabilised practices" determined by norms (Picon, 2018). As such, it is a "space for the production of citizenship" (Neveu, 2013, p. 207). In exchange for respecting the norms and civic duties imposed by the place, user-citizens are authorised to access, reside in and fully benefit from the station spacetime, as well as to participate directly or indirectly in the consultations organised by the governing bodies (Rudler, 2018; Jørgensen, 2022).

The existence of norms implies the existence of deviance (Pellegrino et al., 1990). Railway stations are "taken over by people who divert them from their normal use [and] carry out parallel, marginal activities" (Actions Solidarité SNCF, 1995, p. 5 cited in : Ribeil, 1996). In order to clarify the manifestations of the train-station-citizenship, I will focus on non-citizen users and the dynamics of their marginalisation (Neveu, 2013; Lazar, 2019), as well as on the various forms of negotiation that emerge from discordant practices. Indeed, any marginal action subverts the norm (even unconsciously) and as such constitutes a form of claim (Jeudy, 1990).

How does the study of marginal behaviour in railway stations allow us to rethink, update and even go beyond the notion of public space?

First, I will try to fill the gaps in the notion of public space, whether in its ability to qualify the "mass private properties" that are railway stations, or in its ability to consider spatial inequalities (Ripoll and Veschambre, 2006; Blanchard et al., 2021) and strategies – individual and collective – of conflict (Lussault, 2009). To do this, I will draw on notions of community, citizenship, normality and marginality. I will then describe the normative regime (discourses, mechanisms, representations, arrangements) that emanate from the station and the forms of distinction and even discrimination that result.

As well as contributing to the hospitality of railway stations (and other public-like spaces), my aim is to reveal a margin for innovation. Indeed, small steps lead to big changes, and a once isolated behaviour could become a major trend in the years to come. Therefore, studying marginal behaviour allows us to get a head start in thinking about the public spaces of tomorrow.

My research is based on mixed methods: participant observation at AREP (an architectural agency, subsidiary of SNCF group); a review of transdisciplinary literature; interviews with elites from the world of transport; and a series of ethnographically inspired observations carried out at Paris Saint-Lazare and Turin Porta Nuova stations.

Regeneration & Environment

Common Resilient Public Space To Integrate Internally Displaces Persons (Idp)

Detlef Kurth (Rptu Kaiserslautern), **Anna Kuzyshyn** (Rptu Kaiserslautern)

Common resilient public space to integrate internally displaces persons (IDP) - Community-based design as a tool to integrate internally displaced persons in cities of West Ukraine
Anna Kuzyshyn, Detlef Kurth
Public space is not only an important design component of the European City, with accessibility and well-designed places to strengthen the identity – so it is defined in the New Leipzig Charter of EU 2020 (EU 2020). In times of crisis like wars of aggression and climate change it also becomes a space of resilience for the increasing number of refugees, with their narratives and adaption strategies in a temporary new home. Especially in Eastern Europe public space was an area of protest autocratic regimes and for freedom and democracy in the last century (Kurth 2022; Cheung 2022).
After Russia's war of aggression against Ukraine in February 2022, more than eight million residents from the East flew to West Ukraine, the cities were faced with major challenges for which they were not prepared: the provision of housing, social and medical infrastructure, and jobs for internally displaced persons (IDP). However, it is not only the provision of accommodation or infrastructure that remains important, but also the integration of these people into the public life of the cities. There is a lot of support, but there are also certain misunderstandings between "native" and "new" inhabitants, due to language, mentality, or other factors.
The objectives of the DAAD and EVZ founded research project "Common resilient public space" had been, that the integration of IDP at their temporary hometown can be increased through the joint creation and use of co-designed public spaces, with participation in public events and workshops, and with a common project implementation (DAAD 2023; EVZ 2023). By contributing their ideas and resources to the redesign of public space, IDP are given an environment that becomes part of their new history. In creating new narratives in their arrival city, the IDP can adapt the new home without losing their self-identity.
In a trilateral dialogue between the "new", the local citizens and the local authorities the design ideas for the city center of Drohobych in West Ukraine had been developed in 2023. Together with students from partner universities Lviv (Ukraine) and RPTU Kaiserslautern (Germany) the residents developed and built new street furniture - as a "living room" of the center, in which every resident, regardless of age, gender or status, feels involved and identifies with it.
The results of the project show, that a common co-creation of public space with IDP can be successful, to redefine common and resilient public space in times of crises. This can be a fundament to rethink public space not only as a place of integration, but also of resilience against threats of climate change and of war impacts. For the reconstruction of cities in Ukraine the design of public space will be crucial and should be managed with high quality standards and pilot projects like IBA Ukraine initiative (International building exhibition) (IBA Ukraine 2023).

The Cultural Ecosystem Services Of Informal Green Spaces In Deprived Neighborhoods: An In-Depth Interview Study

Sitong Luo (Dr.)

In urban areas, informal green spaces (IGS) such as vacant lots and urban brownfields stand as valuable sources of cultural ecosystem services (CES), complementing other formal green spaces like parks and gardens (Kremer, A. Hamstead and McPhearson, no date; Kim, Rupprecht and Furuya, 2018; Luo and Patuano, 2023). IGS can be particularly beneficial for residents in socioeconomically deprived neighborhoods by providing accessible green spaces for outdoor activities and social interactions (Sikorska et al., 2020). However, the current research on IGS still lacks insights into residents' perceptions and preferences of CES in the specific context of deprived neighborhoods. This research investigates the potential CES provisioning of an IGS in a deprived neighborhood of Amsterdam. Through semi-structured interviews and thematic analysis, this study unveils four themes "positive perceptions", "negative perceptions", "desired developments", and "undesired developments" concerning the CES of case study IGS. These findings are further discussed with the social and environmental characteristics of deprived neighborhoods including a lack of social cohesion, potential antisocial conduct, and residents' negative perception of their neighborhood environment. Additionally, this research yields spatial design recommendations that aim to improve the CES provided by IGS, emphasizing the provision of essential amenities, the facilitation of social-cultural spaces, and the promotion of affection and attachment to the semi-wild landscape features within informal green spaces.

***Keywords** : cultural ecosystem services, Informal green space, In-depth interview, Deprived neighborhoods*

Spatial Planning And Management Of Recreational Infrastructure In The Context Of Social Changes In Last 30 Years

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The last three decades have been marked by the rapid development of information and communication technology, which has changed work processes, the leisure activity of people and at the same time the use of space for recreational purposes. Due to socio-political changes in Slovenia, the situation, type and accessibility of recreational infrastructure was additionally influenced by the transition process. Transition from the socialistic to market-oriented society transformed the relationship between public and private infrastructure, management and access to infrastructure. There are more and more situations where spatial and other conflicts can be detected, both in the placement of recreational infrastructure and its use, e.g. the placement of cycling routes on agricultural land (Schreyer, 2019).

In line with global societal changes, which include an ageing population, a changed lifestyle, an increasing number of one-person households, telework, people's motives and needs for recreation have also changed (Guthold et al., 2018). In 2020 and beyond, this was further influenced by the pandemic, which in some countries severely restricted citizens' access to recreational infrastructure and their recreational opportunities. As a result of social changes, the popularity of individual types of recreation has also changed, new types of infrastructure have appeared, such as bike parks, pump tracks etc. (Goodman et al., 2013). The development of new recreational infrastructure can also be due to targeted funding, such as EU funding through LEADER, Interreg programmes and other dedicated funding sources that support such investments. All the highlighted spatial aspects of recreation have so far only been addressed partially in the research (Hall and Page, 2014; Dallen and Boyd, 2015), which is why the main purpose of the project "Spatial management, and status of recreational infrastructure and recreational habits in the context of social changes in the last three decades" is to fill the gap in the field of study of recreation in the last 30 years and to provide systematic and interdisciplinary coverage of the topic of recreation, including recreational habits, infrastructure and its spatial management. In this paper, we will present the results of the work carried out so far relating to spatial management of infrastructure, i.e. recreational infrastructure regulation and stakeholders and their role in its management. We examined both the governance framework at the national level and the municipal one. Interviews were conducted and analyses of policies or other relevant documents was done for the municipal level. The results show that the management of recreational infrastructure is both public and private, and that not only spatial planning but also other sectors are responsible for certain aspects related to the recreational infrastructure management. Certain management challenges have also been identified, such as maintenance financing, ad hoc construction of certain types of infrastructure, etc.

***Keywords** : recreational infrastructure, leisure time, spatial planning, Slovenia, spatial management*

Stories Of Urban Regeneration With Social Innovation A Comparison Of 100 Examples In Europe

Federica Scaffidi (Leibniz University Of Hannover)

Social innovation is an essential driver of innovation for revitalising and rejuvenating urban areas. Cities and fringes are often characterised as under-utilised and neglected spaces that affect the perception of the quality of life of the regions. In recent years, much attention has been given to the creative regeneration of marginalised asses, such as productive ones (Areces, 2005; Scaffidi, 2019). Many scholars have analysed this phenomenon to understand its effects on space and to promote territorial innovation (Kafkalas, 1998; Moulaert & Sekia, 2002; Jeannereat et al., 2022). Some studies suggest that this regeneration fosters a better feeling of belonging to a place, creates new socio-cultural offers and increases ground rent.
Innovative management models have been promoted to reactivate these assets and spaces, creating socio-cultural benefits and new socio-economic development (Scaffidi, 2019).
This research examines productive site regeneration and its impacts on innovation development in urban areas and fringes. This study provides new insights in the field of urban planning and design and, highlights how social innovation in urban regeneration drives to territorial innovation.
The research showcases 100 good practices in Europe, located equally in cities and fringes. It uses qualitative and quantitative research methods, including semi-structured interviews, data analysis, and comparison.
The results show a classification of productive site regeneration with social innovation by defining three models. The study corroborates that social innovation plays a vital role in the innovation development of cities and fringes. It further argues that the greater the social innovation, the higher the level of territorial innovation. Furthermore, this study confirms that innovation depends on location and the regeneration model.
These results contribute to the body of knowledge and open new research opportunities in theories and practice for territorial innovation and urban regeneration of productive sites with social innovation.

The Transformative Power Of Play: The Oyun Istanbul Hop Project In The Context Of Tactical Urbanism

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In modern city planning, alternative urbanization concepts that deviate from traditional norms and respond to rapidly evolving social dynamics are gaining importance. Various approaches, such as guerrilla urbanization, do-it-yourself urbanism and pop-up urbanization, come together under the umbrella of tactical urbanization. The concepts presented aim to transform urban spaces through fast, flexible and participatory interventions.
Guerrilla urbanization involves adaptive and rapid interventions that oppose predetermined plans (Swatek, 2013). Do-it-yourself urbanism offers a model that emphasizes community participation and aligns the planning process with the expectations of local residents. Pop-up urbanization, on the other hand, refers to temporary and unexpected urbanization practices that focus on using spaces according to immediate needs (Caballero & Wong, 2016). Tactical urbanization is an umbrella concept that encompasses these approaches. As Mitchell (2015) explains, tactical urbanism involves small, rapid, and participatory interventions. Additionally, the concept of flexible play is utilized to increase participation in planning and designing public spaces. This approach allows children and adults to adapt to environmental factors (Lester & Russell, 2008).
Tactical urbanism, the central concept, speeds up the implementation process and solicits participation from the general population. One of the primary focuses of the investigation is the HOP Project, which is a component of Play Istanbul, which is a project of the Istanbul Metropolitan Municipality. Through the use of adaptive game alternatives and a bottom-up decision-making process, HOP can transform cities. It is a combination of pop-up and guerrilla urbanization.

The aim of the study is to provide inclusive play environments that encourage diversity and participation, increase spatial justice, support community gatherings, and contribute to urban transformation over time. Expected outcomes include increasing the use of mobile play areas, strengthening cultural identity and identifying effective strategies to increase welfare in disadvantaged areas.

The Hop project aims to introduce play culture to underprivileged areas and facilitate spatial transformation through bottom-up initiatives. As part of the Street Forum project, we will implement the HOP Project on Kadıköy Moda Street as a catalyst to evaluate the outputs obtained within the framework of tactical urbanism. The study's expected outcomes aim to create inclusive play environments that promote diversity and inclusion, increase spatial justice, support community gatherings, and contribute to the transformation of urban spaces over time. Additionally, the study aims to increase the use of mobile playgrounds, strengthen cultural identity, and identify effective strategies to improve well-being in disadvantaged areas.

Neighborhoods Under Pressure: Urban Transformation And The Erosion Of 'Active Edges'

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The significance of neighborhood space for the well-being of urban residents became particularly evident during the COVID-19 pandemic lockdowns. During this period, the affordances of the neighborhood for needs such as access to nature, physical activity, play, and socialization became critical for the physical and mental well-being of the urban residents. Correspondingly, public open spaces and semi-private spaces of the residential yards played a pivotal role. The semi-private zones, spaces between the private space of the house and the public space of the street, became prominent for open space activities, especially for vulnerable groups with limited mobility. Their easy accessibility, intermediary level of publicness and privacy, and flexibility for more temporary and personalized uses made them essential.

The importance of semi-private zones for durable activities and active street life contributing to overall neighborhood vitality predates the pandemic. For over half a century, scholars have discussed the merits of active semi-private zones, referred to as 'building edges' (Alexander et al., 1977), 'soft edges' (Gehl, 1980;1986), 'active interfaces' (Bentley, 1999), in relation to their spatial qualities (Owens, 1993; Habraken, 2000) for fostering a sense of security, socialization, and community cohesion. Moreover, these zones are not static entities; they are (re)produced by the use and adaptation patterns of the residents and urban transformation processes.

Urban transformation processes at the neighborhood scale accelerated in Turkey, especially after the 2000s, as the privileges granted to the construction sector and the legislative regulations facilitated urban transformations. Following that, the process has been exploited, and urban transformation became a major tool to enlarge the building footprints and increase the building heights for financial benefit. This has led to excessive densification, environmental degradation, and infrastructure problems in existing central neighborhoods. The process has resulted in the deterioration of semi-private spaces, with green front yards being lost for the sake of car parking areas, regardless of their benefits for the residents.

By investing in the examination of the urban transformation process, this research examines the pre- and post-morphologies in the Güvenevler neighborhood, located in the capital Ankara, from 2002 to 2023. As a methodological basis, the research employed detailed mapping and on-site photographic surveys to document urban transformation, explicitly focusing on the erosion of the 'soft edges.' The documentation portrayed not only the erosion of these zones due to transformation processes but also the variety of interface typologies that still exist in the neighborhood. The transformation patterns are also iterated hypothetically to simulate the implications of the transformation in a more longitudinal perspective. The results provide insights into the future impact of the transformation patterns on the experiential and ecological qualities of the neighborhood.

The research aims to highlight the meaning of active semi-public spaces as a game changer for everyday life, emphasize the need to understand the socio-ecological implications of urban transformations, and inform future design considerations regarding urban transformations at the neighborhood scale.

Keywords : Urban Transformation, Semi-private space , Residential yard, Soft edges, Ankara

Track 09: Inclusion

INCLUSION - Planning for Fair, Plural, and Welcoming Cities

Chairs:

- Stefano Cozzolino, ILS Dortmund

- Christine Lélevrier, Université Paris Est Créteil

- Dalila Sicomo, Università degli Studi di Palermo

Keywords: Diversity, Equity, Cultural Integration, Coexistence, multiculturalism, Community Engagement, Minority Groups, Welcoming and Accessible Cities, reception systems, Open Space, Social and Economic Inclusion

There is a growing awareness of the significance of diversity and the tensions it may generate in societies, with major cities leading the way in facing this challenge. Inclusivity is now a fundamental principle in urban planning theories and practices, marked by a renewed commitment to advocating for cities that are fair, multicultural, welcoming, and open to all. Among other topics, issues such as migration, multiculturalism, minority groups, gender, religion, identities, accessibility, and the quality of essential services and spaces, as well as urban inequalities, urban poverty, and the emergence of diverse lifestyles (or the possibility of embracing new ones), are all central to the contemporary discourse. How can planners deal with these challenges? What kind of planning frameworks and approaches can better support inclusivity?

This track aims to thoroughly explore the multifaceted concept of inclusion in urban planning, with a particular focus on the idea of the open city—a city capable of embracing diversity, multiculturalism, experimentation, and fairness while acknowledging the diverse challenges planners must address in upholding these values. It is designed to encompass a wide range of contributions, including theoretical reflections, ethical perspectives, urban policies, urban design strategies, discussions on regulation and the law, interesting case studies, analyses from the field, best practices, and other pertinent urban planning viewpoints that can enhance the contemporary discourse. Therefore, the track welcomes diverse contributions, encompassing the formulation of policies and planning interventions, examinations of current socio-spatial dynamics, and broader reflections on the issue at hand.

The track aims to facilitate a dynamic exchange of ideas and experiences and welcomes abstracts addressing, but not limited to, the following themes:

- Diversity and Equity: How can urban planning promote equity and accommodate the diverse needs of urban populations?

- Cultural Integration and Coexistence: What strategies can cities employ to foster cultural integration and multiculturalism?

- Community Engagement and Minority Groups: How can planners ensure that residents can be heard and included in relevant decision-making processes?

- Welcoming and Accessible Cities: What initiatives can cities, along with other public and private actors, implement to create welcoming environments for newcomers, individuals with disabilities, etc.?

- Open Space and Social Interaction: How can open spaces and the built environment be designed to promote interaction and exchange among diverse people?

- Social and Economic Inclusion: What policies and practices can bridge the gap in access to resources, education, employment opportunities, and (small) entrepreneurship?

Children-Friendly Spaces And Neighbourhoods

Study On Youth Friendly City Renewal Strategies From An Inclusive Perspective

Zihao Chen (College Of Architecture And Urban Planning, Tongji University, Shanghai), **Yifan Yu** (College Of Architecture And Urban Planning, Tongji University, Shanghai)

With the acceleration of global urbanization, urban renewal has gradually received attention as a key means to improve urban quality of life and optimize spatial resource allocation. However, the traditional urban renewal model focuses more on land use, construction land development intensity, and other aspects, ignoring the needs of different groups of people. According to data released by the National Bureau of Statistics in 2021, the domestic youth population in China is about 448 million, accounting for about one-third of the total population. This group is not only an important component of cities, but also a key part for the city future development. At present, youth in urban life face the problems just like the lack of urban identity, undersupply of services, and poor quality of living space. Therefore, this study takes an inclusive perspective as the entry point, taking the Expo A area of Pudong New Area in Shanghai, China as an example. Firstly, literature review, questionnaire survey and other methods were used to fully investigate the needs of young people for public spaces. The research results found that the needs of young people for urban public spaces are mainly reflected in diversity, comfort, and publicness, which mainly reflect their needs for cultural, fitness, social and other spaces. Afterwards, the GWR geographically weighted regression model was used to analyze the spatial matching degree between facility supply, regional business formats, and youth demand. Finally, targeted and actionable youth friendly city renewal strategies are proposed in terms of spatial optimization, facility configuration, and business upgrading, in order to enhance the sense of security, belonging, and experience of young people. Not only beneficial for solving various challenges faced by youth in urban renewal, but also provides feasible solutions for the sustainable development of cities, and provides new ideas and methods for future urban planning and urban renewal.

***Keywords** : Urban Renewal, Youth, Inclusive, Public Space*

Exploring Color Planning Strategies For Children's Outdoor Playgrounds In Communities: An Analysis Of Children's Diverse Preferences In Shanghai, China

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Children's understanding of the world is largely shaped by their visual perception of their surroundings, with color playing an integral role. Color not only creates a visual impact but also has a profound influence on children's emotions, cognition, and behavior. Moreover, children's perceptions and preferences of colors are not static; they evolve and change as children grow and mature. This dynamic nature of color perception underscores the importance of appropriate color planning in creating environments for children. If carefully chosen, colors can contribute to a harmonious and healthy environment that is conducive to children's growth and development. Conversely, inappropriate color choices may inadvertently cause stress, potentially inhibiting healthy growth and development in children. The community, being the fundamental unit of the city, holds a significant place in children's daily life. It is not only the space closest to children's daily activities but also serves as an important entry point for the construction of a child-friendly city. In particular, children's outdoor playgrounds are exclusive spaces for children, and their planning and design are crucial in building child-friendly communities. However, the current research on color planning in this field is relatively limited, lacking in quantitative, evidence-based research and systematic planning methods that take into account the children's color preferences.

To address this gap, our research explored color planning strategies for children's outdoor playgrounds in communities, specifically focusing on children's color preferences. We collected data through a questionnaire survey conducted in Shanghai, China, and employed the chi-square test to analyze individual attributes of color preference, including sex, age, and community type, which we hypothesized could influence the diversity of children's color preferences. Our study found significant differences in the color preferences of children with different ages and community types. For instance, as children age, their preference for colorful, vibrant colors decreases, and their preference for warmer colors increases. Moreover, we found that primary school students aged 7-12 preferred cool colors more than children of other ages. When we looked at community types, children living in lane communities showed a greater preference for colorful, vibrant colors compared to other types, while children in public housing communities were more likely to choose warm colors.

Based on these findings, we propose several strategies for color planning in children's outdoor playgrounds in the community. For example, playgrounds should add color-zoned based on age and facility function zoning. Additionally, the colors of children's playgrounds in different communities should be differentiated according to the color preferences of local children. Through these strategies, we aim to enhance the scientificity and universality of color planning. Overall, this research contributes to the field by providing evidence-based recommendations for color planning in children's outdoor playgrounds, ultimately contributing to the creation of more inclusive and vibrant child-friendly communities.

Keywords *: color planning, color preference, children's playground, child-friendly community*

Research On The Planning Strategies Of Chinese Cold Region Cities Guided By Children'S Mental Health Needs

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In recent years, the incidence of psychological and behavioral problems in children has been on the rise, emerging as a pivotal intervention target within the framework of the Healthy China Action. The development of children's mental health is shaped by a myriad of factors, with psychological biases arising during the developmental process potentially accumulating over time and evolving into mental health issues such as depression and autism. Various disciplinary fields intervene in the development of children's mental health through genetic factors, family dynamics, social surroundings, and material space. Among these, urban and rural planning disciplines optimize the material spatial environment through planning design and indicator regulation, mitigating or reducing biases in children's psychological development and thus preventing or ameliorating the psychological health risks they face. Existing studies indicate a substantial correlation between urban built environment factors and residents' mental health, exerting long-term, sustained, widespread, and subtle effects on mental well-being with the potential for optimization and improvement. Moreover, owing to their social vulnerability, health susceptibility, and highly malleable biological characteristics, children's mental health is particularly susceptible to the influence of urban built environments. The developmental trajectory of children's mental health possesses unique characteristics, and their utilization and experience of urban space differ from that of adults. Some studies have noted that certain material spatial elements relevant to adult mental health may not hold the same significance among children and adolescents. Therefore, in urban planning research addressing the psychological health needs of children, the following questions merit further elucidation: (1) What constitutes the specific connotation of children's psychological health, and what comprises psychological health at different age stages? (2) What are the characteristics of the effects of urban built environments on children's psychological health? (3) What potential impact pathways exist during this process? This article aims to explore the impact of the urban built environment on children's mental health across these three dimensions. Comprehensive interdisciplinary research seeks to clarify the concepts, processes, and compositions of children's mental health, along with the psychological health characteristics of children across all age groups; extract and identify elements and characteristic indicators of the urban built environment, analyzing their impact pathways from various perspectives on the mental health benefits for children.

Keywords : *Children's Psychological Health, Urban Built Environment, Interdisciplinary Research*

All-Round Walkability Conditions To Primary School In Milan

Carla Baldissera (Politecnico Di Milano)

As part of the wider debate on social justice and the right to the city, the research addresses the fundamental and everyday issue of accessibility to services, through slow mobility, for the most vulnerable populations, and highlights how certain inequalities take shape in public space. Therefore, an analysis of the accessibility of a specific and prototypical service, primary schools, is proposed in three exemplary cases located in different districts of the city of Milan, studying the accessibility at different scales and for different user profiles (in particular, a comparison was made between vulnerable and able-bodied people). In fact, the research has chosen as privileged subjects those who have been excluded for a long time from a type of planning that mainly takes into account the needs of healthy male adults, namely people with disabilities, without excluding other types of users such as children, the elderly or pregnant women. In the urban environment, the ability to move around and enjoy public space is a right that must be guaranteed to all, by intervening in the pedestrian infrastructure, which in some cases can be restrictive due to its spatial configuration. Not only can it prevent some people from reaching places, services and social events, but it can also have a negative impact on the pure enjoyment of urban space. On the other hand, the school service, in addition to being a place of education and the first service in which a person experiences inclusion, increasingly continues to carry out "community" activities typical of a city centre, often becoming a place of sociability.

Firstly, the accessibility of the schools was analysed at the urban scale through a characterization of the pedestrian graph by a series of specific indicators, which made it possible to identify the relative 'catchment areas' within a 5, 10, 15 minute walk (highlighting how these are considerably reduced for the most vulnerable people). Subsequently, three hypothetical home-school routes were studied in more detail and at a fine-grained scale, thanks to a selection of areas differing in morphology, date of construction and spatial conformation.

In this way, it was possible to obtain a multi-level picture of walkability in Milan and to identify the different conditions of access to school services according to the different parts of the city. It is precisely the integration of the different scales that proves to be a useful policy tool, thanks to which we can (a) think about the quality of the spaces we cross on a daily basis, (b) define more precisely the degree of accessibility of the different services (not only school services) and (c) identify the most vulnerable areas in order to intervene.

***Keywords** : Walkability assessment , Profiled pedestrian network, Accessibility of primary schools, Disabled people , Milan*

Innovative Tools For Building Child-Friendly Communities: The Development And Application Of Child-Friendly Neighborhood (Cfn) Built Environment Audit Tools, Insights From Shanghai

Ye Zhan (College Of Architectrue And Urban Planning, Tongji University), **Yifan Yu**

Background: In 2021, China unveiled a vision to establish 100 child-friendly cities by 2025. Recognizing the pivotal role community spaces play in the daily activities of children, especially considering their distinct physical and mental development characteristics, this study focuses on the often-overlooked micro-scale built environments within traditional urban planning and design. In Shanghai's densely populated central urban area, characterized by high-density residential environments, the integration of child-friendly concepts into community renewal necessitates a more nuanced consideration of practical foundations and renewal effectiveness. Supported by the Shanghai Pudong New Area Planning and Natural Resources Department, this research endeavors to develop innovative tools to systematically advance the creation of child-friendly communities.

Methodology: This study introduces the "Child-Friendly Neighborhood (CFN) Built Environment Audit Technology System" as an innovative approach to propel child-friendly community renewal in high-density human settlements. The research employs three methods:1) Defining micro-humanistic scale built environment elements closely linked to children's living quality for identification and audit within a child-friendly community.2) Developing a universally applicable audit system for child-friendly communities, guided by international consensus on child-friendly environments and children's developmental needs, with a focus on creating safe, healthy, inclusive, and playful environment. The spatial audit scope encompasses community street segments, outdoor public spaces, and residential environments within a 5-10 minute living circle.3) Conducting practical applications in Shanghai's typical high-density communities, including 40 communities, 156 street segments, and 75 outdoor public spaces in the Zhoujiadu area of Pudong New Area. The audit aims to refine the identification of community space problems, assist in prioritizing child-friendly initiatives, and formulate specialized plans for community updates. Additionally, the study introduces a child-friendly neighborhood machine audit method based on deep learning and computer vision to enhance the environmental audit system.

Results: The innovation of this tool lies in its departure from traditional environmental assessments. The audit, with its supervisory and evaluative connotations, focuses exclusively on micro-scale built environment elements within the community. Unlike conventional measures such as land mixed utilization and road network density adjustments, auditing the design of pedestrian and bicycle paths, along with children's activity venues, proves to be more effective in helping grassroots governments pinpoint spatial issues and propose easily implementable updates. Through local trials in Shanghai, significant potential for enhancing the micro-built environment of communities from a child-friendly perspective has been identified. Taking street improvements as an example, while segment adjustments like expanding pedestrian and bicycle space are crucial, they come with increased implementation costs. Conversely, incorporating various child-friendly street facilities, such as traffic calming measures, child-friendly signs, and dedicated crossings, offers a more flexible and effective approach. Importantly, the audit identified these as critical missing components in the existing community's built environment. Examining the improvement of outdoor public spaces reveals a common issue of incongruity between "space" and "facilities" in the community. The study highlights the prominent problem of insufficient children's play facilities in public spaces, manifesting as "space exists, but facilities are lacking" or "no space is available, and facilities are absent."

Conclusion: This study developed an innovative tool to aid in the creation of child-friendly communities: the "Child-Friendly Neighborhood (CFN) Built Environment Audit Technology System". The system can help communities succinctly identify issues and prioritize projects, updating the built environment elements most relevant to children, thereby improving the effectiveness of community governance and enhancing children's sense of gain. The application in typical communities in Shanghai shows that the system has application value in refined community spatial problem diagnosis and planning decision-making intervention, and is conducive to promoting the construction of safe, healthy, inclusive, and playful child-friendly communities.

Keywords *: child-friendly community, built environment audit, micro-scale, innovative tools*

Elderly (Un-)Friendly?

Equity In Essential Services Accessibility Among The Elderly: A Comparison Of Community Resilience During And After The Covid-19 Pandemic

Xiaohe Zhang (Tongji University), **Haixiao Pan** (Tongji University)

The COVID-19 has caused heavy damage across the globe in the past four years. The policy interventions during lockdowns have resulted in certain adverse effects, notably exacerbating inequities among different groups, especially for vulnerable groups. Identifying weaknesses during the pandemic and planning for more just and resilient cities is necessary. During the lockdown, individuals could only go out for essential needs such as acquiring groceries and medicine. While short-term lockdowns enacted to curb the spread of the virus are justifiable, efforts should be made to minimize their impact on people's daily lives. On one hand, it is necessary to assess the availability of essential services within the walkable range of a community. On the other hand, careful attention should be given to vulnerable groups' inequities.

Under the stay-at-home order, the elderly, particularly those not residing with their children, experienced more unfairness. Firstly, the majority of older individuals exhibit reduced mobility compared to healthy adults, making them more prone to fatigue and less inclined to cover long distances on foot. Moreover, they possess distinct requirements for essential services, including an increased reliance on healthcare resources and unique preferences in shopping and payment methods. Therefore, a critical assessment of whether the elderly have equitable access to essential services becomes imperative.

Many scholars have conducted research on essential services during the pandemic; however, there remain some research gaps. Firstly, few studies have focused on the disparities in walking ability between the elderly and healthy adults concerning accessibility. Secondly, few studies have focused on the distinctive requirements of the elderly for essential service facilities. Lastly, under the requirement of social distancing, there is a capacity limit of the essential service facilities, which has not been taken into account in previous accessibility studies.

The objective of this study is to bridge the existing research gaps by employing a methodology that incorporates the creation of indicators, fairness measurement, and case studies. Firstly, we have taken into full consideration the disparity in walking ability between the elderly and healthy adults, establishing varying-sized buffer zones around the community as walking accessibility areas. Subsequently, three indicators were created to measure community resilience in accessing essential services, namely the Demand Accessibility Index, Diversity Index, and Per Capita Quantity Index, which evaluate accessibility based on demand, diversity, and usage intensity, respectively. Then, the spatial equity of these three indexes for both the general population and senior citizens was evaluated using the Lorenz curve and the Gini coefficient. Shanghai, with its pronounced aging population, was chosen as our case study. We utilized datasets from 2020 and 2023 for comparison to capture shifts in equity during and after the COVID-19 pandemic.

The results indicate that the Diversity Index exhibits the highest level of equity, followed by the Demand Accessibility Index, while the equity of the Per Capita Quantity Index is comparatively lower. Moreover, in comparison to the general public, the Demand Accessibility Index and the Per Capita Quantity Index demonstrate greater equity for the elderly, whereas the Diversity Index exhibits a lower level of fairness for the elderly. In addition, the performance concerning the accessibility and fairness of essential services in 2023 is less favorable than in 2020. This decline could be attributed to the economic downturn following the pandemic, resulting in the closure of many facilities that offer essential services.

This research provides indicators and methodologies for evaluating the equity and accessibility of essential services. The findings contribute valuable scientific insights for policymakers to strengthen community resilience and address inequities through immediate or long-term measures.

Keywords *: equity, the elderly, essential services, accessibility, community resilience*

Evaluating Older Residents' Inclusion In Urban Settlements: A Case Study From Tianjin, China

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With the trend of ageing, the inclusion of older residents in urban settlements has become a top priority in building age-friendly communities and age-friendly cities. In Tianjin, a 20-million-population metropolis in norther China, the municipal government has initiated city-wide elderly-oriented upgrading projects guided by World Health Organization's Age-Friendly Cities framework. 29 communities are awarded as national demonstrations. The paper accordingly selects these award-winning communities in Tianjin as specific cases, and attempts to reveal the actual inclusion perceived by the older residents themselves.

Based on preliminary field survey, the research notices the differences in the physical and social environment of settlements may have influenced older residents' perception of inclusion. In response, the research further categorizes the award-wining communities into three types, traditional old neighbourhoods, commercial housing neighbourhoods and sheltered housing neighbourhoods, so as to reveal the differences.

Through literature review, the paper explores two dimensions and eight aspects of the inclusion, based on older residents' subjective and objective attributes. The objective dimension, i.e., the built environment dimension, includes (1) open space, (2) accessibility to mobility, (3) housing conditions, and (4) matching supply and demand of facilities. The spiritual dimension, i.e., the social dimension, includes (5) interference and restrictions around the settlement, (6) participation of older residents in community activities, (7) connection with the outsiders, and (8) older residents being respected and included. Via questionnaires and semi-structured interviews, the study will ask a representative sample of older residents to evaluate their financial, family and physical conditions and rate their urban settlement according to the eight aspects above. The research will take the Delphi method to determine weights, and analyze the perceived inclusion of the older residents separately in the three types of neighbourhoods. The paper will further investigate the relationship between the perceived settlement inclusion and socio-economic attributes of older residents via multiple regression analyses, and discuss the reasons behinds. Lastly, based the research findings, corresponding planning strategies will bring forward to effectively improve the inclusion of the physical and social environments of urban settlements for the older residents.

Rural Elderly In The Turmoil Of Technological Change – Empirical Study On How Are Older People Adapting To 'Smart' Technologies In Rural Estonia

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Estonia is well-known as a forerunner in e-governance and digital transformation of public and private services. Smartification of services and everyday life in theory could help rural areas to cope with the consequences of decades-long shrinkage: for example, online transactions can replace closed bank offices, e-groceries can help if there is no village stores available, or doctors can e-counsel people if there is no medical centre close by. The reality, however, is that even in an advanced e-country, nearly 100,000 people aged 17–74 do not use the Internet. The exclusion from digital life tends to apply more for the older population and also for sparsely populated rural areas, or the two combined leading to the risk of double-exclusion. Yet, the greater involvement of the elderly in the digital society could potentially avoid this exclusion, especially because many of today's rural elderly have been top professionals during their active working life (in the years of rural prosperity in the 1980s). To unpack these under-used opportunities to mitigte rural shrinkage there is a need to better understand the way today's rural aging population copes with technical and digital transformation. In this presentation we introduce the results from an empirical study carried out in Sept 2023 - Feb 2024 on current experiences of using 'smart' technologies among the elderly in rural areas. Based on qualitative interviews in 4 Estonian rural municipality (Hiiumaa, Paide, Rõuge and Toila) with people who work daily with the elderly in their districts (such as social care and home care workers, librarians, community leaders, etc), we look answers to the following questions: How older generations in rural districts adapt and get used to smartification? What are the needs of rural elderly when it comes to smartification of services and everyday life?

Aging Amongst Shrinkage: Examining Age-Friendly Policy In French And Canadian Shrinking Cities

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The world's population is aging. But it is not aging evenly. Many demographically older communities face spatially and economically related obstacles, such as shrinking populations and economic decline. While some places position themselves as "age-friendly cities" prioritizing the inclusion of older adults, many smaller communities lack the tools, resources, and political will to address just one, let alone overlapping, demographic and economic shifts.

Despite having very different urban landscapes, the geographies of French and Canadian shrinking and aging cities are quite similar. In both countries, almost all shrinking cities are either small (under 50,000 population) or midsized (between 50,000 and 250,000) and located outside of major metropolitan regions (Hartt, 2021; Wolff et al., 2017). Furthermore, French and Canadian population shrinkage are widely overlooked by the media and general public, and ignored by politicians and decisionmakers. As a result, shrinkage is considered a "silent" process in France (Cunningham-Sabot and Fol, 2009) and a "quiet" one in Canada (Hartt, 2021). The paucity of consideration or deliberation in shrinking cities combined with the shift of the world's (Canada) and Europe's (France) largest proportional baby boom generations into older adulthood present a clarion call for academics, planners, and policymakers (Lord and Piché, 2018). Targeted, place-based interventions are needed to ensure that all communities provide built and social environments that support healthy aging.

This research provides a conceptual and empirical foundation that weaves together the aging and shrinking discourses and explores the challenges and opportunities of age-friendly policy in shrinking communities. The objectives are to (1) determine the past and present geographies of aging and shrinking in Canada and France, and (2) analyse urban policies promoting the inclusion of older adults in cities affected by aging and shrinkage.

The first phase of the research determined the distinct and intertwined geographies of aging and shrinkage at the local level for every municipality with a minimum population of 10,000 in both Canada (N = 427) and France (N = 964). Using statistical and spatial analysis of past and current trends, we detail the geography, persistence, severity, and prevalence of demographic aging and decline (Hartt, 2021). Our findings reveal that shrinking cities in both countries have experienced accelerated aging of their populations. Furthermore, they have experienced a substantial rise in older adult populations, despite the overall decline in total population.

The second phase of the research explored the age-friendly policy landscape in Canadian and French shrinking cities. We completed a policy scan to determine the relationship between the persistence, severity, and prevalence of aging and shrinkage and the presence of age-friendly policy in both countries. Our findings indicate that, despite being most commonly affected by accelerated aging, shrinking cities are underrepresented among the members of the World Health Organization's Global Network for Age-friendly Cities and Communities. The findings of this research were used to inform recommendations for planners and policymakers in addressing the unique context created by demographic aging and population decline.

***Keywords** : Age-Friendly Communities, Shrinking Cities, Canada, France*

Demographic Shifts, Aging And The Challenges For Planning In Paris And Madrid

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In political and media discourse, large metropolitan areas are usually associated with a young and dynamic population. Moreover, a large body of literature highlights the agglomeration and clustering effects of large city regions, particularly for young and well-educated adults (Glaeser, 2011). Research shows that the cores of North American large metropolitan areas have experienced "youthification" in recent decades (Moos et al, 2019). In North America, "young adult geographies are highly centralized, particularly in metropolitan regions with gentrified, amenity-rich downtowns successful in the knowledge economy" (Ibid: 224). These patterns contrast with Western European core cities, such as Paris, Madrid, Barcelona, Rome or Lisbon, which are facing demographic shrinkage and where large proportions of older adults of 65 years and above coexist with younger adults (Fernandez, 2024). These population shifts question the urban policies and planning implemented in Western European central cities and calls for a multifaceted idea of inclusion which considers the particular needs of the increasing share of older adults.

Since the turn of the millennium, Paris and Madrid have featured similar demographic geographies. Both core cities (Madrid and Paris intramuros) have experienced population loss whereas their metropolitan areas grow. Both central cities are aging at a faster pace than their surroundings. In 2019, the share of older adults of 65 years and above in the city of Madrid and several Paris districts, was higher than the national average. We posit that population growth and high concentrations of younger adults in the periphery have veiled the shrinking and aging dynamics of the core cities as well as the specific planning challenges involved.

This research provides an in-depth examination of the socio-demographic shifts in Paris and Madrid over the last two decades to determine the intensity and geography of socio-demographic change in the two core cities, the emergent challenges resulting from population shrinkage and aging, and the effectiveness of planning responses. First, statistical and spatial analysis is used to determine socio-spatial dynamics. Multivariate analysis allows us to better understand the extent to which the geographies of age, class and shrinkage overlap or differ. Second, through the analysis of urban policies promoting the inclusion of older adults in Madrid and Paris, we question the extent to which planning considers (or underestimates) population aging. Population aging is a dominant demographic trend in Europe in the twenty-first century (EUROSTAT, 2020) and literature shows that "age friendly" policies are based on inclusivity (Buffel et al, 2019). How can local planners adapt cities to the needs of older adults and therefore embrace diversity in terms of age, class, race and gender?

Keywords : Aging, urban shrinkage, urban planning, France, Spain

In Or Out? Periphery, Suburbia, Outsideness

New Challenges On The Urban Periphery: Arts-Based Co-Creation In The Paris Banlieues, France

Juliet Carpenter (University Of Oxford), **Christina Horvath** , **Ségolène Pruvot**

Inequalities in the French banlieue have worsened in recent years (Kokoreff and Lapeyronnie, 2013). There has been a decline of active citizenship among young people in the banlieue (Braconnier and Dormagen, 2007), coupled with a growing incidence of islamophobia and police violence towards young people, as witnessed in Nanterre in summer 2023. Inclusivity is a major challenge for urban planners, to address growing social tensions in the city.

This paper reports on a project, "New Challenges on the Urban Periphery", funded by the UK's Arts and Humanities Research Council (AHRC), which seeks to address some of these societal challenges in the French banlieue, through a co-creative approach to research. The project builds on findings from Banlieue Network, as well as the Horizon 2020-funded project, 'Co-Creation' (2017-2022), which brought together researchers, policy-makers and creative practitioners from Europe and Latin America, to challenge urban stigmatisation in marginal spaces such as the French banlieues and Brazilian favelas (Horvath and Carpenter, 2020).

In particular, this paper presents findings from "Literatures on the Margins" (Festival Littératures en Marge), a cultural festival organized by the project in 2023 in St Denis, Greater Paris. This 4-day event aimed to explore the potential for creative practice in a stigmatized city while also addressing the marginality attached to artists working in peripheral urban areas and in undervalued genres. The festival included scholarly presentations about peripheral artists from France, Brazil and elsewhere, discussion panels involving critiques, writers, filmmakers and activists, as well as a programme of concerts, street theatre and film screenings, co-created with the Paris-based NGO, 'European Alternatives'. A series of creative writing and spoken word workshops preceded the festival, designed by leading artists from the peripheries and aimed at young people from St Denis.

The paper will explore potential strategies for initiatives such as the "Literatures on the Margins" Festival to create a lasting positive impact on the ways artists emerging from banlieues and young people living in the urban peripheries are perceived in France. The first section of the paper will discuss how territorial stigmatization is addressed through creative practice, in particular literature. The second section will explore how the design of the festival sought to engage with young people from the banlieue, helping them voice their lived experiences through cultural expression. Finally, the paper will discuss some particular challenges met by the organisers and will provide a set of recommendations for the management of the 'researcher - creative practitioner - activist' relations, to maximise impact of co-creative research on policy and practice in the urban arena.

Keywords : *Co-Creation, marginalization, creative practice, Greater Paris, St Denis*

Revisiting The Urban Periphery Issue In Planning Education. An Alternative Beyond 'Naïve Approaches' And 'Victim Mentality Mindsets'

Stefano Cozzolino (Ils - Research Institute For Regional And Urban Development)

The issue of the urban periphery is a captivating topic for many students eager to engage with planning disciplines. How to regenerate marginal neighbourhoods, reduce the economic and social inequalities that separate them from the "centre", explore the causes that lead these "disadvantaged" areas to be marginalised and degraded, the effects of such a context on its inhabitants, and the possible interventions to regenerate them are crucial educational missions for many scholars in planning faculties. A major problem is that this debate is often radicalised and influenced by what the literature defines as conformorality, i.e., the tendency of groups and communities to conform to certain normative judgments due to peer pressure. This situation leads the planning scholars' community to influence (and limit) theoretical and practical approaches to the subject in highly ideological manners and, consequently, to strongly influence (and limit) the students' values as well. This article contributes to this debate by proposing a Practical-realistic approach in response to two contemporary widespread attitudes presented in the article as Naïve Approach and Victim Mentality Mindset. The goal is to critically highlight how superficial conformism around this theme obscures both (i) the inadequacy of certain often-praised tactics and projects (having little impact on neighbourhoods' regeneration compared to their declared missions) and (ii) the adverse effects of a paternalistic attitude, creating short-circuits between institutions and inhabitants. This contribution aims to raise the issue, make the discussion more honest, and warn against contemporary ideological approaches to the topic. The article is predominantly theoretical-exploratory but supported by numerous concrete examples.

Keywords : periphery, marginal neighborhood, conformorality

Segregation And Diversity: Rethinking Urban Planning And Development In A Highly Segregated Society.

Efrat Eizenberg (Faculty Of Architecture And Town Planning, The Technion)

The segregation of urban groups is a widely studied urban phenomenon. While there may be advantages to groups organizing themselves spatially based on factors such as ethnicity, culture, and religion, spatial segregation is widely recognized as a social problem. It exacerbates sociocultural divides, increases tensions and hostility between groups, and undermines social cohesion.[1] This study investigates three primary modes of spatial development: urban infills (typically associated with urban renewal), large urban developments (often located on the outskirts of cities), and the urbanization of rural areas (involving the establishment of new community settlements and the expansion of existing ones).[2] Through mapping and morphological analysis[3] of these three forms of development in Israel, the research examines the social structures they generate along the spectrum from socio-spatial segregation to diversity. On this spectrum, the study depicts various types of segregation/diversity as well as associates the contribution of several planning aspects – housing type,[4] public space,[5] and educational infrastructure – to these different types.

Keywords : diversity, residential segregation, Urban Morphology

(Dis)Comfort In The Suburban Housing Dream: Unveiling Contradictions And Prospects In Polarized Suburbia Through A Constructed Debate

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In Flanders, northern Belgium, an essential status in the life of a person or family is assigned to "suburban living" (De Decker & Meeus, 2013). The suburban living dream represents living in a single-family home with its own garden, driveway, and garage. It is (over)loaded with meanings and expectations. The suburban living dream contains numerous qualities in people's minds: space, peace, safety, greenery, good for children, and boss in/of your own home. Suburban living is also an important symbol of postwar social progress. However, this dream is linked to normative ideals about gender, race/ethnicity, and class that construct those who are "outsiders" and those that themselves may call "established" or "at home" in suburbia.

Using in-depth interviews with both established (16) and outsiders (11), we revealed two suburban dreams in the polarized Dender region (in Flanders). The Dender region is a place where a far-right anti-immigrant party won and continues to win many votes and where ethnic diversity is steadily increasing. The "established", these people who have often lived in that region for many generations, feel that their suburban living dream is fading or are afraid that it will. On top of deindustrialization, unemployment and their children moving to other regions in Flanders, newcomers threaten them with a greater loss of status. The "outsiders" are people with an immigrant background who have often lived in arrival neighborhoods in Brussels and want to make the Dender region their home. By moving to the Dender region, they are taking a step closer to realizing their suburban living dream.

Although these two social groups share the same suburban housing dream, the feelings are different (loss versus hope). These two storylines collide, leading to strained relationships as both groups try to maintain or improve their societal position.

With the academic ambition to think about how to reduce polarization and increase inclusion in this region (and beyond), we set up a constructed debate on issues derived from our qualitative in-depth interviews. Through this fictional dialogue we explore opportunities for belonging to both groups by understanding how underlying factors such as dominance/power (or inequality), class, gender and race/ethnicity play a role in the design and use of suburbia. In addition, we also consider whether and how the construction of the suburban housing dream can be decoupled from the concept of whiteness. Using this constructed debate can help deconstruct the dominant social construction of suburban living (dream) and obtain new representations of multicultural suburbia. Moreover, we reflect on how the method of the constructed debate can also help identify and discuss other social challenges in urban planning.

Keywords *: Housing, Polarization, Constructed Debate, Suburbia*

Study On The Comparison Of Development Efficiency Between Inner And Outer Urban Circles And The Balanced Development Strategy Of Marginal Areas: Analysis Based On The County Scale Of Chongqing

Mengyao Zhang (Southeast University)

Cities are the spatial carriers of China's economic development, attracting a large number of people and resources to gather in, and gradually forming a "center-periphery" spatial structure with the central urban area and its direct radiation districts and counties as the core, and the periphery districts and counties surrounding it in a circle state. As the socio-economic development gap between the center and peripheral areas continues to widen, many districts and counties in the periphery of the city develop slowly and are continuously marginalized in the process of development, exacerbating the imbalance of regional development. This article selects 22 districts and counties in Chongqing for socio-economic development data statistics and spatial analysis and divides them into two categories: inner circle districts and counties and outer circle districts and counties based on the "core-periphery" theory and the circle structure characteristics of urban areas. Using the EMS method, we compare the efficiency of financial expenditure on basic public services between the inner circle and outer circle districts and counties, and use it as the main indicator to quantify the difference in the level of economic and social development between the inner circle and outer circle districts and counties. On this basis, Exploratory Spatial Data Analysis (ESDA) is introduced to conduct a comparative analysis of the spatial pattern characteristics and influencing factors of the efficiency of the inner circle and outer circle districts and counties, and to explore the development differences between the inner and outer circle districts and counties, as well as the main development problems and strategies in the outer circle districts and counties. The study found that: (1) The efficiency of basic public service financial expenditure of the inner circle districts and counties is generally higher than that of the outer circle, and the efficiency of the inner circle districts and counties generally shows an increasing trend, while the outer circle is on a declining trend. The marginalization of the outer circle districts and counties continues to intensify. (2)The driving factors of the efficiency of districts and counties in Chongqing are generally related to the proportion of non-agricultural industry population, urbanization level, population density, and other factors, in which the efficiency of the inner circle districts and counties is mainly affected by non-agricultural industry population and the per capita GDP, and the efficiency of the outer circle districts and counties is significantly affected by per capita gross industrial output value above designated size and per capita total social fixed asset investment. (3)Due to the limitation of spatial and temporal distance, the outer circle districts and counties are inefficient in development, relying more on the driving role of economic development indicators, and are insufficient in population agglomeration capacity and urbanization development level. Aiming at the above problems, the article proposes planning strategies for the balanced development of fringe districts from the aspects of spatial economic development structure, the regional division of labor, and basic service facilities system, so as to promote coordinated development among various circles of the city and improving equity and inclusiveness in urban development.

Keywords : urban circles, development differences, fringe areas, balanced development, ESDA

Commons, Collective, Togetherness

Untangling The Commons: Three Different Forms Of Commonality

Stefano Moroni (Milan Polytechnic University)

The term "commons" is used with increasing frequency in the public debate and academic literature in various fields (including urban studies, planning theory, legal and political geography). However, this term is often ambiguous and used to denote quite different things. Obviously, any concept, and therefore also the concept of "commons", does not have an "essence". Clear definitions do not serve to capture what something is in itself, but only to rigorously specify what use is made of a given expression. In short, linguistic precision is not a value in itself, but becomes necessary when misunderstandings can arise (as frequently happens in the case under discussion). This paper critically revisits the notion itself of "commons". It distinguishes three different (and incompatible) meanings of the term "commons": (1) commons as nobody's resources (as in Garrett Hardin's celebrated article); (2) commons as some people's resources (more precisely, of a group) (as in Elinor Ostrom's famous works); (iii) commons as everybody's resources (as in Ugo Mattei's influential contributions). The overall aim is not simply to distinguish different uses of the term; it is also to clarify the real scope and meaning of each definition of it – such as the one proposed by Elinor Ostrom, which is too often inappropriately invoked. In conclusion, some terms are more fortunate than others: they are rhetorically attractive, appear at the right time, etc. However, once the "emerging" phase has passed, they must be clearly and unambiguously defined and delimited. To recast the discourse in more rigorous terms, one could even do without the term "commons" altogether.

Keywords : tragedy of the commons, global public goods, common pool resources

Group And Collective Rights, And Urban Planning: Case Studies From Québec, Canada

Sandeep Agrawal (University Of Alberta)

Group and collective rights are human rights, but such rights emerge when the members of a group are discriminated against in order to protect the group temporarily or in perpetuity, depending on how long the discrimination lasts. Some literature exists on how individual human rights affect municipal matters (Agrawal, 2020, 2022, 2023), but studies investigating urban issues from the lens of a group right or collective right are almost non-existent. Using liberal theorist, Kymlicka's rights framework (1995, 1998) and relying on existing legal and political discourses (Rousseau & Côté, 2017; Samson & Langevin, 2015; Sanders, 1991; Taylor, 1994), key informant interviews, and a select set of case law pertaining to the French-speaking Quebec province in Canada, the research concludes that the tension between individual and group rights and the collective rights of French-Canadian Quebecois and Indigenous peoples are responsible for growing discord in Quebec. Municipalities – big or small – in Quebec appear to be struggling to handle the demands of the Indigenous, ethnic and religious minorities living among them. The legal complexity of and potential inconsistencies between the Quebec Civil Code and Charter and the Canadian Charter make the situation more challenging. The popular sentiment against and distrust of the Canadian Charter among Quebecers further complicates municipal efforts to find solutions.

Keywords : human rights, cities, Canada, group rights, collective rights, Quebec

Ararat: A Living Case Study Of Inclusive Urban Practices And Community Resilience.

Angelina Grelle (Politecnico Di Torino)

This paper aims to contribute by spotlighting a noteworthy example of inclusive practices aligned with the principles of open city, specifically focusing on a community of refugees who have established a political outpost and welcoming center in the heart of a European capital. The focal point of this study is Ararat, the Kurdish socio-cultural center nestled in Testaccio neighborhood, an historical neighborhood in Rome. Ararat, with its enduring presence, stands as a testament to the resilience and vibrancy of the Kurdish community within the city, particularly noteworthy as the neighborhood undergoes development and renewal as part of the National Recovery and Resilience Plan (PNRR). Ararat serves as a compelling case study in the realm of inclusive urban planning, with its roots in collaborative efforts. It emerged from a participatory process involving the Stalker architect's association, the refugee community, and the residents of the neighborhood. Over 30 years, it has evolved into a living example of good practices for fostering participation and community engagement within an occupied space. The paper delves into the dynamics that have enabled Ararat to flourish as a socio-cultural hub, emphasizing the participatory nature of its governance model and the enduring relevance of its presence within a neighborhood undergoing transformation. Based on an 8-month ethnography (participant observation and semi-structured interviews) in Rome, this paper seeks to display how the Kurdish community's active involvement in Ararat showcases the potential for refugees to become integral contributors to the social fabric of a city, challenging conventional narratives of displacement. As a political outpost, Ararat not only encapsulates the rich cultural heritage of the Kurdish community but also exemplifies a form of participatory governance that has stood the test of time. The choice of Ararat as a case study is particularly timely given the ongoing redevelopment initiatives in Testaccio neighborhood. By examining Ararat's journey, this paper seeks to extract valuable insights and lessons that can inform urban planners and policymakers engaged in inclusive urban development projects. The longevity and vitality of Ararat underscore the importance of recognizing and incorporating the unique perspectives and contributions of refugee communities in the urban planning process. In summary, this paper sheds light on Ararat as a beacon of good practices in inclusive urban planning, illustrating how an open city framework can be realized through active community participation and the establishment of lasting socio-cultural spaces. Ararat's narrative unfolds as a living testament to the potential for inclusivity within urban landscapes, emphasizing the enduring impact of participatory practices on the social, cultural, and political dimensions of a community's existence.

Inclusivity In The Face Of Crisis? Locating The Houseless Communities In Mumbai's Covid Response

Tooran Alizadeh (University Of Sydney), **Ishita Chatterjee** (Jindal School Of Art And Architecture (Jsaa)), **Ratoola Kundu** (Tata Institute Of Social Sciences), **Paroj Banerjee** (Ucl), **Brijesh Arya** (Pehchan), **Deepti Prasad** (University Of Sydney)

COVID-19 emerged as a global crisis with a prominent urban dimension not only because urbanity has been linked to the spread of infections and deaths but also since cities became the key sites for emergency and innovative COVID responses (Sharif and Saiz, 2020). In the Indian context, the pandemic laid bare the deep inequalities in metropolitan cities. It demonstrated that in the absence of safety nets, the livelihoods of daily wage earners were severely jeopardized (Roy and Chatterji, 2021).

Our study focuses on Mumbai's COVID response and its implications for the houseless communities. Through in-depth semi-structured interviews with various stakeholders - government officials, journalists, academics, activists, NGO representatives, and houseless communities - this paper looks at the alliances and partnerships that were instrumental in navigating and responding to the complexities of both the health as well as lockdown-induced crises as part of the Covid pandemic. We critically examine the state's response, including the reliance on the colonial era Epidemic Diseases Act of 1897 and the key focus on private spaces such as the 'home' for the spatial control (Bhide & Kamble, 2020) which ultimately excluded populations who did not inhabit conventional homes (Banerjee & Yacobi, 2021).

We then trace the emergence of the multistakeholder networks of alliances during the pandemic, the ways in which they worked to extend relief and fill in the resource and knowledge gaps, and 'invented' the space of their own participation in response to the crisis (Miraftab, 2004). Our inquiry, however, extends beyond the immediate relief efforts to question whether these collaborations contributed to the creation of a more expansive sense of community or, in some instances, was politically motivated and driven by partisanship, with an eye on long-term gains. We deliberate on the significance of grassroots initiatives in reshaping the paradigm of inclusive crisis response. Beyond addressing immediate needs, can these initiatives also carve out democratic and inclusive spaces within the city for the houseless?

The paper wraps up with a discussion on the first-hand experiences of the houseless communities during the lockdown, demonstrating their agency in navigating challenges, adapting to the "new normal", and being resourceful, proactive, and assertive in the face of heightened precarity including their technological adaptability and participation in legal actions against the state. Their active involvement in enumeration and accountability during relief work shows that they are better judges of their own vulnerability and possess an intimate understanding of their diverse needs and community dynamics. Actively involving them in decision-making and implementation will ensure sustainable, equitable, and empathetic solutions.

Our leanings show that despite the agile nature of the networks of collaborations and their undeniable role in mitigating the impact of the two-fold crisis, questions remain about the pre-existing power structures that ultimately determined who was included and who was not. The findings highlight the limitations of the top-down exclusionary approaches and emphasize the significance of grassroots initiatives - centered on the agency of the houseless communities - in reimagining inclusive crisis response.

Keywords : Inclusive crisis response, Houseless communities, Mumbai

Differential Trajectories Of Well-Being: The Role Of Residential And Social Environments In Well-Being Variability

Heejoo Son (Pusan National University), **Yeol Choi** (Pusan National University)

This study explores the dynamic nature of well-being trajectories over time, utilizing a Group-based Multi-trajectory Model (GBMTM) and a Multigroup Ordered Logit Structural Equation Model. A particular emphasis is placed on the residential and social environments, analyzing their impact on individual well-being and exploring the variations in these effects across groups with different well-being trajectories.

The study is structured in two distinct steps:Firstly, the well-being trajectories are grouped over time to identify groups exhibiting similar behaviors.Secondly, the study examines the interrelationships of factors that affect well-being, focusing on the residential and social environments. At this stage, an in-depth analysis of each factor, consisting of detailed sub-factors, will be conducted. Specifically, the residential environment (housing type, household composition, housing qualities, neighborhood, green space) and indoor environmental qualities (including indoor air quality, thermal comfort, lighting comfort, acoustic comfort, and overcrowding) will be considered. For the social environment, the study will focus on social relationships and networks, including family relationships, friendships, and social support, as well as community and civic engagement elements like civic partnerships, community involvement, and neighbor interactions.

Consequently, the research is guided by the following questions:1.   How do well-being trajectories evolve over time, and what are the characteristic differences among groups with divergent trajectories?2.   Which variables significantly contribute to well-being, specifically focusing on the roles of residential and social environments?3.   How do the impacts of these environments vary among groups with different well-being trajectories?

The expected outcome is a detailed understanding of the impact of these environments on groups with distinct well-being trajectories. This research is poised to reveal critical variables that significantly contribute to improvements in well-being, thereby providing a foundation for targeted policy recommendations.

There are two principal innovative dimensions to this research. Firstly, the study introduces a novel approach by examining well-being in residential and social environments. The residential environment, embracing the entirety of an individual's life, exerts a profound influence on their well-being. Furthermore, at certain stages of the life cycle, the social environment may surpass the residential environment in importance as personal social networks change. This exploration of the interplay between individual well-being and these environmental factors represents a critical and innovative approach.Secondly, the study employs a multifaceted methodological strategy to deepen the understanding of well-being. A significant innovation is the application of the GBMTM, which represents a substantial advancement over traditional methods in classifying well-being trajectories over time. Additionally, the use of Multigroup Ordered Logit SEM in this research is particularly notable. This methodology, which allows for the comparison of path coefficients across various well-being trajectory groups, underscores the methodological sophistication of the study and facilitates a more nuanced analysis of well-being.

Overall, by focusing on residential spaces and social relationships in its measurement of well-being, combined with methodological innovation, this study provides a comprehensive framework for an in-depth exploration of well-being.

Keywords *: Well-being, Residential environment, Social Resilience, Trajectories study, Longitudinal study*

Community Spaces In Italy: Fostering Social Innovation And Inclusive Welfare Paradigms

Monica Postiglione , Tecla Livi

Over the past decade, Italy has witnessed a significant surge in urban regeneration initiatives, driven by collaborative efforts among citizens, third-sector organizations, businesses, and local administrations. Referred to as "Community Spaces"(Livi et al. 2023), these initiatives operate locally, innovating services, cultural offerings, welfare programs, and labor structures with the overarching goal of addressing inclusion and social cohesion issues (Livi et al. 2023; Ostanel 2017).

Drawing on findings from a national research project by NUVAP (Nucleo di Valutazione e Analisi per la Programmazione) at the Department for Territorial Cohesion of the Presidency of the Council of Ministers within the SI.VALUTA project (PON Governance 2014-2020), this paper highlights how Community Spaces foster new dialogues between public, private, and community sectors, leading to transformations that bridge institutional and bottom-up social innovation.

The paper focuses on exploring the community spaces supported by the Policies on "Beni comuni ed usi Civici" (common goods and civic uses) implemented in Naples between 2011 and 2021, with a particular emphasis on the instances of mutualism and active citizenship on which they are based.

This contribution will focus on the community-based model implemented by the Ex OPG je so' pazzo. This community-based practice, grounded in democratic participatory approaches, demonstrates the capacity to engage and respond to the social needs of a disadvantaged population often excluded from public welfare policies. It is a community practice able to provide voice to a social demand that lacks representation elsewhere and to create trust relationships. In this sense, the Ex OPG Je so' pazzo has been able to become a "space of enunciation" (Livi et al. 2023) which provides individuals the opportunity to express their voices, exercising their citizenship rights and serving as catalysts for empowerment and collective capacity-building. This community space has been able to effectively addresses the needs of the local community and, activating novel processes civic inclusion and empowerment, developed a system of welfare services based on mutualisms and civic participation.

In conclusion, this research provides valuable insights into the transformative potential of Community Spaces in shaping inclusive welfare policies and promoting social innovation at the intersection of public, private, and community sectors.

Presenting the case of OPG Je so' pazzo, this paper aims to contribute to the ongoing discourse on public welfare by emphasizing the significance of supporting and facilitating bottom-up practices and ongoing experiments to redefine services based on local communities' needs.

People, Planning, Responses

Embracing Spontaneity: Integrating Unplanned Commercial Establishments Into Urban Planning For Inclusive Cities

Pu Hao (Hong Kong Baptist University)

The urban tapestry of contemporary cities often unfolds as a carefully planned symphony of spaces, yet spontaneous commercial establishments challenge the notion that urban planning can singularly shape the built environment. In China, strict land-use control and urban development policies are the norms, but the reality on the ground reveals a different narrative. Market dynamics have catalyzed the emergence of unplanned commercial entities, from neighborhood convenience stores to makeshift hair salons and hidden studios, weaving themselves into the planned urban fabric. These grassroots businesses not only cater to unmet market demands but also champion entrepreneurial ventures for those marginalized by the prohibitive costs of formal retail spaces.

Predominantly scattered, these commercial enclaves find a stronghold in urban villages—a unique typology born from rural areas absorbed by urban sprawl, where traditional land ownership persists amidst urban governance. The autonomy of these spaces fosters a proliferation of commercial activities, reflecting the needs of a largely migrant tenant population for affordable and accessible goods and services, often overlooked in planned districts.

This study explores the phenomenon through the lens of Shenzhen's urban villages, employing spatial econometric analysis to map the organic growth of commercial establishments. Utilizing a rich dataset encompassing building characteristics, road networks, and socioeconomic factors, the research deciphers the symbiotic relationship between unplanned commerce and urban living. The insights gleaned offer a critical perspective for urban planners and policymakers to integrate such spontaneous developments into inclusive planning frameworks. The goal is to reconcile the informality of grassroots commercial spaces with the structured vision of urban development, ensuring a fair and pluralistic approach to city-making.

Moreover, the methodological framework developed herein, grounded in diverse urban contexts, extends its utility to broader applications such as urban development suitability assessments and retail location optimization in heterogeneous settings.

Keywords : unplanned development, informal economy, inclusivity, spontaneous developments, marginalized urban populations

The Informal Sector And Covid 19 Responses In Sub-Saharan African Cities

Geoffrey Nwaka (Abia State University, Uturu)

Many African planners and government officials have idealized notions of the modern African city, and tend to dismiss the continent's large informal sector as 'a chaotic jumble of unproductive activates' that should be removed through forced eviction and other forms of repression. But the informal sector supports local livelihoods and income, and has helped to alleviate poverty and to provide some degree of social protection. Sadly, the poor workers in the sector are vulnerable to numerous occupational hazards and undue harassment by state officials. COVID 19 illustrates how the traditional prejudice against the informal sector was carried over in the top down containment measures enforced during the pandemic. This caused more harm beyond the health threat, and has raised serious human rights concerns.

The initial information about COVID19, and the standard advice about its control were based on data from high and middle income countries. There was panic that the epidemic would spread very fast, and take a heavy toll in Africa because of the generally poor health conditions and the limited capacity of the healthcare system. Unfortunately, the aggressive measures to contain and manage the pandemic did not sufficiently take into account the local cultures and social economy of the region, and therefore affected informal sector workers and informal settlements adversely and disproportionately. Most informal sector workers depend for their daily earnings on constant movement and interaction outside the home. Housing conditions in informal settlements are usually overcrowded, with limited access to water, sanitation and social services to comply with COVID protocols for social/physical distancing, hand washing, etc; and structural inequalities in most African cities excluded informal sector operators from meaningful participation in the design and implementation of COVID-related policies, or sufficient access to the palliatives provided by government and humanitarian organizations.

With hindsight, it now appears that the official response to the pandemic in the continent was misguided in many respects. Africa is estimated to accounts for only 2 per cent of global COVID deaths; many more people died from hunger and collateral damage caused by harsh COVID policies. There was widespread distrust among the poor that the top down policies were designed to serve the interest of the oppressive elite. We argue that for the future government officials and planners, who aspire to international standards of modernity, and adopt the prescriptions of the global community, must learn to strike the right balance between the ideals of international standards and norms, and the reality of local conditions and requirements. They need to devise appropriate, more inclusive, and well targeted interventions that serve people's needs, and promote the health and welfare of the poor and informal sector workers in Africa.

"A Hidden Gem On My Doorstep": Post-Pandemic Planning For Local Urban Green Spaces

Elgar Kamjou (University College Dublin), **Mick `Lennon** (University College Dublin)

The Covid-19 pandemic has reshaped societal interactions in and with local environments, revealing new perspectives on urban green spaces (UGS). Movement restrictions and the shift to remote work prompted individuals to (re)discover the health and well-being benefits of spending more time in locally accessible public UGS (Scott, 2020). Accordingly, such UGS experienced increased utilization during pandemic. While the pandemic has undeniably altered peoples' views on UGS, the full extent of this transformation in the post-pandemic era remains uncertain and how planning should respond unclear (Geng et al., 2021; Lennon, 2021).

This is worrying as research indicates a growing disparity between user aspirations and how UGS are planned, designed, and managed, with such disparities intensifying during the pandemic (Barlow et al., 2021). Therefore, as we navigate the post-pandemic era, the persistent demand for UGS poses a challenge for urban planning and design. Yet there remains a knowledge deficit on how to realise user-responsive public UGS in ways that enhances the quality of a more localised urban life. This knowledge gap risks reducing the inclusivity of UGS and impeding the consolidation and advancement of those sustainability gains made during the pandemic.

To help address this gap, we present initial findings from a project examining changing perceptions of public UGS before, during and after the height of the pandemic. The paper draws on research conducted in four parks within the Dublin metropolitan area using structured observational research and semi-structured interviews with a diversity of participants from local authorities, academia, practice, and park users. The study demonstrates that parks have gained increased appreciation, indicating a stronger connection and recognition of their value within the academic, practitioner and community sectors as inclusive spaces for health and wellbeing, active transport, and community cohesion. The paper points to the role of evidenced-based design interventions in facilitating this and offers planning and design recommendations for enhancing inclusiveness and responsiveness of UGS for a diversity of users.

Rethinking Urban Spaces: A Comprehensive Examination Of Burial Spaces In Western Balkan Cities

Keti Hoxha (Polis University)

The experience of the COVID-19 pandemic brought to light the necessity of rethinking the overall structure of urban spaces to improve the quality of life for the population. The rapid increase in death rates emphasized the necessity to focus on the burial spaces of cities, which are qualitatively different from other spaces in the urban fabric and deserve to be reconsidered due to their liminal character, indicative of the urban sprawl boundary.
In the case of Western Balkan cities that are facing overpopulation issues, not only there is a lack of burial spaces, but there is also a collision of cemeteries with housing settlements, due to a non-well-defined boundary of the burial space. Such a phenomenon has led to the invasion of informal settlements to burial grounds. In the case of Albania, cemeteries are positioned in the "intestines" of the city, which emphasizes the role of such spaces of a very specific function in the urban sprawls of the urban fabric. As a result, it is important to address the discussion of burial spaces in developing countries and how the existing model can be developed from the experience of European countries in order to be more elastic in the future, and resilient to be able to face emergency situations in accordance with the social and cultural aspects.

Keywords *: equity, multiculturalism, urban sprawl, accesible cities, settlements*

Towards The Spatial Justice Impact Assessment Of Urban Regeneration: For A Methodological And Operational Approach Aimed At Planning And Implementing Interventions

Giulia D'Antonio (Università Degli Studi Di Milano)

Spatial Justice involves organizing and managing space and distributing resources. Adopting a spatial justice approach can mitigate discrimination in urban areas, despite a lack of consolidated operational tools for planning and evaluating urban policies. Despite this, Social Impact Assessment (SIA, the process of analyzing, monitoring, and managing social changes resulting from planned interventions) is currently being developed as a tool for measuring the impact of public policies.

This contribution proposes an approach to prevent exclusion and gentrification in urban regeneration projects, ensuring the creation of a Just City. The focal point is understanding if SIA can become a tool to guarantee more just projects and processes and if it can transcend its role as an evaluation tool and become a proactive planning instrument.

Milan is a valuable context for such an investigation, as the economic capital of Italy characterized by significant development and dynamism, especially in the past two decades. The city hosted Expo 2015 and will host the upcoming Winter Olympics Games in 2026. In the meantime, the Town Administration is promoting a wide program of urban regeneration, mostly led by the private sector, that involved the whole city (from the periphery to the city centre). Also due to this constellation of projects that involves real estate and investors, lately Milan is facing a significant crisis that is impacting of the life of its inhabitants: exponential increase in housing prices, privatization of spaces, and growing influence of private actors in decisions that should be purely public. These developments have resulted in the ongoing exclusion of the poorest populations, the gradual distancing of the so-called "working poors", and a growing inequality.

The primary case study of the ongoing research is the New Campus in the Città Studi neighborhood, where the University of Milan is leading a regeneration initiative.

The analysis aims to deepening

How the decision-making process in the field of urban regeneration is led, with a specific focus in understanding if and how the promoters (public or private) set up the monitoring and the spatial and social evaluation plan;

Examine the role of the community in the context of these transformations, starting with an understanding of which communities are involved;

Analyse the presence of social hubs as factors that can facilitate the participation and involvement of specific targets.

The research follows a three-phase approach:

1) mapping stakeholders and communities to be involved;

2) employing psycho-social tools (e.g., exp-EIA method) for exploring the area and assessing people's reaction to the environment in its existing condition;

3) identifying outcomes and indicators suitable for evaluating the urban regeneration project with a spatial perspective through dedicated public workshops.

The overarching goal is to develop social impact indicators collaboratively, ensuring a fair and participatory assessment of the transformations brought about by the project.

Keywords : *spatial justice*

Growing Up Unknowingly In A Cage: Youths' Conf(L)Ictive Spatial Knowledge

Ignacio Castillo Ulloa (Technische Universität Berlin)

This paper discusses the various ways young people accommodate to conflicts in space/spatial conflicts playing out within their everyday lives and how that in turn shape their spatial knowledge (Castillo et al. 2024). Exiting literature touching, from different angles and in diverse ways, on the interplay between youth, conflict and space (Karsten, 2005; Monahan 2006; Rudner 2012; Skelton 2009; Gray and Manning 2014) argue that young people's presence and practices are remarkably subject to control and regulation. Particularly in public spaces they are attracted to, such as shopping malls and parks, young people are positioned, by way of a narrative meant to keep conflicts at bay, as being both "risky" and "in risk" – and thus in need of taming and safeguard. Against this backdrop and drawing on cases studies located in the cities of Berlin and Lima, the different as well as nuanced manners in which the binomial control + regulation is made operative (by adults) and endured (by young people) are identified not only in public spaces but also in the spaces underlying their daily lives at large. While some of the researched youths circumvent control and regulation and develop coping mechanisms to deal with conflicts; others not only struggle to negotiate their presence in and uses of spaces but also lack the ability to grapple with conflicts for they are kept away from dealing with them directly. But be that as it may, all of these youths seem to be inadvertently trapped within the confines of a controlled and regulated territory that, through a grid that permits variegated levels of autonomy and freedom, renders their everyday lives more or less conflict-ridden. There are diverse ripple effects arising therefrom: restricted mobility, limited access to leisure, a high degree of routinization, lesser social opportunities. Ultimately, the adult-driven impetus to fence off conflicts, which makes apparent that sheltering young people's everyday lives is mistaken for encasing them, prevents them from incorporating conflicts into their spatial knowledge. An illusory conflict-free syllabus thus appears to be underpinning young people's spatial literacy: from their socialized subjective experience and perception of spaces to their spatial imaginations to the emotions and affects conferred to spaces. All in all, the fact that young people are being brought up inside an "imperceptible cage" reveals the need for their spatial knowledge to be(come) more accentually conflict-prone and fictive – conf(l)ictive – to then be able to first envisage and then materialize other reality. The paper closes with a succinct critical reflection on how the imaginative power of young people's spatial knowledge, when deemed conf(l)ictive, may well inform the theory and practice of design and planning in such way that cities become open-ended, rather encased secured, territories for them to explore and experience throughout their becoming-of-age journeys.

Keywords *: spatial knowledge, young people, conflicts in space, spatial conflicts, regulation, control, public space*

Intersectionality & Gender Perspectives

Feminist Resistance To Socio-Spatial Justice: Sindicato De Inquilinas De Madrid For The Right To The Housing

Karla Ulloa (Universidad Politécnica De Madrid)

Housing, which is commonly agreed upon as a means of wealth distribution (Vasquez, 2017), is now a key product for the market (Rolnik, 2018). Access to housing can come to be considered a privilege (Sindicato de Inquilinas de Madrid, 2018). Since the 2008 crisis, Spain has been living in a situation of housing emergency, 35.3% of households face excessive housing expenses (Provivienda, 2023). This situation affects the most vulnerable population which is estimated to spend more than 40% of their income on housing payments—women being particularly impacted (Provivienda, 2023).). Such discrimination stems from numerous structural problems of the patriarchal capitalist system (Bosch, 2006; Sindicato de Inquilinas de Madrid, 2018; Col. lectiu Punt 6, 2019). However, just as the housing crisis has a gender bias, so do the resistances for the right to housing.

In this context, this research aims to analyze to what extent the Sindicato de Inquilinas de Madrid (SIM) has generated processes of feminist resistance for socio-spatial justice and the right to housing since its constitution in 2017. For this, we have started from the analytical framework proposed by Álvarez de Andrés (2023) inspired by the structuration theory of Giddens (1984) and further refined by Fraser's (1996, 2008) social justice theory. An analytical framework, which is complemented by a feminist approach, with the proposal of Feminist Biosyndicalism by Pimentel et al. (2021) and Feminist Urbanism by Col. lectiu Punt 6 (2019). From all this, an analytical framework is proposed based on three categories that interact and transform each other: discourses of recognition with a feminist lens, redistributive practices from a feminist standpoint, and equitable structures underpinned by feminist principles.

The analysis of the SIM shows how, from their discourses, they recognize the structural causes of the current wave of financialization of rental housing, emphasize the feminization of the housing crisis, and point to women as key political subjects in their resistance processes. In terms of their practices, it is shown that they have managed to make the right to housing effective for many families and to influence the political, media, and social spheres on housing issues. Women have a majority presence, they bring a more comprehensive perspective of rental conflicts, linking care, support, and accompaniment. In analyzing the structures, they demonstrate their intention to form a horizontal and sustained organization to go beyond the concrete context and face the structural problem. It is concluded that SIM promotes socio-spatial justice from feminist resistance, and can integrate and deepen more on gender issues. Despite this, the organization is in a stage of transformation and growth, so the results can be useful for its restructuring, and also for other social housing collectives.

Keywords *: Housing rights, socio-spatial justice , feminist resistance, tenants' union , financialization of housing*

Towards A More Gender-Sensitive Interpretation Of Urban Space: The Case Of Milan

Carolina Pacchi (Politecnico Di Milano), **Benedetta Brun** (Politecnico Di Milano)

What can we learn from a gender perspective on the city? Urban environments are traditionally planned and designed from a perspective tending to perpetuate existing power dynamics through a standardisation of emerging needs and aspirations (Sandercock 1998). Forms of technocratic mediation pretending to be neutral have been particularly conducive to this kind of outcomes, as acknowledged since long in planning literature (Davidoff 1965). How is it possible to imagine, dream and build a more open city, a city more sensitive to differences? How can principles of equality and accessibility be reconciled with openness and the fostering of diversity? Moving from these questions, one interesting ground for theoretical elaboration and experimentation in practice is through the lens of gender relationships. The gender dimension, long overlooked in planning theory and practice (Huning, Mölders, Zibell 2019), has been acquiring momentum and traction in the last few years, thanks to advancements in literature exploring the intrinsic connection between urban space and forms of gender discrimination and bias (Kern 2020).

An acknowledgement of the diversity of bodies in space, impinging on the most recent elaborations, brings to question the category of women itself, deconstructing and unpacking it thanks to an attention to the intersectional dimension, in which gender plays out alongside different other elements of differentiation (Knudsen 2006).

Moving from ongoing action research, the paper will argue that in order to build a more open and progressive framework able to welcome and valorise gender diversity in the city, it is necessary to look at three dimensions, which are closely interwoven: the interpretation of intersectionality in space, a full understanding of the presence of diverse bodies, in their actual materiality, and the forms of knowledge production related to these two aspects, namely through the elaboration of articulated, open and unbiased urban data. The research is part of an ongoing elaboration in the framework of the MUSA action research ecosystem, aimed at building an innovative framework for the strategic development of the city of Milan (Italy) in a more sustainable direction, through the involvement of universities and other local stakeholders. Within this wide and articulated framework, the Gender and the City research group is working on issues concerning gender in its relationships with urban space at different scales, from interiors to the public space, to targeted spaces such as those for mobility. How can this urban space become an enabler of diversity and openness, and in which conditions, on the contrary, does it limit and reduce the possibility of self-determination and ultimately the freedom of different citizens/bodies/people?

The paper will thus elaborate on a first exploration of the nexus between intersectionality and bodily presence in some public spaces in Milan, to contribute to the reflection and to open possible policy directions.

Keywords *: gender, intersectionality, urban diversity*

New Insights Of Gender And Income Segregation Throughout Activity Space In Tokyo Metropolitan Area From Family Life Cycle Stage Perspective

Chenchen SUN (University Of Tokyo), **Yuya SHIBUYA** (University Of Tokyo), **Yoshihide SEKIMOTO** (University Of Tokyo)

Female groups in urban areas tend to face lower wage levels and more spatial-temporal constraints in daily activity space due to household labor division and occupational discrimination. Their low mobility and lack of interaction with other groups may further exacerbate female poverty and social injustice. Japan's gender wage gap in 2014 remained the third highest among OECD countries after Korea and Estonia. That is to say, compared with other OECD countries, the gender segregation problem in Japan is quite severe. Furthermore, the gender gap in Japan seems to increase with age. Thus, under the aging society context, figuring out more closely about gender segregation in daily activity space could be urgent and crucial for promoting social equality and inclusion.

Most of the existing studies focused on gender segregation in occupation and wage areas, while some researchers put their eyes on mobility differences and interaction possibilities. Females may have shorter travel distances, lower mobility capacity, and relatively loosely linked social networks (Silm et al, 2013; Kawabata, M., & Abe, Y., 2018; Havet, N, 2021; Goel et al,2021). It is acknowledged that household structure such as marital status, number of children, whether you live with your parent, etc., could significantly influence females' travel behavior and time budget (Schwanen & Kwan, 2008; Ta et al, 2016). Especially in Japan with a high proportion of full-time housewives, the family life cycle stage could be critical to gender differences. However, few studies try to compare the gender segregation differences in various types of activity space in different family life cycle stages. And the lack of combining income segregation with gender segregation to explore the possibility of female exposure across income classes in daily activity spaces in related literature can be a pity since it has important implications for women to expand their information sources and find job opportunities.

Therefore, this paper tried to unveil how gender differences in income segregation vary in different family life cycle stages and different types of activity spaces. Based on the weekday person trip survey data, we first define five family life cycle stages including unmarried, married without a child, married with a child less than 6 years old, married with child over 6 years old and married with an adult child. Then we divide the activity space into residence, workplace, and nonroutine daily activity space. Individual experienced income segregation index and individual exposure index were introduced to evaluate income segregation and gender segregation. Afterwards, a comparison of income segregation under different activity space contexts of male group and female group in different family life cycle stages was conducted. Besides, the exposure possibilities to different income groups and different family life cycle stage groups were compared. Finally, we examined the gender segregation spatial distribution and explored possible influencing built-up environmental variables on gender segregation.

Keywords : *Gender differences, Activity space, Family life cycle , Income segregation*

Racial, Language, And Gender Disparities In People's Awareness With New Large-Scale Cycling Infrastructure

Ehab Diab (University Of Saskatchewan)

Cities are building a large-scale new active transportation infrastructure to achieve many important social, environmental, health, and economic goals. While doing this, cities use media campaigns to communicate the introduction of these new projects to the public. This is not only to promote and increase the mode share of such active transportation modes but also to build a culture that celebrates and supports the use of these modes (City of Vancouver, 2021). A considerable number of studies focused on understanding the socioeconomic, perception, and contextual and spatial factors affecting the use of cycling in different contexts (Heinen et al., 2010, McCreery-Phillips and Heydari, 2023). Other studies focused on assessing and estimating the gender gap in cycling while exploring its relationship to different issues (Shaw et al., 2020, Zheng et al., 2020). In contrast, a limited number of studies explored the gender disparity of being aware of such projects, and its intersections with racial and language issues. To address this gap in the literature, this study examines the association between people's gender, racial, and language factors and their likelihood of being aware of a new flagship cycling network in Montréal known as Express Bike Network (EBN), or Réseau Express Vélo (REV). In 2019, the City of Montréal announced the start of the implementation of this new flagship cycling network, which represents a central piece in the city's active transportation plan, to improve cycling mode share. The REV is scheduled for completion by 2027.

To achieve this goal, the study will use data collected in 2021 from a large online survey (4,060 respondents), called Montréal Mobility Survey. Montreal offers a unique case study to investigate such an issue due to Montréal's rich racial, cultural, and language diversity. Using summary statistics, people's awareness of the new project will be analyzed while looking at its interaction with gender, racial, and language factors. Logistic regression and multilevel mixed-effect logistic regression models will be tested for different groups of users to assess the association between the previous issues and people's familiarity with the new project while controlling for different socioeconomic, lifestyle, and perception of local environment factors. The models will also control for commuting mode choices and location aspects such as proximity to the new projects' factors. The initial results from the study indicate gender disparity in the likelihood of being aware of the new large-scale cycling network. Nevertheless, a better understanding of these results' intersection with racial and language issues is needed to help cities implement targeted communication strategies. These strategies also help to reach different groups of women, which may assess in addressing their safety and risk concerns with cycling, improving the prospect of them using bikes for transportation. In other words, the study offers cities' planning and transportation departments, and researchers' important insights that can be used to foster the development of their media outreach activities, helping cities in achieving their broader sustainability and equity goals.

Gender-Mediated Commoning And Inclusive Spaces: Studies From New Delhi And Hong Kong

Krity Gera (Royal College Of Art), **Caterina Villani** (University College Dublin)

This paper explores the production and reproduction of commoning through the everyday activities of urban marginalised women (UMW) to reveal the conditions that highlight commoning as a socio-spatial process enabling more inclusive and equitable access to different public spaces (stationary and mobile).

Ostrom's conceptualisation of commons design foregrounds the principles supporting the identification and regulation of the common pool resources (CPR) by self-governing organisations or institutions (Ostrom, 1990). Moreover, contemporary research on commoning, the act of making commons, advances an analytical shift towards three dimensions of the commons: the processual, the spatial, and the relational (Chatterton, 2010; Williams, 2018). We undertake this direction and ground our study on recent strands of research challenging the established notion of commons as bordered territories (Glover, 2016) and bring to attention the questions related to those of exclusion and (in)justice. Additionally, by drawing links with feminist scholarship on commoning (Gibson-Graham et al., 2013), the study aims to highlight the often neglected aspect of values and capacities that opens up new ways of constituting knowledge for survival by thinking in terms of relations (Haraway & Goodeve, 2018; Massey, 2013).

By adopting qualitative methods of inquiry, comprising participant observations and semi-structured interviews, this paper focuses on women's everyday experiences to contest access to public spaces. The first case focuses on the daily survival mobilities of UMW residing in the peri-urban areas of New Delhi. Within this context, the mobility of women is influenced not only by the existing socio-cultural norms but is equally affected by the spatial infrastructure of the city. Here we highlight the capacity arising from the daily mobility of UMW as a strategy to enhance their access to the city. The second case shares the endeavours of Zumba Feels, one of the largest Zumba dance groups funded by a group of UMWS, migrant domestic workers, who are low-income temporary live-in female carers in Hong Kong. Zumba Feels taps into established stakeholders and power dynamics present in the oldest pedestrianised street in Hong Kong, Chater Road. Here, we illustrate how the activities and space of one group encroach on another and how the Zumba group's visible presence, sound and repeated occupation help to sustain their presence in the street. With the help of these two cases, we discuss the nature of conflicts and negotiations over access to (im)mobile spaces through various tactics adopted by these groups of marginalised women. By doing so, this study sheds light on how commoning guides practices that potentially bolster more inclusive and equitable social spaces and mobilities.

Using Photovoice And Emotional Mapping To Explore The Relationship Between Campus Spaces And Emotional Perception Of Female College Students

Chen Jin (College Of Architecture And Urban Planning, Tongji University, Shanghai), **Yifan Yu** (College Of Architecture And Urban Planning, Tongji University, Shanghai)

Introduction: The campus serves as a crucial environment for students' daily learning and living, with a profound influence on their physical and mental health as well as overall development. Among the various demographics on campus, female college students hold a significant role. They display heightened sensitivity to spatial environments while also being more susceptible to certain vulnerabilities. Thus, it becomes imperative to prioritize the cultivation of positive emotional experiences among female college students within the campus setting.

Methods: Using the photovoice and emotional mapping method, this research aims to investigate the relationship between campus spaces and emotional perception of female college students. We selected Tongji University's Siping Road campus in Shanghai as a pilot site. A total of 36 female freshmen from different colleges within the university participated in the study. They were invited to independently capture photos and share personal stories connected to campus spaces. In total, the research collected 216 images accompanied by textual narratives and geographical locations.

Results: The study highlights five key environmental elements on campus: building spaces, roads and transportation, green spaces and open areas, public service facilities, and natural features. Additionally, subjective experiential categories such as behavioral activities and perceptual experiences play a significant role in influencing the emotional responses of participants. These identified elements and their combinations serve as crucial factors for enhancing the emotional experience of female college students and promoting a healthy campus environment. In terms of spatial distribution, diverse emotions exhibit distinct characteristics throughout the campus, with instances of emotional conflicts occurring in the same temporal dimension. Furthermore, the emotional experience induced by the same spatial element varies across different time dimensions. Therefore, campus planning should prioritize optimizing the integration of spatial elements to foster positive emotional experiences. This entails emphasizing temporal and spatial flexibility and promoting the creation of diverse and inclusive campus space designs. To achieve this, the study utilized emotional mapping to link abstract emotional perceptions with physical campus spaces. Through this approach, the research comprehensively and systematically investigates the interactive relationship between emotional perceptions and environmental elements in terms of time, space, and social aspects.

Conclusion: Using the photovoice and emotional mapping method, the study contributes emerging participatory methods and a fundamental decision-making framework for campus planners, designers, and education policymakers. This valuable approach aims to foster the creation of more inclusive, friendly, and emotionally supportive campus environments.

Participation And Activation

Civic Organizing & Co-Productive Planning. Lessons From Sicily

Laura Saija (University Of Catania)

For years planning scholars have debated on the importance of looking at city planning as an endeavor engaging not just decision-makers supported by trained professionals but also 'the civil society'. Such a general statement encompasses a variety of conceptualizations of the relationship between public institutions and civic society beyond the top-down model. A specific role within this debate has been played by the concept of co-production, which occurs when the civics contributes directly to the shaping of plans and/or spaces. According to many scholars, co-production occurs not only when institutions develop collaboration agreements with civic organizations (Ostrom 1990). It also includes the socio-spatial effects generated by independent groups and social movements operating independently from or in conflict with institutional powers (Miraftab & Wills 2005; Swyngedouw 2014). According to this comprehensive definition, scholars' current understanding of co-productive planning becomes inclusive of long-term traditions of 'extra-institutional planning approaches' such as Davidoff's advocacy planning (1965) or Goodman's guerilla planning (1972), encompassing insurgent practices able to shape space and, eventually, impact the institutional dimension. In reviewing this literature, Watson (2014) argues that co-productive social mobilization and conflict is more likely than institutions-led co-production to prioritize residents' quality of life over 'planning efficacy,' especially in the face of those institutional instabilities and power imbalances that are likely to occur outside of Northern-Western regions of the world.

While there is a general agreement that the great expectations put on civil society, in terms of the democratization of spatial planning, have not been fully matched by the actual practice (Sager 2022), there might still be questions that need to be asked on how to overcome shortcomings and limitations of 'bottom-up' planning, before we go back to the ancient faith on expert-led planning. Drawing from a decade-long participatory action-research work in support of civil society co-productive planning efforts in the Southern European region of Sicily, the author uses Watson's conceptualization of co-productive planning to argue the centrality of the 'organizational' dimension of co-productivity in planning – i.e., the specific mechanisms through which inhabitants get involved, interact, make decisions, develop, and implement strategies, etc. in a planning process. Acknowledging Nicholls and Hernandez's (2023) argument that civic organizations find themselves in highly contradictory waters, it is crucial to advance the planning scholarly debate on the actual organizational mechanisms that might help dealing with contradictions and can make co-productive planning if not a 'game changer' at least a highly viable approach to planning.

Practitioners' Perspectives On Collaboration And Place: Nsw Movement And Place Framework Lessons

Gabriela Quintana Vigiola (University Of Technology Sydney)

This paper presents the analysis of practitioners' understandings of collaboration and place in conjunction with the role of the Movement and Place Framework developed by the New South Wales (NSW) government in Australia in promoting more meaningful stakeholder engagement, including communities.

The NSW Movement and Place framework is a place-based policy with stakeholder engagement at its core, intending to facilitate transport and planning processes through collaboration and inclusiveness. However, it is often seen that despite having inclusive policies, practitioners fail to implement them effectively, leading to top-down practices with tokenistic and unsuccessful engagement. In the past decade, Transport for NSW and the Government Architect of the NSW government have collaborated to develop the NSW Movement and Place framework, which integrates transport and land-use (place) planning. Alongside this policy initiative, the government has been delivering online and face-to-face learning for their employees, local officers and practitioners since 2022 to teach them how to interpret and implement this framework and achieve its objectives.

This paper discusses findings arising from empirical research where qualitative data was collected during the NSW Movement and Place face-to-face workshops. Participating practitioners provided their insights on collaboration before and after the workshop via pre- and post-course surveys that included qualitative open-ended questions about collaboration and place. Data also included post-it notes collected during the face-to-face workshops with participants' perspectives of what constitutes places and what they would do differently after the training. The data collected was engaged through qualitative thematic coding analysis. Participants included experts in the fields of transport planning, urban planning, traffic engineers, and urban designers, among others, with varying years of professional experience and from both the public and private sectors.

Findings show that some practitioners had engaged in collaborative approaches before the creation of the Movement and Place framework and the delivery of the online resource and face-to-face workshops. However, after being exposed to this policy and training, they had a better understanding of what constitutes places and the need to engage in early collaboration with different stakeholders, including communities. Participants also indicated their will to improve their practice by implementing the framework, especially regarding involving others in decision-making processes, to switch from a top-down approach to a more even ground founded on collaboration and engagement.

This paper highlights that understanding practitioners' perspectives on what constitutes places and their collaboration practices is fundamental to setting the foundation of meaningful engagement. It also concludes that place-based policies have the potential to positively impact engagement processes when accompanied by adequate training for those who will be implementing them.

***Keywords** : collaboration, place-based policies, Transport Node and Place*

Transdisciplinary Development Of A Tool For The Participatory Planning Of Plural Cities – Creating And Using A Mapping-App With Young People

Anna Juliane Heinrich (Technische Universität Berlin), **Angela Million**

Achieving fair, plural, and welcoming cities encounters a substantial challenge given the prevailing high-threshold and exclusive discourses and decision-making practices in urban development. Despite initiatives promoting participatory planning and bottom-up approaches, marginalized voices continue to persist, highlighting the need for tools that enable diverse stakeholders to actively engage in envisioning urban futures.

One significantly affected group is young people. Adolescents are rarely addressed in urban development. And even if they are considered, there is often a lack of experience of planners with implementing successful youth participation (Ataol, Krishnamurthy and Wesemael, 2019). However, young people are not only excluded from the planning of public spaces. In many contexts, adults exert strict social control over young people's access to and uses of public spaces based on perceived deviant spatial practices (Castillo Ulloa et al., 2024).

Young people's exclusion from public spaces and their planning is particularly critical for several reasons: firstly, young people do not have private spaces of their own to the same extent as adults, which renders public spaces particularly relevant for them. Secondly, despite increasing domestication, public spaces remain favoured. Young people's spatialities remain characterised by the circumambient spaces around the home, an insular structure of multiple dispersed spaces around the city and spatial practices of being mobile (Castillo Ulloa et al., 2024). And thirdly, in the discourse on "just cities", youth-friendly urban development is recognised as contribution to inclusivity and supposedly can "sharpen our capacity to plan cities that truly serve everyone's needs" (McKoy, Eppley and Buss, 2022).

As an innovative contribution to the ambitious concern of a sincere involvement of young people and the creation of more inclusive urban spaces, our team researches young people's spatialities. In our pursuit of understanding how young people perceive, evaluate, use, and imagine spaces, we embarked on co-creating a mapping tool with adolescents to be used in spatial planning and research. We chose an app format, aiming to align with young people's preferences and decided to program our own app in order to comply with the high standards of data security and ethics working with young people.

During an intensive one-week workshop in Berlin, Germany, we collaborated with 24 highschoolers aged 14 to 16 to co-develop the "MapRepublic" app. This tool enables users to map their daily routines, trajectories, and experiences using various forms of expression like icons, freehand-drawing, photos, screenshots and emojis, which can be also adapted to different cultural contexts. As a result, the app allows users to visualise their use of spaces, to evaluate the qualities of urban spaces or to sketch out urban visions. The source code of the app will be made available as open source, fostering its utilization in future spatial planning and research.

In our contribution, we will reflect on the app's development and use in two aspects. Firstly, we will criticallydiscuss the transdisciplinary development, exploring lessons learned about participatory tool creation and young people's perspectives on contemporary cities. Secondly, we will elaborate on the app's potential as a low-threshold participation tool, allowing diverse stakeholders to express their perspectives without verbal constraints. In conclusion, we will contemplate young people's role in contributing to the creation of plural and welcoming cities, addressing methodological and substantive considerations.

***Keywords** : young people, participation, co-production, app development, just cities*

Experimental Urban Engagement: Mobilizing Inclusive Public Participation In City Transformation

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This paper explores new possibilities for activating authentic public engagement in urban-related matters, specifically within public spaces, while highlighting the significance of interactions among citizens and their habitat and also fostering inclusion in urban design strategies. The focal point is the transformative potential of people-centric urban spaces and innovative methodologies that actively engage communities in reshaping their common spaces and enhancing the sense of belonging to them.

Despite the growth of democratic methods for engaging people in reclaiming urban spaces, citizens' involvement in shaping their urban environment remains relatively restrained. Many well-intentioned interventions in city design are often incorporated into the urban context without any transitional period or the possibility for the inhabitants to embrace, resist, and reform these sudden additions to their living reality. Participation tends to be confined to brief, suggestive, and intermittent encounters, which, while performing a gesture of inclusivity, fail to embody it truly. Given these constraints, the need for more inclusive and engaging strategies relying on constant, heterarchical interactions has grown in the aftermath of the COVID-19 pandemic, which intensified social isolation. As we navigate the post-pandemic era, involving and engaging people in design processes calls for a higher priority than at any other time.

This study delves into an inclusive urban experiment, including perpetually changing interventions shaped by the constant engagement of people from various backgrounds, regardless of language proficiency, education, gender, or other factors (or across the spectrum of diversity). With an emphasis on the idea of "the open city," this urban experiment tries to empower people, especially marginalized subjects, by allowing them to modify the spatial experience of their urban life actively.

Mobile installations, using simplistic forms and requiring minimal infrastructure, are placed in a public space to transform it into a living, playful, and collaborative canvas. Inhabitants engage in dialogues with these objects, freely interacting, moving, and reshaping the layout to their preferences. This dynamic process gradually molds the layout and even the function of the urban space. Therefore, these objects catalyze authentic participation, enabling individuals to engage in and shape their urban space. These minimal, mobile elements rely on a high level of abstraction to avoid dictating any specific purpose or utility to the audience. The intention is to minimize their suggestive dimension, ensuring the project does not pre-ambush the users by indirectly determining neither the future nature of the urban space nor possible strategies for facilitating citizen life. The nature of activities in the chosen space remains an open-ended matter, left for citizens to define according to their changing needs.

Unlike certain methods, which may fail to engage some people, the proposed experiment allows people to express their preferences unobtrusively. This new approach also introduces an invaluable element of time to the project process, enabling continuous engagement over time and allowing urban experts to understand the evolving and changing needs and preferences of citizens. The element of time also facilitates continuous feedback gathering. By incorporating feedback loops, the project can adapt and refine its interventions based on the evolving input from the community. Through ongoing data collection, iterative adjustments, and continuous feedback gathering, urban experts can collaboratively work with the community to achieve the desired outcome.

In conclusion, advocating for transformative urban engagement, this study underscores continuous, inclusive, and people-centric strategies. By introducing minimally intrusive and mobile installations and emphasizing ongoing, unobtrusive feedback, the research tries to complement existing engaging planning processes while compensating for certain limitations. The dynamic approach, especially relevant in the post-pandemic era, contributes valuable insights into fostering authentic participation and understanding evolving citizen needs, reinforcing the importance of sustained engagement in shaping inclusive urban environments.

Keywords *: Participatory Planning, Experimental Urban Planning, Inclusive Urbanism, Transformative Urban Spaces, Minimally Intrusive Installations*

To Participate Online Or Onsite? Urban Regeneration Planning In Guangzhou, China

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Participatory planning has become an integral part of urban planning, focusing on empowering communities, promoting inclusivity, and fostering equality and dialogue. It emphasizes extensive public participation and engagement. However, many challenges have emerged in the participatory processes. Traditional participation often mobilizes a small number of representatives and requires participants to be present in a physical place at a particular time, resulting in many problems, such as issues of inclusion and the inflexibility of participation (Lin and Kant, 2021).

The recent development of the internet and social media has provided new opportunities for citizen participation. Online participation, or E(lectronic)-participation, refers to using information and communication technologies to enable, engage, and empower citizens, facilitate information and opinion exchange, discussions, and decision-making (Wirtz et al., 2018; Macintosh, 2004). There are many forms of E-participation, such as online consultations, e-voting, social media engagement, and interactive decision-making platforms. The diversified forms facilitate participation convenience. E-participation can also broaden the participation scope by transcending geographical boundaries, allowing a more diverse range of citizens to engage in civic activities, thus boosting inclusiveness. Online platforms enable real-time and immediate feedback from citizens, facilitating quicker planning and decision-making processes. This agility and efficiency is particularly valuable in responding to time-sensitive issues. Online participation promotes transparency by providing citizens with direct access to information and decision-making processes. However, E-participation is not without limitations, such as the potential exclusion of computer-illiterate populations, irrationality of online discussion, and cyber violence, which may compromise the efficacy of participatory planning. There is also a lack of understanding of the willingness and motivations of E-participation.

There has been increased research interest in the impact of online participation in many developing societies undergoing a process of transforming from a traditional top-down to a more participatory planning system (Swapan, 2016). Shirky (2011) argues that the effects of social media may be especially prominent in closed or highly centralized contexts, as online discussion creates opportunities that are otherwise impossible for citizens to express their opinions. Previous studies on public participation focus mainly on institutional reforms, or socio-technological and psychological factors that impact citizens' willingness to participate in the planning processes.

Therefore, this research investigates the public's willingness to participate, their preference for online or onsite participation, and why. The authors designed a questionnaire survey and collected 468 samples from 15 old neighborhoods undergoing or completing urban regeneration in Guangzhou. Most citizens participate only in planning projects relevant to them. More respondents choose to participate onsite compared to online. Online participants embrace the participatory process and want to express opinions; onsite participants care more about participation influences and outcomes.

Keywords : participatory planning, online, onsite, willingness to participate, neighborhood regeneration

Why And How Do Museums Matter For Inclusive Cities. Reflections Intersecting Planning And Social Museology.

Giusy Pappalardo (University Of Catania)

Starting from the assumption that the path towards inclusive planning requires an effort to recognise and address the dynamics that produce marginalisation, this paper reflects on the possibilities associated with the intersection of different streams of knowledge and action concerned with the collective reconstruction of history, histories and memories (Sandercock, 1998) as a precondition for improving the present and future assets of cities.

It does so by focusing on a set of insurgent practices (Huq, 2020) that deal with the nexus between past and present: spontaneous initiatives on the one hand, and those dynamics that surge within museums as permanent institutions that can engage with social movements in various ways on the other. Specifically, within the broad field of museology, a particular approach emerged in the 1970s, first as 'new museology' (Mayrand, 2014), which then evolved into what is now called 'social museology' i.e., those insurgent practices inside and outside museums as institutions that deal with issues of minority groups, migrants and indigenous communities, gender, urban poverty, etc., and seek to counter them through critical perspectives and Freirean pedagogical praxes (Primo & Moutinho, 2021).

Within this framework, various experiences have been developed at the frontiers of territorial planning, such as ecomuseums and community museums (de Varine, 2017), which are deeply involved in current social-ecological challenges.

Despite several points of intersection between social museology and those strands of planning literature concerned with inclusion, the potential of such intersections remains underexplored in the international debate.

Within this framework, this paper aims to address the questions of how to foster genuine processes that allow residents to be heard and involved in relevant decision-making processes, and how to ensure welcoming and embracing cities that are open to diversity and minorities (recalling the call of this track), arguing that both museums as institutions and spontaneous grassroots practices can be strategic allies for those planners concerned with inclusion and social change.

In other words, the agency of museums and various insurgent practices concerned with a social use of the past can add some elements to inform spatial plans and policies inspired by an ethos of inclusion.

After a brief overview of the birth and rise of the International Movement of Social Museology (MINOM) and an analysis of the points of contact with some streams of planning literature, I will present the results of a transnational and transdisciplinary research project carried out over the last 5 years, exemplifying some paradigmatic cases of social museology from different geographies in Southern Europe and other Southern contexts, which can inspire planners in their search for strategies aimed at producing more inclusive cities.

Keywords *: equity, diversity, multiculturalism, minorities, engagement*

Multi-Ethinicity Andinstrumental Greenspaces

Does Agriculture Make Urban Natural Parks More Inclusive ?

Segolene Darly (Paris 8 University, Umr Ladyss), **Suzie Bernard** (Paris 8 University, Umr Ladyss), **Pascale Froment** (Paris 8 University, Umr Ladyss)

The development of large urban parks on the edges of conurbations is often planned as part of public policies to reduce the social frustrations associated with the unequal spatial distribution of urban green spaces. The idea is not only to make outdoor recreational spaces more accessible, but also, on the principle of urban public space, to open them up to a broad community of users. However, these goals of environmental justice and social inclusion appear to be at odds with the effects of evictions from low-value, "degraded" land with uncertain tenure status, which often also act as a refuge for marginalized populations excluded from institutional social safety nets. Large-scale nature parks, often designed with little public consultation, are also part of a broader dynamic of leisure management, associated with a wider process of social ordering of open space as it becomes integrated into the metropolitan space (Darly et al., 2013).

In France, since the 1990s, large urban parks, long considered mere "plant decorations for outdoor recreation", have become tools for biodiversity conservation and restoration under the effect of processes of recognition and patrimonialization of nature in the city (Legrand, 2017). Work on food collecting and popular foraging in Seine-Saint-Denis suggests that biodiversity in urban parks could support more inclusive appropriation of public space (Ibid., Paddeu, 2019). Some parks created more recently also reflect a renewed interest in the nurturing link to nature, combining agricultural production, public access and leisure facilities. Agriparks or urban agricultural parks are now springing up on the outskirts of conurbations in the countries of the globalized North (Jarrige and Perrin, 2019; Duchemin, 2023).

If urban gardening is one of the ways in which residents of marginalized neighborhoods can reclaim public space (Baudry, 2012), what place is currently reserved for local subsistence practices - food or otherwise - in the design and development of large-scale urban agricultural parks? Are the various mutations underway followed by greater social inclusion?

To answer this question, we looked at three specific cases of urban park development where agricultural vocation or heritage is a driving force of the project. In addition to the agricultural dimension, what they have in common is that the implementation of a requalification project is confronted with marginalized populations that have sometimes been present for decades : administratively classified as "Travellers", and other marginalized populations (undocumented migrants, Roma), engaged in more or less « informal » activities. Two relatively long-standing projects are located in the northern and eastern suburbs of Great Paris Metropole (Butte Pinson and Murs à Pêches). The third case study is stil at the early stage of development of an "agriparc" in the west of Montpellier.

The results of our field survey and cartographic analysis have enabled us to formulate a number of hypotheses as to the specific nature of the agricultural vocation of these projects in terms of their inclusive character. On the one hand, it seems that urban planning tools linked to agricultural heritage, as well as the implementation of activity schemes with an agricultural vocation, can constitute levers of inclusion for the marginalized populations present, thus participating in a regularization dynamic. On the other hand, by contributing to a variable-geometry formalization based on compliance with the reaffirmed agricultural paradigm of the spaces, these projects seem unable to fully guarantee the maintenance of these populations or their long-term economic integration. This creates a form of competition between those who manage to integrate these schemes, sometimes to the detriment of activities that ensured their subsistence over the long term.

Keywords *: nature in the city, spatial requalification and social eviction, urban agriculture*

Dispersed Urban Spatial Structure And Increased Urban Greenness Could Reduce Intra-City Health Inequality In England

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Background
Previous studies have demonstrated the persistence and growth of socioeconomic health inequalities, and a few have explored the impact of neighborhood greenness on mitigating health inequality (Mitchell and Popham, 2008). However, there remains a knowledge gap regarding how comprehensive spatial planning can address this issue. In this study, we hypothesized that the urban spatial structure would contribute to health inequality, since it could influence the distribution of urban dwellers of different socioeconomic statuses, as well as the distribution of health risks and resources (Anas et al., 1998). Additionally, we postulated that increased greenness at the city-scale would help mitigate health inequality, as it has been observed at the neighborhood level.

Methods
We utilized the Index of Multiple Deprivation 2019 (IMD2019) in England from the Ministry of Housing, Communities & Local Government (MHCLG) to represent the overall relative deprivation level. This index comprises domains reflecting socioeconomic status, such as income, employment, and education. The health outcome was measured using the standardized mortality ratio from 2016 to 2020 for deaths caused by circulatory diseases – the leading cause of death, with data derived from the Office for Health Improvement and Disparities. These two indicators were captured at the Middle level Super Output Area (MLOA) scale and used to assess health inequality. Then we draw upon the vector global urban boundaries (GUB) dataset to define urban area, which served as the analyst unit for calculate health inequality and explanatory variables. A total of 106 cities with urban area covering more than 10 MSOAs were included in the analysis. City-specific correlation coefficients between IMD and the standardized mortality ratio, referred to as intra-city health inequality, were calculated using correlation analyses. Combining the urban boundaries dataset and the fine-grained LandScan population dataset, the Moderate Resolution Imaging Spectroradiometer (MODIS) data product, and datasets from the Office for National Statistics, we obtained our explanatory variables including urban size, urban spatial structure (polycentricity and dispersion) greenness, GDP per capita, population density, and the rate of aging over 60 years old. A multivariable regression model was applied to reveal their effects on intra-city health inequality.

Findings
We found significant inequality in health across areas with different deprivation levels (p<0.001). The city-specific correlation coefficient between IMD and the standardized mortality ratio (intra-city health inequality) ranges from 0.198 in Cannock Chase to 0.956 in Rugby, with an average value of 0.710. Regression results revealed that the intra-city health inequality could be explained by urban environment and sociodemographic features (F-statistic=4.441, p=0.001). We identified that the dispersion of urban population (=-0.235, p=0.045) and greenness (=-0.256, p=0.006) were in significant negative relationships with intra-city health inequality, while the rate of aging over 60 years old was in a significant positive relationship (=0.204, p=0.043). It indicates that cities with a more dispersed population distribution and more green areas would exhibit lower levels of intra-city health inequality, while cities with a higher percentage of aging population would experience higher levels of inequality.

Implications
While the promotion of compact cities has been prevalent, our findings do not endorse further over-concentration of the population in existing urban centers, which might subject the more deprived urban residents to inferior living conditions, thereby intensifying the health disparities between the most and least deprived individuals. Additionally, increasing greenness is emphasized as a spatial intervention strategy to effectively mitigate health inequality when planning a city.

Keywords *: urban inequality, urban and territorial planning, socioeconomic inequality in health, urban policy, health and well-being*

Has Green Justice Changed Worse Over Time? Evidence From Urban Parks In Shanghai, China

Leiting Cen (Tongji University), **Yang Xiao** (Tongji University)

Urban green space plays a crucial role in building environmentally sustainable cities, with comprehensive benefits in economic, ecological, health, and social aspects (Chiesura, 2004). With the rapid socioeconomic development, the problem of green injustice violates environmental justice and threatens social, economic and environmental sustainability. Research on green justice has experienced three stages: geographical balance, spatial equity, and social equity (Jiang, Zhou and Gao, 2011). The spatial equity stage introduced green space accessibility to measure the efficiency and spatial distribution of green resources, while the social equity stage explored the relationship between park accessibility and vulnerable groups or socioeconomic disparities. Established studies have found that green space is not always equitably distributed, with lower-poverty communities often having better park accessibility than higher-poverty counterparts.

However, many scholars contended that most of current studies adopted cross-sectional approaches, failing to capture the processes and mechanisms underlying green justice over time (Yasumoto, Jones and Shimizu, 2014). And studies overlooked micro-scale green justice within communities. To address these research gaps, this study would focus on Shanghai to investigate changes of urban park accessibility from a time-series perspective. In recent years, the Shanghai municipal government has prioritized urban park provision. During the period from 2000 to 2020, the area of parks in Shanghai has increased from 4,812 hectares to 21,981 hectares, the number of parks has increased from 122 to 406, and the green space per capita has also increased significantly. However, as one of China's fastest-growing cities, Shanghai faces exacerbated justice problems. So, has green justice of Shanghai's parks become worse over time with the increasing green quantity? This study would answer this question by dynamically analyzing changes in spatial and social equity of parks.

The research data would include census data of 2000, 2010, and 2020 at the neighborhood scale and the corresponding park distribution for each year. Firstly, the Gaussian three-step floating catchment area method would be used to analyze the dynamic changes in urban park accessibility over two decades. Secondly, the Mann-Whitney U test would be used to analyze disparities in park accessibility among different socioeconomic groups. Thirdly, panel regression analysis would be employed to explore the causal relationship between socioeconomic attributes and park accessibility to reveal the underlying mechanisms and obtain green justice changes.

Anticipated results would demonstrate a rapid expansion in both park quantity and urban population, and park accessibility has also continued to grow during the study period. Green injustice has existed throughout the period, with uneven spatial distribution and differentiation among various socioeconomic groups in park accessibility. However, over time, there has been a mitigation of green injustice, reflecting the positive effects of urban park planning policies in Shanghai over the two decades.

The fine-scale spatiotemporal longitudinal research can help to identify causal relationships between green justice and its socioeconomic driving factors, and accordingly facilitate urban green space planning interventions assessment, reflection and optimization, contributing to a more inclusive, equitable, and sustainable planning system. Local governments need to reconsider how to provide green infrastructure for different social groups to address inequalities induced by capital and achieve the planning goals of justice, diversity, popularity, and accessibility for all in urban green space.

Keywords : *Green justice, Longitudinal study, Park accessibility, Shanghai*

Evaluating Urban Park Equity Through Development Of The Park Desert Index

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In contemporary urban landscapes, urban parks are increasingly recognized as crucial for social and environmental well-being, addressing a range of urban challenges. They serve as mitigators of the urban heat island effect, improve air quality, and bolster public health (Bratman et al., 2019; Wang et al., 2021; Yang et al., 2017). The post-COVID-19 landscape has underscored the value of parks and green spaces as vital ecological safeguards and enhancers of urban living, especially for outdoor activities among the youth and elderly (Gao et al., 2023). Given their importance as social infrastructure, urban parks' benefits are particularly crucial for the well-being of residents from less advantaged backgrounds (Kim, 2019). With this, conceptualizing urban parks as inclusive sanctuaries that provide equal access to all community members is essential in addressing social inequities.

This study, inspired by the concept of Food Deserts, presents a novel perspective and methodological approach for analyzing the distribution and accessibility of urban parks, termed the Park Desert Index. This index interweaves the aspects of park accessibility with critical social deprivation indicators through a methodology that utilizes hexagonal grids, advanced spatial interpolation, and the analytical power of Gaussian Mixture Modeling. This unique combination enables the effective clustering of areas based on their population-weighted Park Desert Index scores, offering a lens to examine the socio-spatial dynamics of cities.

Our findings uncover pronounced disparities in the accessibility and distribution of parks across Seoul, South Korea, shedding light on specific zones that necessitate focused policy interventions to attain a more equitable park distribution. This research offers a multifaceted, dynamic tool for evaluating park service inequity, functioning as a diagnostic instrument that informs inclusive urban development strategies and policy development.

The Park Desert Index stands as a metric for gauging the extent of park service inequity. Being a diagnostic tool with the potential to guide and shape inclusive urban development strategies and policy formulation. In essence, this research provides a transformative framework for reimagining urban spaces, ensuring that the benefits of green spaces are equitably distributed, to all populations, enriching the fabric of urban life.

Keywords : equity, urban parks, deprivation , accessibility, park desert index

Changing The Game In Multi-Ethnic Areas. Spatial Policies And Everyday Multiculturalism

Paola Briata (Dastu, Politecnico Di Milano)

In the last fifteen years, literature on planning in "ethnic areas" as well as in poor and deprived places has been very critical of "the usual game" played by planning and or urban policy. In particular, critiques of social mixing policies, or the creation of cosmopolitan places of consumption such as the cultural and ethnic quarters have emerged (Arthurson, 2012; Fincher, et al 2014). At the same time, some attention has been given to planning in "super-diverse" areas (Pemberton, 2022), but here it will be argued that this approach may lead to a "sectoral" approach considering mainly the ethnic dimension without reflecting on ways to examine the many bases and intersections of different forms of diversity as well as long-term socio-economic inequalities of immigrants and natives (Foner et al, 2019).

The theoretical reflection proposed in this paper takes stock of the current critical views as well as of more than twenty years of fieldwork and research in different Western European cities (London, Milan, Barcelona, and many cities in North Italy) leading also to exchanges with colleagues dealing with these slippery issues. This work has been conducted in places where the immigrants' presence is significant and visible, choosing strategic areas of transformation for the cities. For example, in London, areas that were "under pressure" due to the arrival and then the "legacy" of the 2012 Olympics were under observation. Working in these places allowed exploring how plans and urban transformations affected the presence of migrants, as well as vulnerable and poor groups – including an impoverished middle class. This positioning led to an understanding of the role of planning and policy tools in helping or not some specific populations and groups, as well as to explore the reactions of these groups to the proposed transformation. A specific focus on (multicultural) social mobilisations surrounding planning and regeneration led to an interest in everyday multiculturalism (Wise, Velayutham, 2009) and coexistence among strangers (Amin, 2012; Wessendorf, 2016), in micro-publics of encounters (Amin, 2002) that were relevant for very diverse populations, as well as to question the possible role that these places play/could play for planners and policymakers.

The paper will revolve around the possible intersections between spatial policies and multiculturalism in the everyday, proposing a methodology where policy analysis is mixed with ethnographical approaches for planners and designers (Cranz, 2016; Stender et al, 2022). This approach can help in understanding the role that the so-called micro-publics of encounter may play in framing more inclusive urban plans and policies. A sort of draft and open checklist of some core points to be considered to develop ethnographical paths focused also on the uses of the space in multicultural areas will be proposed to be discussed. This checklist includes a methodological positioning on ethnographical approaches carried out by research teams able to propose "multiple points of view of difficult places" (Bourdieu, 1993); a capacity to consider the intertwining between the very local dynamics of the micro-publics of encounter, but also the structural conditions underpinning the possibility for encounter to occur; a broad view of multiculturalism related to an intersectional perspective where also inequalities are a core point (Valentine, 2008); a very open definition of resources for planning and policy-making, able to go beyond the economic and growth-dependent dimension (Rydin, 2013).

Keywords : *planning, everyday multiculturalism, intersectionality*

Living With Superdiversity: Socio-Spatialising Migrations In The City Of Van

Burcu Ateş (Dr.)

In this study, I apply the concept of superdiversity as a relational lens to understand migration-driven social complexity and the ongoing transformation in the urban culture of Van. Van is located at the eastern borderscapes between Turkey and Iran. Particularly since the turn of the 20th century, the city has been significantly characterised by diverse migrations, including forced migrations and displacements: educational migrations subsequent to the founding of Van 100. Yıl University in 1982; the internal displacement of Kurdish communities since the late 1980s; professional migrations of the university personnel security forces, investors, and humanitarian aid workers since the 1990s; cross-border mobility of human and non-human beings within 'suitcase trade' (with Russia in early 1990s and Iran since the late 1990s), transnational migration of Iraqi refugees in 1980s, of Iranian refugees since 1980s which has escalated since 2000s and of Afghan refugees started in 1980s but increased profusely since 2019; 'recreational migration' of Iranians since the 2010s; internal migrations (in and out) prompted by the catastrophic earthquakes in 2011, transnational migration of Syrian refugees since 2014; and mobility of Protestant missionaries since mid 2010s.

Steven Vertovec (2007) developed the concept of 'superdiversity' to capture the social complexity of migration-related diversities. Regarding today's cities and societies, migration, among other social ambiguities, stands as the major impulse of 'complex societies' wherein people co-produce diverse, incomplete, and concurrent spaces within which they move. In this context, analysing social complexity remains incomplete when spatial relations are not exhibited and anchored with urban complexity. However, there is still a limited understanding of how superdiversity intersects with spatial dynamics in urban contexts. In this study, I attempt to highlight the spatial dimension as a vertical layer to crosscut other layers of superdiversity, initially proposed by Vertovec (2007) as "gender, race, religion, class, age, language, migration history, purpose and channel, legal categories, entitlements, labour market access, length of residence, modes of transnationalism, local configurations of diversity and responses to immigration". Space matters considerably in how social relations and everyday realities come to being "because where things happen is critical to knowing how and why they happen" (Ward and Arias, 2009).

I argue that Van is a historical and critical urban juncture of migrations, and it has appeared as an urban landscape of superdiversity. It is not because diverse immigration categories and socio-legal statuses exist in the city but because this diversity marks the complexity of people's migration trajectories while moving between spaces. It also reveals the embodied social agency of migrants in the city in their acts to re-localise and create their own 'micropublics' (Amin, 2002). Departing from that, in this study, I aim to explore how superdiversity has emerged in Van by referring to the transformative capacity of migrations in affecting the city's urban culture. This points to a spatial analysis of urban culture, which "offers people and their communities a way to understand the everyday places where they live, work, shop, and socialise" (Low, 2003). Methodologically, it calls for engaged spatial research since "a fine-grained, ethnographic understanding of the diversification of diversity as lived experience helps us understand when, where, how, why and for whom some differences come to make a difference" (Berg and Sigona, 2013). In this line of flight, based on my ethnographic fieldwork in Van between 2020 and 2022, this study will present how 'micropublics' create/are created by the difference when migrants make, adapt, and interfere in the conditions of taking place to live, work, and perform their rituals. This will be based on the narrative mapping of migrants' socio-spatial experience in attaching the city.

Unexpected Urban Inclusions: Newcomers And The Hybridization Of Space Over Time

Nerea Viana Alzola (University Of Geneva)

Newcomers in urban settings face a multitude of challenges, especially in contexts where public policies are unwelcoming or social systems are 'closed.' Yet, literature shows that, even in contexts marked by tensions, bottom-up practices flourished outside formal policies to foster inclusion.

Planning for fair, plural, and welcoming cities entails considering inclusion at multiple levels and acknowledging ongoing and future transformations. Amidst the inherent dissonances within cities in today's digital mobile times, how is the inclusion of newcomers fostered at macro-, meso- and micro-level? How do sociological findings on inclusion contribute to the discourse on planning for an open city?

This study constructs its conceptual framework on 'hybrid inclusion' inductively, through sociologically oriented and multi-situated ethnographies. The two cities under investigation, Geneva and Hamamatsu, have their own socio-historical configuration, but both are members of the intercultural cities network. At the macro level, these cities construct their brand identity around an ideal of inclusion rooted in diversity and international networks, which serves as the foundation for their policies and visions. However, at the meso and micro levels, the study highlights an ambivalent disconnection between the concept of inclusion conceived at the macro level and the everyday practices of local groups and residents. At these two levels, inclusion is experienced in unexpected and hybrid ways, in dialogue between the past and the present, between the physical and the digital configurations of space.

During the conference, I will present how the empirical observations of my doctoral research in urban sociology have shaped my conceptual framework on inclusion. Particular emphasis will be placed on the relationship between this concept and global and local influences (1), online and offline practices (2), and time (3). Thinking about digitalization as a catalyst and a 'game changer', my aim is to contribute sociologically to the dialogue with urban planners in building future cities that are more welcoming and inclusive for all.

Keywords : inclusion, newcomers, digitalization, time, urban planning

Poverty, Conflicts And Justice

Violence, Social Order And The City: Exploring Missing Links

Anita De Franco (Politecnico Di Milano)

The debate on the "just city" attempts to explain some particularly important and pressing performance issues concerning contemporary urban societies. In this line of research, some questions are strangely omitted (or, in any case, little considered) in the debate; among all, the question of containment and management of violence. All societies face the problem of violence; the "just city" should also (if not primarily) guarantee effective management and prevention of violence. Violence can be expressed in different forms (i.e. acts or threats), the effects of which are invariably deleterious (consider, for instance, how criminal organizations hamper local development). Taking into account that more than 85% of the world's population lives in severely "limited" or "unfree" social orders, this paper will attempt to develop a (neo)institutional discourse for understanding the elements at play and include them in the idea itself of the "just city".

From Exploitation To Equity: Race In American City Planning

Lance Freeman (City And Regional Planning & Sociology, University Of Pennsylvania)

This paper situates the rise of racial equity planning within the broader context of race in planning practice over the past century. We consider the role race played in the early stages of planning and how that evolved with changing racial attitudes civil rights legislation and concerns for social justice. We consider how recent events provided the impetus for a new type of planning, racial equity planning and whether racial equity planning perhaps heralds a new era.

National Transport Planning And Marginalization: : Promises And Perils Of A Centralized Transport Planning Process In Israel

David Weinreich (University Of Bergen)

Integration of transport planning and management has the potential to increase ridership through universal payment systems, coordinated scheduling, integrated terminals, and integrated real time data systems, providing riders with information about services. Integrated transport governance structures at higher levels of government holds the promise of reducing fragmentation along governance boundaries, minimizing service gaps and increasing ridership due to ease of transfers (Miller et al., 2005).

While these important benefits to integration of transit governance at higher levels of government have been defined in the literature, the drawbacks have not. This paper explores the risks of higher-level governance integration by examining an "extreme case" (Yin, 2009). While much of the literature has examined European and North American cases of transport governance, we look here at a case in Israel, chosen for its highly centralized process including a unitary legislature and centralized national transport decision making.

Israel's minimal local autonomy allows integrated national decisions over things like regulation of bus services (Israeli Government Decision 3988, 2011), leading to extensive national coordination of even the most local services. At the same time, this paper demonstrates how Israel's unitary governance also exists without strong checks and balances, and without a written constitution protecting equal rights to government services across ethnic groups. This leads to a capricious governing environment, where decisions over mundane but essential services like access to public transport are subject to the policies negotiated by each governing coalition and its respective constituency.

We demonstrate how nationally integrated service distribution policies also incentivizes has benefits for service coordination, but risks leaving politically marginalized groups without equal service and subject to the whims of national politics. In Israel this is especially true for its Arab population, a large portion of the 21% of all Israeli citizens classified as non-Jewish in 2018 (Central Bureau of Statistics, 2018). [Note that the occupied territories are governed separately, and are outside the scope of this paper].

Israel has a history of neglecting to provide robust public transport to (ethnically) non-Jewish cities (Yiftachel, 1999), a problem recognized by the Israeli government with its approval of Resolution 922 of 2015, with the intention of increasing spending on non-Jewish services including transport by 2022 (Israel Government Resolution No. 922, 2015). This problem is exacerbated by government decisions to locate industrial centers away from Arab cities—which deprives them of money needed to pay for improvements to their infrastructure, while also requiring residents to commute to other (often Jewish) cities' job centers (Yiftachel, 1991; Sofer et al, 1996; Wesley, 2006). Consequently, residents of Arab cities would need to take expensive, sporadic and unregulated "pirate" services to transport lines many kilometers outside their city, or walk in order to get to work (Abu-Qarn & Lichtman-Sadot, 2021).

This paper focuses on Nazareth and Ulmm al-Fahm, two of the largest Arab cities in Israel. It examines state documents on transport services provided, and interviews policy makers in the national and local governments in order to understand the reasons for providing services to Arab cities, as well as reasons not to. This paper finds that many of the reasons not to provide service are due to circumstances that would be fixable with sufficient investment (like lack of road or sidewalk infrastructure). The services provided under the reform program have been minimal and strongly dependent on political decision making, while leaving the Arab cities with marginal connections to jobs and opportunities. Interviews with local policy makers indicate it is difficult for any local government to obtain their transport needs from the national government, but this is even more difficult for Arab cities.

Keywords : *transportation, fragmentation, governance, marginalization, inclusion*

Mapping Ecological And Socio-Economic Disparities For A Strategic And Just Activation Of Nature-Based Solutions

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As nature-based solutions (NbS) gain increasing attention as means for addressing various societal challenges such as climate change and biodiversity loss in urban areas and beyond, recent research underscores the imperative to prioritize justice considerations and equitable access to benefits provided by NbS[i]. It has resulted into calls for integrated approaches when developing NbS strategies[ii], which not only harness distinct socio-ecological benefits of NbS but also address socio-economic inequities and foster inclusivity in their distribution.

The potential of NbS to provide multiple benefits, ensuring a just implementation that effectively contributes to social equity and does not exacerbate existing disparities, largely depends on the ability to address urban specific challenges and needs. In particular, the inclusion of needs of diverse urban populations in the strategic urban planning can emphasize the diversities and inequalities embedded in cities and enhance the design and implementation of actions and measures.

To support the strategic planning processes, our study proposes the creation of spatially explicit profiles to enhance the integrative knowledgebase in relation to context-specific needs and challenges. The ecological and socio-economic disparities profiles are built as agglomerations of urban units within a city with similar socio-ecological characteristics, emphasizing disparities between different profiles and in the accordingly developed maps.

The employed methodology involves the selection of indicators to provide insights into initial six challenges, where NbS are recognized for actively contributing. Specifically, these indicators are chosen to provide information on air quality, heat stress, carbon emissions, accessibility to green infrastructures, inclusion of flora, fauna and habitat and temporal and spatial justice aspects. Quantitative secondary data on socio-demographic and socio-economic indicators are also included. The indicators are initially spatialized to get a view of the distribution of key features within the city. The urban zones are then clustered according to similar features, based on the identified indicators, with the aim to identify common socio-ecological patterns within the city.

Our study explores the potential of using a limited set of spatial indicators, constructed from open access and freely available remote sensing data, to offer adequate knowledge for identifying key challenges and priorities in cities. The study also explores the potential role of the developed tool in the provision of an integrated knowledge to support the strategic planning of NbS, through the attempt to capture the complex interactions inherent within urban ecosystems. It contributes to the ongoing discourse on just implementation of NbS by providing a practical tool for urban planners to evaluate existing or potential synergies and trade-offs among different challenges. Simplifying the understanding of complex urban configurations and emphasizing the importance of addressing disparities, the profiles offer a tool to tackle with diversity and inequalities in cities.

The effectiveness of the profiles in visualizing priority areas is contingent upon the accuracy and completeness of the input data. The identified gaps in data, highlighted by the profiles underscores the need for continued efforts to enhance data collection and availability. In particular, the qualitative and participatory validation of the results proved to be a key component of the process.

Keywords : Nature-based solutions, urban planning, just transition, spatial disparities

Migration, Openness And Flows

Ethnic Retail Clusters In Helsinki: From Ethnification Of Poverty To Socio-Economic Resilience

Hossam Hewidy (University Lecturer), **Johanna Lilius** (Senior Scientist, Aalto University)

Homogenization and retail oligopoly oppose, by nature, any organic placemaking. Thus, in many places, cities are losing their spontaneity, and their authenticity is disappearing (Carmona, 2015). Retail gentrification driven by land policies, real estate owners and investors as well as social mix policies and retailers themselves threaten to displace vibrant urban hubs created by ethnic retail clusters. In such a setting, the reproduction of urban space under anti-segregation policy is not power neutral by nature. Such interplay of power defines the favoured actors in an urban regeneration process and ignores others (Hewidy, 2023). At the same time, immigrant neighbourhoods are frequently problematized in literature due to issues such as disadvantages associated with segregation, marginalization, and structural inequalities (Tesfai et al., 2020). In this context, urban planning becomes a device of social control regulating the (re)production of public space, facilitating elite domination in urban planning and their control of the societal resources, such as space, identity, power, and wealth. This research examines how ethnic retail hubs serve as catalysts of street public life recovery and contribute to placemaking. Using Helsinki as out touchstone, the research introduces ethnic retail clusters not merely as place-makers (Hewidy & Lilius, 2022), but also as a sign of immigrant socio-economic resilience employing their socio-cultural capital in resisting the ethnification of poverty. The research shows how ethnic groups, with unemployment rates far above the national average are developing a sprouting of ethnic retail escape in Helsinki. Through specialized goods and services, ethnic retail resist homogenization and customization of consumption industry. The so-called niche marketing proposes the development of new forms of specialization, structured by cultural fragmentation and differentiation that split the clientele into smaller segments (Hoffman, 2003). Such a niche allows more heterogeneous development that, by nature, resists retail homogenization. Ethnic retail can be situated in such a niche; thus, proposing a role can be played by neighborhoods in regeneration. Drawing on Moulaert et al. (2010), the research demonstrates the possible role of an immigrant neighborhood in founding initiatives as a reaction to conditions of socio-economic exclusion and urge the enhancing of involving these neighborhoods towards more resiliency in urban regeneration.

Keywords : immigrants, place-making , socio-economic resilience, urban space , socio-cultural capital

Measuring Industrial Displacement – Quantitative Evidence From Urban Regions In North-Rhine-Westphalia, Germany

Bastian Heider (Tu Dortmund), **Stefan Siedentop** (Tu Dortmund)

During the last 20 years, many large cities of the global north experienced a remarkable population growth. The effects of this growth on urban housing markets and residential displacement are widely covered in the literature on gentrification and the suburbanisation of poverty. However, there is a lack of research on the displacement of other urban functions such as manufacturing. While the manufacturing sector in developed economies is less important than in the past, it is still a relevant and viable part of urban economies, offering attractive employment opportunities for people with lower educational attainment and ensuring basic supplies for the local population. Thus, manufacturing and similar blue collar activities such as construction are an essential part of inclusive and resilient cities (Grodach & Guerra-Tao, 2023).

The displacement of manufacturing firms has been investigated in only a few global cities with highly dynamic housing and land markets such as New York and London (Curran, 2007; Ferm & Jones, 2016). Following Curran (2007) industrial displacement can be understood as a process that is not only the outcome of market forces and economic restructuring, but is passively and actively promoted by developers, planners, individual gentrifiers and urban policies, favouring more profitable uses such as housing and knowledge-intensive services over urban manufacturing. Hence, the displacement of manufacturing firms is driven by various forces including increasing rents and land prices, the conversion of industrial land into residential or mixed-use areas (Boeck & Ryckewaert, 2020), and arising environmental conflicts in gentrifying industrial and working class neighbourhoods caused by the high standards of the new residents (Curran 2007).

We aim to quantitatively measure and analyse industrial displacements for eleven urban regions in the Federal State of North-Rhine-Westfalia, Germany. The sample includes a diverse range of cities and is therefore relatively representative for the urban system of Germany and similar European countries. Our empirical approach is based on business data that allows us to track address changes and firm closures for the period 2012 and 2022 and thus quantify the spatial and temporal patterns of business displacement. We further operationalise industrial displacement by focussing on firms in the crafts and light manufacturing sector which is considered to be especially vulnerable towards industrial displacement since firms are often rather small, located in mixed-use areas and highly rely on local supply and consumer networks. Beyond the measurement of industrial displacement, we also aim to detect potential drivers of this process by combining indicators of displacement with further information such as local population development, construction activity in the housing sector, rental price dynamics and land use changes.

Our paper is the first empirical study examining industrial displacement in Germany and in the context of second and third tier cities. Further, this is the first empirical approaches providing quantitative measures of the extent and spatial patterns of industrial displacement beyond single case studies at the neigbourhood or city or city scale. Therefore, it should yield valuable insights for the understanding of industrial displacement as a global urban phenomenon.

Keywords *: Commercial Gentrification, Industrial Displacement, Germany, Urban Manufacturing*

Landing Infrastructures. A Helpful Concept To Approach Arrival Processes From A Planning And Policy Perspectives

Martina Bovo (Politecnico Di Milano)

Drawing on the existing debate and grounding on original work, this contribution addresses the relationship between increasingly plural migration and arrival processes and cities. Assuming recent Mediterranean movements as a background, it discusses the framework of landing and landing infrastructures as a fruitful lens to bridge the discourse on arrival processes and urban planning and policy. Migration processes are among those socio-demographic changes that profoundly challenge cities and how they are thought and organized. Arrival processes, even more, confront cities with questions of temporality, circular mobility, and plural subjectivities and showcase how new ways of using the city are not mirrored – nor supported but somewhat hindered – by government categories. Across the Mediterranean and Europe, the combination of migratory movements and polycentric interventions of reception, regulation, and repression by institutional and non-institutional actors have increased the transitory and temporary nature of arrival. Despite policymakers and local actors increasingly facing the challenge of addressing landing and landing infrastructures, urban planning and policy still struggle to address this topic, often labelled as ephemeral and more often addressed by other disciplines, i.e. anthropology and sociology.

Within the broader category of arrival processes, this contribution focuses on landing and landing infrastructures. On the one hand, the concept of landing intends to liberate the notion of arrival from its punctual understanding and openly address its processual and open-ended nature, which remains hard to grasp by disciplines still rooted in a permanence-related idea of the use of the city. On the other hand, the notion of 'infrastructures,' widely used in the recent debate (Klinenberg, 2018; Meeus et al., 2019; Bovo, 2020; Wessendorf, 2021), suggests that the city offers 'grasps' and 'resistances' to landing migrants, namely infrastructures channeling the newcomers' everyday life in the city. To grasp the link to urban planning and policy, this contribution mainly explores such infrastructures starting from their spatial dimension. Drawing from original research in Italy and especially Palermo, we will unpack the infrastructuring role of health clinics, public offices, and helpdesks, through their spatial and regulative organization. Along this line, this work argues that the notion of landing infrastructures provides an extremely fruitful lens to operationalize the literature on arrival and landing processes within the urban planning and policy field. Assuming landing infrastructures are urban resources triggers some crucial questions for public action and planning in general. At least three points shall be mentioned: A first challenge implies recognizing the resourceful role of landing infrastructures, including the wide variety of actors and places involved in the 'infrastructuring work' (Meeus et al., 2020). A second challenging point involves broadening the definition of public action around landing; namely, how do we bridge the gap between more traditional public actors and others who are often not involved in the planning field but play a role in infrastructuring landing? How do we leave space for their emergence? How do we open up a dialogue with them? Thirdly, these reflections underline the need for institutional learning.

This contribution develops at the intersection between a reading of existing literature on arrival and a piece of research conducted by the author in Southern Italy. The latter mainly consisted of a three-month qualitative fieldwork in Palermo, including field visits, semi-structured interviews, direct observations and mapping.

***Keywords** : Migration, arrival processes, landing infrastructures*

The Nexus Of Gender, Migration And Urban Dynamics In Everyday Life

Sara Eltokhy (Rmit University & Universitat Internacional De Catalunya)

Displaced in cities, refugee women are confronted with unfamiliar physical and social settings. This raises questions concerning their urban mobility and access to the city particularly given their vulnerable positions. Urban and feminist critics argue that the integration of a gendered perspective within urban planning processes is limited in several ways. Despite the significant contributions of research to underscore the shortcomings of urban planning in responding to women's needs, gender is still not structurally embedded in urban planning practices (Sánchez de Madariaga and Neuman, 2020). In the case of marginalized groups, there is an increasing gap between the ways in which everyday rights are framed within urban planning and the everyday reality of these groups (Beebeejaun, 2017). The research engages with feminist urban scholarship in understanding both the physical and social spaces of cities. It highlights the potential of this approach to integrate diversity into urban planning, and to challenge traditional principles that perpetuate inequality. Within this framework, the research addresses the gap in understanding the urban experiences of minority groups, specifically focusing on Syrian refugee women in the Netherlands. The aim is to examine their 'everyday life' through the lenses of spatial practices, places, and social relations, and from an intersectional perspective.

Employing a mix of quantitative and qualitative methods, the research combines data derived from behavioral maps with in-depth interviews and ethnographic observations. The combination of different methods helps in gaining a comprehensive understanding of lived experiences and attributing them to particular physical spaces (Sommer and Sommer, 2002). The research contributes to our understanding of the interplay between gender dynamics, migration experiences, and urban environments. It suggests that examining the relationship between people and spaces they inhabit can help demonstrate how the identities of refugee women reflect particular spatial and temporal uses of space, subsequently impacting their perception of cities and their tendency to participate in urban life. This knowledge is essential to incorporate into the urban planning process to build safer, inclusive, and just cities.

Keywords *: Everyday life, Inclusive spaces, Refugee women, Spatial Practice*

Conflict And Contestation In The Local Migration Politics Of A Welcoming City: When Welcoming Municipal Policies Pave The Way For Detached Local Action

Norma Schemschat (University Of Amsterdam)

The proposed paper investigates the detachment of local actors from formal governance in the context of urban migration governance. Instead of focusing on informal practices, it conceptualizes the detachment of local actors as formal activities that happen independently - at times in cooperation with, but often in opposition to - the formal governance of migration-related diversity in cities. Specifically, it investigates such practices in a French city that declares itself 'welcoming,' both in its public discourse and through its membership in welcoming city networks.[1]

Taking the example of a concrete space, the Maison Ouverte[2], the paper investigates how local associative actors build on the support of the 'welcoming' municipal government through the use of spaces it provides. However, instead of a space in which municipal programs are implemented, the Maison Ouverte becomes a space in which refugee arrival is negotiated locally.

What emerges from a close analysis of arrival and welcoming in the city under investigation, is how local actors strive towards autonomy from municipal governance: While the space is provided by the city, the implemented programming at the center was developed entirely detached from formal governance. Through various NGOs, the space provides for example legal support for individuals claiming asylum, or gender-sensitive activities targeted at isolated women. However, besides such programs, local volunteers understand the Maison Ouverte as open space without top-down programming. As such, the space is in contrast to much municipal action in the context of refugee reception which commonly focuses on language acquisition and economic integration programs.

Besides this contrast, the space is not uncontested locally. Starting from the Maison Ouverte, the paper traces the local actor landscape of associative actors working on the inclusion of refugee populations, and how two distinct collectives pursuing opposing values and politics emerged. In such a context, spaces like the Maison Ouverte become symbols of the meaning-making processes at the local level, and how local negotiations among non-governmental actors are far from conflict-free - even in a cities that declare themselves welcoming.

The paper explores the negotiations between a municipal government and local non-governmental actors in a regional context marked by the political shifts to the (extreme) right. In such a context, the welcoming stance of the municipality and some regional partners is an important signal in direction of an increasingly hostile national government and the immediate regional surrounding. Simultaneously, local non-governmental actors push for more inclusive policies within the city, especially for those struggling with precarious housing conditions.

The paper therefore sheds light on the multi-scalar nature of how belonging is negotiated from the local to the national level. Local non-governmental actors and street-level bureaucrats remain crucial in the organization of arrival and inclusion, even in cities that declare themselves welcoming. The aim of the paper is to shed light on the complexities of how migration-related diversity and the arrival of exiled people is negotiated there, and that the welcoming stance of a municipality does not necessarily translate into unconditional welcoming of newcomers.

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[1] The city is anonymized in order to protect the interview participants.

[2] The name was changed to grant anonymity of both the city, the concrete place and the people visiting it or working there.

Interaction, Proximity, City-Making

Maintain Temporal Dynamics: The Temporality Of Palermo'S Marketplaces And Their Role In Encouraging Sustained Social Interactions

Zsófi Veres (Cardiff University)

Immigration to Southern Italy has significantly increased over the last decade, caused by the rise in environmental catastrophes, illegal human trafficking and criminal actions in Northern Africa and the Middle East. Sicilian cities (such as Palermo), accommodate many immigrants, which is a concern for the locals as immigrants are undemocratically assigned a much greater percentage of residences compared to the rest of Italy. Even with the economic benefits Palermo reaps, as immigrants accept low-paying work that locals reject, there are issues with immigrants' social and economic inclusion. The informal economies within the historic centre of Palermo (where many settle due to the centre's affordability) are crucial for economic immigrants seeking financial prosperity. The increasing number of low-income immigrants, reliant on informal vending, infers the need to study marketplaces' characteristics to suggest how the redevelopment of Palermo's dilapidating civic and built infrastructure should be approached (Wulff, 2018). The historic marketplace's characteristics can be defined by their propensity to change spatially, revealing the social aspects of their practices (Massey, 2005). Therefore, the study aimed to identify the temporal characteristics that shall be retained within the historic marketplaces of Palermo to encourage sustained interactions between culturally diverse groups. These interactions occur repeatedly and purposefully between social actors, showing relevance in this context (compared to everyday ones) in mitigating the tensions between culturally diverse groups (Amin, 2002). However, everyday encounters were also observed as they are crucial to developing sustained interactions, forming the basis of this research's hypothesis.

Massey's concept on temporality (2005), and Gehl's methods (2013) were used to investigate sustained and everyday encounters through an observational and empirical study in two historical marketplaces of Palermo (Vucciria and Ballaró markets). To define factors that contribute to sustained interactions: spatial changes (defining the market space's size, frontage length, opening days, and hours); social actors (differentiating pedestrian and stationary activities); and social relations (differentiating everyday and sustained encounters) were studied. Observations were measured hourly as the results were not deemed to alter significantly between intervals. Massey's theoretical framework is relevant as temporality suggests an openness for alteration where marketplaces are understood as the collection of individual market spaces with a propensity to change. Gehl's methods show relevance to observing edge conditions regarding interactions.

The results of the analysis infer a positive correlation between sustained interactions and everyday encounters. Furthermore, five key spatial and social factors are defined which contribute to sustained interactions within historic marketplaces: the area of market space, the length of frontage, the area of the street, opening hours, and the number of vendors. The research concludes that there are two market space typologies that present these positive correlations to sustained interactions. Therefore, these spatial and social characteristics of marketplaces should be maintained and encouraged when considering the regeneration of Palermo's historic centre. To integrate immigrants and accommodate the two market space typologies, social infrastructure provision, self-management of the marketplaces, upgrading physical civic infrastructure to improve the accessibility of marketplaces, affordability of market spaces for market vendors, and extending usage time to attract various social groups must be achieved. As the results are qualitative and are restrained to the analysed case studies, conducting additional socio-spatial studies on street networks where informal vending and other practices occur, could confirm the findings. Nevertheless, this study could provide some initial insights that can be used to aid policymakers in developing alternative proposals for the revitalisation of the historic centre. Furthermore, this study is relevant to other Southern Italian historic city centres where informal, self-initiated vending activities demonstrate characteristics which shall not and cannot be erased (Lefebvre, 1996).

Keywords : immigrant-local coexistence, sustained interaction, social and economic inclusion, marketplaces, temporality

Enhancing Social Interaction In Urban Spaces: The Role Of Vertical Greening Systems In High-Density Areas

Xiaojie Shen (Tongji University), **Feng YANG** (Tongji University)

The critical role of green spaces in fostering prosocial behavior and social connectedness is well-established in existing studies, while intensifying urbanization presents growing challenges to the development of urban green spaces. The Vertical Greening System (VGS), an innovative approach that with no cost of land, emerges as a creative solution. However, its potential in enhancing social interactions in urban environments remains under-explored.

To bridge this research gap, virtual reality (VR) experiments were conducted to assess the impact of VGS in open spaces of high-density cities, such as streets or pocket plazas, on improving spatial quality, enhancing space attractiveness, and increasing pedestrians' willingness to walk, linger, and engage in social interactions.

The key research questions addressed were: 1) How does VGS in high-density open spaces affect perceived environmental quality and visual attraction? 2) In what ways does VGS shape pedestrians' emotional experiences in urban settings? 3) Can vertical greening increase pedestrians' willingness to walk, remain, and engage in social activities within these spaces?

Data were collected through self-report questionnaires and interviews to measure participants' psychological responses and willingness to walk, linger, and socialize. Wearable biosensors were used to record physiological responses. Eye-tracking technology was used to identify visual attention and eye-catching factors, providing insight into the elements that attract pedestrians' attention and contribute to their preferences.

Results indicate that vertical greening significantly enhances the visual attractiveness of high-density urban spaces, leading to improved perceptions of environmental quality. This enhancement positively affects the emotional experience of pedestrians, creating a more inviting atmosphere conducive to walking, lingering, and socializing. Eye-tracking data shows that green elements serve as important visual attractors, suggesting that their strategic placement in urban design is critical to promoting social interaction.

Urban Dynamics In Hidden Territories: The Faces Of Poverty In Communities Located In Grotas Of Maceió, Alagoas

Ana Karolina Carneiro (Universidade Federal De Alagoas (Ufal)), **Alexandra Freitas** (Universidade Federal De Santa Catarina (Ufsc)), **Maria Silva** (Universidade Federal De Alagoas (Ufal))

Dark meanings are sedimented on the urban margins, resulting from the imposition of the current hegemonic order. Slums are complex expressions that "shatter the relatively homogeneous theoretical and analytical lexicon of the city in the Western world" (Fortuna 2009, p.84, our translation). Approaching these places through experience allows for a broadening of understandings and possible shifts in perceiving the city. To this end, the urban body is seen as an empirical field of scientific knowledge, openly conducting logics and dynamics that converge in its spaces. This positioning goes against the perspective of a city composed of dichotomous spaces separated from each other, a fragmentary conception based on categories that physically and symbolically structure the city (Carneiro 2021).

In this scenario, given the different possible research approaches to the topic, this study proposes to discuss inclusion as one of the fundamental principles in urban planning theories and practices in the territory of Maceió, capital of the state of Alagoas, located in northeastern Brazil. Meanings and expressions work to anchor the city's image with a strong tourist appeal from its coastal portion, which is sold as a postcard. However, veins of other waters flow through their territories, not crystal clear, but those that harbor a harsh reality of poverty.

Poverty in Maceió has a particularity intrinsic to its geomorphology, through the consolidated occupation in areas of grotas — geographic depressions, confined by steep slopes — which, in addition to being an environmental characteristic, are home to a large part of the city's slums (Lopes; Junqueira 2005). Therefore, the investigation proposed here aims to understand the urban insertion of communities located in grotas of Maceió using as a focus the analysis of physical-territorial connections and existing social relations, based on studies and diagnoses, as well as analysis of public initiatives for housing and urban improvements.

Despite having a historical and progressive appropriation over decades, little is known about the grotas, which, in addition to political-social issues, are also permeated by a cultural and aesthetic dimension that permeates their ways of life in the city. Still, it is common for their territories to be reduced to a shallow and stigmatizing narrative, highlighting their exclusion from the city and society. Given this context of great precariousness, it is possible to point out some advances proposed for the inclusion of these spaces through the implementation of public policies, such as the "Vida Nova nas Grotas" program, which began in 2017 — having been expanded with a partnership signed with UN-Habitat and the Government of Alagoas —, and currently focus on urbanization and improvements to access in precarious settlements in vulnerable areas.

According to data provided by the Grotas Panel (Alagoas 2020), Maceió has 100 grotas socially marked by inequality distributed throughout the city's central tray region. In general, grotas contain around 56.1% of the city's poverty and 13.5% of its extreme poverty (Alagoas 2023). Among the characteristics that influence the life dynamics of these people, such communities are hidden in everyday landscapes due to their geography - as they are below the level of the city considered formal, the invisibility of these territories and subjects is accentuated.

Therefore, such dialogues and understandings are of fundamental importance for perception and action in planning throughout its urban dimension. After all, everyday processes in popular territories and territorialities bring information loaded with signs that point to life dynamics and forms of expression that shape local aesthetics, a fundamental understanding for thinking about more inclusive urban planning, capable of promoting social justice and law to the city considering its multiculturalism.

Track 10: Education

Chairs:

- Jean Michel Roux, Université Bordeaux Montaigne

- Joanne Tippett, University of Manchester

- Lisa Marie Brunner, Norwegian University of Science and University

We are in a time of major upheaval and change, including net zero ambitions and new approaches to seeing nature as having rights, such as rivers as stakeholders in decisions about the future. Planning has always involved working across disciplines, with engineering and economics as well as spatial analysis, but we now need to work more closely with ecology, natural science and landscape planners. The planning profession has an opportunity to make a game-changing contribution to shifts to a sustainable and just society, but this will require very different skills from those of the past.

Teaching about climate change and biodiversity loss can induce a great sense of eco-anxiety and anguish. As educators, we must consider how to balance optimism and eco-anxiety for ourselves and our students. At the same time as considering the voices of local communities and the natural world, we are tasked with delivering major infrastructure projects and events. What is our role as educators in helping students to navigate these tensions?

This track invites theoretical, methodological and empirical contributions on the role of planning education in helping secure sustainable and just futures, innovative pedagogical approaches to developing the necessary skills and competencies and navigating the tensions involved. The track also invites consideration of alternative routes for planning education, such as apprenticeships and real-life projects, and novel ways to encourage cross-disciplinary and trans-disciplinary learning.

Research And Design

Tales Of The Future: Multidisciplinary Workshops To Explore The Narrative Aspects Of Change Management

Emmanuelle Bonneau (Université Bordeaux Montaigne - Umr 5319 Passages)

Supporting change is the main focus of the educational workshops at the heart of urban planning teaching. At a time when the context of ecological transition calls for greater integration of practices linked to urban planning, these workshops provide an educational opportunity to experience the meeting of several practices and their methods.

Our contribution is based on multi-disciplinary teaching experiences carried out in conjunction with research projects combining research, action and training (RECIOP 2022, Re-Créon 2023). It proposes to examine the conditions for inter-professional dialogue through the different ways of building a project and moving from knowledge to action. One of the hypotheses developed in the RECIOP research project was that project activity linked to the implementation of public policies involves a narrative (Stone 1989, Boutinet 2010), the construction of which can be interpreted using tools from the literature.

Our contribution aims to shed light on the structure of narrative constructs in four disciplines: urban planning, architecture, cultural engineering and ecology involved in joint project workshops in a rural context. It will establish a typology of causal relationships between the construction of knowledge, the nature of the knowledge (on socio-spatial phenomena, on public action, etc.), the formulation of the problem and the proposals for action. The aim of this contribution is therefore to shed light on and discuss the ways in which urban planning projects are taught and the methodological issues raised by multidisciplinary dialogue.

Keywords : Planning education, pedagogy, workshop, cross-disciplinary learning, narrative

Exploring Learning Circles As A Teaching Method For Team Building, Reflection, And Navigating The Dynamics Of Planning Practice

Matthew Gebhardt (Portland State University)

This paper and presentation explore the use of learning circles as an approach to teaching cross-disciplinary team building and for facilitating reflective practice, particularly as it relates to navigating complex, wicked problems. It presents a case study of the redesign and delivery an early graduate-level course on planning practice and ethics using learning circles to improve course and program outcomes around these two goals. The redesign was undertaken in response to feedback from both faculty and students at the end of the graduate program that identified the need for more explicit training in these two areas, particularly teamwork.

Planning practice often involves working as part of a team. In planning education, students are prepared for this through courses and assignments that require teamwork. In many programs, this includes a core or culminating workshop or studio experience. Despite many opportunities to work in teams in secondary school or undergraduate programs, students do not always arrive in a planning program prepared to form effective teams or to navigate the challenging interpersonal dynamics of teamwork. Indeed, they often arrive having experienced more dysfunctional than effective team environments and are apprehensive about future teamwork, particularly across disciplines. Students are often thrust into team environments with little instruction, under the belief that they either have already learned about teamwork or will figure it out by doing, a situation as likely to reinforce unproductive behaviors as productive ones. Reflection has been discussed in planning as an important skill to facilitate learning and ongoing improvement, including for teamwork (Willson, 2021). Yet reflection, like teamwork, is often something that students are asked to do as part of a course, but there may not be explicit teaching, time set aside, or opportunities for group reflection. It may be difficult to find time for this teaching within a program given all the other important information and skills that must also be taught.

The above might not be the case at all planning schools, but were the circumstances at my school that led to the redesign of a second term (in a trimester system) course on planning practice and ethics. The teaching method chosen was learning circles. Learning circles use cooperative, team-based learning as a means to explore together significant questions or create a meaningful project. Research has consistently shown that people remember more details and understand concepts better when they learn by doing and discussing instead of passively listening. The approach is adapted from "literature circles", a technique based on the idea and backed by experience that student learning gains are improved "when given choices, time, responsibility, a little guidance, and a workable structure" (Daniels, 2002, 1).

This paper describes the use of learning circles as a method for teaching and practicing both teamwork and reflective practice. In learning circles, students work perform a rotating series of roles that model important teamwork skills, while collaboratively working to investigate a problem. For the course discussed, these problems were weekly planning scenarios that prompted students to consider dynamics of planning practice and individually and collectively reflect on the ethical questions they raised. These scenarios seek to highlight the tensions inherent in many planning decisions, helping students to prepare for navigating complex issues in pursuit of sustainable, just futures. After describing the model and case, the paper uses student and instructor reflections to discuss the benefits and challenges of the model and suggest ways to incorporate it into planning courses.

The Value Of Design In Planning Education. Comparing Planning Programmes In England, Italy And Portugal

Manuela Madeddu (University Of Liverpool), **Juliana Martins** (University College London)

Planning has been an interdisciplinary endeavour since its inception in the 19th century and today planning educators, students and practitioners continue coming to planning from a variety of disciplines: architecture, the social sciences, engineering and many more. These 'parent disciplines' influence the focus and form of planning education: across the word planning is taught in different ways, mirroring the predilection of educators (who are themselves architects, social scientist, engineers etc.) and reflecting specific cultures of planning and its conceptualisation as a profession.

A key element distinguishing the various approaches to planning education worldwide is the role attributed to design. Its weight and value have shifted throughout the history of the field, periodically losing and regaining prominence. Whilst comparative research has revealed the diversity of planning education approaches and provision (Gospodini and Skayannis, 2005; Frank et al, 2014), there have been, to date, no systematic analyses of the specific role of design, what constitutes design knowledge and skills, and how skills are developed within planning programmes. Studies that consider the teaching of design within planning curricula, either focus on specific countries (Gunder and Fookes, 1997) or only examine one programme per country (Ó Ceallaigh, 2016). Given the complexity of challenges facing urban areas – arising from climate change and increasing social stress – which demand integrative approaches and problem-solving skills, further research is needed to understand the current role of design in the education of those professionals who will shape the future of our cities.

In this presentation we reflect on research that we have recently undertaken that seeks to fill this gap. Drawing on a comparative analysis of England, Italy and Portugal, representing three different approaches to planning education and practice, our study examined the value of design in planning education focusing on three dimensions: 1) cultures of planning and the planning profession; 2) the provision of planning education (considering both number and types of programmes); 3) the weight of design within planning programmes. Our analysis comprised a desk-based review of planning programmes drawing on data available from Higher Education Institutions' websites. Data were complemented by an analysis of academic and grey literature that allowed us to unpack the relationship between the culture of planning, higher education provision, and the planning profession in our case studies.

Our research shows that design has often an important, and sometimes even prominent, role in planning education, but also confirms that the focus on design is highly variable, not only across but also within countries. What students are getting from planning degrees in terms of design understanding, knowledge, and skills, is very different and this, we think, is problematic. We contend that design has the potential to provide an integrative focus for planning programmes, equipping students with the skills needed to address complex spatial challenges in the built environment. Without sufficient design content, there is a risk that future planning practitioners will be ill-equipped to meet the urban challenges of the future.

Teaching Research In Urban Design: Critical Thinking, Interdisciplinarity And The Role Of Design As Either Enquiry Or Illustrative Tool

Filipa Wunderlich (Bartlett School Of Planning, University College London)

This paper proposes and explores three fundamental pillars in Urban Design research education. The first is the importance of critical thinking and engaging students with urban critical theory, through an intricate educational programme design, and responding to the challenges set in the context of AI assisted learning tools. The second is an interdisciplinary focus, that brings innovation in urbanism and design research, together with questions raised about the scope of urban design as a discipline, and a critical theoretical and methodological research field of practice. The third is the value and role of design as an enquiry tool as opposed to a simple illustrative tool in research projects. While exploring these three topics in urban design education, this paper draws from specific case-studies at both MSc (Master of Science) and MRes (Master of Research) level programmes and critically reflects on student's engagement and project responses. Overall this paper advances the discussion on the fundamentals of urban design research education, and its challenges, and assists with the scoping of its unique focus.

***Keywords** : Research-by-design , interdisciplinarity, critical thinking, Urban Design*

Building Tomorrow'S Urban Futures: Reflections On The "Builddigicraft" Project And The Pursuit Of High-Quality &Quot;Baukultur&Quot; In Higher Education.

Anna Kaczorowska (Norwegian University Of Science And Technology, The Faculty Of Architecture And Design, Department Of Architecture And Planning), **Günther H. Filz** (University Of Innsbruck, Faculty Of Architecture, Institute Of Design), **Dorota Kamrowska-Zaluska** (Gdansk University Of Technology, Faculty Of Architecture, Department Of Urban And Regional Planning), **Emiliya Popova** (Rem Consult, Gmbh)

Higher education is currently facing challenges related to the growing complexity and diversity of issues in the built environment. It also highlights the need to address the increasing demand for digitalization in work and the changing roles within various professions, specifically those related to urban planning, design, construction, and management. Additionally, it emphasizes the importance of cross-disciplinary efforts in responding to these challenges. Alongside the numberless opportunities presented by innovative technological approaches, such as data leverage, processing, and monitoring, there exists a notable array of uncertainties and fundamental concerns within society regarding the integration of digitalization with future professional education.

This article presents and reflects on the material collected during the project "BuildDigiCraft" (2019-2022) aiming to develop and implement an innovative teaching and training module for young scientists, PhD candidates and advanced master's level students. The Project builds on the holistic concept of "Baukultur" and prompts a critical examination of how education can play a pivotal role in fostering cross-disciplinary exchange of knowledge and cultivating the skills necessary for the development of high-quality urban spaces. Developed as a collaborative and cross-disciplinary exploration, the project examines how the digital revolution reflects the role of today´s craftsmanship in professional practices and higher education concerned with the design of the built environment. "BuildDigiCraft" builds on the three pillars (i) knowledge, (ii) process and (iii) material and recognizes an urgent need for a shift in mindset in the domains of planning, design, and management approaches.

We present the key project findings from the perspective of these pillars and show their individual outcomes and interrelationships with an emphasis on both aspects, the digital beyond the tools and the transformation of tacit knowledge into explicit knowledge. It is argued that interdisciplinary teaching and research build on collaborative and creative strategies utilizing digital means as a common language. However, the digital embraces not only digital tools such as software but also ways of analysing, transforming, generating, fabricating and monitoring. Beyond that, digital data is assumed as tomorrow´s material. Simultaneously, the importance of sustaining the qualities of good craftsmanship in the digital era is highlighted, gathering, sharing, and transforming professional tacit knowledge into explicit knowledge. This involves creating design processes linked to a profound understanding of physical material and materiality in architecture and urban planning. In contrast to earlier technology-centric approaches, today´s view on sustainability includes all of the three aspects economic, social, and environmental. Similar, the Davos Baukultur Quality System defined criteria for a high-quality "Baukultur", which promotes quality-oriented and place-specific processes, led by skilled actors working in teams, basically representing a request for multi-objective solutions. Consequently, a move aiming for higher levels of sustainability and cultural appreciation is proposed, one that is less fragmented and comprehensively includes material and resource efficiency, social sustainability, and a digital dimension.

Consequently, this article advocates for academia to serve as a facilitator of emerging learning modes, preparing the next generation of planners and designers to responsibly shape high-quality built environments. Moreover, the focus of education and research to re-connect to cultivating knowledge in Aristotle's three categories: "episteme" (scientific knowledge), "techne" (knowledge of craft), and "phronesis" (ethical knowledge). Achieving this requires enhanced cooperation and understanding among built environment disciplines, encompassing urban planning, architecture, structural and civil engineering, design, as well as artistic and philosophical studies related to the creation of space.

We conclude by arguing for the intertwining of crafting qualities, tacit knowledge, and qualitative immeasurable aspects with digital, quantifiable, and data-driven qualities. This interweaving is seen as essential for fostering the creation of high-quality architectural spaces through creative processes aiming for a future high-quality "Baukultur".

Revitalizing Cities With The Planning Education. The Tactical Urbanism Role For Wellbeing And Community Engagement

Annalisa Rollandi , **Felix Günther** (Supsi)

In contemporary urban planning, the role of education is fundamental in shaping inclusive and sustainable cities. The research explores the relationship between education and community engagement, focusing on introducing flexible tools and trans-disciplinary approaches to address current challenges. The aim is to improve wellbeing through the quality of public space.

The initial segment of the research delves into the evolution of urban planning education, examining how informal models adapt to meet cities' dynamic needs. It investigates the integration of emerging technologies, transdisciplinary approaches, and community engagement strategies within educational programs. Through case studies of educational programs, the study identifies successful models that equip future urban planners with the skills to address contemporary urban challenges like climate change, sustainability, social inclusion, etc. A significant aspect concerns the introduction of flexible tools in urban planning training.

The research investigates the concept of tactical urbanism as a catalyst for positive changes in public spaces. Tactical urbanism involves moderate resources that allow rapid experimentation and adaptation in urban design. The study explores how universities can incorporate the principles of tactical urbanism into their courses, providing students with hands-on experience in transforming public spaces.

In February 2024, SUPSI introduced a mandatory tactical urban planning seminar for second-year students of the various degree courses. The workshop promoted experimentation and transdisciplinary collaboration to address complex challenges and was a unique opportunity to connect theory and practice in urban planning education. Thanks to the municipality's involvement, the seminar took place in a street in Mendrisio, Switzerland.

The impact of these educational initiatives on the quality of public spaces is a central research theme. Consider how a well-informed generation of urban planners can contribute to designing and revitalizing public spaces that improve community wellbeing.

Furthermore, the research explores education's role in promoting citizens' active participation in urban planning processes. Examines how educational programs can instil a sense of civic responsibility and enable individuals to contribute meaningfully to decision-making processes. By cultivating a culture of collaboration and dialogue, the study argues that education becomes a critical factor in promoting a more participatory and inclusive approach to urban planning.

In conclusion, this research supports the transformative role of education in urban planning, emphasizing the integration of flexible tools like tactical urbanism to address contemporary challenges. Education becomes a powerful force in shaping cities that prioritize quality public spaces, wellbeing and active citizen participation by equipping the next generation of urban planners with innovative skills and a commitment to community engagement. The findings of this research have implications for educational institutions, urban planning professionals, and policymakers seeking to cultivate sustainable environments.

Excellence in teaching Award

The City And The Environment

Eva Álvarez de Andrés (Department Of Urban And Territorial Planning At Universidad Politécnica De Madrid, Spain)

Urban And Environmental Design Studio

Fabiano Lemes de Oliviera (School Of Architecture, Urban Planning, Construction Engineering, Politecnico Di Milano, Italy)

Building Competence Of Participation In Planning

Elin Bórrud (Centre For Integrated And Transdisciplinary Teaching In Planning At The Norwegian University Of Life Sciences, Norway)

Integrated Approaches

Integrative Planning And Synergic Urban Infrastructures: A Case Study In The Vlc_summer School

Juanjo Galan Vivas (Polytechnic University Of Valencia (Upv)), **Stefano Salata** (Politecnico Di Milano), **Mrudhula Koshy** (Norwegian University Of Science And Technology (Ntnu)), **Maciej Lasocki** (Warsaw University Of Technology), **Fabio Bayro Kaiser** (Rwth Aachen University), **Julia Deltoro-Soto** (Polytechnic University Of Valencia (Upv)), **Alena Cohrs** (Technical University Of Berlin)

Urban planning is, by definition and necessity, expected to be a highly integrative discipline and practice. However, the increasing incorporation of specialized knowledge and the consolidation of academic silos make it difficult for practitioners, students, and teachers to fully understand and purposefully use the manifold interactions between different urban systems, elements, and infrastructures. In fact, these interactions can be associated with conflicts that we need to reduce, trade-offs that we need to negotiate, and synergies that we need to increase in order to foster multifunctional solutions in the intersections between different sectoral policies and mono-thematic plans. This critical issue was investigated in the VLC-Summer School on "Synergic Urban Infrastructures" 2023, a Blended Intensive Program (BIP) organized within the ENHANCE Alliance in which both students and teachers, were invited to explore and design a planning tool to detect and maximize synergies between the following urban infrastructures: green, blue-water, energy, mobility, social, and housing. The detection of synergies in integrative planning has been the subject of considerable research during the last decades and has been conceptualized and related with positive correlations between indicators from different urban dimensions (e.g. economic, environmental, energy) (Mu et al., 2021), with the existence of high and desirable metabolic flows between different sectors (Chang et al., 2020), or with multi-objective optimization (Wang et al., 2022). During the VLC_Summer School, 36 students and more than 12 teachers from the Polytechnic University of Valencia, Politecnico di Milano, RWTH Aachen University, the Technical University of Berlin, the Warsaw University of Technology, and the Norwegian University of Science and Technology worked together during four weeks in multidisciplinary teams within a pilot site located in an obsolete industrial area close to the harbor and the coastal districts of the city of Valencia (Spain). During the first task of the course, the students worked online on the analysis of the city of Valencia and the pilot site for each single infrastructure. The second task was particularly critical for the development of the course since it implied the design of a conceptual model or "synergy-meter" to identify, assess, and promote positive interactions between different urban infrastructures. This task required a high level of conceptual, relational, and systems thinking, which were considered in this course essential cognitive skills to be promoted in planning education (Galan, 2022). Most teams decided to propose good-performance indicators for each urban infrastructure, and in a second stage, they systematically analyzed their mutual interactions or correlations through matrices (e.g. green indicators versus social indicators) or more multidimensional diagrams. Despite the exercise being mainly qualitative, the students were able to discover positive correlations or connections between urban infrastructures and use this knowledge to define different types of actions. Interestingly, many teams concluded that, to operate with synergies, it was necessary to formulate new types of crosscutting indicators combining aspects relevant to different infrastructures. During the third and last task, the students used their synergic model or synergy-meter to support the definition of a spatial strategy or masterplan for a new neighborhood, whose interest and value were assessed according to its capacity to generate objective synergies between the green, blue, energy, mobility, social and housing infrastructures. Although the course was relatively short and intense, the results and the feedback provided by the participants suggest that the search of synergies was a useful and effective way to promote integrative and multidisciplinary learning and that the students gained both cognitive skills and a new method to support decision-making processes in urban planning.

Keywords *: integrative urban planning, synergic urban planning, urban infrastructures, urban planning methods, blended intensive `programmes*

Interdisciplinarity: Experiences Of Joint Teaching With Environmental And Public Health Colleagues

Andrea I Frank (University Of Birmingham)

Cities are not created by a single profession. Smart urban planning is said to require interdisciplary thinking and action with different professions working collaboratively together to solve complex problems and create livable and sustainable cities. In fact, developing skills in interdisciplinary communication and thinking (e.g. communicating effectively with professionals from allied fields and beyond) of urban planning graduates has been an aim in planning education for decades (e.g, RTPI 2017; PAB 2022).

Different pedagogies fostering interdisciplinary skills development have been explored in curricula - such as project work or the studio (e.g. Newman 2017). In some Bachelor/Master programmes it is also possible for students to engage in an interdisciplinary research project for their thesis. However, integrating skills training in interdisciplinary thinking and communication in planning curricula sustainably has proven to be challenging due to a variety of issues (see also Wagner et al 2014) including prevailing institutional structures in Higher Education.

This contribution provides a reflective account of participants (students & educators) on a new interdisciplinary module focusing on the interplay of green infrastructure and environmental and public health. The module has been co-designed by an interdisciplinary team of educators from planning, environmental and public health, and is taught by a mix of practitioners and academics to students studying either for an MSc in planning or and MSc environmental and public health.

While differences in perspectives on shaping and intervening in the built environment by the different disciplines involved clearly exist - expressing these succinctly is complex and difficult. How can one move beyond common approaches of exposing students to different disciplinary views and delve deeper to truely instilling openness and learning? How to foster integrating different perspectives? Reflections and learning from co-creating, co-delivering and co-learning interdisciplinary skills development and knowledge will be shared to support a constructive discussion on how to best improve such skills development as part of planning education.

Keywords *: interdisciplinarity, planning education, environmental health, public health, skill and knowledge development*

Raising Awareness Of Land Use, Soil Sealing And Internal Development With The &Quot;Walk & Talk&Quot; Method

Barbara Steinbrunner (Tu Wien), **Lena Schartmüller** (Tu Wien), **Elias Grinzinger** (Tu Wien)

As is the case with climate change, land take and soil sealing in Austria are issues that requires rapid action, but are not yet considered by the general public with the appropriate urgency. In addition to its significance for food supply, biomass production and as a habitat for humans, animals and plants, soil also plays an essential role in combating climate change, for instance as a water and carbon reservoir. The pressure on the available soil reserves due to intensified use and the simultaneous demand for soil protection is considerable, as the permanent settlement area only makes up about a third of the total area Asutrias. For political decision-makers, it is therefore essential to gain the understanding and support of the population for the necessary protection and adaptation measures. The goal of reducing land consumption and soil sealing – to 2.5 hectares per day by 2030 according to the current government programme and to "net zero" by 2050 according to the European Commission – is still abstract and intangible for many people, even when the figure is expressed in terms of football pitches.

In connection with this, the project "Soil Walks" examines how a walk & talk format, based on Burckhardt's "strollology", can contribute to sustainable, broadly effective awareness-raising for land consumption, soil sealing and inner development. During a walk through their own municipality, these topics are discussed and visualised with decision makers and inhabitants in order to increase the understanding of the problems, to generate awareness as a motivating impulse for active participation and to increase the acceptance of spatial planning measures for the careful use of soil as a resource.

Within the framework of the project, "Soil Walks" will be carried out and documented in several different test areas. The method will then be prepared in the form of training videos so that the awareness-raising walks can take place in all Austrian municipalities and regions in a self-organised manner by local planners, local government officials, building culture officers, vacancy managers, land conservation officers, educators etc. In addition, a data dashboard will be developed to visualise key figures on land consumption and soil sealing in Austrian regions.

Keywords : Land use planning, awareness, walk and talk

Knowledge Transfer Among Practitioners: Investigating In-House Training In The Norwegian Planning Industry

Pavel Grabalov (Norwegian University Of Life Sciences (Nmbu)), **Sverre Nagell Bjordal** (Norwegian University Of Life Sciences (Nmbu))

Planning education has long been requested to be better integrated with planning practice (Frank, 2006). Planning in times of environmental and social uncertainties is increasingly dealing with complex problems. Such work requires efficient knowledge transfer and learning among stakeholders in planning processes (von Schönfeld et al., 2020) as well as innovative pedagogical methods within formal educational settings (Brooks et al., 2002).

Overall, planning can be understood as a problem-solving process dependent on extensive learning (Argyris, 1976). So far, the planning literature has been mainly investigating learning and knowledge co-production in collaborative and participatory processes focusing on interrelations between professionals and citizens (see, for example, Meléndez and Parker, 2019). We will explore how knowledge transfer and learning operate among planning professionals as a heterogeneous community of knowledge.

In Norway, the planning field is characterised by a diversity of actors (municipal agencies, large consulting companies, and architectural studios) and disciplinary backgrounds of the practitioners (spatial planning, landscape architecture, property development, and human geography among others). Such heterogeneity of professionals makes knowledge transfer and learning especially important for planning practices and poses pedagogical challenges for educating future practitioners working in this field.

In this paper, we investigate how the Norwegian planning industry accommodates knowledge transfer by providing educational activities (or in-house training, including courses, workshops, and mentor programmes) for practitioners working in spatial planning projects. We draw on the qualitative analysis of semi-structured interviews with employees who are responsible for such activities and documents provided by them. Our analysis focuses on intent and underlying assumptions as well as the professional content of these activities, target audience, formats, environments, challenges, and interdisciplinary collaborations.

The aim of this paper is to provide insights into didactics in the field of spatial planning by highlighting the learning skills relevant to planning professionals and their place in the syllabus of planning education. Our findings will contribute to the literature on knowledge transfer and learning in planning by bringing a nuanced account of in-house training for planning professionals in Norway. Moreover, it will guide our further research on creation and transfer of practical knowledge in formal and informal learning arenas.

Keywords *: Knowledge transfer, social learning, planning practice, planning industry, Norway*

Embracing The Green Curricula? The New European Bauhaus As A Driver Of Environmental Change In The University Education

Aleksandra Stupar (University Of Belgrade - Faculty Of Architecture), **Vladimir Mihajlov** (University Of Belgrade-Faculty Of Architecture), **Ivan Simic** (University Of Belgrade-Faculty Of Architecture), **Aleksandar Grujicic** (University Of Belgrade-Faculty Of Architecture)

The education of future urban planers and architect has always been exposed to various global trends which influence our environment. Nowadays, at least declaratively, the emphasis is on the importance and role of environmentally conscious approaches, guided by the imperatives of the 2030 Agenda, the European Green Agenda and The New European Bauhaus. In line with the main principles of the preferred green transition, The University of Belgrade-Faculty of Architecture has been strengthening the environmental dimension on all levels of studies (bachelor, master, integrated and doctoral), especially after the latest accreditation cycle (2021).

Although these changes should contribute to the sustainable future of the built environment, the shifted focus in design and planning pedagogy has yet to be fully accepted in the university setting. Overcoming the limitations of outmoded and static education models has become an important aim which instigated the updating, upgrading and general improvement of programs on all levels of studies. Embedding critical thinking and inquiry, creativity and innovation, research and investigation, collaboration and civic engagement has become increasingly valued in the contemporary pedagogy, shaping new generations of architectural and planing professionals and researchers, able to face and adequately react to accumulated environmental challenges.

Considering these tendencies, the paper will present the specificities of one of the Master programs conducted at the University of Belgrade-Faculty of Architecture (Master program in Architecture), focusing on its module entitled Urbanism - Sustainable City. Highlighting the role of the project-oriented approach, the special attention will be given to the overall concept and the curricula of the module, one of the courses (Sustainable City) and the final work of students structured around the Thematic research, Master Thesis and Master Project studio. The applied methodologies and their results will be discussed and evaluated regarding the elements of the Green Agenda and the New European Bauhaus, while their public outreach (through competitions, exhibitions, awards and professional journals) will be also taken into consideration.

Keywords : *education, environmental change, green transition, architecture, planning, urban design, New European Bauhaus*

Techniques And Professionalism

Multinational Planning Course Proposal For Healthy Cities

Sila Ceren Varis Husar (Slovak University Of Technology), **Aslı Ulubaş Hamurcu** (İstanbul Technical University, Faculty Of Architecture, Department Of Urban And Regional Planning), **Milan Husar** (Slovak University Of Technology)

Cities have the potential to enhance health and well-being, yielding extensive advantages (Lee et al., 2023). Based on the recent World Bank Report (2023), to transform this potential into reality, policymakers and practitioners must recognize and tackle deficiencies in planning, financing, managing, and positively integrating urban initiatives that foster health. Efforts are being made to incorporate discussions on healthy cities into various forms of summer schools (University of Copenhagen, School of Global Health), courses (University of Michigan), postgraduate courses (University of South Australia), professional/short courses (University of the West of England) and many more. There are increasing funds available to support courses focused on popular planning topics, involving multinational partners and backgrounds. Previous experience on Positive Energy Districts Trinational Course confirms that these courses contribute significantly to both students and lecturers.

The primary goal of this multinational course, which is the subject of this research, is establishing a global student workshop that fosters collaboration among participants from diverse geographical and professional backgrounds. During the workshop, students will engage in group activities, guided by both local experts and international tutors. The overarching theme centers around integrated spatial planning, with a specific emphasis on fostering healthy cities. The course encompasses a range of specific objectives aimed at fostering a comprehensive understanding of healthy cities. By capitalizing on the synergies and diverse approaches within an international consortium of partner institutions, the course seeks to bring together perspectives from different planning systems and cultures. The course also focuses on imparting knowledge and practical application of methods related to integrative spatial planning, geographic information systems (GIS), and principles for developing healthy cities. Participants are expected to gain awareness of potential challenges in applying planning concepts to specific territories the city of Dubnica nad Vahom in this case, and the course emphasizes the importance of scenario-building methods in evaluating planning variants for distinct areas amid uncertainties. Overall, these objectives contribute to a holistic approach in preparing participants for effective and contextually relevant spatial planning practices. Planning students are expected to create an overall conceptual framework, mapping intricate connections and relationships in the designated territory and its surroundings, and understanding and presenting complex aspects of land use, such as the functions of individual buildings and neighborhoods, public spaces, and prospective activities. Furthermore, they are tasked with actively incorporating social aspects into the planning process, considering different user groups, social dynamics, and reserving space to support implementation.

The planning discipline has a unique opportunity to significantly contribute to the transition toward a sustainable and just society, but this necessitates the development of distinct skills compared to those traditionally emphasized. The promotion of healthy cities through such transdisciplinary course proposals encompasses a broad spectrum of concepts, offering planning students exposure to a diverse array of new skill sets and competencies, to deal with real-life projects and to develop solutions based on future scenarios.

Keywords *: healthy city, Erasmus+, blended intensive programme, planning education, skills*

Geospatial Virtual Reality & Planning Ar Laboratory For Education In Spatial Planning

Katarzyna Rędzińska (Warsaw University Of Technology)

The significance of Virtual Reality (VR) technology in spatial planning education is escalating, aligning with its growing importance in related industries. It has evolved into a decision-support tool and a means of fostering social participation. In the educational realm, VR facilitates the augmentation of spatial imagination, creativity, communication, and teamwork among students. Moreover, it opens avenues for creating diverse educational products. The interdisciplinary potential of VR technology spans spatial planning, urban planning, architecture, and geoinformation domains (Conesa-Pastor et al., 2022; Wu et al., 2021; Zang et al., 2021; Zhang and Li, 2021).

This paper unveils outcomes from an innovative didactic project funded by Warsaw University of Technology (IDUB - Excellence Initiative - Research University) during the academic year 2022/2023. The project aimed to establish a mobile Virtual Reality Laboratory supporting didactics in geoinformation, spatial planning, urban planning, and architecture. Leveraging the distinct competencies of the Faculty of Geodesy and Cartography and the Faculty of Architecture, the laboratory fostered an interdisciplinary and comprehensive approach to geospatial analysis and spatial planning.

The project comprised six tasks: 1) organizing the laboratory; 2) conducting five pilot implementations in teaching; 3) developing an interdisciplinary planning workflow workshop scenario; 4) undertaking science popularization actions; 5) promoting among departments; and 6) formulating a future deployment plan. The pivotal aspect was the execution of five pilot didactic implementations, each employing VR technology for various purposes within the spatial planning process:

An international and interdisciplinary workshop in collaboration with landscape architecture at the American University of Beirut, Lebanon, integrated into an undergraduate spatial planning course on Revitalization projects (Drexler et al., 2023).

The creation of a new facultative course, "Systemic Design for Sustainable Development," accessible to all Erasmus students under the graduate specialization Mobile Mapping and Navigation Systems.

Integration of a VR camera in a landscape planning course for graduate spatial planning students, focusing on planning nature-therapy trails in collaboration with the Urban Forests of Warsaw.

Practical testing of VR environment-developed models, including GIS and BIM technology, incorporated into three courses on cartographical modeling for graduate geodesy and cartography students.

The experience of public spaces as blind persons in an undergraduate spatial planning course on Public Spaces Planning and Design.

Four science popularization activities enabled testing VR technology as a participatory, co-creation tool. All implementations received positive evaluations from participating students and partners. The project's realization facilitated the activation of students through creative teamwork, the exchange of good teaching practices, enhancement of academic teachers' qualifications in digital technologies, and the expansion of the didactic offer.

Keywords *: didactic innovations, Virtual Reality, Augmented Reality*

Navigating The Intersection Of Professionalism, Digitalisation, And Institutional Pressures: A Quasi-Experimental Study In Spatial Planning Education

Tin Phan (The Norwegian University Of Life Sciences), **Terje Holsen** , **Erling Dokk Holm** , **Knut Boge**

To offer a relevant education in spatial planning universities must maintain updated knowledge on how to practice both cross- and transdisciplinary, in an increasingly demanding institutional context and all the considerations it entails to develop property. There is also the challenge of how to navigate and make sense of the emergence of complex digital tools being applied in the field. It is not well-documented how young professionals interact with the education in spatial planning with the inclusion of e.g., ESG measures and/or generative AI. There will be a need for a synergistic relation between educators that must constantly reinvent their teaching methods, but also for the students to continuously reevaluate every skillset taught in the context of ever-changing conditions surrounding spatial planning. The first aim of this paper is to understand the student's behaviour and responsiveness when professionality meets institutional pressures and increased digitalisation. The second aim is to identify how these aspects reinforms the spatial planning education, with the students as proxy as to the extent of how professionals' behaviour is influenced by these changes. A quasi-experimental study has been applied on students at APL350, an interdisciplinary studio course at the Norwegian University of Life Sciences. This course exposes the students to the process of detailed zoning plan and then to reflect upon all their justifications surrounding their final proposal. A mixed methods has been applied, and the qualitative data collection has been coded towards multiple statistical analyses. The primary data consists of 58 reflection notes written by the student groups across three cohorts (spring 2022- 2024), with the first cohort serving as a control group excluding the use of complex digital tools. The secondary data consists of focus groups (2023), and questionnaires (90-150 respondents) of students' reflections surrounding e.g., curriculum, learning outcome, teamwork, physical/digital workspace, and use of digital tools. The theoretical framework, technology acceptance model (TAM) has been applied to test if the students' reasoning and adoption of different practical methods or digital tools is rooted on actual or perceived necessities in the spatial planning fields. This paper adds the dimension of predictability and scalability surrounding the place-specific and non-scalable nature of the spatial planning field, with the intention to inform ongoing spatial planning pedagogy discourses surrounding e.g., co-creation, boundary-crossing learning, the scientific/artistic aspects and not least, how to professionally cope with practice-altering institutions. The results suggests that there is a closer correlation between improved critical thinking and the inclusion of institutional pressures, than it was with the inclusion of complex digital tools. Another finding is professional confidence paired with digitalisation enabled some groups to better navigate the benefits and drawbacks of digital tools. Conversely, those without the same confidence paired with the early inclusion of tools impaired their critical thinking, as technical matters diverted attention from learning the craft itself. This study underscores the importance of understanding the intersection and separation between practical and digital opportunities, as it is key to understand the timing of introducing digital tools and how/when it affects students' behaviour and critical thinking. The perceived usefulness of digital tools also occurs within the broader context of social practices and is not only rooted in individual digital proficiency.

Sustainable Spatial Transformation Through Platforms - Tu! Temporary University Hambach As A Recurring Episode

Katja Schotte (Rwth Aachen University), **Agnes Förster** (Rwth Aachen University)

How can space be developed as part of the "great transformation" towards sustainability? To what extent can the necessary transformation processes be designed and managed fairly? What are the relationships between the various sectoral fields of transformation, the spatial challenges and the resources at different levels of scale?
So far, transformation approaches have often been sector-oriented and research and policy-making frequently address them without spatial reference (Matern et al., 2022). Path dependencies (David, 2007), e.g. of certain technologies, are closely linked to their implementation in the built and lived environment. They may generate conflicts and inequalities in everyday life.

If the transformation to sustainability is conceived and approached as a more complex problem including its multiple spatial independencies, tangible space may also be a means to initiate and generate more comprehensive system change. An urban planning technique to create linkages is to "create a place" where connections are missing. This is done by generating relationship potential, i.e. by "inventing things" (De Solá-Morales, 2008, pp. 31-71), one example is the market(place), which does this on a particular day.

Urban and regional change processes can be regarded as open systems that benefit from deliberately designed impulses on different levels: enhancing governance structures and networks, creating and connecting diverse forms of knowledge, supporting and enabling actors as agents of change and creating tangible places of change (Förster, 2022, p. 49). Hence, shaping transformation may gain strength through impactful relationships between these multiple levels including their effective communication and interaction.

According to De Solá-Morales (2008), this urban process can establish new, meaningful relationships between objects, individuals, groups and other living beings through experienced, lived or imagined space. Simultaneously, it enables the facilitation of indefinite relationships for adaptability and openness to innovation. Regarding spatial dynamics and their desired interplay, meaningful relationships emerge when elements are integrated into "episodes". These episodes unfold over a defined time frame with recurring characteristics, such as the market or the several-day span of other activities. However, urbanity is only created when coexisting uses of space also promote interaction between different users (Meili et al., 2012). The paper will apply these concepts to the ongoing structural changes occurring in the Rhenish Lignite Mining Area - a region of 2.1 million inhabitants situated in Germany between Cologne, Aachen, Mönchengladbach and Düsseldorf. In this context relationships have been significantly constrained or entirely severed over decades due to the predominant focus on one-sided land use, centered on coal mining and energy production.

RWTH Aachen University positions itself as a neutral intermediary, a knowledge broker and an initiator of collaborative action in regional transformation processes. With the establishment of the REVIERa transformation platform in 2019, it aims to create a unifying element for sustainable transformation processes in the structural change (Förster et al., 2022). REVIERa promotes communication and networking as well as sharing and connecting various types of knowledge among a broad range of stakeholders within the university and the region.

In 2022, REVIERa opened into the region by establishing a Temporary University as an eight-day episode. In Morschenich-Alt, an abandoned village adjacent to Europe's largest lignite opencast mine, "Hambach", 65 events were organized by 90 contributors from the region and beyond. The platform setting allowed for free interaction, self-determination within established guidelines, and with a high degree of openness. The episode was intended to facilitate and foster emergent convergence of various structural levels, knowledge domains, actors and space within a location, thereby generating potential for relationship.

The paper will present the interim results of the assessment of the Temporary University in 2023 and an outlook to the further activities in 2024.

Keywords *: Structural change, transformativ learning, transformation platform, relation, episode*

Crossing Borders For Resilience. Actionable Knowledge For Integrated Urban Development Planning In Ukraine

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The implementation of sustainable and integrated urban development in the sense of the European Leipzig Charter already started in Ukraine after 2014 in connection with the decentralization process. Integrated urban development concepts are also being created and implemented at local level. It will become crucial to strengthen topics like reconstruction, resilience and new housing models especially for the recovery of destroyed cities in the from Russia occupied areas. To successfully manage a targeted and sustainably effective reconstruction of Ukraine in the sense of "Building Back Better", there is a need to establish suitable institutions capable of taking action or to empower existing institutions. A key factor in this empowerment will be the provision of instrumental and methodological knowledge and its application for the respective actors. In addition to other areas, this also applies to urban planning, which is responsible for managing infrastructural and spatial development, especially at the local level. The non-profit civil society organization "Urbanyna" has already dealt with this topic in its "Urban Recovery Guide" (Urbanyna, 2023). The existing study programs in Ukraine for urban planning are based on architecture, civil engineering or geography, there is no self-standing planning study program until now. For the first step it is necessary to offer independent courses in urban and regional planning which collect and disseminate planning knowledge in a comprehensive manner. There's a growing planning community in Ukraine pushing ahead with the establishment of a new courses and initiatives to establish actionable knowledge for integrated planning and reconstruction. In this context, the New European Bauhaus Lab (NEB LAB) has launched the "Actions for Ukraine" program together with Ukrainian partners, in which they offer webinar courses on the topic of "Capacity Building for Reconstruction" (New European Bauhaus, 2023). The authors of the abstract, representing three German planning schools, are involved in this context. The partners are currently operating together with six universities in Ukraine offering Urban planning courses in the panforukraine network (www.panforukraine.de) and are active in the "Reconstruction modules" project as part of DAAD "Ukraine digital" funding emergency aid, where joint courses on integrated urban development planning and reconstruction were held in last 2 years. Currently the development of a competence platform as a digitally supported platform that offers teaching and learning modules on key is under construction. It includes the implementation of a train-the-trainer approach to support the demand driven dissemination of actionable knowledge through a peer-to-peer exchange. Crossing borders to provide actionable knowledge for resilience and reconstruction require a culture of continuous learning and reflection to recognize and acknowledge the positionality of others (Sensoy & DiAngelo, 2018) and eliminate biases (Kemmis, 1985). In order to work effectively in an intercultural environment, it is crucial to become aware of one's own behavior and its consequences so as not to close off the possibility of collaboration (Raelin, 2002). Against the background of the experiences with the joint courses and discussions, this contribution aims to combine and elaborate on two interlinked strands of the discussion. On the one hand, the different planning cultures and perspectives on planning and the possibility of transcending borders between them. On the other hand, the concrete debate on the cross-border transferability of the Leipzig Charter and its inherent planning culture as a guiding document for European urban development planning or more practically are integrated urban development plans an appropriate planning instrument for the situation in Ukraine, can they be extended with topics of urban resilience and reconstruction?

Keywords : *Reconstruction and Recovery, Building Back Better, Competence platform, Knowledge transfer, Train-the-Trainer*

Transforming City Regions: Co-Designing Future Planning Education

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Contemporary urban development has surged to unprecedented scale and speed, posing profound global ecological and social challenges. Housing shortages, inadequate service provision, strained social infrastructure, and increased vulnerability to natural hazards and climate change are now pressing issues city regions are facing. Beyond the urban fabric, moreover, accelerated urbanisation contributes to biodiversity loss, land degradation, and the need to transition away from fossil fuels, worldwide. Balancing the demands of urban growth with ecological and social sustainability is, therefore, a critical imperative, requiring innovative and integrated urban planning approaches and pedagogies for the city regions of the future.

With this in mind, the Institute for Urban Design and European Urbanism at the Faculty of Architecture at RWTH Aachen University (RWTH) introduced the Master's programme Transforming City Regions (TCR) in October 2019. TCR is an innovative degree that consistently integrates different disciplines and planning methodologies to address the complex challenges facing European territories. Its core premise is rooted in the recognition of the growing territorial complexity and the interplay of structural and substantive priorities with foundations from different disciplines, underlying the need for integrative and conceptual thinking. Emphasising a project-based educational model, TCR not only provides graduates with up-to-date and in-depth knowledge, but also equips them with the tools and methods essential for tackling pressing issues in Europe's developing city regions. The programme structure comprises core courses, compulsory electives, and a range of electives. It, thereby, provides a comprehensive curriculum covering theoretical, practical, methodological, and empirical aspects, facilitated by an interdisciplinary and international teaching group. Since its inception and launch, TCR has been committed to the continuous improvement of its teaching content, with a particular focus on internationalisation, interdisciplinarity, and sustainability. In pursuing this commitment, TCR has integrated key principles of RWTH's teaching and learning mission statement. This approach emphasises, among other things, the recognition of students' diverse backgrounds and needs, stimulating research-led and practice-oriented teaching, and fostering student and staff mobility (RWTH 2023). Furthermore, TCR has joined the European Education Pathways exchange programme through the ENHANCE Alliance. This alliance comprises ten leading European universities that are pioneering a common curriculum for various pilot study programmes (ENHANCE 2023). This strategic involvement underlines TCR's commitment to promoting collaborative educational initiatives at an international level.

However, aligning students' expectations with institutional teaching and learning objectives and integrating interdisciplinary knowledge into a well-defined curriculum framework is a multifaceted challenge. Therefore, this paper proposes a co-design methodology to update and further develop planning education curricula continuously. Three types of workshop formats are discussed. Firstly, feedback workshops were held with alumni and enrolled students to bring forth their experiences with specific and general teaching and learning objectives and the associated module workload. Secondly, semi-structured interviews were conducted with graduates to understand and compare their expectations before starting their studies with their achievements after graduation. Thirdly, workshops were convened with the core teaching group to refine the specific and overall learning and teaching objectives, to revise the description of the graduate profile, and to improve the links between modules. This paper describes and analyses the outcomes of these workshops and offers empirical insights that shed light on the future trajectory of interdisciplinary planning education and the challenges it faces.

Keywords : Transforming City Regions, Collaborative, Interdisciplinary, Integrative Urban Planning, European Education Pathways

Knowledge In Reform, Transdisciplinary Competences And International Alliances: Reshaping Planning Education Toward Future Cities

Cristina Catalanotti (Università Iuav Di Venezia), **Carlo Federico Dall'Omo** (Università Iuav Di Venezia)

As the world undergoes unprecedented transformations, education in planning plays a crucial role in preparing future professionals to navigate the growing complexities of contemporary challenges. It is widely recognized that challenging phenomena require radical shifts in values, goals, methods, and approaches in urban planning. To address these challenges, it is necessary to integrate urban planning with competencies from various disciplines. This emphasizes the need to construct multidimensional and adaptive pedagogical activities and university curricula, which enlarge professional boundaries and question our own disciplinary episteme.

Furthermore, in an international and mobile education system, cultural nuances and identities become more apparent. It is important to recognize that in the increasingly complex world, we have limited knowledge of the local specificities and planning frameworks that future professionals will encounter.

In this context, education in planning plays a crucial role in equipping future professionals with the knowledge and skills necessary to navigate diverse cultural landscapes and respond effectively to local challenges.

The ongoing epistemological reform within the discipline indicates a shift towards a hybrid form of knowledge. Pedagogical programs and projects have emerged, embodying a proactive approach that goes beyond the mere transmission of specific skills and knowledge. These initiatives aim to stimulate a critical approach and foster challenge-based learning programs. The question that arises is the role of planning education in preparing future professionals for this shifting landscape: can we shape the future of cities by reshaping planning education principles?

The integration of urban planning with diverse competencies is imperative in responding to the multifaceted challenges of contemporary urbanization. Planning education should adopt a more holistic and applied perspective, beyond traditional cognitive approaches. This change is in line with the changing nature of urban challenges, which require a multidisciplinary approach. Pedagogical activities should be designed carefully to introduce students to a wide range of skills, perspectives, and approaches, drawing inspiration from situated forms of learning.

This approach can form the basis for a new paradigm in planning education, moving towards challenge-based learning and research.

The shift away from traditional educational models is a key aspect of this new perspective. It promotes a systematic approach to challenge-based programs, offering a structured framework to navigate the evolving complexities of urban planning. This change is not just theoretical but is also reflected in the practical restructuring of educational programs. It encourages educators to reconsider the structure and content of curricula, prioritising experiential learning, interdisciplinary collaboration, and real-world applications.

In this direction, we present the project of a challenge-oriented University Alliances. We explore the process of formulation of transnational and transdisciplinary educational programs and curricula designed to construct challenge-based learning practices and their interaction with research as well as local ecosystems. The collaborative efforts of such alliances and programs have the potential to reshape the education and training of planners. This will foster a generation of professionals who are equipped to address the diverse challenges of contemporary urban environments.

Keywords *: Future Cities, challenge-based learning, transdisciplinary*

Innovation And Educational Challenges

Speculative Design Of A First-Year Cross-Disciplinary Course On Strong Sustainability: Integrating Landscape Architecture And Planning Practices

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This paper explores the outcomes of a recent initiative around the pedagogy of sustainability in higher education held in Madrid, 'Movement 4.7': "a network of the university communities that promotes education to train professionals and citizens with the necessary skills to work and live in the globalized world, taking care of the planet and leaving no one behind". This Movement is part of a larger project, 'Alliance 4.7 for Global Citizenship: Fulfilling Our Commitment by 2030', funded by the Spanish Agency for International Development Cooperation.

The Fuenlabrada School of Engineering (EIF) at the Rey Juan Carlos University (URJC), a participant of the Movement, aims to create a cross-disciplinary course to introduce first-year students to sustainability and social commitment. To achieve this, curriculum developers will draw upon insights gained from workshops conducted in Madrid between October 2023 and January 2024, led by members of Alliance 4.7.

In this context, this study speculates on the design of such a course. Employing a mixed-method approach, blending case-study analysis and research-by-design, the authors explore the potential for landscape architecture and planning disciplines to challenge unsustainable practices, grounded in a Marxist eco-social perspective. Building upon the relationship between historical materialism and ecology, and on concepts such as the metabolic rift, the departing hypothesis of the course development is elevating landscape and planning practices that could contribute catalysing societal transformation, and help reshaping university pedagogy and communities towards principles of strong sustainability.

Drawing on this premise, the speculative design integrates insights form literature and from empirical data, including the conclusions gained at the workshops and feedback from questionnaires by different agents from the university community and other stakeholders, who potentially could be involved in the course implementation. Moreover, the curriculum is guided by three pedagogical principles: problem-based learning, interdisciplinarity, and tacit knowledge transfer.

Firstly, the course capitalises on the unique setting of the Fuenlabrada Campus of the URJC and its adjacency to the urban fabric and rural landscapes of the Agricultural Park of Fuenlabrada. Such location and the urban configuration of the Campus pose many opportunities, as well as challenges, on which the problem-based course could build upon. Secondly, the curriculum is tailored to engage students from the diverse disciplines taught at the EIF, spanning Architecture, Urban Planning, Landscape Architecture, and diverse engineering fields. Thirdly, tacit knowledge is emphasised, emerging from hands-on experiences within the context of the campus life and the stablished routines of the community of practice. Opportunities for tacit learning abound, such as observing and rethinking the intricacies of food provision systems; engaging with water management infrastructures; or participating in activities like planting and nurturing. These dynamic interactions could enable students to cultivate an intuitive understanding of the temporal rhythms and processes inherent in ecological systems, enriching their learning journey day by day. The study concludes by presenting the course design and the potential challenges in its implementation, which will be discussed during the conference. Ultimately, the paper aims to contribute ideas to course development, enabling students to acquire competences on strong sustainability.

Education Challenges In The R&D Infrastructure: The Case Of Rome Technopole

Camilla Ariani (Sapienza University Rome), **Daniela De Leo** (University Of Naples Federico Ii)

Within the transitions issues well defined by the Next Generation EU plan and its six missions, European policies and fundings opportunities of the post pandemic years are offering new important challenges for policy designers and urban planning researchers and practitioners. For example, in Italy, the national PNRR-National Recovery and Resilience Plan (within the Education and Research mission) financed eleven Innovation Ecosystems such as the RomeTechnopole project, in which authors are directly involved. The Innovation Ecosystem has become a popular framework, but also widely debated in its conceptual focuses and empirical rigour (Granstrand, Holgersson, 2020). In this framework, the paper investigates the case of the RomeTechnopole for understanding how planners should be involved and (moreover) how planners could be educated to be part of this challenge.

In the case of the RomeTechnopole, this R&D project, shared by public and private universities and EPRs, private stakeholders (business associations industries and enterprises), and local administrations, should foster local development in the Lazio Region through three thematic areas: Energy Transition, Digital Transition, and Health & Biopharma. A complex matrix of Flagship Projects and Spokes constitutes the Innovation Ecosystem (the Hub) with a specific spoke devoted to connecting research and stakeholder through public engagement, outreach and lifelong learning activities.

On the one hand, RomeTechnopole is an empirical example of a R&D structure that aims at local development of the region where it is based. The goal is transforming Lazio region into a European innovation region (thanks to sustainable development, revitalisation of the industrial sector and smart specialisation) based on the model of the Innovation Ecosystem. On the other hand, this innovation centre defines huge opportunities in enhancing links between universities and their external context by connecting local players and stakeholders with a multilevel and long-term perspective.

According to this, authors are experiencing that Urban and Regional Planning studies are the fittest to this kind of research and work, but the practitioners capable of working in these fields haven't all the knowledge and expertise needed to master these complex and multileveled actions, mostly within the university public engagement enhanced by the recovery plan's opportunities. Thus, the universities' commitment in its deep link with the territory and local development claim to rethink the education for future planners (Tasan-Kok, Oranje, 2017), as, to enhance the outcomes of an inclusive and place-based Innovation Ecosystem, transition should also be disciplinary in order to be able to be the connecting point between hard science involved in innovation research and territories and communities.

Then, the paper will compare the RT project with the other Innovation Ecosystems in Italy, as well as other similar national and European innovation hubs in order to understand the expertise needed to foster not only business development but also social cohesion and local development, with place-based approaches and with the tools of the university's third mission. Afterwards, the Rome Technopole will be compared with actual activities and outputs developed in these two years since the establishment of the Hub, in order to identify strengths and weaknesses of this model, its externalities and outcomes, with a specific focus on the role of a civic university and the importance of public engagement aimed at collaboration, co-design and co-production in innovation and transitions.

Last but not least, the role of the universities will be analysed to better define, within urban and regional planner education structure, what kind of knowledge is needed for planners that aim to work on the relationship between universities and their regional context, but also to define the educational process and the interdisciplinary knowledge needed to be a planner in a time of transition, through public engagement practices.

Keywords : Territorial Innovation System, University Public Engagement, Local Development, Co-production

Teaching Planning In/For Shrinking Cities: Transitions, Interdiscplinarity And Skills.

Mattijs van Maasakkers (Ohio State University)

The role of planning in cities facing persistent population decline and deindustrialization has been on the scholarly agenda for more than 15 years (Hollander et al., 2009). Important contributions to the field's understanding of frameworks and policies (Pallagst et al., 2014) in this context have informed practice around the world. There appears to be less evidence on how this area of scholarship has informed planning education, if at all. This paper reports on a 10-year long effort to incorporate theories and practices of planning in and for shrinking cities into a graduate planning curriculum in the United States. While the emphasis on this type of urban transformation in a planning curriculum is not new (Shetty and Luescher, 2010), this paper seeks to contribute to planning pedagogy by systematically reviewing a decade's worth of student projects focused on planning interventions in cities facing declining or stagnant populations and high levels of vacant and/or abandoned land. One of the primary goals of this effort has been to translate the scholarly emphasis on utilizing land availability as an opportunity to enhance the sustainability of shrinking cities (Pallagst et al., 2017; Schilling and Logan, 2008) into a learning experience that integrates elements of landscape architecture into the planning curriculum. The empirical foundation for this paper consists of a total of approximately 35 site designs and development proposals from 7 cohorts of graduate students in City and Regional Planning for areas in Lima, OH, produced between 2015 and 2024. These design and development proposals form the final submission in a required course on site planning and development at Ohio State University. The course introduces students to approaches to urban design including new urbanism, landscape urbanism, social urbanism and tactical urbanism and invites the students to incorporate those into their submissions. In order to assess the ability and interest among students to include these approaches, the design and development proposals were reviewed by practicing planners and landscape architects. Their assessment is centered on three questions, namely 1) if/how the proposal engages the challenges and opportunities of shrinking cities directly, 2) if/how the proposal incorporates elements of contemporary planning practice, and 3) if/how the proposal incorporates elements of contemporary landscape architecture. Based on this review, conclusions and implications for planning pedagogy are drawn. The first conclusion is that despite the inclusion of case studies from around the world in the curriculum, the proposals focus on planning challenges in shrinking cities that are connected to a North American context, including an emphasis on property rights and fragmented ownership. The second conclusion is that planning and landscape architecture tools and frameworks are incorporated to varying extents, with landscape urbanism-informed approaches being particularly prevalent. The implications of this approach to teaching introductory planning courses related to site planning and development can be utilized to familiarize students with the specific context of shrinking cities and basic insights and approaches emerging from the discipline of landscape architecture as well.

Keywords *: landscape architecture, Development, planning education, shrinking cities, urban green infrastructure*

Urban Innovation Labs As A Teaching Pedagogy In Planning Education

Sasha Tsenkova (University Of Calgary)

The teaching innovation project introduces a new pedagogy for intensive graduate courses at the School of Architecture, Planning & Landscape (SAPL) through blended teaching modalities. Thematically the courses focus on sustainability transitions in cities emphasizing the need for equity, resilience and human-centered design. The pedagogy is guided by design thinking with a social innovation lens as a new model of knowledge creation that can generate transformative change in urban systems (Wellstead, Gofen & Carter 2021). This presentation has two specific objectives:

⬚ To introduce a conceptual model that supports social innovation through design thinking and stimulates students to generate innovative ideas and prototypes; and

⬚ To identify learning activities and research design methods that support student centered learning and choice in an online format.

The presentation provides an overview of the conceptual approach of the project and highlights results achieved using evidence from students' learning experiences (e.g. prototypes, innovative ideas, educational ladder model). The theoretical framework of design thinking emphasizes a dynamic perspective on its phases—analysis (of the problem), synthesis (of the solutions), evaluation and decision/implementation (CPIPE 2018). In urbanism, this way of thinking is perceived as a more robust and dynamic approach to urban social innovation, responding to the fact that `a city is not a tree' that can be reduced to simple, hierarchical, and easy-to-analyze structures. The social innovation lab methodologies allow the development of solutions in an experimental way (Leifer & Meinel 2019). There is no single methodology for innovation labs, but they are systemic, socially driven, experimental and potentially transformational (Westley & Laban 2019). In our model, the processes involve a research-intensive front end, a charrette process for integrating interdisciplinary thinking, and the use of design techniques for thinking through solutions. Tools used to visualize solutions have a technical component (building, structure, technical system), but also a defined process of institutional transformation central to the solution. The iterative nature of the design thinking process assumes a feedback loop from users/communities with lived experiences to translate the social innovation into real-world context (Wellstead, Gofen & Carter 2021).

Our teaching innovation project focused on solutions that address some of the greatest challenges in our cities–social inequality, injustice and exclusion. This drives student learning and promotes entrepreneurial thinking to turn innovative ideas into prototypes at the project and professional level. The intensive block format provides an opportunity to immerse in the context, engage in interactive conversation with professionals and leaders in the field, take on a real-world project for a client and experiment. This unique combination promotes a synthesis of teaching and research opportunities so that students can select their projects/themes depending on interest, experience and future career pathways. The online and blended format provides access to best practices/case studies and engagement of global experts, innovators and practitioners in the virtual classroom.

The outcomes achieved indicate that this new pedagogy for intensive graduate courses through blended teaching modalities offers an opportunity to implement a new entrepreneurial model that enhances student learning and creativity in developing solutions to urban social challenges in an innovative and collaborative way. The need for such teaching practices has become particularly important during the pandemic when social inequality and marginalization have exacerbated patterns of economic and social exclusion in our cities (Tsenkova 2021).

An Interdisciplinary Urban Studies And Planning Curriculum To Form Gamechangers: A Case From Finland

Christine Mady (Aalto University), **Hossam Hewidy** (Aalto University)

This article examines the role of planning education for graduate students coming from diverse backgrounds in preparing them to address complex urban challenges. With the current global challenges facing human settlements, planning education provides the opportunity to hope for a better future (Inch, Slade and Crookes, 2023). An alternative education requires embedding sustainability approaches with an emphasis on social and environmental considerations within the curriculum, while considering non-human actors (Johnston, 2015; Moosavi and Bush, 2021). Within a graduate programme hosting students from diverse disciplines and backgrounds, the opportunity for reconsidering planning education that is responsive to complex urban challenges lies in curriculum design and alignment across and within courses. This article examines the graduate programme of Urban Studies and Planning co-organised by University of Helsinki and Aalto University in Finland. In addition to literature review on planning education, participatory observation and semi-structured interviews provide the basis for this research. The case study used for this exploration is a mandatory urban studies and planning studio course offered in the first semester of the programme. This studio introduces students to challenges in urban studies and planning, providing a shared basis across their diverse disciplines and levels of expertise. In analysing how the opportunity of alternative approaches underpin preparing professionals to become gamechangers, we first examine the role of this studio course within the programme in relation to other mandatory courses within a T-shaped curriculum model (Bosque-Pérez et al., 2016). We then focus on the course learning outcomes, their alignment with teaching, learning, assessment and feedback. The studio emphasises peer learning to enhance interdisciplinary learning (Wagner and du Toit, 2023). This approach aims to provide an innovative learning path that forms professionals that can change current states towards more positive, alternative futures. Next, we examine the extent to which this alignment enables this learning environment to address global challenges, through the choice of the studio theme and an emphasis on sustainable development goals. Findings indicate that the peer-review approach, incremental exercises, the introduction of quantitative and qualitative methods, context analysis and exposure to experts in the field together contribute towards changing students' perspectives on planning and who is being addressed when making decisions. While some tensions remain among disciplines of the built environment and the social sciences, students working in teams creatively bridge across their knowledge and skill sets, despite feeling obliged to leave their comfort zones. Their feedback indicates that the result is rewarding. Some considerations for further development include exiting the university studio to directly engage with communities on the short-term, and working towards probable biocentric futures within diverse geographic, cultural and political contexts.

Keywords : interdisciplinary, sustainability, T-shaped model, urban studies and planning, game-changer

Interdisciplinary Pedagogical Expectations And The Environmental Agenda: Maintaining The Integrity Of Planning Education

Karen Ray (University College Cork)

In 1973, a persuasive paper by political scientist Aaron Wildavsky appeared in the journal Policy Sciences, presenting itself with the somewhat deflated title: "If Planning is Everything, Maybe it's Nothing". The paper, which directly addressed the elusiveness of planning, argued that the expansion of the expectations of planners has left the planning discipline ill-defined. A planner, he described, can be "an economist, political scientist, sociologist, architect or scientist" (Wildavsky, 1973, p.127). Fifty years on, these issues have only intensified. In an era defined by environmental urgency, eco-anxiety and ambitious goals for sustainable development, there are added pressures for planners to upskill in ecology, natural science, environmental engineering and marine spatial planning, among others.

The planning discipline has a long history of tackling diverse changes, in all settings, and at a range of spatial scales. Its fundamental principles underpin applied and theoretical subjects. Well-rounded planning graduates emerge from their education equipped with a broad skills-set that allows them to engage effectively with a multitude of different types of people and places, and wrestle with complex problems.

Planning is not just of interest to planners. At its core planning is about places and how they change over time – changes that planning affect everyone and everywhere. Many disciplines hold expectations of planning which are, quite often, reasonable. The comprehensive scope of planning issues and the contexts within which they arise mean that planners are well-aware of the requirements to speak effectively to other disciplines, while being both open to new expert knowledge; to have "confidence in one's own discipline without being defensive" (Davoudi, 2009, p.34). On the other hand, there are challenges which require a very specific skills-set; challenges that are at home in the planning discipline and require the planner's mind, voice and hand. It is imperative then for planning to not lose sight of its own purpose within the wider demands for interdisciplinary approaches to education and practice.

Nowhere are these demands more explicit than in the context of tackling major environmental problems. Alongside the urgency of mitigating and adapting to the worst effects of climate change, reversing landscape degradation and biodiversity loss, the environmental agenda is now a central force shaping contemporary planning pedagogies. Planning schools are coming under extensive pressure to add to their already demanding curriculums.

These pressures are more often arising from transdisciplinary expectations. Cross, inter and transdisciplinary approaches have been gaining momentum in universities, being favoured above more intradisciplinary work. At a time when environmental pressures are at a critical stage, it is essential for planners to engage with the likes of ecologists and natural scientists.

The critical issue then lies not in the challenge of the speedy transdisciplinary upskilling of all planners (including the educators), but in how best to achieve this without further eroding the integrity of the planning discipline itself.

In teaching about topics such as environmental assessment, biodiversity management and landscape planning, this paper presents three necessities for ensuring effective interdisciplinary learning among young planners in the context of the environmental agenda:

The clear distinguishing of 'environmental' topics from one another (e.g. landscape versus biodiversity) (Ray, 2013);

The clear definition of what such topics mean for planning (reigning in the transdisciplinary outreach rather than creating unnecessary anxiety among young planners entering the workforce);

Maintaining a critical awareness of the standard and weighting of more 'scientific' environmental reports in informing planning judgement.

Planning can recognise the contribution of a variety of disciplines while being selective in its engagement, most critically in the education of the next generation of planners.

Keywords : *planning, environment, pedagogy, interdisciplinary education*

Track 11: Housing

HOUSING - Planning for affordable cities and new models of living

Chairs:

- Massimo Bricocoli, Politecnico di Milano

- Bruno Marot, Union sociale pour l'habitat

- Francesca Ferlicca, Sciences Po Paris

Keywords: *housing, housing inequalities, greening buildings, housing renovation, demolition policies, housing renovation; urban densification*

Housing has long been overlooked in the policies of most countries, but lately, the housing crisis has once again become a prominent issue. Could housing become a pivotal focus of policies once more? The shortage of affordable, secure, and high-quality housing for the working and middle-class population has had far-reaching consequences on their overall well-being, living standards, and fundamental rights. Housing is particularly susceptible to climate-related challenges and represents a substantial energy consumer. This creates an immediate dilemma, as eco-friendly housing solutions may unintentionally lead to social exclusion. The growing disparities in housing within Europe have the potential to undermine the progress achieved in green transition initiatives. Meanwhile, individuals with higher incomes have reaped financial rewards and benefited from favourable fiscal and economic conditions.

These factors have exacerbated the gap between property owners and income earners or recipients of social assistance, further intensifying the socio-economic exclusion faced by marginalised communities, such as migrants, refugees, racial and ethnic minorities, as well as other disadvantaged groups like low-income working-class individuals and the elderly. This has led to an increase in segregation, with socio-spatial divisions likely intensifying even further since 2011 due to the impact of various crises, including the climate crisis, the global financial crisis, challenges related to immigrant integration, the COVID-19 pandemic, and energy crises, all of which have exacerbated global housing inequalities.

This call will focus on housing as a game-changer. Topics include a recognition of new issues, actors and policies. Some examples may be the European Union's (EU) initiatives for a green transition and their effects on housing inequalities and the EU's strategy for adapting to climate change; the adoption of nature-based solutions to safeguard ecosystems; the impact of policies for greening buildings and housing renovation; the outcome of demolition policies and housing renovation; the Just Transition initiative potential innovations; more equitable policies on distributing benefits from the green

economy; impacts of broader policies on urban densification and hub-based development...

Exploring Intersections Between Unconventional Housing And Affordability, Starting From Italy

Constanze Wolfgring (Politecnico Di Milano, Dastu), **Francesca Serrazanetti** (Politecnico Di Milano, Dastu), **Gennaro Postiglione** (Politecnico Di Milano, Dastu), **Paola Briata** (Politecnico Di Milano, Dastu)

Over the past years, a multi-disciplinary group of scholars at Politecnico di Milano (UHUAH! - From Unconventional Households to Unconventional Affordable Housing) has been exploring how contemporary social and demographic dynamics challenge housing policies and projects. These topics have been at the core of teaching activities in design-based studios involving architecture students. Spurred on not only by literature on the subject (Ronald and Elsinga, 2012; Ledent et al. 2019; Bowes et al. 2018), we are engaged in field research investigating the state of the art of dwelling practices, with the aim to develop alternative housing solutions and typologies able to overcome the distance between demand and supply that has emerged over the past decades. This gap is linked to major changes that have occurred in the last twenty years regarding the composition of households, lifestyles, and in what has been typically referred to as the "family" (Meyer and Carlson, 2014), resulting in an increasing detachment between the ideal equivalence of 'the family' and the dwelling typology (Star strategies + architecture, 2016).

These premises are at the foundation of an interdisciplinary research project - From Unconventional Households to Unconventional Affordable Housing - at the intersection of architectural design, policy design and urban sociology, which has started in October 2023 and is undertaken in collaboration between Politecnico di Milano, Università degli Studi di Trieste, and Università degli Studi di Bari.

While unconventional and affordable housing can take many shapes and emerge from a diversity of household situations and practices, the lack of an adequate offer provided through social and public housing policies reflects the inadequacies, dissatisfaction with or inaccessibility of conventional housing solutions. A key hypothesis underlying the research is therefore that unconventional solutions can be strategies to cope with such inadequacies and a lack of affordability, better responding to demands that are changing and intensifying. The intersection between the two levels, affordability and unconventionality, has yet to be explored in-depth and can provide valuable insights for a reflection on both housing policies and design.

The project aims at identifying and analyzing existing affordable and unconventional housing solutions, investigating practices, projects and policies - thus, gaining an understanding of the wide range of housing phenomena considered both unconventional and affordable in Europe and Italy; analyzing these housing solutions and evaluate their qualities, innovative features, shortcomings and criticalities; and at developing architectural design experiments and proposals in three Italian cities (Milano, Trieste, and Bari) at the intersection of policy and design, in order to explore the feasibility of innovative solutions within a given context.

The paper will present some initial findings and open (conceptual) reflections that have emerged among the project partners in the first project phase, regarding specifically: (i) connotations of the 'unconventional' in housing solutions, which so far have mostly found expression in various forms of sharing, and (ii) connotations and the relative nature of 'affordability'.

Keywords : housing typologies, unconventionality, affordability, research by design, adaptive reuse

Research On Informal Residential Space Under Viaducts In Shanghai: From The Perspective Of Socio-Spatial Transformation

Jiaxin QI (Tongji University), **Yuhang Rao** (Tongji University)

China has taken high-quality development as the first priority in the urbanization process since 2019. The concept of 'People-centric' has been widely practiced within the country, and urban planning that works with spaces that are closely related to people's everyday lives emphasizes 'people-oriented' planning. Thus, some previously overlooked spaces and needs attracted the attention of both local authorities and bottom-up initiatives, among which the informal use of space under viaducts became one of the most discussed topics as it spread widely in inner cities with high accessibility and comparatively large-scale un-used space. While, formal actions of spatial transformation were taken discreetly as it relates to various administrative departments and negotiations on issues of safety, sanitation, and publicity are the core. This article takes informal living space under the viaducts of Shanghai as the entry point to study the activities and social networks related to these informal use for residential space, aiming at summarizing the activity characteristics of informal use and spatial patterns, understanding the lacked functional needs in urban space, and providing suggestions on the construction and functional layout of urban transformation drawn on knowledge of socio-spatial transformation. Participatory observation, semi-structured interviews and archive studies were employed to obtain the related information, While to understand the spatial patterns of the informal use typological morphology analysis was employed and actor-network theory analysis was applied to reveal the transformation of social networks.

Informal Housing, Rental Precarity, And Global North Migration: Insights From Advocates And Planners In Australia

Nicole Gurran (University Of Sydney), **Pranita Shrestha** (The University Of Sydney), **Zahra Nasreen** (The University Of Sydney)

Chronic affordability pressures and inadequate state assistance is contributing to the rise of an informal, precarious rental sector in high-cost cities across the so-called Global North, creating significant challenges for planners and support workers concerned about the risks of substandard and insecure housing. Once considered solely a so-called Global South phenomenon, informal housing practices range from forms of shared and negotiated tenures through to unauthorized, substandard secondary dwellings, concealed within 'formal' residential properties. Avoiding or contravening building and or rental regulations, informal dwellings or rental arrangements are inherently precarious. However, the informal rental market is also known to serve an important function in providing accommodation options for those unable to access the 'formal' sector. In this paper we seek to contribute to the growing body of research on informal housing practices in the so-called Global north, by inserting a migration lens to examine the specific role played by the informal rental market for new arrival migrants in Sydney, Australia. We draw on quantitative data to provide an overview of the scale of Sydney's informal rental market in relation to the enumerated geography of recently arrived immigrants, before examining a qualitative data set drawn from interviews with housing advocates, settlement support services, and local council personnel. In doing so, we identify three distinct and overlapping dimensions of precarity experienced by new arrivals seeking accommodation in Sydney's informal rental sector, which reflect legal, socio-cultural, and economic risks particular to international migrants. Our conclusions draw on our data set to propose potential planning and policy responses for reducing the housing precarity experienced by new immigrants while recognizing the important role of informal networks and rental arrangements. Our findings contribute to wider theoretical efforts to understand informality across the so-called Global North housing markets, intersections with the experience of transnational mobility and settlement, and tensions with 'formal' practices of land use planning and regulation.

How Neoliberal Policies Undermine Egalitarian Housing: The Case Of The Kibbutzim In Israel

Michal Arbel (Technion – Israel Institute Of Technology), **Rachelle Alterman** (Neaman Institute For National Policy Research, Technion)

The quest for affordable housing policies is known to us all. A yet higher objective is egalitarian housing. At a global scale, the dissolution of the Soviet block and its East European allies was accompanied by massive privatization of formerly state-owned housing. The wave of criticism against reliance on market housing and the neoliberal ideology have given momentum to the search for non-market forms of housing.

There exists a hidden gem where egalitarian housing has been successful for several generations outside the communist bloc, within an otherwise market economy. We are referring to the kibbutzim – Israel's unique collective villages, where the well-educated villagers jointed voluntarily. Through self-governance, these communities have achieved an almost utopian housing policy. Full equality is retained according to agreed criteria of need, age, length of membership, etc. Within each kibbutz, the housing is almost homogenous. Voluntarily, kibbutz members have been able to put market forces on "mute". There is no formal market for housing – neither for the members of the village nor for those outside who may wish to buy in. Entry is not expected to be according to capacity to pay, but to communal criteria. There isn't even an informal market (such as some form of barter among members). Thus, differences in location of a home do not have any implications for socio-economic status.

You might assume that the abolition of market forces is because the land of the kibbutz is all state owned. However, this is not the reason for the equality. This is not a result of any state policy. Furthermore: most households in urban Israel are also located on state owned land, but market forces reign unrestrained, with all the socio-economic impact implied.

However, this story is currently being unraveled through the forced entry of market prices. This is due to state intervention, riding on the need of the communities to adjust to the needs of the next generation. Without any real- property control either by individual families or by the kibbutz as a collective, neither the kibbutz nor the members can take out mortgages to finance housing or education outside the kibbutz. Instead of allowing the kibbutzim to design their own real-property solutions in their egalitarian manner, the State is now imposing on them hardcore capitalist policy: Grown-up children who wish to be members in the community where they grew up, or new members from the outside, must pay market prices for a plot of land. Richer urbanizes seeking the enviable landscape created by the kibbutzim over generations with great self-sacrifice during Israel's touch early years can outprice the next generation. This is a sure recipe for gentrification. No more 'best-practice' egalitarian affordable housing.

This unique case study shows the consequences of egalitarian ideology clashing head on with imposed neoliberalism. The rare case reported here raises theoretical questions pertinent to housing policy:

Is public land ownership indeed a panacea for housing affordability in the long range?

Are there policy paths whereby communities can provide egalitarian housing over time, while at the same time allowing households to have the security that property rights offer?

Can cooperative housing communities co-exist within a liberal economic and government regime?

The study will draw comparisons between the privatization processes of post-communist housing policy and the recent policies of imposed housing privatization in Israel.

Large-Scale Urban Development Projects As A Dilemma Affecting The Housing Crisis. The Case Of Milano Porta Romana.

Alberto Bortolotti (Politecnico Di Milano)

This paper explores the nexus between housing studies and large-scale urban development projects through the lens of financialization. Over the last three decades, global real estate financialization (Aalbers, 2019) has massively hit local real estate markets, thus generating segregation, exclusion, and densification by commodifying housing as a financial asset class (Van Loon & Aalbers, 2017).

Such a financialization is extremely growth-dependent and closely linked to project-led settings tailored by institutional investors and property developers (Savini & Aalbers, 2016). The bundle of financialized practices affected the planning-making of large-scale urban development projects, which have progressively been conceived as catalysts for pursuing capital gains rather than levers for guaranteeing the right to housing and planning the 'just city' (Fainstein, 2012).

These projects massively contributed to 'deterritorializing' the demand for housing and services in the city-making through planning instrumentalism underpinned by financialized urban policy & private-led initiatives. This shift in (state) spatial planning coincided with the enlargement of the housing crisis, which is mostly evident in major European cities (Waldron et al., 2019).

The present paper analyzes the linkages among financial strategies, housing provisions and planning instruments through the case of Milano Porta Romana. Such a large-scale urban development project is the regeneration of Milano's second-largest former railyard, which densifies a highly valued brownfield within a massive housing provision encompassing only 14% of social housing units.

Thus, this contribution shows how financialized schemes which are shaping such large-scale urban development projects represent a dilemma for the housing crisis since, on the one hand, they produce new housing settlements but, on the other hand, they raise the housing costs without really tackling the housing affordability and these conditions affect the 'right to city' for students, middle-class workers, and migrants. This paper methodology follows a literature review on housing financialization, the case analysis of two large-scale projects through policy analysis and semi-structured interviews, and field observations of the Milanese planning and housing systems.

In conclusion, this paper attempts to generalize the case of Milano Porta Romana to build on the academic debate on real estate financialization, framing its impact on housing demand and addressing a few policy recommendations on how spatial planning can rebalance urban rent towards housing affordability.

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Keywords *: Financialization, Large-Scale Urban Planning, Housing crisis, Milano Porta Romana, right to housing*

Urban Form To Alleviate Energy Burden By Type Of Energy Poverty

Young Woo Kwon (Pusan National University), **Yeol Choi**

Through the 2015 Paris Agreement, the goal of "Pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels" has been set, and each country has established and implemented plans to achieve its greenhouse gas reduction goals. In the "2050 Carbon-Neutral Scenario," Korea also proposed the first scenario to reduce emissions as much as possible and the second scenario to actively utilize removal technologies such as CCUS. Through this, the goal of reducing greenhouse gases by 40% by 2030 and net carbon emissions by 2050 was introduced, and reduction strategies were established together in industries, agriculture, forestry, and fisheries, buildings, and transportation.

Korea has a high percentage of dependence on imports for most energy sources, and is characterized by supplying energy to the private sector through government company such as KEPCO(Korea Electric Power Corporation) and KOGAS(Korea Gas Corporation). This characteristic has the advantage that the energy price supplied by the private sector is relatively stable even if the international situation or economic fluctuations are large, and it is easy to apply national and industrial-level energy conversion policies. However, at the individuals, communities, and private sectors, it is easy to become energy poverty because it is difficult to choose other energy sources as income declines and energy costs increase.

Energy poverty is largely caused by low household income, high energy costs, and low energy efficiency (Boardman, 1991). There is some overlap with the traditional definition of energy poverty, in which households with low household income are unable to afford an adequate level of energy consumption because they have low household income relative to other households. These policies can be considered unsustainable as they tend to increase the number of energy vulnerable individuals and households if their incomes do not increase.

On the other hand, energy poverty can be caused by high energy costs if energy costs increase due to international energy price increases. In this case, households do not have a low level of income, but the increase in energy costs results in higher energy costs for the same amount of energy used (Lee, 2015). Energy vulnerability caused by high energy costs is also linked to low household income and is addressed at the national level with policies such as social tariffs and energy tariff relief. However, according to a report by the European Union (EU), the most effective and sustainable way to solve the energy shortage problem is to reduce energy demand through building renovation (Atanasiu, Kontonasiou and Mariottini, 2014).

The research will consist of typologizing energy poverty through energy usage trajectories and deriving energy poverty triggering factors according to energy poverty types. The research will examine energy poverty through individual, household, building type, and energy use trajectories, and identify the achievements, limitations, and future needs of domestic and international policies to address energy poverty through building and community-level support.

In this study, we will use the Group-Based Multivariate Trajectory Modeling (GBMT) to classify individual and household income and energy expenses provided by the Korean Welfare Panel Survey. Using this model, we will group households with similar changes in energy costs and categorize them according to their type of energy poverty (A. Magrini, 2022).

Based on this, we will analyze income, occupation, household composition, housing type, energy supply type, etc. that affect the energy costs of each group. We will use a PanelVAR model to analyze the impact of each factor on energy costs and the impact over time. Based on this, it is expected that we can identify the factors and periods that burden each household's energy costs, and propose policies to address these factors.

__Keywords__ : Housing Energy, Energy Poverty, Energy Burden, Group-Based Multivariate Trajectory Modeling , Panel VAR

Paths To Social Sustainability Through Community Cooperation In Housing Development

Philippa Hughes (University Of Liverpool)

This paper addresses the relationship between community-led housing approaches and wider planning goals in contexts of pressured land markets. It asks, how can community cooperation support planning for social and sustainability, particularly in cases where there is market pressure? It further asks, what is required in planning processes to allow these beneficial partnerships to have impact? It seeks to contribute to conversations which reframe binary debates of community resistance to housing and noting how this can be positively reframed to support social sustainability in housing.

The examples used stem from qualitative research exploring community-led housing initiatives in England in two different regions with significant community-led housing development. Community-led housing in England refers to a collection of housing initiatives that engage with some degree of community leadership or ownership (Lang and Mullins, 2019). This sector has produced several viable examples of innovative community engagement (Moore, 2021; Thomspon, 2018). As the sector seeks route to further growth alignment with planning objectives can strengthen the case for support for community-led housing initiatives and the initiatives themselves can be seen as supporting wider spatial planning aims.

This research comes from a wider research project which explored the factors which enabled and constrained community-led housing development in three regions in England. The research was conducted using an institutionalist conceptual framework (Lowndes and Roberts, 2013). In this framing the research sought to identify the constraints that structured actors choices and how actors responded and adapted to these to create new paths to action capable of influencing the wider structure long-term (Healey, 1997).

The findings suggest that community-led housing champions with requisite understanding of their contexts, legitimacy and access to resources can plot new routes to achieving socially sustainable housing that contribute wider planning goals. They are able to achieve this through a productive bricolage of existing planning institutional tools and harnessing community pressure from existing community organising. In some cases, this may involve rerouting community organising previously centred on development opposition. However, the tools to establish these connections are insecure and the input of community not always well incorporated into planning processes. This can limit the scope for these productive relationships to be maximised. The research concludes that enabling support can maximise the possible positive impacts of community initiatives to cooperate with local authorities to promote socially sustainable housing. These examples contribute to discussions of the role of civil society and community initiatives in transforming place and how these interact with dominant governance relations (Healey, 2022).

Income, Location Efficiency, And Vmt: Affordable Housing As A Climate Strategy

Gregory Newmark (Morgan State University), **Peter Haas**

Planning policies aimed at reducing vehicle-miles traveled (VMT) combined with growing consumer demand for walkable, transit-rich neighborhoods have led to increased development interest in location-efficient neighborhoods – i.e., those places associated with the lowest transportation costs. Location-efficient places are characterized by high levels of accessibility to jobs and services that enable residents to drive less either by making shorter trips or by shifting trips to transit, walking, and bicycling. This increased development interest, typically focused on residences for higher-income populations, but in neighborhoods historically home to lower-income populations, has raised questions about the best use of the scarce, location-efficient space for achieving VMT reduction goals. Specifically, does developing a location-efficient space as affordable housing yield more VMT reductions than as market-rate housing?

Answering this question is of immediate relevance to the state of California, which committed itself to reducing its greenhouse gas (GHG) emissions to 1990 levels by 2020 through, among other approaches, a market-based GHG emission Cap-and-Trade Program and a commitment to "improved land use and transportation policy" to increase location efficiency. In the summer of 2014, after the Cap-and-Trade program began yielding substantial revenues, the state passed a budget to allocate auction proceeds among relevant programs and included a 20% minimum allocation to the newly-formed Affordable Housing and Sustainable Communities (AHSC) program. The state awarded an estimated $120 million to AHSC in the first fiscal year (2014-1015) alone and is expected to award $400 million in the second fiscal year up to an anticipated $500 million annual award by the end of the decade – at least half of which must support affordable housing in transit-accessible places.

The California case is important as the state represents the leading edge of both climate change and VMT-reduction policies in the United States. This research, therefore, addresses the issue of affordable housing as a climate strategy in the context of California. This work first estimates an econometric model for predicting household VMT; explicates that model to understand the theoretical relationships between income, location efficiency, and VMT; applies that model to statistically representative households living in and out of location-efficient areas in California; and identifies the implications of these analyses for revising the AHSC policy.

While the predictive model finds that that lower income households drive less and that households living in more location-efficient locations also drive less, this research finds that location-efficient affordable housing is a justified climate strategy not because location-efficient living is associated with deeper absolute VMT reductions for lower-income populations than for wealthier populations – no statistically significant differences were found – but because lower-income populations use location-efficient space more efficiently, which allows the same land area to yield more VMT reductions.

Emerging Practices For Socially Just Transitions In The Housing-Energy Nexus - An Analysis Of Alternative InnovaTive Practices Of Energy Transition Targeting Housing Inequality In The Global North And South

Niroopa Subrahmanyam (Urban Designer And Researcher)

The need for affordable and high-quality urban housing has become both urgent and universal. With housing being a substantial energy consumer, it is imperative to meet this growing demand while ensuring its sustainable energy transition. In this regard, the Global North and South present two distinct urban landscapes that display varying potentials for sustainable transitions in the housing-energy nexus. In the more urbanised Global North, the renovation and retrofitting of the existing housing stock to improve their energy performance has the most potential to make housing both sustainable and cost-efficient. However, in the Global South, with its intricate energy landscape and rapidly urbanising cities, this potential can be best exploited through new housing stock where energy efficiency measures can be more effectively implemented using improved policies and regulations.

At present, both the Global North and South are looking towards new alternatives of metropolitan cooperation in the form of social, political, economic, or ecological practices of innovation that contribute to the solution concepts targeting inequality in access to good quality housing and clean energy. The idiosyncrasies of their socio-economic contexts demand differing approaches to this. While in the Global North, energy efficiency, affordability, reliability, and energy independence are key to addressing this inequality. However, in the Global South with its heterogenous energy networks, disproportionate access to energy services and disparate patterns of energy consumption and modes of living, the solution concepts targeting inequality must also entail expectations of economic development, social inclusion, and environmental sustainability.

This paper reviews the relevant themes that are defining the emerging practices of innovation in the housing-energy nexus in the Global North and the South and through that, aims to highlight the potential synergies and singularities in their approach to addressing housing inequalities in both contexts. The themes are identified by surveying scientific and grey literature on the innovative practices in sustainable urban housing and are encapsulated in three dimensions: technology, society, and policy. Through this, the study aims to achieve two things, firstly, to provide a better understanding on the specific socio-technical challenges for delivering cost-effective, sustainable urban housing in the Global North vs the South and the approaches used to tackle them. Secondly, to inform the current discourse on energy justice and housing inequity by including the diverse approaches to trigger a more just and sustainable housing security and energy transition.

It is hoped that the relevant themes identified within this paper can serve as the theoretical foundation for a more intricate end-to-end framework that can guide the just and sustainable transition in the housing-energy nexus as well as support an informed knowledge transfer between the Global North and the South.

Keywords *: Just Transition, Housing inequality, Affordable housing, Energy justice*

Unpacking Experiences Of Climate Privilege

Hilda Wenander (Linköping University), **Nanke Verloo** (University Of Amsterdam)

This paper explores experiences of climate privilege among residents in new sustainability-profiled neighbourhoods in Sweden. The development of new urban neighbourhoods with a sustainability-profile reflects attempts to plan for more inclusive and sustainable cities (Bibri & Krogstie, 2020; Kasioumi, 2011). However, in their realisation, these neighbourhoods tend to form exclusive urban spaces reserved for affluent groups of residents (Holgersen & Hult, 2021). In this paper we contribute to the notion of 'climate privilege' by an inductive account of choices and responsibilities of residents living under privileged climate conditions. How do they reflect on their privilege? We ask how responsibilities and choice in relation to living sustainably and climate friendly, are distributed among the residents in the neighbourhoods. In what ways do their narratives reveal active choice and preparation for a climate neutral lifestyle? Via qualitative semi-structured interviews, which were carried out with 20 residents in two different sustainability-profiled neighbourhoods in Sweden, we inquire their choice of home, their everyday life routines and their relation to the sustainability profile. We build on the concept of white privilege (McIntosh, 1995; Rothberg, 2019) to explore the choices and responsibilities of people living in a situation of climate privilege.

We unpack the notion of climate privilege empirically by exploring residents' experiences of living in a sustainability-profiled neighbourhood. The interview materials reveal how climate privilege is in many ways beneficial to residents, for example in terms of low-energy bills and not needing to own a car. The residents appreciate living in new, modern housing in green neighbourhoods designed to simplify everyday life routines. Yet, the materials also reveal areas in which citizens do not seem to acknowledge their climate privilege. The paper offers a critical analysis of everyday life, choice, and awareness in a sustainability-profiled neighbourhood, as it questions for whom these neighbourhoods are planned, as well as the consequences thereof for climate justice globally.

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Keywords *: climate privilege, sustainable living, sustainable neighbourhoods, climate justice*

Reframing Sustainable Transformation Of Social Housing. Insights From France And Italy

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The climate and energy crisis raise several challenges for housing transformation in urban contexts. Different governments in Europe have stimulated the development of housing renovation programs aiming at improving the energy performance of buildings and enlarging the lifespan of construction. In this context, focusing on public housing should be a priority of intervention as it represents a significant part of the total stock in Europe and is an energy-consuming heritage in need of renovation (Housing Europe, 2023). Indeed, most residential buildings were built in the urgency of reconstruction before the 1980s, when prior energy efficiency standards entered into force. Moreover, such contexts are characterized by economic and social hardship and dwellers of public housing are more exposed to energy poverty.

This contribution delves into new social opportunities within the governance of public housing transformation programs. More specifically, the main aim is to investigate if and how specific renovation initiatives with energy and environmental ambitions become catalysts for new social arrangements within the transformed neighborhood. The investigation is based on a sociotechnical approach (Guy & Karvonen, 2011) that allows us to integrate housing transformations with environmental concerns and social issues. In this sense, social housing buildings are conceived as both a social construction and a material reality, rooting technical logic within larger governance dynamics.

The empirical ground of the contribution is based on a limited number of exemplary projects and initiatives, located in Italy (such as Corviale in Rome and Arquata in Turin) and in France (including Tour Boi le Prêtre in Paris and Le Gros Chêne in Rennes). The adopted research methods include document review, semi-structured interviews with privileged actors, and on-site observations. The investigation allows us to prompt some reflection axes and future perspectives on the approaches adopted in different contexts, the more or less social management methods (Bifulco & Mozzana, 2022) of proposed solutions, and the scaling-up of experimental practices in public housing transformation programs.

***Keywords** : sustainable transformation, social housing, housing renovation, environmental ambitions*

Supplying Affordable Housing In A Private Land Market: England's 'Planning Exceptions' As An Answer To The Land Question?

Nick Gallent (University College London), **Phoebe Stirling** (University College London), **Andrew Purves** (University College London), **Iqbal Hamiduddin** (University College London)

Housing to buy or rent privately in England is increasingly unaffordable. Rates of owner-occupation have fallen and private rents consume ever-larger proportions of disposable incomes. These issues are familiar to many countries. But attempts, in England, to supply 'affordable housing' (by non-market actors) hit the barrier of a private land market. Land allocated for housing in local plans is frequently unaffordable. Permission to develop allocated sites is therefore conditional on the inclusion of a component of non-market housing. Relative to in-area earnings, housing in rural areas is often less affordable than urban housing (Gallent et al, 2022). And allocated development sites are often too small to carry a 'planning contribution' in the form of affordable homes. Therefore, and in order to reduce the land price component of development cost, authorities may exceptionally permit the development of affordable homes on unallocated sites – so called 'rural exception sites' (RES). These may come forward where a local need is established, where a community supports development, and where a landowner is willing to sell land at a price that supports affordability. The operation of RES underscores the challenge of accessing affordable land and the centrality of the 'land question' in contemporary housing debates. This presentation sets RES within a broader view of that question, focusing in particular on the rights and expectations of landowners in RES deals, whether this mechanism fundamentally addresses the power of landed interests, and whether there might be a more effective means of regulating land cost.

Natural Urban Towns: Applying A Pre-Modern Metric To Post-War Suburbs

Gregory Newmark (Morgan State University), **William Kaplowitz**

There is a sense that there is something unnatural about the way we are building cities today. In the United States, post-war urban form has resulted in sprawling cities characterized by automobile reliance, social atomization, and excessive greenhouse gas emissions. There is a strong interest in returning to more traditional urban form as evidenced by the extensive work of the Congress of New Urbanism among others. Despite these efforts, it has been difficult to arrive at an agreed upon spatial standard for what constitutes traditional urban towns. This research unearths a pre-modern standard of a natural urban town, based on ancient residential law codes from the Near East, and applies that standard to North American communities today in the Chicago region. Using GIS, this work binary codes current development as to meeting or failing to meet the standard. This characterization allows for the calculation of a series of metrics to assess the "naturalness" of current residential patterns. These metrics are then compared to census data to identify the equity and environmental implications of natural urban towns.

How Shanghai's Urban Heritage Conservation Plan Loses Effect? Paradoxical Governance Goals And Disparities In The Regeneration Of Residential Historic Neighbourhoods

Qianzheng Geng (Tongji University), **Ziming Wang** (The University Of Hong Kong), **Jiaying Cui** (Tongji University), **Weizhen Shen** (Tongji University)

With 44 historic districts, 250 historic cityscape blocks and 397 historic cityscape streets, Shanghai is considered a pioneer for urban heritage conservation in China. Over the past two decades, flagship urban regeneration projects on residential historic districts of high heritage value and architectural quality have showcased the pathways of "commercialization-oriented restoration", "fine-grained conservation", and "mixed-use conversion".

However, a sharp turn has emerged since 2018, with the city's ambitious plan to eliminate all dilapidated and "low-quality" housing by 2025, paralleling a national urban regeneration campaign (Shanghai Municipal Government, 2023). This mandate induced various changes to existing regeneration models: sensitive government-led reconstruction is carried out in flagship neighborhoods to exhibit the continuity of fine-grained conservation, while commercialization-oriented restoration has spread to peripheral areas. However, in most cases (particularly the historic city center of Shanghai, or laochengxiang), a "total redevelopment" model is adopted, where all residential properties are bought out by local government and resold to developers, with considerable currency compensation offered to residents. Extensive revision of heritage conservation plan allowed for gated communities of townhouses or high-rise apartments up to 100 or even 150 meters. While a short-term "triple-win" result is seemingly achieved for local government, developers, and residents, such approach eradicates historic urban forms, public spaces and social-cultural fabrics, signifying long-term loss in formal and cultural-societal values of historic districts, which serve as an important cultural infrastructure for global cities (Avrami and Mason, 2019; UNESCO, 2013). Furthermore, the official discourse seems to settle contestation by overemphasizing the representativeness of the pro-growth coalition, neglecting the presence of a pro-status quo coalition largely composed of migrants, and a pro-conservation coalition represented by long-term advocators including intellectuals, social organizations, and some local residents.

We argue that these phenomena reflect the paradoxical and intrinsically conflicting targets held by local government in urban regeneration, where conserving cultural heritage, enhancing living conditions, and revitalizing historic districts are simultaneously listed as important goals upon the low-quality housing elimination mandate and the unspoken but persistent driver of land finance. Such observation echoes the state entrepreneurialism model for Chinese urbanism raised by Wu et al. (2022), where local governments showcase multitudinal goals beyond growth machine logics, and cast a "long shadow" over the market. Through the total redevelopment process, poignant governance challenges are revealed:

Governmental Under-recognition of Vernacular Heritage Values, as demonstrated by disinvestment and a governmentality created by the top-down, pro-total redevelopment narrative delivered in the names of "urban regeneration" and living standard enhancement.

Path Dependency on Land Finance. Government buyouts would cost up to $168 billion (¥1.22 trillion) citywide, challenging the city's fiscal health and questioning the self-sustainability of current models.

Undermined Efficacy of Heritage Conservation Plan, and Restrained Space for Unresolved Conflicts and Debates. Established heritage conservation plans, locally instated expert argumentation mechanism, and different public opinions raised through platforms such as the local Political Consultative Conference had limited influence on rezoning propelled by the government-developer alliance.

Socioeconomic Disparities between residents in historic districts of higher architectural quality and socioeconomic status favored by fine-grained conservation, and grassroot local residents and migrants in vernacular historic districts who are often displaced.

Contending with challenges surrounding the state-market-society relationship and drawing lessons from Global North (e.g. Paris and Rome) and Global South (e.g. Rio de Janeiro and Hanoi) cities, we conclude this paper with preliminary recommendations for paradigm reforms in Shanghai's heritage conservation and urban regeneration policies on residential historic districts, emphasizing the embracement of vernacular heritage and informality, the split of government and market roles, further institutionalization of heritage conservation plans and enhanced transparency in its revisions, and asset-based community development that focuses on communities vis-a-vis physical fabrics.

Solidarity For Housing Movements And Public-Commons Partnerships: Examples From Turkey And Spain

Gülşah Tırış (Akdeniz Üniversitesi), **Hilal Erkuş** (Akdeniz University)

Neoliberal urbanization involves the restructuring of cities to ensure capital accumulation in cities. An important tool for this is seen as housing rent. However, this is not only limited to housing rent but also has an effect of making everyday life more difficult through "austerity policies". Especially in crisis-ridden regions, rent oriented policies are seen as the only option for society. This creates a situation of increasing impoverishment and the solidarity between individuals to ensure the continuity of daily life. Periods of increased collective action, i.e. the ability to ensure social reproduction, are usually seen in moments of injustice and inequality in access to scarce common resources. Individuals have to collaborate to create such form of solidarities. These actions forms cooperative type of solidarity options, which are called as solidarity economies. Solidarity economies emerge in a situation of "common destiny" as Comte-Sponville states, and instead of the homo-economics concept that mainstream economics defines the individual, it emphasizes the concept of homo-duplex, which includes collective consciousness.

This study at this point aims to assess these unequal distribution processes of public-commons partnerships, the state's role in these partnerships, and their rescaling by analyzing the housing movements in Spain and Turkey, where social movements have been intensively observed after the 2008 crisis. In this context, a comparative study is designed for Spain and Türkiye by using qualitative methods To do this, interview articles and newspaper reports are scanned on the communing practices of Düzce Housing Cooperative from Turkey and Ciudad Meridiana Neighborhood Housing Movement in Spain by making content analysis.

The selected example from Turkey is the "Düzce Housing Cooperative" movement. After the November 12, 1999 Düzce earthquake, there was no support for "tenant" earthquake victims, and tenant earthquake victims could not find affordable housing due to rising rents. For this reason, tenant earthquake survivors began a long struggle for housing and established a cooperative. In 2012, their lawsuit was won and their housing demands were fulfilled through the Housing Development Administration. During this process, the design of the houses was carried out in a participatory manner.

The example selected from Spain is the Ciudad Meridiana Neighborhood Housing Movement in Barcelona. Ciudad Meridiana was not only one of the neighborhoods with the highest number of evictions after 2008, but also one with the highest level of social mobilization against it. As a result of the occupation of houses and many other political actions, the private banks and the local government had to compromise with the activists in the neighborhood, and the construction of public housing in the neighborhood was initiated with a participatory planning approach.

The main findings of the study highlight that public-commons partnerships are realized because of the driving force of social movements, that local governments are an important instrument at this point, and that public-commons partnerships are especially important for disadvantaged groups in terms of basic needs such as housing. At this point, through solidarity economies, the role of local governments in access to basic services for urban restructuring and the importance of rescaling the state from the local level have been demonstrated with concrete examples.

***Keywords** : Housing, Public-common partnership, social movements*

The 'Very Big Trade-Off' Reloaded: Wage Compression, Rentier Economy And Liberalised Short-Term Rental Market In Italy

Francesca Artioli (Université Paris Est-Créteil, Ecole D'urbanisme De Paris)

One classical hypothesis of housing research is that of an inverse relationship between the level of homeownership and welfare generosity –sometimes called the "really big trade-off" (high homeownership rates come with less generous welfare). Based on the case of Italy, this paper digs into the 'reload of the trade-off' in the context of a shift toward rentier economies (Christophers, 2020) and asset-based welfare (Doling and Ronald, 2010; Wind, Dewilde and Doling, 2020). Italy is characterised by familistic welfare, politically promoted owner-occupation that ensures protection against life liabilities and intergenerational transmission, high shares of multiple property ownership and, since the 1990s, the quasi-disappearance of new decommodified housing provision and the liberalisation of the rental market (Fregolent and Torri, 2018; Filandri, Olagnero and Semi, 2020). Being one of the most touristic countries in the world, the Italian housing market has been disrupted by the rise of platform-mediated short-term rentals for tourists. Over the last fifteen years, in large cities and attractive locations, individual landlords have directed their properties to the STR market contributing to well-documented processes of eviction, decrease of permanent residents and increasing unaffordability of rental housing, especially for the young workers and students (Celata and Romano, 2022). Contrary to other countries, this emerging STR market is also liberalised, with no barriers to the use of a housing unit as STR and very favourable taxation (Aguilera, Artioli and Colomb, 2021, 2024). This paper contends this liberalised STR market 'reloads' the very big trade-off based on housing property-as-asset: Italian governments at the national and local levels have left property owners to capitalise on their assets by turning them into a new source of revenue against rapidly declining wages and welfare cuts. This trade-off signals the increasing relevance of a rentier economy "growth model" for Southern European countries, where substantial income is generated not from domestic production but from international tourism that capitalises on assets and amenities (Bürgisser and Di Carlo, 2023; Wijburg et al., 2023). Such a model is a game changer: it fosters new inequalities between owners and at the expense of tenants; it favours rent accumulation at the expense of work. Theoretically, it invites us to rethink the place of housing in rentier economies.

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Windows To Count: How Do The Business Of Densification And Its 'Rooming Flats' Spur Studentification In The Inner-City Of Lodz, Poland?

Jakub Zasina (University Of Lodz), **Konrad Zelazowski** (University Of Lodz)

Off-campus private student accommodation is booming in university towns and cities worldwide, making some of them a ground for a business of densification. In this paper, we look at the 'rooming flats', as we call them, now a popular form of student accommodation in the inner city of Lodz, Poland. Rooming flats are a kind of shared accommodation delivered through a profit maximisation and buy-to-let transformation of large, regular flats located in dilapidated historic housing stock into numerous tiny rooms for individual student rentals. By linking quantitative (web-scraping) and qualitative (in-depth interviews) methods, we provide an empirical illustration of this housing sub-market: we portray the physical features of the rooming flats, their geographies, producers, consumers and effects. We find the emergence of rooming flats resulting from overlapping phenomena, such as market specialisation and professionalisation, and housing commodification and financialisation. We also argue that rooming flats drive the gentrification-like studentification of Lodz's central neighbourhoods. Our study nuances scholarly debate by investigating the studentification-densification nexus in the inner-city context.

Keywords *: Studentification, Densification, Inner-city, Housing, Buy-to-let*

Social Capital Among Public Housing Residents: A Comparative Study Between Mixed-Income Communities And Independent Public Housing Complexes

Hee-Jung Jun (Sungkyunkwan University), **Jeong Hyun** (Korea Development Institute)

Social capital is a crucial element for achieving positive outcomes in economic, social, and political realms, promoting sustainable communities. However, public housing residents often experience lower levels of social capital, accompanied by social exclusion. This phenomenon could be linked to the inherent structural issues in public housing. In many countries, public housing residents face social isolation and stigma, a situation mirrored in Seoul, Korea. Due to limited residential land, public housing in Korea is typically comprised of high-rise buildings within large complexes, making them distinct from conventional housing. Also, antisocial activities have been observed in public housing sites along with concentrated poverty. These problems together can negatively affect social capital among public housing residents.

In response to these challenges, Korea has developed various public housing programs. Initially, public housing primarily involved the construction of large complexes. However, over time, the approach evolved to include social mix housing complexes, integrating private and public housing units. Additionally, the government has started purchased public housing, purchasing existing low-rise detached houses for public housing, thereby moving away from the development of new, large-scale complexes. These later iterations of public housing may have a different impact on the social capital of residents, potentially alleviating some of the associated problems.

Despite the significant influence of public housing on residents' quality of life, there is a scarcity of research exploring how different types of public housing affect social capital. Addressing this gap, this study asks a research question, "Does the type of public housing influence different levels of social capital among its residents?"

To investigate the relationship between public housing types and social capital, this study utilizes data from the 2021 Seoul Public Housing Residents Panel Study, conducted by the Seoul Housing and Communities Corporation (SH). The dependent variable is social capital, including trust, network, and norm of reciprocity. The primary independent variable is the type of public housing, which includes independent public housing, public housing within social-mix complexes, and purchased public housing. Control variables comprise housing characteristics, neighborhood environment, and demographic factors. The regression analysis shows that different public housing types are associated with varying levels of social capital.

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Keywords : *public housing, social capital, social exclusion*

The 15-Minute City And Housing Affordability. Insights From The Spanish Cities Of Barcelona, Valencia, Palma And Granada.

Pablo Villar Abeijón (Universitat Autònoma De Barcelona), **Oriol Marquet** (Universitat Autònoma De Barcelona), **Carme Miralles Guasch** (Universitat Autònoma De Barcelona)

In recent years, the 15-minute city has become a popular paradigm in urban design. By promoting proximity to everyday services and amenities, the 15-minute city intends to induce a modal change on residents towards active modes of transportation, reducing emissions and improving health and social cohesion.

After its popularization by the city of Paris, urban studies literature has widely analyzed this concept. However, a notable gap in research remains concerning the impacts of the 15-minute city on access to affordable housing. Even more so in compact, dense, accessible southern European cities, where the 15-minute city is already a reality. This research examines the relationship between proximity to certain amenities and rental prices in the Spanish cities of Barcelona, Valencia, Palma and Granada. By doing that, it bridges a gap in literature that can help understand how changes in the built environment of the city can induce changes in the housing market.

To study this relationship, travel times to education, care, entertainment, public transport and provisioning amenities are calculated, and an official index of rental prices is used. We employ bivariate maps to account for the spatial heterogeneity of this relationship, as wells as segmented regression models to account for non-linearity.

Results show that in the most accessible areas, proximity to amenities is associated with higher prices (except for educational and care amenities) whereas in less accessible areas proximity is linked with lower prices. Furthermore, the study identifies Valencia, Palma and Granada as monocentric cities, with a central area clustering higher accessibility values and higher prices and the outskirts hosting lower accessibility both at the lowest and highest prices. In contrast, Barcelona corresponds to a polycentric layout, where various clusters of maximum accessibility coexist at different price ranges.

This research contributes to understanding the implications of proximity to amenities on affordable housing opportunities, addressing a relevant gap in literature on the 15-minute city and a pressing issue in contemporary cities. It is particularly relevant for policymakers to understand how the housing market values proximity to amenities in order to foresee how future 15-minute city policies could impact access to housing.

Keywords : 15-minute city, proximity, housing, rent prices

Green And Un-Affordable Housing. Exploring An Emerging English Narrative.

Sonia Freire Trigo (Bartlett School Of Planning - University College London)

England, like many other European countries, is in the middle of an acute housing crisis and increasing housing supply is often presented as one of the key policy solutions. At the same time, the UK Net Zero 2050 strategy is forcing housing providers to make their existing housing stocks energy efficient to meet the national carbon emissions target. The combined effect of these two policy demands has forced providers of affordable housing, many of whom manage a significant amount of housing units over 25 years old, to make some difficult choices and reduce their planned delivery targets for the next five years (RSH 2020; Cuffee 2023). In this way, a narrative is emerging across the sector that pitties social need against environmental needs and prioritises the latter over the former. But why is this the case? Could it be the other way around? The paper explores these questions.

The research focuses on the G15 group, which represents the biggest not-for-profit affordable housing providers in England. The research combines the analysis of data from semi-structured interviews as well as corporate annual reports and policy documents to understand how and why a common narrative is emerging, which justifies a seemingly unjust ecological transition in the affordable housing sector. The paper illustrates how, in a context of 'polycentric affordable housing regulation' (Raco et al. 2023) and a growing relevance of environmental metrics (Fernandez et al. 2023), strategic decision-makers conceive the reduction of affordable housing as an unavoidable trade-off and deploy it as a necessary strategy. The paper concludes with a reflection about the need for research that revisits structure-agency conceptual framings to explore the emerging directions of the housing sector in this period of ecological transition.

Keywords : affordable housing; England; ESG metrics; polycentric regulation; ecological transition

Leveraging The Power Of Affordable Housing Partnerships In Canadian Cities

Sasha Tsenkova (University Of Calgary)

A growing affordability problem affecting over 5 million people in Canada has prompted a renewed commitment of the federal government, complemented with provincial and municipal programs, to increase the supply of affordable rental housing. The affordability crisis requires the provision of over 5.8 million homes by 2030. Finding solutions to increase the share of affordable/social housing (5% on average) is vital for Canada's big cities. Given the devolution of government involvement in housing, an effective response requires a multi-sectoral approach, including all levels of government, the private for-profit and non-profit sectors, as well as local communities (Moore and Skaburski, 2004). The last few years have seen large Canadian cities join their efforts with private developers and non-profit organisations to provide affordable housing in mixed-income, mixed-tenure projects. While these projects are experimental, they have demonstrated a viable alternative to address vulnerabilities in the housing market as well as make Canadian cities more inclusive and competitive (Tsenkova, 2019).

The research develops a conceptual framework drawing the political market model to explain adoption of certain policies by municipalities, emphasizing the impact of institutional factors on planning policy outcomes (Levesque et al., 2017). An important component of the framework is content analysis of municipal and housing plans with a focus on affordable housing strategies, targets, fiscal and financial instruments. A central question refers to implementation of new partnership models in the development process to address the immense supply shortage (Brinkerhoff and Brinkerhoff, 2011). The premise is that better planning and supportive policy environment make partnerships more effective and efficient in the provision of affordable housing (Booher and Innes, 2002). Over time, the composition of actors and agencies has shifted towards multi-actor/agency collaboration, but it has been particularly challenging to get the private sector involved (Berry, 2014) in mixed-income models to avoid concentration of poverty (Tsenkova, 2021).

In this context, the research addresses a significant gap in the evaluation of partnerships, focusing on the nature of multi-agency collaborations in the provision process (design, build, finance, operate). Partnerships capitalise on the effective role of the public sector in the mobilization of resources, the efficiencies of private agencies in the development process (design, build) and the hybridity of the non-profit institutions (management, service delivery).

The methodology is based on literature review, environmental scan of neighbourhood plans, review of 25 projects of mixed-income housing as well as key informant interviews. We have used facilitated discussion with 40 housing professionals to validate the framework and the approach for this research. Key findings from the research from case studies in the large Canadian cities—Toronto, Vancouver, Calgary and Edmonton identify challenges and opportunities in the mixed-income development model.

Our findings indicate that Canadian cities experiment with a range of innovations in public/private approaches to development supported by planning instruments (inclusionary zoning, community land trusts, and rezoning of public land) to address the affordability gap. Further, the mobilization and successful coordination of financial and fiscal support from different levels of government to implement affordable housing partnerships is critical, as is the capacity to effectively manage the interdependence between organizations and adapt to risks. Municipalities often take a strategic leadership role, directing the built form and spatial patterns of new affordable housing to facilitate social mix and integration in communities. Despite some success, we argue that there is a significant gap in the implementation process, particularly as far as the private sector involvement is concerned.

This research contributes to the limited empirical evidence on planning and provision of affordable housing in Canadian cities and offers a framework to analyze results and guide success in future city-driven initiatives.

Keywords *: affordable housing, Public-private Partnership, planning policies, inclusive cities*

Cork's Compact Growth: Are Recent Infill Housing Developments Aligning With The 15-Minute City Policies?

Jeanette Fitzsimons (Centre For Planning Education & Research, University College Cork)

Cork the Republic of Ireland's second city has an ambitious growth target, where the city is earmarked to grow by 125,000 people / 50,000 homes by 2040, as per the Irish National Planning Framework 2040, and half of this growth should be 'delivered within the existing built-up footprint of the City on regenerated brownfield, infill and greenfield sites' according to the City Council's Key Strategic Principles (Cork City Council, 2022, p.9). This is a challenging target, especially when considering the Strategic Principles also advocate to 'develop a sustainable, liveable city of neighbourhoods and communities based on the 15-minute city concept, ensuring that placemaking, accessibility and safety is at the heart of all development' (Cork City Council, 2022, p.9).

To fully understand the evolving nature of housing provision, this research will examine the data of recent planning consents and delivery. In particular, focus on the nature of provision 'who is it for'; for example; what proportion has been approved as private housing for sale, purpose-built student housing, social housing, rental housing, homes for the elderly, homeless, and/or refugees, while also examining the geographical distribution of this new housing within the city. Haarstad et al critique the concept of the compact city and ask questions such as, 'what does densification look like and feel like from the ground up?' (Haarstad et al, 2023, p.17). This research will investigatethe reality of what is happening on the ground, is there a mix of housing being provided that will offer choice of unit size, tenure, price? A sustainable liveable community ideally should contain a mix of land uses including mix of household types. OCED (2012) recommends enhancing diversity and quality of life as part of compact city policy strategies, cautioning that, 'less diversity in residents, local services and jobs may cause inefficient use of urban land and infrastructure' (OCED, 2012, p.23).

In Cork City's jurisdiction 964 residential units commenced construction in 2022 (www.housing agency.ie). This research will also investigate who is providing the housing? For example, is it public or private entities? Additionally, by mapping the location of the new housing and building an evidence-base, an examination of the location of new infill housing in relation to existing neighbourhoods and social infrastructure will be undertaken to investigate whether the proposed infill homes are close to existing or new neighbourhood centres, schools, and public transport hubs and aligning with the principles of the 15-minute city of mixed use, ease of access and proximity to services. Is there a mix of uses proposed that could lead to high quality places and increase social interactions through housing mix. This research will help to understand the outcomes of compact city and 15-minute city strategic policies in Cork City.

***Keywords** : compact city, housing, Cork, 15-minute city, Urban densification*

How Planning Intervention Changes The Pricing Mechanism Of China's Small Property Right Housing

Shenjing He (The University Of Hong Kong), **Yuting Liu** (South China University Of Technology), **Jin Zhu** (The University Of Hong Kong), **Lu Shan** (The University Of Hong Kong)

While studies of property rights have long gone beyond the legal-illegal dichotomy, how to quantify the varying degree/strength of property rights remains a difficult mission. Focusing on a special type of informal housing—Small Property Right Housing (SPRH) in China, this study examines how planning intervention affects the pricing mechanism of SPRH through the theoretical lens of graded property rights. A previous study has unravelled the pricing mechanism of SPRH by quantifying the impact of informal institutions inherent to the SPRH market, while not being able to capture the impact of external interventions. Drawing on two SPRH datasets before and after a Master Plan of urban villages conservation announced in 2019, we employ difference in difference (DID) estimations to examine how planning intervention affects SPRH prices by way of altering the strength of informal property rights. We also develop spatial error models (SEM) to account for spatial autocorrelation. This research extends and enriches the robust theoretical framework of graded degree of property rights by capturing the changes caused by external intervention to offer a dynamic and more accurate understanding of SPRH pricing mechanism. It also demonstrates that planning can go beyond sanctioning and redlining to tolerate and steer informal development.

Valuing The Presence Of Retailers In The Housing Market: Evidence From Turin, Italy

Marco Del Nibletto (Politecnico Di Torino), **Giulio Zotteri** (Politecnico Di Torino)

Retail activities are a defining characteristic of urban settlements. They provide benefits to both residents and tourists, contributing to the creation of more livable neighborhoods. Furthermore, these activities play a significant social and economic role, providing opportunities for entrepreneurship and employment to a substantial percentage of the population, thereby improving the city's social fabric.

Numerous studies have explored the relationship between urban amenities and real estate prices. However, only a limited number have specifically examined the influence of commercial activities on housing values. This paper contributes to the existing research in three ways. Firstly, it expands the research to a European city. Secondly, it applies Geographically Weighted Regression (GWR) for the first time in this research stream. Finally, it classifies retailers into typologies, including shopping retailers, convenience retailers, supermarket retailers, bar and restaurant retailers, and traditional markets, to reflect differences in retail dynamics and their potential impact on housing values.

To accomplish this, a gravity-based accessibility index is used to measure the accessibility of retailers and traditional markets from 2,157 apartments in the city of Turin in 2022. Then, the hedonic price method is applied to examine how accessibility to retail typologies is reflected in housing values. To ensure that the relationship between property price and accessibility to retailers is consistent throughout the study area, the Geographically Weighted Regression model is employed in combination with HPM.

The results suggest that accessibility to retailers has a positive impact on housing values. However, the specific relationship depends on the type of retailer, the area of the city, and the concentration of the commercial activity. In general, accessibility to shopping, bars and restaurants has a positive effect. In contrast, accessibility to convenience stores and traditional markets has a negative impact. No significant relationship between housing values and accessibility to supermarket retailers is observed. Finally the paper shows that accessibility to retail stores has different impacts in different areas of the city. E.g., an incremental shopping store has a larger positive impact on housing values in areas with high concentrations of stores. Implications for policy makers are discussed in the paper.

The Requalification Of The Housing Stock After Massive Urbanization In China. A Pilot Project Of A Residential Neighbourhood In Suzhou

Paola Pellegrini (Xian Jiaotong - Liverpool University), **Jinliu Chen** (Suzhou City University), **Geng Ma** (Guizhou Institute Of Technology)

Housing has been at the core of Chinese urbanization since the economic Reform because the landless farmers had to be resettled in the urban environment. The issue of the process is not the scarcity of houses but their overproduction and land value extraction, which has caused the recent real estate crisis.

The prominent issue of the existing stock in China is its requalification because in large percentage it was built cheaply and fast, especially what the National Government classifies as "old", i.e. what was built before 2000. These structures were not designed considering their durability – in every sense: structural capacity, living standards, social demands – and today are obsolete also because they might not offer what can be considered a decent house according to the new standards of an increasing middle-class society. The shortage of high-quality but affordable housing is a real issue.

The recent development guidelines issued by the Chinese National Government require an efficient use of resources for sustainable development beyond mere growth. These guidelines promote also the transformation of the "old" residential communities. This indication of the National Government opens up a huge regeneration task in terms of built stock quantities, involving social, ecological and economic aspects.

The spatial and environmental qualities the regeneration should achieve are not specified by the national guidelines. Still, according to our research one element is being changed: higher-density urban forms are increasingly supported by some local governments (Su, Wei, Zhao 2017). Residents' participation forms are also introduced into the decision-making process in spatial planning.

The research studied a residential neighbourhood in Suzhou, a 12 million people city in the Yangtze River Delta area, NanHuan new community, that was a pilot action of regeneration using public money that in 2010 demolished one part of a resettlement village and doubled its FAR. This new urban environment started from complete demolition and designed a completely different urban landscape with new morphology and new building types: no super-blocks, mixed uses, underground parking, high-rises and linear commercial structures. It was built as an improvement of the pre-existing conditions, which were themselves an improvement of the conditions in the old town in the late '70s (Wu, 2019).

For the public spaces and welfare provision the new NanHuan is accepted by its inhabitants but considered a failure by the city officials who promoted it and differently from the original intentions it was not repeated as a public-led process elsewhere in the city; private real estate companies are replicating similar transformations (Webster, 2021). This critique and its multiple reasons have been explored with both quantitative (sensor data, mapping and space syntax) and qualitative methods (surveys, in-depth interviews, questionnaires and meetings), focusing on the planning process, the resources spent and the social sustainability of the process.

The NanHuan regeneration was not a game changer and the case shows that the radical transition is not perceived as disruptive and that socially sustainable practices must be improved. The case shows as well that a debate about the urban spatial qualities a "moderately prosperous society" should have - which is one of the main targets of the Chinese Communist Party - is needed, but is missing as well as the idea of durability does not seem to hold.

Pitfalls Of Current Approaches To Public Housing Renovation: Lessons From The City Of Catania

Laura Saija (University Of Catania), **Giulia Li Destri Nicosia** (University Of Catania), **Carla Barbanti** (University Of Catania)

In the face of the current political conjuncture all over Europe, characterized by the privatization of the public welfare, scholars are studying the root-causes – such as financialization (Tosics & Tulumello 2021) – as well as the disastrous socio-economic consequences or the overall shrinkage of affordable housing opportunities for people in socio-economic distress. One of the issues at stake in urban contexts is often the equation between 'affordability' and 'low housing quality' (Dewilde & Lancee 2013, Waters & Wernham 2023), due to scarce building quality and/or long-term lack of maintenance by either private or public developers or landlords. This paper aims at contributing to this line of studies, with a specific focus on public housing (Storto 2019), drawing from a single Southern European case: public housing in the City of Catania, Italy.

Catania Public Housing represents an interesting case of still quantitatively meaningful but highly deteriorated public housing stock, in an urban context characterized by significant socio-economic distress associated with a history of problematic and weak local authorities. Catania public housing has been privatized or financialized not to the extent to which this has occurred in other more 'dynamic' real estate markets. However, public housing buildings have been abandoned for decades while local authorities have been dealing with severe financial and/or legal troubles for at least two decades. A recent political turn in the management of the local public housing agency has corresponded with a new and unprecedented commitment to renovate its many deteriorated buildings; a commitment that, however, is facing significant challenges. Based on the findings of the "Energy and seismic affordable renovation solutions" (e-SAFE) Horizon 2020 research project, this paper uses the evidence from Catania to discuss limitations and pitfalls of current approaches to public housing renovations exclusively based on 'innovative financing,' such as the Italian governmental fiscal 'measure' called 'Superbonus' (Corte dei Conti 2023). The Catania case shows a structural mismatch between the nature of the actual issue at the local level and the assumptions behind the European and national public housing renovation rhetoric and actual funding opportunities. Specific strategies to overcome such a mismatch can provide insights on how to craft truly effective renovation policies for the protection and enhancement of what is left of the public housing heritage.

Keywords *: public housing, buildings' decarbonization, fiscal incentives*

The Transfer Of Public Housing To Its Tenants: Real Estate Ownership As A Lever For Socio-Economic Mobility

Helly Hirsh (Technion), **Rachelle Alterman** (Technion)

What is the best affordable housing policy for low-income populations is a riddle yet to be solved. Public housing is one of the persistent mechanisms of the government to contribute to affordable housing. At the same time, public housing is not a panacea for housing the less affluent. Debates by policymakers, NGOs and researchers raise various challenges. Some are concerned about the capacity of governments to take on the long-term financial and management responsibilities, others heed various warnings by social workers and researchers about some of the negative impacts on households whose capacity for self-management might be weakened, whose mobility is hampered, or whose sense of voluntary community might be eroded. In this paper, we focus on a less-discussed policy, where public housing units are transferred or sold for a small charge to the tenants. The families thus become owners of real estate – modest though it be. Our research question is: What are the costs and benefits of such policies.

Several alternatives to poor public housing were attempted: Demolitions and displacements, assistance in free-market rent, mixed public-private estates, etc. During the 1990s, with the end of the Soviet Union and the withdrawal of the state from social services, public housing underwent substantial privatization processes. In this paper, we focus on another policy alternative: transfer of public housing units to their tenants. Much of the literature discusses this policy through critical lenses, focusing on the diminution of the stock of public housing available for needy households.

This paper focuses on the potential positive impacts of the transition of disadvantaged households into home owners instead of long-term tenants of public housing. Under such schemes, households eligible for municipal or state housing are granted the right to buy such units. The purchase may be with a deeply subsidized price or through schemes such as "rent to buy". Some studies have already pointed out that young families have higher odds of becoming a homeowner when their parents too are (or were) homeowners. Thus, the shift offered by the state of becoming a homeowner can carry long-lasting implications for future socio-economic mobility of initially disadvantaged families.

The study reported here is the first stage in multinational comparative research of privatized public housing. As a pilot study to sharpen our theoretical framework and research method we selected the close-to-home case: the Israeli experience with public housing and then its privatization. During its first two decades (1950-1970), the State built about 200,000- public housing units. Since the 1980, ad hoc privatization is being carried out. The 1998 Public Housing Act institutionalized the tenants' rights of purchase at highly discounted prices.

The Israeli situation can be regarded as a "natural experiment": We are able to control for the same type of housing units, while comparing the trajectories of those households who elected (and could afford) to become owners, with those who decided to remain tenants, or could not afford to buy. The privatization processes occurred over a few decades; thus, we are able to follow the geographic and socio-economic mobility of families with differing generational legacies. The analysis also enables us to assess the current financial values of the real estate obtained initially, and transactions made through leveraging over the years.

In the following stage of research, we plan to adapt the research framework and methods for application to several more national or local cases where privatization has occurred. Candidate countries are the UK, Portugal, Spain, plus Poland and one more country of the former Soviet or socialist block.

Tempo And Legibility Of France'S Housing Renovation Policy: Too Fast To Work?

Julie Perrin (Mines Paris - Psl (Isige)), **Daniel Florentin** (Mines Paris - Psl (Isige)), **Robin Girard** (Mines Paris - Psl (Persee))

Over the last couple of decades, public intervention in the field of energy-efficient housing renovation has considerably evolved in European contexts, making it a critical issue at the crossroads of urban planning, environmental planning and housing planning (Delclós and Vidal, 2021). The ambitions and objectives set by various laws are increasingly stricter, budget is constantly growing and the legal and regulatory framework rapidly evolving. Yet, in the French case (as in many of its European counterparts), the massification of housing renovation remains problematic (Rüdinger and Gaspard, 2022). In this paper, we argue that the planning and implementation of housing renovation is torn between two dynamics of action that prove to be potentially incompatible, rapidity and legibility. In an approach inspired by Scott's vision of the legibility of public action (Scott, 1999), our main hypothesis is that the constant rewriting and re-evaluation of standards and objectives regarding energy-efficiency, often made in the name of a bureaucratic simplification, makes this public policy quite illegible and consequently partly inefficient and little appropriable.

The need for coordination in this public policy has long been recognized as multiple and complex (even in various parliamentary reports), articulating and intertwining stakeholders, scales of intervention, and objectives of different forms (Bechir, 2023; Idt et al., 2021). This coordination is yet blurred by the issue of legibility/illegibility of the measures inspired by this public policy.

In this paper, we seek to analyse the tempos of change in the conception and implementation of housing renovation policy and its repercussions on the (il)legibility of this policy. We pay a specific attention to the ways in which the various stakeholders and territorial scales are re-articulated and -re-coordinated by the constant and rapid changes affecting that policy.

Energy-efficient housing renovation is thus at the crossroads of political objectives that have long been segmented. Three main objectives can be identified: a social objective (housing decency and energy precariousness), an energy objective (efficiency-oriented) and a climate objective (sufficiency).

This results in a situation of intersectoral interdependence (Idt et al., 2021), with a direct impact on the measures and stakeholders involved. While local initiatives have been emerging for decades, driven by different types of stakeholders (local authorities, associations) and using different modes of action, upper echelons (Europe, State, Regions) have more recently established global public policies on the matter and reshaped them accordingly. This twofold movement results in both a profusion of initiatives and the need for a partnership framework, but also contributes to the lack of legibility of this public action. Additionally, the recent acceleration in the evolution of the legal and regulatory framework has resulted in new arrangements in the systems of action and new sources of illegibility: the role of the Regions has been redefined, and the housing renovation policy is more and more controlled at a national scale. Concomitantly, the public service of energy efficiency in the housing sector ("de la performance énergétique de l'habitat") (enshrined in law since 2013) is now referred to as the public service of housing renovation ("de la rénovation de l'habitat").

Drawing from interviews with the various political and technical stakeholders involved in the conception and implementation of this policy (as part of ongoing research financed by TTI.5), we document the numerous changes of metrics, scales of management and financing schemes of the housing renovation policy. Through this, we demonstrate how the conjunction of frequent tempo changes of the various regulatory frameworks and the reordering of the different stakeholders' role constitute important trial if not obstacles to the massification of housing renovation policies, limiting its ability to fulfill its climate-related and social objectives.

Keywords *: housing renovation, energy efficiency, ecological transition, stakeholder system, legibility*

System Dynamics Study On The Relationship Between Floor Area Ratio And Land Price In Small And Medium-Sized Urban Residential Areas: A Case Study Of Xupu County Central Urban Area

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Land price directly reflects the economic value of land assets, while floor area ratio (FAR) indicates the intensity of land development and the spatial environmental quality after construction. It is one of the core factors influencing land prices. Therefore, a systematic understanding of the relationship between FAR and land prices becomes crucial in urban planning and land resource management. This paper selects land prices and FAR in small and medium-sized urban residential areas as the research objects. Using the system dynamics method, we integrate the subsystems of FAR, land price, and housing price, along with their relevant variables, into a system dynamics model containing cyclic feedback relationships. The empirical simulation and evaluation are carried out using the central urban area of Xupu County as an example. The results indicate a high correlation between FAR and land prices in small and medium-sized urban residential areas, with differences in their impact levels. There exists an optimal FAR for residential land development projects and a planning-optimal FAR for public interest, both constrained by the allocation of public service facilities and service shortages.

Measurement Of Community Living Circles And Identification Of Social Integration Characteristics In Large Scale Affordable Communities

Lei Xin (Tongji University), **Chen Yang** (Tongji University)

Since the 1990s, the Chinese government has advocated the construction of affordable housing, with the aim of improving the living conditions and the quality of low-income people. Shanghai has built many affordable housing communities in the suburbs of the city. The population of the central urban area was evacuated by 650,000 and the suburban population increased by nearly 3 million. These communities are also called "large scale communities" because of their large area and the large population.

There are three main types of housing in large scale communities: affordable housing, civic relocation housing and peasant relocation housing. In order to promote local development and improve the quality of housing facilities, the government also increased the construction of low- and medium-price commercial housing in large scale communities. At the same time, there are still a large number of villages around the large scale communities. The mix of housing types means the mixing of multiple types of people. Whether the low-income people who were forced to move into large scale communities have integrated into the local community in the past 10 to 20 years, and whether they have restructured their social networks and cultivated their social capital in the new community, is an issue that must be responded to in affordable housing research.

In order to answer this question, this study uses the concept of community living circle to analyze the integration of low-income residents in large scale communities and other surrounding residents. The basic idea of the 15-minute community living circle is that most daily necessities at the local, neighborhood level, could be accomplished by walking or cycling within 15 min. In recent years, community living circle planning has developed rapidly in China. Community living circle is not only a place for residents to obtain community services, but also a place for residents to interact and accumulate social capital.

In this study, based on the large sample of Location Based Services (LBS) data, a complex network analysis technique is used to measure the community living circle in Shanghai. This study focuses on the scale and boundary characteristics of the living circle in large scale communities, and attempts to answer the following three questions:

（1）Is there a significant difference in the size of the living circle between the large scale communities and other communities?

（2）Is the boundary of the large scale communities consistent with the boundary of the living circle, that is, are residents in large scale communities integrated with surrounding communities?

（3）How many categories can large scale communities in Shanghai be divided into according to their scale and boundary characteristics? What spatial factors influence the formation of different types of communities?

（4）The Chinese government is still building large scale communities, so what experiences and lessons can be learned from existing large scale communities to guide the construction and renewal of future large scale communities?

Keywords : affordable housing, living circle, large scale community, social integration, community renewal

On Housing Affordability: Questioning The European Policy Perspective In Action

Teresa Frausin (Dia University Of Trieste), **Elisa Mariavittoria Bertolini** (Dia University Of Trieste)

Since the early 2000s, owning or renting a house or a dwelling has increasingly become a toil for many European families and individuals. More recently, the situation has even worsened: the Covid-19 pandemic has contributed to deepen social and economic divides, and to reduce households' incomes and spending power, putting low- or unstable-income people (i.e., young adults, single parents, migrants) at severe risk of homelessness. Moreover, the increase in construction and energy costs related to the Russia-Ukraine conflict has limited public and private investments on social housing estate. As a result, when specifically referring to the rental sector, the "availability of" and "access to" decent housing is dropping in many European large and medium-size cities, where the effects of gentrification processes (i.e., those related to tourism) and higher market prices often combine with the impacts of internal and external migrations and poor maintenance of council housing stock.

No wonder that, especially after the approval of the EU Urban Agenda and the Green New Deal, "affordable" has become a recurring attribute, a "buzzword" for housing solutions throughout EU policies, tools and funding measures. However, how is affordability defined and translated into concrete tools and actions should be carefully questioned. Paired with other repeated adjectives – such as "adequate", "accessible", "sustainable" – "affordable" is often used with the effect to reduce the discussion on housing policies (and on their impacts on households' costs) to a mere economic and sectoral equation. From this perspective, affordability is generally defined as the ratio between the costs for the accommodation (rent or ownership) and the family income; alternatively, it is measured in relation to the housing cost overburden rate expressed as the share of households spending for accommodation costs more than 40% of their disposable income. However, even the concept of economic affordability widely varies in different Countries according to their different welfare policies, taxation frameworks, and overall costs of life. Furthermore, the explosion of social housing demands – related to an increasing variety of urban lifestyles, jobs and incomes, stable and moving populations, forms of poverty (as well as to their fast changes and frequent overlapping) – makes housing affordability a cross-cutting and multi-faceted issue. Acknowledging this condition prompts to rethink housing policies by focusing not only on their economic aspects (from the costs of construction/refurbishment to those of ownership and rent), but also on the complex chain of social and welfare measures, actions and spatial solutions that can support the access and maintenance of a dwelling. Questioning how the European policies' search for housing affordability has been practically interpreted in local projects and policies can therefore provide a valuable perspective to: i) understand if and to what extent economic, social and spatial issues can be more effectively integrated; ii) reframe and enrich this term and its operational meanings.

Specifically, the paper offers critical investigations on the concept behind the word "affordability" as it is used in EU tools. policies, funding measures, and projects. By selecting from EU-related platforms (i.e., UIA-Urban Innovative Actions initiative, New European Bauhaus, Horizon, etc.) a variety of planned or built case studies with a focus on housing policies, the emphasis is put on how the term affordability is translated into multi-layered planning and design solutions (i.e., health-care models in housing blocks, self-maintenance and self-building, flexibility in design and allocation models), and into innovative and integrated housing and welfare policies. These reflections are the intermediate results of the national research "From Unconventional Households to Unconventional Affordable Housing" (2023-25) financed by the Italian Plan for Recovery and Resilience (PNRR), and developed by Politecnico di Milano, Università di Trieste and Politecnico di Bari.

Keywords : Affordability, Social housing, EU policy, Urban planning

Local Planning Instruments And The Ability To Face The Housing 'Perfect Storm'

Luís Sanchez Carvalho (Lisbon School Of Architecture), **Cristina Cavaco** , **Ana Pinho**

In many European countries, the last decade has seen a progressive divergence between household income and housing prices. This divergence makes access to adequate housing unfeasible, or very difficult, for most families. In Portugal, this divergence has been much more pronounced than the European Union average, essentially due to an exceptional increase in housing prices, both in terms of purchase and rental (CM Lisboa, 2023). In this context of the European Union, Portugal's starting situation is extremely fragile and arises from the specificities of its historical trajectory over the last fifty years. These specificities are expressed in the persistence of high levels of poverty and an almost permanent "housing crisis". (INE, 2021). Associated with these characteristics, the last decade was marked by anemic building dynamics and the aging growth of residential buildings (Rodrigues P. et al. 2022). Given all these elements - which form a 'perfect storm' - a set of public housing policies was designed in 2018: the New Generation of Housing Policies. In 2019, with the National Housing Law, the Municipal Housing Charter (MHC) was created, which is the municipal planning instrument for issues related to housing. In the portuguese context, the MHC is a pioneering and exceptional instrument (at the end of 2023, of the 308 Portuguese municipalities there were around 5 municipalities with approved MHC) but, in several European countries and North America, similar instruments have existed since the last decade. In the architecture of the portuguese political-administrative system, legislation relating to housing and, consequently, the rules and contents of the MHC are common to the entire country. The question is whether - in the specific case of housing - the general law and planning instruments of a national nature, necessarily comprehensive and generic, can face challenges and problems, typologically and territorially so distinct. For example: i) the same measures can be benign for certain territories but catastrophic for others; ii) housing (non) accessibility has several ramifications, but there are also serious problems of inability to maintain adequate housing (Pinho et al, 2022). The argument is that greater autonomy of local authorities and their planning instruments - and in this specific case of the Municipal Housing Charter - guarantees a greater capacity to face challenges and solve problems. The case study to pose the question and understand the argument is the Municipality of Lagos, in the Algarve Region. Lagos, with just over 30,000 inhabitants, is an extreme example of the "perfect storm" of housing (CM Lagos, 2021): i) a third of residents are foreigners (3 times the national average); ii) there are more than 38 thousand beds in tourist developments (more than the resident population); iii) it is among the five Portuguese municipalities with the highest sales or rental value per m2 in contrast to a family income level below the national average; iv) it is almost impossible to hire professionals for the most diverse social and economic structures due to the impossibility of these professionals accessing suitable housing. Taking the case of the Municipality of Lagos, it is intended to demonstrate that, by increasing the autonomy of the municipality's power and specifying the content of the Municipal Housing Charter, challenges can be resolved more quickly and effectively in order to face the 'perfect storm' ' of housing.

Housing Regeneration Strategies: Toward A New "Range Of Opportunities" Model

Nava Kainer-Persov (Technion)

In recent decades, numerous evaluation studies and case analyses relating to urban regeneration strategies have been explored and published. This paper introduces a research initiative that systematically distills insights from this extensive global body of knowledge. The findings of this research have led to an ability to match a selected urban regeneration strategy to the unique characteristics of a given place and its community.
This research pursues two primary objectives: firstly, to propose a typology of urban regeneration strategies applied and documented in various countries since the mid-twentieth century, and secondly, to initiate a method facilitating the selection of an "appropriate strategy." Appropriateness is assessed by evaluating the alignment between the characteristics of the specific locality and the needs of its inhabitants.

Through an exhaustive literature review, three housing regeneration strategies emerged and were categorized: (1) Demolition & Redevelopment; (2) Renovation of existing dwellings; and (3) Construction of new housing in proximity to existing developments. Each physical strategy is further divided into social sub-strategies. This framework formed the basis for the "range of opportunities" evaluation model, encompassing four dimensions: physical, spatial, social, and economic-organizational. This model, broken down into various components, facilitates the design of tailor-made housing regeneration strategies for specific places and communities.

Keywords : Urban regeneration strategies, Housing policies, demolition and reconstruction, new model, social justice

Understanding The Gentrification On Waterfront Area Based On Mobile Phone Data：evidence Of Shanghai, China

Yanglinxi Zhang (Tongji University), **Yang Xiao** (Tongji University)

Gentrification is a critical issue for urban development. It reflects the competition for urban space or resources between high- and low-income groups, as well as social and economic inequalities in cities (Finio, 2022). Current gentrification-related research has yielded rich findings, including the extent, causes, effects, and types of gentrification, with a predominant focus on traditional home-based gentrification. However, with the development of time geography, scholars have realized that misleading or even erroneous results may be obtained when studies only focus on static residences spaces (Kwan, 2013). From the new perspective of research on the dynamic flows of residents' everyday life, (Park & Kwan, 2018), exclusionary and invasive behaviors in individual activity spaces also encompass important processes of gentrification. In particular, the research of public spaces can help to identify and understand gentrification in a more holistic way.

In light of this context, the paper chooses Shanghai as the research city, and takes waterfront areas as a specific type of public space to identify whether gentrification has occurred in Shanghai's waterfront areas? And if so, to discern the patterns of its generation.

The main methodology of this paper is big data analysis, utilizing mobile phone data. Compared with traditional census data, mobile phone data has the advantages of wide coverage, large data volume and high spatial and temporal resolution, and has been used in research fields such as gentrification and social segregation. Therefore, the research will use mobile phone data to identify the activity population in waterfront areas across different years, and calculate the house prices and neighborhood deprivation index of the population's residences as indicators of their socio-economic status. By comparing these indicators across different years, it will be possible to determine whether the area had undergone displacement of the disadvantaged or invasion of the affluent, which indicates that gentrification had occurred. Furthermore, the research will incorporate the land functions of the waterfront areas at different times to ascertain the generation pattern of gentrification. For example, old neighborhoods where the original low-income group gathered might be invaded by the activities of the high-income group, which in turn transformed into upscale waterfront areas, creating a residential-activity gentrification pattern.

The research anticipates three preliminary conclusions. First, mobile phone data can well identify the gentrification of waterfront areas that already exist in Shanghai. Second, these gentrified waterfront areas may exhibit obvious spatial distribution characteristics, which are clearly related to the surrounding built environment and proximity to the city center. Third, the generation of gentrification in public spaces may follow several patterns, such as residence-activity, employment-activity, activity-activity, and so on.

Through empirical research, this research identifies and provides insights into the phenomenon of gentrification in public space, enriches related theoretical research, and refines the quantitative methodology of gentrification using mobile phone data. Importantly, in the context of the current profound transformation of urban public space and the challenges of social inclusion and equity brought by urban renewal, this research can strengthen the attention to urban public space, promote fair resource distribution and socio-cultural integration, and provide new research ideas and optimization suggestions for sustainable and inclusive urban development.

Keywords : Gentrification, Waterfront area, Mobile phone data, Shanghai

Empirical Evidence On Spatio-Temporal Impacts Of Size And Type Of Residential Redevelopment Projects On Neighboring Housing Price In Seoul

Nino Dabrundashvili (Graduate Student), **Hyungun Sung** (Professor)

This study examines the impact of housing redevelopment projects, considering such conditions as phase, size, and type, on housing price changes in neighboring areas of the Seoul. The city', since experiencing rapid economic growth and urbanization from 1960s, has carried out substantial interventions such as large-scale apartment complex (re)development programs aimed at alleviating housing shortages. However, with the progression of the 21st century, these large-scale apartment complexes in Seoul have been becoming increasingly obsolete, marking a pivotal juncture necessitating their redevelopment. In essence, Seoul has entered "the era of residential redevelopment" during the 21st century, characterized by a substantial number of ongoing and planned redevelopment projects in numerous aging residential areas.

The objective of our research is to analyze the effects on housing prices in Seoul from 2006 to 2023, spanning 18 years. The focus is on how the phases, size, and type of residential redevelopment projects influence housing prices in neighboring areas, potentially leading to housing market instability and affordability challenges. Nevertheless, redevelopment projects enhance the physical environment, but they lead to the deterioration of socio-cultural attributes in low-income communities and introduce housing instability for original residents, especially impoverished tenants. Gentrification-induced shifts in class distinctions have also been demonstrated to foster residential polarization concerning income, education, household composition, and tenure type.

The study employs multi-level linear regression modeling with a Difference-in-Differences (DID) approach while controlling other potential variables such as physical environment, macro economic indicators. Anticipated findings suggest that housing prices in Seoul will undergo variations based on the redevelopment project's phase. An initial surge is expected at the project announcement, followed by another wave during the actual reconstruction process. A second expected outcome is that the size of the project will influence price changes, with larger-scale projects initially increasing apartment costs, followed by a subsequent decrease. Third, the type of redevelopment project and its proximity to neighboring areas are anticipated to impact price changes.

Insights gained from this research, focusing on the specific characteristics of the physical environment, and classifying the impact of redevelopment project. This finding can guide planners and policymakers in shaping future projects to stabilize the housing market in Seoul.

Housing Prices In Portugal And The Covid-19 Pandemic

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HOUSING PRICES IN PORTUGAL AND THE COVID-19 PANDEMIC

As happened in several European countries, during the 2010s-decade house prices rapidly increased in Portugal. Actually, Portugal has experienced one of the highest increases in house prices among European Union countries, both in the housing purchase and rental markets. In some Portuguese municipalities, housing prices have more than doubled in the second half of the 2010s. During the COVID-19 pandemic, it was debated whether periods of lockdown, reduced tourism and economic downturn could contribute to lower house prices.

The aims of this work are: i) to analyze the reasons that led to the increase in housing prices in Portugal; ii) to summarize what housing policies have been implemented in Portugal during the pandemic; iii) to study the evolution of housing square meter prices during the pandemic; iv) to understand how the COVID-19 pandemic has affected the housing market; v) to understand how the market is currently responding to issues such as inflation and rising interest rates.

To meet these objectives, a qualitative approach will be used to discuss the factors that led to the increase in house prices in the 2010s-decade and a quantitative methodology will be used to analyze official statistical data on the evolution of housing square meter prices between 2016 e 2023. The analysis proposed in this paper covers the whole of Portugal, before, during and after the pandemic, allowing for a cross-country analysis.

According to the preliminary results, it seems that the COVID-19 pandemic did not had a significant impact on the housing market, and the minor fluctuations in prices that were recorded between 2020-2021 were quickly recovered.

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Keywords : housing, housing market, housing prices, COVID19, Portugal

Housing First And Beyond. A Focus On The City Of Trieste (Italy)

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In Europe, due to a widespread increase in economic uncertainty, housing affordability has become a priority issue, with particular reference to people with multifactorial distress, unemployed, or with a job that is too precarious to access the private housing market. If public policies for rent ("council housing") are still mainly addressed to families and individuals in stable economic conditions, the "very social demand for housing" is generally taken over by social assistance measures provided by the public and third sector. As a result, this demand often falls into institutionalized emergency responses to "homelessness", whereas a "treatment first" approach generally prevails: from the dormitory to supported housing, access to a dwelling comes after a long (and uncertain) path toward well-being recovery, social integration, and economic independence.

By addressing severe adult marginality, Housing First (HF) deeply questions this approach, conceiving access to a home as a basic right, and a starting point to rebuild independent life. Public welfare support remains an important component of HF, and the dwelling is often assured only for a limited period; however, living in one's own home is understood as a prior step, to be integrated with social and economic care, job access and training, according to a holistic person-centered perspective. Since 2015, HF has found full recognition in Italy (Guidelines for Combating Severe Adult Exclusion). Nonetheless, projects still reach a few persons. In this perspective, the financial support (177 MEUR) provided by the National Plan for Recovery and Resilience (PNRR, 2021) to temporary housing for individuals and households in extreme hardship appears far from sufficient.

This paper reflects on the possibility of overcoming a punctual application of HF solutions, by investigating conditions (i.e., the availability of public and private buildings and their maintenance), target users (elderly people, young adults, persons with a migrant background, single persons and large families, etc.), stakeholders (public, private, form the third sector), material and immaterial resources that can be involved in the upscaling of HF to ordinary and structural urban policy. The focus is on Trieste: a medium-sized city in the northeast of Italy, on the border with Slovenia, where homelessness has strong impacts. Demographic decline and aging population trends are above the national average; huge migration flows are due to the location on the Balkan route; the offer of council housing is inadequate to meet a growing social demand, and the number of public and private vacant dwellings is significant. Furthermore, relevant impacts on the availability of low-rent dwellings are produced by a steady rise in tourist traffic. In Trieste today, access to a house is, therefore, an unattainable luxury for an increasing and diversified number of individuals and households, who carry multiple social, economic, and physical distress.

These conditions make Trieste an interesting context for exploring and understanding how to cope with the still diverging routes of homelessness and housing affordability. Specifically, the paper focuses on how to integrate a diversified set of actions, subjects, and solutions: from the realization of "supportive condominiums" in public housing buildings, and the involvement of tenants in self-recovery and self-maintenance of public and private housing; to deep rethinking of the silo-organization of the "very social" welfare offer; up to the identification of an intermediary body (between beneficiaries and the public sector) playing the role of financial guarantor, property and social manager.

Keywords *: Housing First, Housing affordability, Welfare policies, Housing policies, Trieste*

How Are Youth Living In Ageing Neighbourhoods?A Case Study In The Central District Of Shanghai

Yun Yu (Tongji University), **Yi Huang** (Tongji University)

With the construction of youth development-oriented cities, the phenomenon of housing/community youthification has emerged in the central districts of mega-cities. Communities in central mega-cities, which used to be mature, tend to have a significant ageing population and have formed their own cultural atmosphere and social relations. The living conditions of young people in these communities need to be studied. Taking Chuangyu 228, a youth-oriented guaranteed rental housing in Yangpu, Shanghai, as an example, the living conditions and satisfaction of young people are surveyed and analysed based on both the supply-side and demand-side perspectives from the physical, social, and cultural dimensions. The research provides empirical evidence of housing/community youthification in Chinese mega-cities and offers insights for optimising youth housing policies and community planning.

Keywords : youth apartment, youth community, affordable rental housing, youthification, youth-friendly city

Housing Policies (In Naples) As An Agent To Face Spatial Inequalities

CRISTINA MATTIUCCI (Dept. Of Architecture - University Of Naples "Federico Ii")

In a city like Naples, housing variety mirrors the coexistence - not always pacified – among very different groups of inhabitants, whose proximity allows us to conceptualize and argue the agency of places where social pluralism takes place. This pluralism, which is also determined by mix housing conditions as well different economic activities, constitutes a key characteristic of the neighborhoods in Naples, because it makes it imbued with multiple social networks that daily mark its activities and rhythms and dynamically define its borders, beyond any physical proximity or any administrative definition.

The city, which is potentially rich in these practices, is at the same time under the wave of very fast transformations of the housing market, due to dynamics whose trends are going to smoothen the mix of inhabitants, since a significant part of the housing stock has been given mainly to temporary inhabitants and tourists.

Therefore, there is a very differentiated demand for housing, which concerns both low-income categories and the new fragile groups with medium incomes, who represent segments of society (such as the elderly, singles, young couples, mobile workers, immigrants, single-parent families) which define a new target for housing policy innovation, either because they are not covered by social housing policies or because they have too limited an economic capacity for the real estate market, which in the meantime is subject to the tensions of globalization/touristification affecting the city.

By describing a selection of ongoing public housing policies in Naples – from Social Condominium in the Historic Centre, to 80s' Social Housing Regeneration, to New Social Housing Projects – which are conceived to face old and new housing fragilities and to test different model for social inclusion, the contribution aims to show how the coexistences of various inhabitants and the grounded relationships and networks, which such housing policies would support, are ontologically fundamental features to ground an opportunity for the neighborhoods themselves to survive as plural social contexts, while the city transformations under supralocal multiscale processes.

Housing policies aiming to keep a strong social mix build an urban milieu where the opportunity for various economic relationships and employment is available, so the neighbourhood being a potential source of informal networks, a focal point for the routines by which daily needs are met (working, education of the younger generation, childcare) as well as a base to access the broader networks of urban relationships and resources.

Such policies also contribute to build a spread and multivariate housing affordability, challenging housing policies to make the city an environment of active urban inclusion.

Finally, the contribution will argue how housing policies can foster social integration and work as agent in paths of social advancement, as enabling the fragile groups to overcome at various level poverty traps and facing inequalities.

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***Keywords** : housing, agency of place , Naples*

Towards An Inclusive And Developmental Housing Regime In Chinese Megacities? Evidence From The Implementation Of The Affordable Rental Housing Program In Shanghai

Lin Zhou (Tongji University), **Chen Chen** (Tongji University)

It has been long argued that the East Asia region is embarking on the so-called 'productivism welfare regime', however, certain East Asian societies such as Singapore witnessed the emergence of a developmental welfare regime. More recently, Some scholars suggested an ongoing transformation from a productivist housing regime to a more inclusive and developmental housing regime in China since 2016 when the central state encouraged the simultaneous development of the rental and sales markets. Particularly since 2020, the Affordable Rental Housing (ARH) program was initiated as one of the three programs that make up China's social housing system, the housing regime transformation has become a debatable issue.

The ARH program aims to provide comfortable, secure, and affordable rental housing with a price set around 90 percent level of comparable nearby market rents, to alleviate acute housing affordability problems faced by new arrivals and young working-class who migrate to megacities. Taking Shanghai as an example, as a mega-city with serious housing shortage for the inflowing population, Shanghai has been vigorously developing long-term rental housing, talent housing, and rental communities since 2017, and designated these rental housing projects as ARH programs later. The municipal government of Shanghai committed to providing 400,000 units of affordable rental housing by the end of 2025, which consists of nearly 20% of the whole rental market.

A few researches are focusing on the emerging ARH program in China. However, the implementation process of the ARH program has received insufficient scholarly attention, particularly the roles of various agencies and several modes of governance in producing ARH.

Focusing on the implementing process of the ARH program in Shanghai, this study observed the tensions and contradictions between the central and the local state and then explored the transition of provision modes in two stages through the conceptual lens of governance structure, to understand local government's adaptive strategies responding to the Central Authorities and the dilemma for different stakeholders.

This research employed both qualitative and quantitative methods. Firstly, we reviewed publicly available policies, legislative documents, and official news at both the central and municipal state levels. Then we conducted in-depth field investigations of 8 ARH projects in Shanghai during June and July 2023, including participation observation, semi-structured interviews with front-line staff of ARH operating companies, mapping urban rental lands provided from 2017 to 2023 in Shanghai, collecting 80 questionnaires of tenants from ARH program and statistical analysis.

We have three preliminary findings.

First, according to the main provision modes, we divide the implementing process of the ARH program in Shanghai into 2 stages——SOEs-led newly-built large-scale rental communities (from 2017 to 2021), and public-private governance to encourage converting previously underutilized commercial or industrial properties into ARH (from 2022 onwards).

Second, the transition of provision modes between the two stages is due to several reasons, including the fiscal burden of local state, lack of available construction land, and the pressure under strong central state mandatory command. The role of the local state shifted from dominant to market resource coordinator, which requires less subsidies but higher demands on governance capacity.

Third, the spatial justice and affordability of ARH are questioned, and the ARH program is still a dilemma for local government, SOEs, and institutional investors, which means the developmental housing regime is not on the way yet.

This study enriches the conceptual and empirical understanding of the latest housing policies and the implementation process in China, and enriches the understanding of the stage of the housing regime transformation in East Asia societies.

Keywords *: affordable rental housing(ARH), housing regime, governance mode*

Student Mobility, Housing Choices, And Online Teaching: Investigating Current Dynamics In (Digitized) Higher Education

Christopher Jutz (Osnabrück University Of Applied Sciences), **Johanna Schoppengerd** (Osnabrück University Of Applied Sciences), **Ines Prehn** (Osnabrück University Of Applied Sciences)

Education-related travel accounts for 7% of all journeys in Germany (Nobis and Kuhnimhof, 2018). At Higher Education Institutions (HEI), student and staff mobility significantly contributes to overall CO_2 emissions, with studies reporting shares of up to 91% (Helmers, Chang and Dauwels, 2021). Thus, both urban planners and HEIs are seeking effective policies for sustainable educational mobility to harness environmental, social, and health benefits (Delmelle and Delmelle, 2012).

In this context, online education emerges as a promising solution to avoid traffic. Similar to remote work models like home office, online education facilitates location-independent learning processes, potentially providing university students with more flexible study programs and greater freedom in choosing their place of residence, while reducing travel-related CO_2 emissions and individual costs. The COVID-19 pandemic demonstrated the feasibility of moving significant parts of HEI operations online, challenging the necessity for physical presence and commuting. Consequently, there have been calls to increase the share of online education as an effective strategy for sustainable mobility at HEIs (e.g., Versteijlen, van Wee and Wals, 2021). However, some researchers come to a different conclusion. They imply that while online education may lead to an overall decrease in total commutes, there could be a simultaneous increase in the average commuting distance. Additionally, a shift towards less sustainable modes of transportation may occur as students relocate from urban centers to more peripheral areas with limited mobility options (e.g., O'Brien and Aliabadi, 2020).

Our submission contributes to this discussion by presenting new evidence from the EN ROUTE research project at Osnabrück University of Applied Sciences (HSOS), which investigates strategies to enhance the sustainability of university-related travel. Building on data from an online survey conducted among students attending the HSOS (n = 1057), we examine university-related mobility patterns of students in a mid-sized German city in relation to their residential locations and explore potential effects of online education. Particularly, we focus on three key aspects:

How does university-related travel at HSOS look today?

How is it related to questions of students' housing and transport infrastructure?

How might mobility and housing patterns change in the wake of online education and how will this affect settlement structures?

The results highlight strong connections between aspects of mobility, housing and studying. Promoting sustainable mobility in digitized higher education is highly complex due to observable tensions between various environmental and social factors. In addition, the heterogeneity of students leads to a range of possible responses and reactions regarding mobility and housing patterns. While online education undoubtedly has great transformative potential, we advocate for a realistic assessment of its ecological value, including a detailed examination of potential rebound effects.

Keywords : Student mobility, Residential location, Online education, Commuting

A Modular Architecture And Biomimicry Approach For The Future Of Housing Construction For Modern Families

Bárbara Bárbara (Faculdade De Arquitetura - Universidade De Lisboa), **Ljiljana Ĉavić** (Universidade De Lisboa)

The current housing crisis creates a demand for innovative solutions that address several topics, such as environmental concerns and resource scarcity in the construction and housing industry. This paper examines the potential adoption of a dual strategy that combines modular architecture and biomimicry principles in architecture design and construction practices.

In modular architecture, the assembly of prefabricated components, there are many advantages when it comes to efficiency and cost, as well as a reduced environmental impact. By examining case studies and scientific papers regarding the subject we can determine how successful a modular system is within its various uses, one of which being the adaptability to the evolving needs of our society, therefore tackling the lack of affordable housing.

By fusing this research with principles of biomimicry, which consists of drawing inspiration from nature's solutions and design, we can enhance sustainability and create a harmonized environment between architecture, construction, and nature. Through examples, this paper aims to scrutinize how this fusion has successfully dealt with the issues described above.

Some of the benefits of this fusion such as reduced waste, and more energy-efficient buildings, help minimize the ecological footprint. These systems are extremely adaptable regarding needs and function, geographical location, and transportability.

In this paper, we aim to highlight the advantages of adopting a modular architecture and biomimicry approach as a standard in the construction industry, to tackle the evolving needs of our society and urban living, while maintaining a symbiotic relationship between human and natural needs, and finally mitigating some of the more pressing issues that we are facing regarding the design and implementation of housing.

Keywords *: Modular Architecture, Biomimicry, Housing Crisis, Environmental Impacts, Resource Scarcity, Young Families*

The Impact Of Gated Communities' Developments On The Quality Of Life Of Local Residents In Peri-Urban Areas.

Ana Mafalda Madureira (University Of Twente), **Javier Martinez** (University Of Twente), **Leticia Owusu** (University Of Auckland)

Gated communities are widespread in the Global South cities and their peri-urban areas. They are characterised by the privatisation of public spaces and restricted access to the neighbourhood and are found in various forms. Gated communities reflect socio-economic and environmental inequality in cities. Research has shown that gated communities have specific impacts on the population outside such settlement, such as limiting access to amenities and services, reducing social interactions, threatening security and loss of livelihoods which is likely to affect the local residents quality of life (QoL). However, there are also some positive impacts of these developments, like increasing working opportunities and reducing social stigmatisation. This study analyses how gated communities in peri-urban areas in Accra city impact the QoL of local residents outside of the gated community. The paper is guided by two questions: 1. What are the socio-economic and environmental impact of gated communities' developments on local residents in peri-urban areas; and 2. How local residents perceive their QoL in peri-urban areas regarding the impact of gated community development. We employed a mixed-method (qualitative and quantitative) approach using secondary and primary data to understand the impact of gated communities over local residents QoL from the perspective of local residents. Secondary data aided in selecting two different types of gated communities with varying characteristics across the study area. Primary data was collected through focus group discussions and household surveys. The household survey included 73 respondents, each living outside the selected gated communities, to determine the roles of the different types of gated communities and spatial proximity. The study found no significant differences between the perceived QoL of local residents living outside the different gated communities. The assessment of the QoL satisfaction revealed that local residents perceive an improved overall QoL in the area after the development of gated communities. Satisfaction with social conditions was higher than expected among the local residents, and also employment and quality of work, and access to potable water and improved sanitation services had improved. However, residents close to the gated communities were less satisfied with their level of interaction than those further away. Also living costs had increased, and there was higher dissatisfaction with access to open spaces and good drainage systems. Studying the relationship between the gated communities and QoL through their socio-economic and environmental effects offers insightful lessons for planners and decision-makers in formulating better policies that promote sustainable urbanisation when developing gated communities in peri-urban areas. It also contributes to exploring potential impacts of the different types of gated communities over local residents QoL.

Keywords : gated communities, socio-economic and environmental conditions, Quality of life, peri-urban areas

Women'S Economy.tokyo'S New Housing Patterns And Urban Development.

Marcela Maria Riva de Monti (Universidad Politécnica De Madrid)

In Japan, women's access to housing is materialised under the traditional patriarchal system with the male head of household. Women are seen as dependent on him. As the traditional saying goes: women do not own a house during the three stages of their lives, neither as a daughter, nor as a wife, nor as a mother. These gendered social norms translate into gendered institutional structures that limit women's choices and access to housing.

The structural changes faced by post-growth societies explain the shift away from this conventional family model. The transformation of the family system is both a cause and a consequence of these societies, which are characterised by an ageing population, demographic decline, delay in the formation of family units and low fertility rates..

In this context, so-called womenomics policies are based on the conceptualisation of economic growth as dependent on increased female labour force participation. This in turn implies that the female economy becomes an important factor in the consumer market. With this conceptual framework policies were implemented to address the consequences of the "lost decade": the economic slowdown, the loss of relevance of the Japanese economy in the international arena, and the challenges of a shrinking population, by promoting the inclusion of women in the workforce at all levels and implementing neoliberal policies that include the liberalisation of government policies on access to housing.

In order to defend this argument, the report on womenomics analyses the growing weight of women in the consumption of luxury goods and, more importantly, in the single person housing market. This is a consequence of the increasing tendency of women to remain unmarried. With women's access to mortgage credit, their investment in real estate products is encouraged, forming a specific segmentation of the market. As a result of the application of these policies, the theory of the man as the main economic support of the family unit is undermined, motivating the formation of diverse family units, including professional and single women with purchasing power, who prefer small units close to the workplace rather than the suburban units representative of the patriarchal system. As women enter the full-time labour market, family dynamics change and so do their spatial needs. Working women (married or not) prefer to live close to their place of work. This new demand for housing cannot be met by the traditional model of the women-housewife, where the preference is for housing in the periphery, where family life takes precedence, but rather by greater density within the nuclear city.

This growing tendency of women to remain single and escape patriarchal control consolidates a space of freedom inhabited mainly by elite female empowerment. As neo-liberal political trends have particularly influenced the redefinition of labour and housing systems, these policies result in individuals and families becoming responsible for many aspects of their lives, including access to housing and childcare, representing another dimension of widening social inequalities.

At the same time, the city of Tokyo is undergoing a process of transforming its productive base into a service-based economy, leaving the industrial base open to development. The process of reorganisation of government agencies makes centrally located public land available to the market for intervention. The regulatory framework, at both national and local level, is equipped with the necessary instruments to accompany this regeneration process, which aims to make Tokyo a world reference city by encouraging foreign investment in the real estate market, incorporating many of its premises.

Based on these social, economic and regulatory vectors, this paper examines the urban policies implemented to respond to this new paradigm.

Residential Suburbs As Game-Changers For A Sustainable Transition Of Everyday Life At Lisbon Metropolitan Area.

Teresa Marat-Mendes (Iscte Lisbon University Institute)

Suburbs are where most people live, in Portugal, Europe or elsewhere. It is exactly in the suburbs that the impacts of climate change will be more strongly felt. Thus, greater attention to their features, challenges and potentials is urgently needed. Suburbs can be defined as urban areas that are predominantly residential, located at the edge of towns or cities, or as areas where more than 50% of the population lives in urban clusters not classified as cities, neither rural nor industrial (Eurostat). Suburban areas are very diverse, characterized by different architectural and morphological arrangements, revealing a plethora of specific construction techniques, levels of technology, aesthetical taste, but also cultural and social practices resulting from the specific needs of everyday life (e.g., nutrition, mobility, rest, hygiene, work, or rest).

Lisbon Region, notably the area covered by the Lisbon Metropolitan Area, is the most populated Portuguese area, largely due to its extensive residential suburbs. It is also the birthplace of the Portuguese suburb. Characterised by diverse built forms and architecture solutions, which have multiplied exponentially after World War II, the Lisbon Region constitutes a rich laboratory of urban forms capable of preparing the foundations of an architectural and urban agenda to reinvent the metropolitan region, from a sustainability perspective. Lisbon Region accommodates diverse types of suburban residential forms, shaped by a variety of elements and structures, and therefore their capacity to adapt towards climate change do also differ. What are exactly the specific needs, constraints, or opportunities for each specific typology of residential neighbourhoods according to their capacity towards change?

Thus, it is important to analyse and evaluate residential suburbs neighbourhoods in a comparative manner. Focusing on the Lisbon Region suburban areas, this presentation discloses and discusses the urban forms of the Lisbon Region planned residential suburbs, from 20th century until nowadays, in order to to disclose: i) the evolution of Lisbon Region residential suburbs, from a morphological perspective; ii) the present Lisbon region residential suburbs needs, constraints and opportunities to tackle climate change, from an architectural and urban form perspective; and iii) which processes of physical change did occur in the Lisbon region residential suburbs directly related to processes of 'behavioral' sustainability of everyday practices.

To do so, this presentation will focus its comparative analysis on a selection of residential case studies that we sought to characterize specific periods of the socio-economic evolution of the Lisbon region as well as of its urban planning history: 1900-1940s; 1950-1970; 1980s-2020 and 2020-onwards.

Keywords *: Suburbs, Lisbon Metropolitan Area, Urban Form*

Synergies And Conflicts Between Energy-Efficient Retrofitting And Access To Housing In Milan, Oslo And Vienna

Rebecca Cavicchia (Nordregio), **Marco Peverini** (Politecnico Di Milano), **Michael Friesenecker** (Boku - University Of Natural Resources And Life Sciences)

The urgency of addressing climate change and the environmental crisis has driven the European Green Deal's ambitious goal to make Europe climate neutral by 2050 through the Green Transition. Considering housing's significant carbon footprint - in 2021, the buildings and construction sector accounted for around 37% of energy- and process-related CO_2 emissions globally – it is crucial to intervene on the existing housing stock to make it more energy efficient. However, the energetic retrofitting of housing, though essential, introduces financial burdens that disproportionately affect the housing costs of low-income households (Grossmann, 2019). Indeed, actions to improve the energy efficiency of the building stock have been shown to be linked to rising housing prices, with strong implications for increasing inequalities due to gentrification, displacement, and uneven wealth distribution (Bouzarovski, Frankowski and Tirado Herrero, 2018). Moreover, these impacts are unevenly distributed across various sectors of the housing market. Tenants, whether in the private or public housing sectors, are likely to be affected more severely than homeowners. (Power, 2010).

Against this background, this study explores a critical conflict—the impact of energy-efficient retrofitting strategies on access to housing. Exploring this challenge is timely, especially in consideration of the EU Renovation Wave and the social and physical impacts that it will have on European cities.

To unravel such a complex relationship, this study builds on the argument that the possible impacts of energy-efficient retrofitting on access to housing are strongly contextual and fundamentally shaped by local housing systems (Peverini et al., 2023). Thus, the study introduces a conceptual framework, which disentangles how energy-efficient retrofitting strategies can variously impact conditions for access to housing through the contextual filters of local housing systems and of varied multilevel governance arrangements. Through a comparative case studies approach focusing on Milan, Oslo, and Vienna, we analyze local retrofitting strategies, tenure structures, and housing policies at different levels. The comparison discerns how differences and similarities in urban housing systems and energy-efficient retrofitting practices influence local housing accessibility.

Finally, drawing insights from the comparison, the study reflects on the role of the local contextual dimension in shaping equitable housing retrofitting strategies to effectively address climate change while prioritizing social inclusivity.

Keywords *: retrofitting; housing affordability; housing systems; comparative study*

Evaluation Of Fuel Poverty In Urban Regeneration Areas: A Case Study Of Ankara, Türkiye

Muzeyyen Anil Senyel Kurkcuoglu (Middle East Technical University)

Urban regeneration, with the objective of enhancing social, environmental and economic conditions through the improvement of the urban fabric, has been on Türkiye's housing and development agenda for an extended period. Regeneration interventions specifically concentrate on squatter settlements, characterized by challenges in infrastructure provision, low environmental quality, and substandard building conditions. Energy efficiency and accordingly fuel poverty, stand as prominent environmental and economic issues to which urban regeneration is anticipated to provide responsive solutions. The buildings that replace squatter settlements are expected to be energy efficient, thereby mitigating fuel poverty among residents of these settlements who exhibit heightened vulnerability in terms of demographic and socio-economic characteristics, besides the structural conditions.

Energy poverty, fuel poverty and energy efficiency concepts are closely interrelated, yet they delineate distinctive properties within the domain of energy justice. Energy poverty is a broader concept that is related to access to modern and sustainable energy services (Bouzarovski, 2014), whereas fuel poverty is generally observed and measured at the household level, and related to affordability issues (Moniruzzaman and Day, 2020). Although early definitions of fuel poverty consider only heating, more recent and comprehensive definitions cover all residential energy needs including heating, cooking, lighting, and the operation of devices (Boardman, 2010; Hills, 2011; Moore, 2012). Within the framework of enhanced building standards and environmental quality, urban regeneration is expected consider energy efficiency.

Fuel poverty constitutes a multidimensional challenge, intricately linked to household income, fuel prices, and the energy efficiency levels of buildings (Sovacool, 2015). Spatial variations in energy poverty can be considered as the outcome of structural geographic injustices ingrained in different phases of energy systems as well as in the economic, cultural and infrastructural components of society (Bouzarovski and Simcock, 2017). In this context, squatted settlements exhibit an elevated risk of fuel poverty due to a significant proportion of child and elderly populations, coupled with low-income demographics, whereas urban regeneration suggests the potential alleviation of fuel poverty, primarily through improvements in building quality. The actual impact of urban regeneration on fuel poverty, however, remains an understudied issue in the existing literature. This study aims to analyze fuel poverty in urban regeneration areas in Ankara, Turkey.

Several methods exist for assessing fuel poverty, and expenditure-based approaches are widely employed as the primary means of evaluation. Research conducted in the United Kingdom has been pioneering in establishing the criteria for fuel poverty assessment, which have evolved over time, transitioning from the initial ten-percent measure to low income high cost (LIHC), and more recently low-income low energy efficiency (LILLEE) approaches. Ten-percent method is a rough measure. It is required for the new constructions in urban regeneration areas to have at least Energy Efficiency Rating of Band C by law, so LILEE approach may be misleading since all buildings are considered as energy efficient. Therefore, this research adopts the LIHC method. The data is collected from four urban regeneration areas, and a questionnaire was conducted with 400 households. The questions include demographic and socio-economic characteristics of the households, and building attributes.

The results demonstrate that 11% of the households are at risk of fuel poverty. When he factors affecting fuel poverty are investigated, the binary logistic regression shows that the odds of being fuel power is decreased by being an owner, having children under age 5, the number of households being employed, and south-faced apartments, whereas increased by the number of households, having individual heating system instead of central heating, and number of months required heating. It can be concluded that fuel poverty can still be an issue for the regeneration areas, particularly due to the socio-economic characteristics and the housing layout.

Keywords *: Urban regeneration, , fuel poverty, energy efficiency*

Dynamics, Mechanisms, And Benefits In Urban Community Micro Renewal Practices: A Case Study Of Nanjing, China

Jiwen Han (School Of Architecture, Southeast University, China)

With the transformation of urban development patterns and spatial construction logic, a paradigm shift towards micro renewal, centered on enhancing the built environment and nurturing collective identity, has emerged as a transformative trajectory in the process of urbanization in China. The community, as the smallest constituent unit in urban structure and grassroots governance, demands attention due to the prevalence of both formal and informal micro renewal practices. In the context of existing development, community micro renewals are no longer confined to the two-dimensional expansion and reconstruction of physical space. Instead, they emphasize the three-dimensional regeneration across economic, social, and environmental dimensions. These renewals seek a governance model involving multiple stakeholders, highlighting cyclical strategies for both material and immaterial transformations, thereby establishing a novel cognitive framework for the value of urban physical and social spaces. Hence, there is a pressing need to articulate and explore the spatial construction logic, driving forces of micro renewal, implementation mechanisms, and comprehensive benefits arising from this process. This paper conducts a systematic review of the aforementioned processes and, through in-depth empirical research on three distinct communities—Xiaoxihu, Xiaosongtao Lane, and Dayanggou—in Nanjing, explores the diverse characteristics of micro renewal. It delineates the sources of update motivation, the mechanisms involving multiple stakeholders, and the comprehensive benefits across social, economic, and environmental dimensions. The study aims to propose specific implementation pathways for micro renewal practices, with the ultimate goal of offering experiential insights for the sustainable development of organically evolving communities.

Keywords : micro renewal, community updates, dynamics of micro renewal, implementation mechanism, benefits of micro renewal

Track 12: Futuring

FUTURING - Planning as a game changer: utopias and dystopias vs missions, models, scenarios, pathways, actions and politics of change

Chairs:

- Tijana Dabovic, University of Belgrade

- Dimitri Toubanos, Ecole d'Architecture de Paris-Val-de-Seine

- Abdallah Jreij, Politecnico di Milano

Keywords: future, time, space, spatio-temporal, baseline, timeline, modelling, scenarios, forecasts, pathways, transitions, alternatives, politics, action, change, collaboration, urgency, uncertainty, level of certainty

Behold all of you, shamans, prophets, Nostradamus -, Jules Verne - and Kubrick-wannabees, charlatans with YouTube channels - Here come planners to change the game of storytelling the future - the most powerful stories made to change the minds and wrongdoings on all life on Earth!

Come planners - show us how to wake up corrupted politicians, hypnotised consumers, hungry money makers, crazy innovators, angry activists and the ones we left behind! Tell us all and invite us to your well-organised, knowledge-based rewilding regional designs, urban labs, digital twins, energetic communities, nature-based solutions, place-making tools and degrowth platforms!

In the age of increasing collective vulnerabilities and responsibilities, this track explores planners' knowledge, skills and values in imagining and navigating societies towards a desirable future 10, 20, 50 or 100 years from now.

Which scenarios of sustainable development would you see coming to life? Discuss different approaches and purposes of making spatial scenarios -descriptive, normative, predictive or exploratory: do you develop Three Horizons or the Cascade Model Strategy? All those who make their stories by modelling STEEP (social, technological, environmental, economic and political) trends and their spatial impacts are invited to come and unpack their black boxes.

We invite you to reveal your forecasting technique, future-proofing, and backcasting knowledge. Please discuss with us the skills and values behind the well-organised, knowledge-based rewilding regional designs, urban labs, digital twins, high-tech or IA-driven metropolises, energetic communities, circular economy action plans, low-tech and bioclimatic resolutions, resource-saving proposals, nature-based solutions, place-

making tools and degrowth platforms! The future at stake needs both game-changing storytelling and actions.

As such, how does your proposal construct a new narrative for a desirable future?

Does it pursue philosophical, ethical and political approaches, such as the Conservation ethic of Gifford Pinchot, the Utilitarianism of Jeremy Bentham and John Stuart Mill, the Preservation ethic of John Muir or John Ruskin, or the Deep Ecology of Arne Naess?

Is it linked to an economic perspective, pursuing Goergescu-Roegen's thesis on "entropy" (1971), conducting to "decrease" approaches, or does it follow Robert Solow's or John Hartwick's « weak sustainability » thesis?

On top of the new narrative, how does your proposal translate to concrete actions? Is it a new form of utopia or a feasible scenario?

If such, what innovations or technical renewal are necessary to make it happen? Finally, what constraints and controversies do your game-changing scenarios face, either political, economic, social or technical?

The track welcomes abstracts addressing, but not limited to, the following sometimes overlapping themes:

- future as a domain of freedom and domain of power;

- utopian/dystopian narratives, missions and their purpose - sustainability, climate action, climate justice;

- technical forecasts and projections, their purpose and methods;

- tools for making collaborative and innovative scenarios and pathways;

- sustainable spatiotemporal transitions - concepts, methods and politics;

- cross-scalar futuring - from global to local futures and back and forth;

- practice of co-construction of practical alternatives

Futuring Urban Growth

City On Demand: When The Digital Dimension Takes Shape

Alessia Allegri (Ciaud, Lisbon School Of Architecture, Universidade De Lisboa), **Rita Ochoa** (Ciaud-Ubi. Faculty Of Engineering, Universidade Da Beira Interior – Ubi)

Design studios in vacant shops, beaches in the center of Paris, gardening in anonymous spaces, "underground" restaurants. Changes in the economic base of cities, the attraction for culture-driven initiatives, socio-cultural dynamics fueling new bottom-up approaches, technological innovations, and the financial crisis delaying megaprojects, among other factors, have sparked a growing interest in temporary uses and sharing practices as a means of urban change.

Based on the research project "Intermittent City: Temporary Uses and Sharing Practices to support and Adaptive Urban Space" this article offers an analysis of the socio-spatial conditions and objectives of temporary uses and sharing practices, with a specific emphasis on the concept of 'Platform Urbanism'. Platform urbanism is explored through the lens of architecture and urban studies, with a keen interest in unraveling the spatial dimensions of platforms—the tangible spatial, formal, and material aspects of platform urbanism. The central query revolves around how platform logics materialize in urban settings, encompassing spatial, material, and formal aspects.

Discussing the fundamental transformation of urban space through platform technologies, the work aims to contribute to a comprehensive and critical understanding of the logics and dynamics behind it. Digital platforms embody not only new types of enterprises but also a completely new culture of life – from the products we handle and the services we use every day. These multi-scalar changes raise significant questions about the social potentials and risks of the architecture of these all-encompassing ecosystems. So, the ultimate goal is to outline pathways toward a more equitable and just future for cities, considering the broader implications of these changes on urban life and society.

Keywords : Intermittent City, temporary uses, sharing practices, platform urbanism, innovative architecture, innovative planning

Multi-Scenario Land Use Change Assessment And Elastic Urban Growth Boundaries Delimitation Based On &Quot;Double Evaluation&Quot; And Cellular Automata Models

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Urban growth boundary (UGB) is often considered as an effective tool to control urban sprawl. Traditional urban growth boundary delimitation often ignores the needs of the town's own development rules and socio-economic factors in its specific methodology, and seldom takes into account the impact of macro-trends (e.g., future urban needs) and spatial policies (e.g., ecological protection policies) on planning, emphasizing more on the rigidity of the single line and lack of elasticity. The existing research and practice is not systematic and lacks consideration of flexibility, and does not provide a good response to the existing shortcomings. This makes the delimitation results mismatched with the real needs and unable to meet the needs of high-quality development of towns and cities.

The FLUS model based on cellular automata (CA) is considered to be an effective tool to simulate the spatial and temporal changes of land use evolution. However, the role of socio-economic factors is usually neglected in the previous FLUS modeling, and the situation under different development objectives is not sufficiently considered. This makes the accuracy of the simulation results low and cannot provide sufficient reference basis for urban development.

Therefore, this study explores a multi-scenario land simulation model that combines the "double evaluation" (including "resource environmental carrying capacity (RECC)" and "spatial development suitability (SDS)") with artificial neural network (ANN) integrated with CA, and considers the mining of neighborhood effects, adaptive inertia coefficients, and other mechanisms. The advantage of this approach is that it not only increases the judgment of the influence of socio-economic factors through the top-down "dual evaluation", but also simulates the multi-objective urban development scenarios under the influence of different drivers and spatial policies through the bottom-up CA and different cost matrices, and the simulation accuracy is high.

In this regard, this study conducted goal definition, framework construction, and empirical analysis. The study proposes a technical framework for land use simulation and flexible delimitation of UGB coupled with RECC, SDS and CA modeling. Under this framework, the technical route of "three-dimensional delimitation" of zoning, scale, and boundaries, as well as the implementation mechanism of combining rigidity and flexibility are explored. The final UGB will be generated using a morphological technique based on erosion and expansion, which determines the UGB and the scale of flexible control zone.

The technical framework was applied to the empirical study of land use simulation and UGB delimitation in Jiaxing City from 2018 to 2035, which achieved good implementation results, and the results show that: ① The accuracy of land use simulation is high (94.1%). ② The ecological protection scenario and the farmland protection scenario have obvious limiting effects on urban sprawl; ③ The trend of outward expansion of construction land along the transportation arteries is obvious, and the connection between different counties and cities is significantly enhanced, but a large amount of fragmented land is generated. Overall, this study explores a relatively complete set of methods and models for flexible delimitation of urban growth boundary, which can be adapted to different demand scenarios, and provides a new tool for better simulation of land use changes at a fine scale, and provides a reference for improving the realistic suitability of the work and scientifically formulating relevant policies.

Keywords *: Multi-scenario simulation, Cellular automata model, Urban growth boundary, Land use change, Double evaluation*

Testing A New Management Approach To Settlement Development: Certification As An Instrument For Reducing Land Consumption

Svenja Müller (Technische Hochschule Lübeck), **Frank Schwartze** (Technische Hochschule Lübeck)

The MORO (model projects of spatial planning) research project "certification program for land-saving municipalities" is testing a new control system that encourages a self-directed approach to the issue of land efficiency at the local level. The contribution of land-saving development to achieving the goal of sustainable and climate-friendly development is generally recognized. The economical use of the non-renewable resource of land forms a central basis for sustainable spatial and settlement development (Egendy et. al. 2015).

In Germany, the federal government has set its own land-saving target with the so-called 30-hectare target. According to the Federal Statistical Office, settlement and traffic areas in Germany increased by a total of 9.8% or 4,286 square kilometers between 2000 and 2012. In mathematical terms, this corresponds to a daily increase of 98.5 hectare, which is around three times higher than aimed for. Various studies show that some of the newly designated areas far exceed demand and are often located in unfavorable or poorly developed locations (Egendy et. al. 2015). The issue of controlling land-saving settlement development is currently gaining in urgency due to increasing competition for land over and above these objectives.

Instruments for implementing these goals have been available for a long time. Numerous research and practical projects have been and are being carried out at various levels. A closer look at the existing approaches reveals that the organizational and control instrumental basis for certification, especially with regard to the planning and implementation of urban development projects and measures, have not been comprehensively investigated (Hogen 2012). However, even if new land take has noticeably decreased in recent year, a look at current land development makes it clear that the land policy goals adopted by the federal government cannot be achieved without sharpening the range of instruments (Adrian et. al. 2018). Despite a soil protection clause in the Federal Republic of Germany's Building Code, land use continues almost unabated as formal building and planning law does have any mandatory legal requirements to reduce new land use. (Egendy et. al, 2015). This leads to the fact that around two thirds of land consumption is caused by municipalities as part of their municipal planning (Meinel et. al, 2020).

In order to address these conflicting objectives, the research project is therefore developing a voluntary certification system for municipalities that are intensively engaged in reducing (new) land consumption. The core of the project builds the catalog of measures that contains tools and indicators which can lead to a more efficient land use. In the future, certification space-efficient municipalities could play a key role in promoting sustainable and land-saving development. Certification not only serves as recognition for the efforts in using its land efficiently, but also as an instrument to create a clear and structured path for sustainable settlement and open space development. With the help of the catalog the certification creates standards and requirements. These need to be maintained by the participation in order to receive a high award. This makes certification an instrument for controlling settlement development, as it is about the actual achievement of specified objectives.

Certification of land-saving municipalities therefore provides an important incentive to reduce land consumption and thus promote the sustainable use of limited resources. This process encourages municipalities to rethink their planning approaches and find more efficient ways of using space. In addition, certification acts as a quality standard that raises awareness of the importance of sustainable urban development. Municipalities that undergo this process send a strong signal to the population and other municipalities that they are actively committed to forward-looking, responsible development.

***Keywords** : land-efficiency, land consumption, certification, urban planning instruments, control approach*

Sustainable Airport City Development Focusing Towards Mixed Use: Future Proofing Airport & Airport Cities For Inclusive Developments

Varsha Padmanabhan (Bengaluru International Airport Limited)

Abstract-

The paper discusses synergies of airports and upcoming airport-cites in developing nations especially India while parallelly comparing them in a global context. Real estate areas developed around airports are being termed as airport cities or aerotropolises. These developments are usually located on the outskirts of city boundaries for operational efficiency. However, due to rapid urbanization, cities are expanding towards these fringes. Airports in these cases become a gateway to a city and at the same time, behave like an independent satellite hub.

Efficient planning of these airport-cities can assist in future proofing large infrastructure developments such as airports, which incur huge capital expenditure & incur even larger operational costs. Efficient planning with the 3 pillars of sustainability - people, planet, and profit aid in fostering sustainable growth of these developments & the cities that are attached along the fringes.

Firstly, airports function as transit hubs. Usually transit hubs lack human touch. Here, the floating population is marginally high & travel can induce monotony. This development has a great potential to bring about social interactions for the public & can cater to an interesting public experience. Secondly, Airports are built as huge infrastructure developments and are away from cities, people need to travel far and wide to reach to and from airports for a simple business meeting or entertainment thereby increasing their carbon footprint. This can be reduced by providing basic requirements and creating mixed-use developments near the airport to relieve city traffic congestion. Thirdly, airports are structured on a single profit mechanism of aero related revenue from airline concessionaires, user development fee (UDF) collected from travelers, Cargo, parking etc. Hence, future proofing these developments will ensure that revenue can be collected from various streams. Overall, the above 3 strategies would help cities to achieve a wholistic sustainable development.

To counter the problems that huge infrastructure projects face, airport city developments need to align with robust National and International frameworks such as UNSDG's (United Nations sustainable development goals) to foster mixed use developments ensuring that 15-minute cities are formed. Since most of city airports are away from the Central Business District (CBD), they tend to function as separate CBD's. This has great potential in creating two to three CBD 's for rapidly growing cities, which can reduce congestion in central parts of the city.

Planners, developers, city experts, need to ensure that any new development, irrespective of their nature needs to be inclusive, safe, resilient, and sustainable. It is imperative to anticipate problems of cities and plan infrastructure accordingly to battle climate change.

Keywords *: Airport city , Sustainable Urbanism, Future proofing*

Speculative Urbanism In The Imagined New Capital City Of Indonesia

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This research explores rural transformation into urban economies in Nusantara, the New Capital City of Indonesia. Planned as a futuristic global city nestled in the heart of Borneo's forest, Nusantara is currently under development. It is anticipated to be completed by 2040, with a projected population of approximately 1.7 to 1.9 million. The central government zone is subject to state supervision, while market forces primarily drive the peri-urban development within its jurisdiction and have minimal regulatory controls. Consequently, land-use changes involving commodification and speculative property development practices have occurred. This research is conducted through a field survey and stakeholder interviews. By applying Lefebvre's theory of the production of space, this research analyzes the relationships and interplay of social, spatial, and institutional practices to elucidate the multidimensionality of speculative urbanism in the case study. The findings reveal that the new capital city project sparks imagination and uncertainty within the local community. While the new collective urban future is portrayed as an opportunity for an improved quality of life, uncertainty arises due to the government's limited capacity to guide the transition and integration of local development in response to external driving forces. In such circumstances, the local community engages in speculative imagination by developing their land and property, capitalizing on the increasing land value and consumer market. This is reflected by the transformation of use-value practices into exchange value for the sake of capital accumulation, such as the construction of rental houses and commercial buildings for new migrants. While the central government zone and its core area have not been developed and might face political contestation during the national government transition, the periurban areas of the new capital city have been rapidly commodified and transformed into developed areas due to the speculative urban imagination. These practices pose challenges to achieving an equitable planning process for the new capital city.

Keywords : *Speculative Urbanism, Urban Imaginaries, Megaproject*

Power Of Futuring

A Game Changer In Geodesign Concepts, Technology And Education: The Case Of Gc Climate Action For Belgrade

Tijana Dabovic , **Bojana Ivanovic** (University Of Belgrade Faculty Of Geography), **Bojana Pjanovic** (University Of Belgrade Faculty Of Geography)

In 2023 the Department of Spatial Planning, Faculty of Geography, University of Belgrade joined the Global Climate Geodesign Challenge Project (GC). Serbian team was one of 65 local university and research teams from the International Geodesign Collaboration joining the initiative. The assumption was and still is: that the climate mitigation can and should be coordinated across the global – regional – local - regional - global levels. In this first iteration, local participation was coordinated globally through the use of the global guidelines for conducting the study. These included: a particular workflow, comprehensive list of 143 Climate Actions organised into 8 domains - Energy, Agriculture, Forests and natural areas, Oceans, Settlements, Transport, Industry and Water designed by the Lichtenstein Institute for Strategic Development (LISD), access to relevant global data and expert maps and access to Esri's GeoPlanner special version, bridged to and from Geodesign Hub. Belgrade study was conducted with the third year undergraduate students of Spatial Planning during the Planning Support Systems course. The analysis was initiated by the exploration of the data associated to the LISD list and carbon assessment given in Geoplanner using the carbon emissions and sinks data. Subsequently, the Belgrade study area and the list of climate actions per domain relevant for that area were identified. On this basis, using the new technology, strategy for allocation and timing of actions emerged. This paper will present the novel approach of climate geodesign in the case of Belgrade, highlighting the need of digital technologies use and data analysis for understanding global impacts of local practices as well as influence of global conditions and guidelines to local activities across different domains, levels and time frames.

Keywords : GEODESIGN, CLIMATE MITIGATION, GLOBAL LOCAL NEXUS, INTERNATIONAL GEODESIGN COLLABORATION, BELGRADE

Bahar Aksel

Vision As A Game Changer In Regional Planning. How Foresight'S Visionary Process Can Lead In A Radical Break Between The Present And The Future?

Akis Kalamaras (Phd Candidate, University Of Thessaly, Volos, Greece), **Pantoleon Skayannis** (Professor, Polis University, Tirana, Al, And Professor Emeritus, University Of Thessaly, Gr)

In an era of geopolitical instability, climate crisis and increasing uncertainty, a growing need for long-term strategic and visionary planning arises to formulate coherent answers. Fragmented, multilevel governance systems, short-term politics, and the lack of strategic spatial intelligence in shaping the prospects for the future of regions, contribute in deepening social inequalities. Aspiring to change the developmental trajectories into more sustainable and fair avenues, we should incorporate tools and strategies which enhance public engagement in a creative manner and gives room to imagination.

Foresight as an instrument for long-term planning, aids institutions and development policy bodies to manage change and volatility. Among the essential elements of Foresight is visioning (Miles and Keenan, 2002). Visioning provides a process for which organizations can collaboratively design their desired future. Without a sensible vision, a transformation effort can easily dissolve into a list of confusing and incompatible projects that can take the organization in the wrong direction or nowhere at all (Kotter, 2007). Foresight approaches ensure strategy development to be an inclusive process, allowing users to be authentically involved in the process of creating a shared view of their organization's future.

Visioning is an interactive and inclusive process but critical questions emerge such as: who designs, who leads, who inflicts and owns the vision? As Poulantzas notes, the forms of planning, or the establishment of general production guidelines, is not so much actual planning but a projection into the future of the general trends prevailing at a given moment in time. (Poulantzas, 1978). If our goal is to overcome path-dependence and redesign regional development strategies in terms of sustainability utilizing the emergent opportunities, we should adopt democratic planning methods that rely on collective intelligence and give voice to local communities.

The aim of our research is to highlight the crucial role of visionary processes in Regional Foresight. In particular, we will attempt to answer which are the apt tools and processes leading to the development of a shared vision and how does it translate to concrete development actions serving public interest. One of our central concerns is how can visionary processes encourage the engagement of broader society in regional planning. The aim being to foster people's confidence in their ability to partake in joint actions addressing the vicissitudes of an uncertain era. We seek to develop a coherent, effective and applicable framework that could lead to radical and sustainable transitions for our regions. This paper presents and discusses some first guidelines in this direction.

Regional Design Practices For Envisioning Regional Futures: The Florence Approach

Valeria Lingua (University Of Florence, Department Of Architecture)

The contribution provides an insight on the use of Regional Design methodologies for the co-creation of appealing, shared, and inspiring visions and scenarios to tackle priority challenges through local design projects.
It poses on the concept that Regional Design practices concerned with the enhancing of future thinking in complex urban contexts can provide actors with transformative power for envisioning better regions in collective environments.
Post-pandemic dynamics and climate change are triggering profoundly new social dynamics, and are calling for innovative forms of spatial planning and territorial development. They necessitate the participation of civil society at all levels: from collaborative regional planning and design to urban co-design in neighbourhoods characterised by a multitude of complex challenges.
In this direction, Regional Design theories and practices are called to promote participation at both the local and the larger-than-local scale and to enhance future literacy among citizens and stakeholder for the future of their territories.
Stakeholders and citizens involvement is intended to enhance the development of local contexts and their territorial systems (in urban, rural and inland areas), to connect technological and social innovation and direct them towards the strengthening of social cohesion, health and well-being in families, in the workplace, in urban and residential structures, in a true perspective of sustainable human development.
Moreover, the University can play a "civic" role within these processes by proposing learning and research approaches, as well as design methodologies for the whole community, targeted to promote future literacy and to enhance the construction and diffusion of spatial visions, imaginaries and design studios concerning the present and future of our cities and territories.
Within this frame, relevant strategies and pathways have been developed and contextualized by the University of Florence, Department of Architecture, for strategic planning in both metropolitan and basin regions. Following an interactive approach, the Regional Design Lab (ReDLab) and the Jean Monnet Chair PracticEUA combine frontal and participatory teaching methodologies, including encounters with practitioners, seminars, co-design workshops, in order to provide participants with both formal and non-formal/informal learning. These co-design and participative processes are conceived to merge different projects, desiderata and stakeholders' needs. Moreover, Regional Design enhances co-learning and leads stakeholders to reflect on priorities and to manage implementation actions and governance pursuing inclusivity, beauty and wellbeing within a city, a metropolitan area and even a whole river basin.

Unravelling A Sustainability Vision In The National Spatial Plan

Antti Roose (University Of Tartu), **Pille Metspalu** (University Of Tartu)

There is an increasing demand for a new generation of planning frameworks capable of delivering long-term sustainability outcomes amidst the escalating uncertainties (Becker 2023, Kivimaa 2023). Estonia's National Spatial Plan has undergone a significant transformation, shifting from traditional growth paradigms to a sustainability vision. The 2012 concept of low-density urbanized space, integrating compact cities, suburbs, and traditional villages to support diverse urbanized lifestyles, is proposed to be replaced by an optimised, densified cohesive pattern centred around cities. The research evaluates the plan's inception and framework, addressing challenges posed by climate change, regional disparities, and national security while striving for a resilient and sustainable future. The inception phase establishes principles, selects themes, and outlines impact assessment methodologies, along with identifying necessary studies.
The sustainability domain aims to create liveable environments across Estonia, addressing regional disparities. Rethinking climate policy, particularly in the land-use sector, involves aligning policies with decarbonisation, climate and biodiversity implications, simply minimizing land take and acknowledging spatial scarcity. The plan should set clear land use priorities, providing conditions and guidelines for local comprehensive plans, seeking climate-proof and low carbon land uses and enforcing brownfield development. Aligning regional specialization with energy transition imperatives will be challenging in the deindustralised northeastern part as well in the wind powered western Estonia. The plan must also develop a climate resilience model for various urban areas and their vulnerabilities. A nuanced approach incorporates cross-cutting planning principles that comprehensively account for climate risks across sectors and land uses.

European policies reshape the territorial dimension at the national level, fostering policy debates through downscaling emerging initiatives and measures (Böhme et al., 2022). Critique extends to contextualizing national territorial policies within the European climate ambition and cohesion policy. While advocating for experimentation and adaptation to uncertainties, the study questions the feasibility of new approaches and planning solutions. Sustainability demands a more robust vision and an empowerment of the planning instruments, incorporating policy making, foresight, mapping and communication techniques. The research highlights potential gaps in the plan's adaptability to the transition mode and underscores uncertainties regarding high territorial dynamism. This initial phase of national planning is crucial as it sets the ethos and tone for the entire planning system and process.

Integrating Metaphors For A Planning Ecology. Evaluating The Work Of A Local Quality Team

Jan Schreurs (Ku Leuven)

In line with the Congress's argument, this paper evaluates and reflects on means and ways of managing local change.
Collaboration is a major prerequisite within a planning ecology which includes, besides analysis, research and design, also operational aspects such as action programs, communication, and implementation. Many diverse stakeholders need to be informed, motivated, mobilized and activated before they are willing to invest knowledge, creativity, time, money, and other valuable resources. Moreover, actual (global) turbulence urges planners to include knowledge and visions from ever more specialist fields of research and practice (climate, biodiversity, water, energy, health, food, justice...). Accordingly, during the complex quest for concepts, strategies and instruments, collaboration is a crucial factor. Rightfully, it is promoted by many scholars and professionals. But the practice of collaboration is not obvious. The circulation of a multitude of terms collaboration is dealt with in literature (co-creation, co-production, coalition, collective....) is an indication of some confusion concerning meaning, relevance, and applicability of this concept. Moreover, within participatory processes, stakeholders arrive with diverging images of what it means 'to collaborate'. Different attitudes, aims, interests and (knowledge of) means reinforce the tensions between those images. Thus, a central question is: (how) to construct a 'lens' to make diverging lines of thought and action converge during urban planning processes.
One way of grasping the accuracy of 'collaboration' in a critical way, is to learn from cases. Since collaboration is a practice as well as a principle, valuable lessons can be learned from confrontations/dialogues between facts and frames. Therefore, the paper looks at a specific public-private-partnership planning practice where collaboration is a structural condition, reflecting on ongoing practices developed during several years. This case is 'Beringen-Mijn', a district in a moderate Belgian city, developed out of a huge coal mining plant. From motor of prosperity, this miner's district became a monumental burden in terms of physical problems (large derelict land, huge empty industrial buildings, abandoned heritage, a worn-out garden city, ...), social tensions (spatially isolated and socially divided communities of migrants and newcomers, ...), and mental disruption (loss of work and collective ethos, traumatic history, emptied signifiers, ...). Typically, such burdens also have a huge potential for new developments. To capitalize on this potential, a specific multifaceted planning approach has been introduced within the city government. Typical for this approach, the idea of correspondence and integration steers the heart, head, and hand of the stakeholders. ...
The paper evaluates the rationale of this approach, the way it is accomplished in practice, and its results. As an analytical frame, this investigation uses three metaphors to describe, analyze and asses the approach's attitude (making of a collective lens, materialized in stories), its underlying theoretical model (meshworks of relational lines), and its modus operandi (re-making physical, social and mental landscapes). As project-director of the district I write the paper in dialogue with a multi-disciplinary quality team of external experts and civil servants playing a strategic role in spatial and social issues. Conclusions focus on the relevance of the approach, on crucial conditions, and on possible improvements, both on the local and on a more general scale.

Futuring Urban Neighborhood

An Experiment In Degentrification In Community Renewal: A Case Study Of Future Communities In Zhejiang, China

Jie Luo (Zhejiang University)

Across the world, due to the increasing shortage of land and resources in cities, urban development has gradually shifted from incremental model to inventory model. Under this background, urban renewal has increasingly become the key task of urban planning and construction in China.

With the change of construction ideas, urban renewal has gradually abandoned the previous mode of large-scale demolition and construction that only focuses on the material level. Instead, it pays more attention to people's needs, and tends to adopt an organic renewal strategy that combines problem-oriented and demand-oriented. In this process, as a basic unit directly related to residents' life, the practice of community renewal is increasingly abundant. However, the traditional community renewal is often driven by the government and the market, and the cost of renewal is largely transferred to the government and residents. After the renewal, the cost of living such as land price and rent rises, the middle class enters the community, while the indigenous people are gradually marginalized to move out. Finally, the social classes been replaced, resulting in gentrification.

In order to actively adapt to the new round of industrial revolution and scientific and technological revolution, cope with the potential and various uncertain risks in the future, and better achieve the goal of common prosperity and new urbanization, Zhejiang Province of China innovatively proposed "future community". At present, the renovation of old communities is the main type, and it is a community renewal practice to accommodate future demands.

This paper addresses how to reduce the risk of gentrification in community renewal. Taking the future community in Zhejiang, China as a case, this paper analyzes the mechanism and effect of degentrification in future communities, hoping to provide new solutions and references for gentrification.

Therefore, in the first part, this paper firstly combs the practice and research of community renewal model at home and abroad, and analyzes the main means of degentrification and the existing shortcomings after deeply exploring the gentrification process. At present, the community renewal model mainly includes three models: government-led, market-driven and multi-subject cooperation. The renewal process has the problems that the renewal subject over-relies on external forces generally, the internal forces are weak, and the renewal link focuses on construction and ignores operation.

In order to alleviate gentrification, the government usually fills the material supply of indigenous people by increasing low-cost housing and public service facilities, or controls the nature of land use and adjusts housing policies to curb large-scale development and rent increases. However, these methods may lead the government to bear the high explicit and implicit costs of community renewal, the social tensions between new and old residents, and the insufficient motivation of community development.

In the second part, we use field research and data analysis methods, taking Qicai community, Yangliujun community and Sky City as examples, to conduct in-depth research on the degentrification mechanism of future communities.

In the third part, we focus on the analysis of the "number of directly benefiting residents" mechanism and its implementation effect. We believe that this mechanism is the key path to achieve the comprehensive benefits of residents' profit, social effort, government effort saving and new development momentum in community renewal. Through this mechanism, the gentrification problem can be resolved from within the community and the sustainable development of the future community can be realized.

Ict For A Better 15-Minute Community: Progress In Shanghai And Future Directions

Zhejing Cao (Assistant Professor)

Shanghai is actively exploring using Information Communication Technology (ICT) to support 15-minute community planning. This paper reviews recent policies of 15-minute community in Shanghai, introduces the progress of ICT application in Shanghai 15-minute communities, and discusses its future directions. ICT has been applied in Shanghai to provide easier access and improve user experience for public facilities, increase delivery efficiency and enhance space flexibility for commercial facilities, augment physical world and trigger offline activities for urban space. How to use automated, dynamic, and interactive technologies to promote convenient public services, multi-functional commercial properties, and attractive urban space is worth additional explorations.

Using Spatial Agent-Based Modelling To Study Interlinkages Between 20-Minute Neighbourhood, Travel Behaviour And Health

Heeseo Rain Kwon (University Of Liverpool)

The pandemic has shed light to structural challenges in cities including health inequality and introduced trends such as work from home and local living. The 15-minute City (or 20-minte Neighbourhood (20mN)) concept is receiving increasing attention as a framework to promote pro-health and pro-environmental outcomes. 20mN and less car-based lifestyle can enhance population health, particularly non-communicable diseases (NCDs) such as diabetes, cardiovascular and respiratory disease, and mental health, through encouraging active travel and reducing air pollution. To understand health and health inequality implications of 20mN, there is a need to study the interlinkages of components that shape 20mN across sectors such as planning, real estate, transport and public health, accounting the spatial and population characteristics of the neighbourhoods as well as the change of the built environment and travel behaviour over time.

In response, this research takes on a complex systems approach and builds an exploratory spatial agent-based model (ABM) (Manson et al., 2020) using data from Greater Manchester (GM) to address the research question: 'What is the outlook for post-covid building use change towards 20mN in GM, and what are the implications for working residents' travel behaviour, physical activity, and health and health inequality?' This study establishes a conceptual framework of two feedback loops where (1) the residents' switch from car to non-car modes increases physical activity and air quality, leading to better health and further encouraging active mobility, and 2) more consumer/user demand for carless urban environment leads to pro-health urban development in land/building use change towards 20mN, which facilitates further mode switch away from car. The simulation runs from 2023 to 2040, linking to the GM's vision for achieving 50% mode share of walking, cycling and public transport by 2040.

This study used spatial and population data to set the 'patch (land parcel)' and 'turtle (resident)' properties within NetLogo. For patch properties, we prepared and loaded various raster maps in 100*100m grids including built areas (city centres, local centres and suburban neighbourhoods), nature, building use (residential, retail, and office) by building height, deprivation, and air quality, and calculated and assigned unique 20mN properties for each turtle within their 2km radius (e.g. density, proximity, diversity). For turtles, we used the 2011 and 2021 UK census individual microdata with socio-economic/travel characteristics of working residents in GM (N=21,430 for 2011 and N=64,019 for 2021; Note: 2021 microdata is referred to with a caveat of having been collected during covid lockdown), and linked them with the UK National Health Service (NHS) disease prevalence data.

This study established three sets of behavioural rules that run yearly, informed by literature review as well as consultation of professionals in GM: (1) rules for land/building use change and population location corresponding to work from home and policy scenarios, (2) rules for residents' car to non-car mode switch based on theories of planned behaviour and interpersonal behaviour (Kwon and Silva, 2023), and (3) rules for the expected impact of increased physical activity on the improvement of the prevalence of different NCDs (e.g. Riiser et al., 2018). Such modelling approach presented this study can aid policymakers design and test top-down and bottom-up interventions for behavioural change towards healthy 20mN, and identify neighbourhoods to give particular attention to in the aspect of spatial and health inequality. Furthermore, this study contributes to the development of human-environment dynamic modelling (Liu et al., 2021) and ABM as a planning support science for integrated policy-making (Silva et al., 2020).

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Multifunctional Infrastructure – Multifunctionality As An Opportunity For Needs-Based Social Infrastructure In Urban Neighborhoods

Corinna Schittenhelm (University Of Kaiserslautern-Landau)

The population of the EU is estimated to decrease from 451.39 million inhabitants in 2023 to 419.46 million inhabitants in 2100 (Statista GmbH, 2023). According to moderate forecasts, the population in Germany will remain relatively constant during this period, with a slight downward trend (Variation 2, Statistisches Bundesamt, 2022a; Statista GmbH, 2023). Nevertheless, other scenarios are also likely due to various events that cannot be (conclusively) calculated, such as climate change, wars or pandemics etc. Certainly, demographic change and the ageing of society will alter demands and pose major challenges for municipalities.

Municipalities in Germany, many of them already in debt, will have fewer financial resources at their disposal due to the increasing decline in income taxes (Statistisches Bundesamt, 2022b). At the same time, the demand for social infrastructure will change in line to demographic change. In the medium term, more age-appropriate facilities will be needed than child-appropriate facilities. In the long term, the needs and design of social infrastructures (facilities and services for the social care of the population) must be reanalysed and reassessed. For the mandatory tasks of the municipalities this means that there is a risk that the quality of existing services will decline. The voluntary social infrastructures of municipalities, for example libraries or theaters, are likely to no longer being offered.

Spatial planning can help to counteract these problems, even though it's already challenged by the requirement to consider measures that can counteract e.g. climate change in every plan. Also, the planning process is subject to a certain degree of uncertainty due to the different forecasts and assumptions that have to be made.

There is no question that both the planning itself and the infrastructure provision must be adaptable and flexible. The aim should be to actively shape the future of urban neighborhoods and their residents adapted to their respective needs through a variety of services. As with the population forecast, the scenario method should be used for these plannings.

One opportunity to deal with the challenges is the multifunctional use of buildings that accommodate social infrastructures. In the literature, the term multifunctionality is becoming a buzzword and is often erroneously used as a synonym for mixed use in relation to urban districts. More accurate multifunctionality can be understood as a prerequisite for mixed use. It is assumed that multifunctional use is potentially suitable for reducing costs, new land utilization, saving resources and avoiding vacancies, among other things. In addition, the decentralization of social infrastructures offers the potential to strengthen neighborhoods and possibly even mitigate the problem of a lack of skilled workers in the area of age-appropriate services.

However, local authorities only have very limited influence on the services offered in urban neighborhoods, as these are often provided by private companies.

In this context this contribution examines two questions:

What influence does the municipality have with regard to social infrastructures?

Which of these municipal social infrastructures are suitable for multifunctional use, as parallel use or alternating use?

These questions are explored with the help of a research of the legal basis in Germany and a literature review. Based on the findings on voluntary and mandatory self-administration tasks, recommendations for their management can be formulated. This will allow a further analysis of how private and municipal social infrastructures can complement each other in a building with multifunctional use, but also how organizational structures and financing can be represented in follow-up research. The research is part of the research project "Ageing Smart - Designing Spaces Intelligently", which is funded by the Carl Zeiss Foundation.

Keywords *: multifunctionality, demographic change, social infrastructure, adaptability, urban neighborhood*

Perceptions Of Architectural Qualities In Neighbourhoods, A Study Of Narratives

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Changes in the built environment significantly cause climate change and resource depletion, severely impacting our ecological crisis. Challenges arise, and among several paradigms of (re)thinking architecture, circular practices involve designing buildings that minimise waste and maximise resource efficiency (Cities and the Circular Economy: an initial exploration, 2017).

However, if these changes result from societal factors, ways of implementing circularity are often techno-driven. Research shows a gap around a holistic approach to circularity, combining technical solutions with a contextualised approach to circularity, which would unlock circular practices and potentials already present in a place (Marin and de Meulder, 2018). This can be facilitated by understanding a place's architectural qualities and how they are valued. Contextualising both material and immaterial resources of the built environment might open different perspectives around circularity. Moreover, focusing on resources already present in a place would lead postgrowth beliefs towards degrowth actions. Degrowth would require a radical change in behaviours and consumption patterns. The holistic approach would be a first step toward this change.

How do people perceive architectural qualities, and are they acting on those perceptions to initiate transformations? Can collective narratives be used to reveal circular potentials?

The research takes place in Trondheim, Norway. A previous work was made to locate changes in the built environment, and three areas were selected according to their demolition rate in different neighbourhoods. The first neighbourhood is a residential area with a high rate of change, where apartment blocks are replacing single houses. The second is contiguous to the first one, but the rate of change is lower. The third neighbourhood is a brownfield area, where the industrial buildings are being demolished and replaced by new apartment blocks. This article explores how architectural qualities in different neighbourhoods are perceived and translated into values, triggering preservation or transformation. Three groups of actors are studied: governing bodies, planners and architects, and community groups.

In qualitative research, studying narratives offers a framework to investigate how different actors experience the world around them (Rooney, Lawlor and Rohan, 2016). It gives meaning to how people perceive different qualities in their environment. Therefore, this research uses narratives to understand how the built environment is valued and by whom. The first step consists of a study of narratives from different media around architectural quality in Norway. This allows to contextualise and understand how changes are received from the public and what are the discussions around it. A second step is to organise a workshop with different interest groups to identify narratives of circularity. Using maps and drawings, graphic narratives allow to understand different levels of attachment to a place, informing on immaterial resources and circular potentials.

The results show different potentials of circularity in different areas and from different groups of actors. A transversal reading of narratives through media in the first place and interest groups in the second place reveals possibilities to envision several transformation scenarios of circularity. Additionally, they indicate how architectural qualities are translated into values and how those values are balanced together to influence choices for demolition, preservation or reuse, shedding light on the resourcefulness of places. This approach would also help preserving architectural qualities by contextualising circularity.

Keywords : Circularity, Architectural qualities, Values, Narratives, Neighbourhoods

The Experience Of The Place For Psychological Restoration In Urban Public Spaces

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The rapid urbanization and population growth have intensified the densification of urban spaces, escalating traffic noise, and the depletion of greenspaces. Noise pollution, mainly from traffic, affects millions in Europe, leading to stress-related issues and health risks. Conversely, natural environments support stress recovery and enhance well-being. Our study explores the significance of greenness as a facilitator and noise exposure as an impediment to psychological restoration in people's daily environments and investigates the complex interplay between environmental factors, individual perceptions, and personal traits.

We use a conceptual model that combines theories from psychology, acoustics, health, and landscape sciences to explore how greenness and noise affect restoration, mediated by perceived landscape factors (such as noise annoyance and perceived naturalness) and personal traits. We answer these questions by combining biophysical and acoustic georeferenced data with survey responses on personal perceptions of the place collected through an online questionnaire addressed to the Swiss population (1850 respondents). The questionnaire asked participants to map restorative outdoor activities in their daily environments and provide landscape perceptions, perceived restoration outcomes, noise annoyance, psychological traits, and demographic information.

Results indicate that greenness and noise exposure are linked in complex ways to restoration outcomes. Greenness positively impacts restoration through the feeling of being in nature, while noise exposure exhibits a small negative effect. Interestingly, while greenness and noise alone have minimal impacts on psychological restoration outcomes, perceived landscape aspects (such as perceived naturalness and noise annoyance) significantly influence these outcomes. Similarly, personal aspects such as connectedness to nature, and types of activities undertaken play a role in shaping restoration outcomes.

These insights provide a new perspective on existing environmental psychology theories by highlighting the relevance of the personal experience of the place for restoration. This has important implications for urban planning strategies, where participatory processes that help to unravel the complexity of the people-place interactions become key in rethinking restorative open spaces. The findings are not to be missed, as embracing this complexity can promote mental well-being amidst increasing urbanization and densification.

Keywords : *greenness , noise, participatory mapping, landscape perception, restoration outcomes*

Futuring Water And Land

Planning And The Unthinkable. Inertia, Imagination And Climate Change Along The Upper Adriatic Coast

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The inertia that habit brings to our lives has a strong influence on the choices we make as individuals and communities in relation to the territories we live in as well as on the possibility to reshape or abandon them in relation to epochal challenges as climate change. Habit, along with established and pervasive social constructs and cultural models, is also a key factor in limiting our capacity to face and relate to the unthinkable. The first thinker to overtly challenge the dimension of the unthinkable has been Herman Kahn in the early 1960's, when in "Thinking about the unthinkable" (1962) he discussed scenarios related to nuclear warfare. While this menace is still a timely issue, more recently Amitav Ghosh has linked the unthinkable to another epochal challenge, climate change. In his "The Great Derangement. Climate change and the unthinkable" (2016) Ghosh investigated the role that literary forms and conventions play in defining the dominant narration and limiting our field of action in relation to the future effects of climate change. More than this, in his view the interplay between memories and imagination would turn both for individuals and political bodies unthinkable the possibility to abandon the places that represent our roots and provide us with a sense of stability. What Ghosh refers to is strongly linked to the intellectual legacy of Maurice Halbwachs and his belief that the collective memory of social groups literally deposits on sites, that there can be no such a memory without a spatial linkage. If, on the one hand, our inability to think the unthinkable in terms of climate change is not linked to a lack of information, but to deeper cultural causes, to a real lack of imagination, on the other it finds precise reasons in the influence and role that the real estate sector plays in different contexts, and in particular in coastal ones most exposed to rising seas. Think of the economic value of assets threatened by rising seas in metropolitan locations such as New York City, Mumbai or Tokyo, but also of tourist realities that boomed in the last century, from Miami to the Mediterranean coast of Spain. The proposed research topic focuses on a geographical context, the Upper Adriatic between the Gulf of Trieste and the Venice Lagoon, which is affected by forecasts of a substantial rise in the average sea level which potentially jeopardize cultural and environmental assets of immeasurable value –think of Venice and Aquileia– as well as huge real estate assets, as the ones concentrated in seaside destinations as Bibione, Jesolo and Lignano Sabbiadoro. Therefore, the challenge that we face is not only a possible territorial reorganization, but also the potential disappearance of physical and immaterial cultural traces stratified over millennia. The possibility of a retreat towards less threatened areas is nearly absent from the public debate, while unlimited growth still seems to be the only dominant paradigm, posing itself as an obstacle towards the achievement of environmental, social and economic sustainability objectives. Yet, the value of properties in the most at-risk areas would almost certainly decrease if owners were made aware of probable future scenarios with systematic and widespread information campaigns.

It is becoming increasingly clear that the reflection and possible gradual planning and programming by public bodies of a controlled retreat from these areas in view of the predicted rising seas finds an apparently insurmountable obstacle not only in the protection of areas and sites of inestimable cultural and high naturalistic value, but also in the interests of building lobbies and individuals and families towards the protection of their real estate assets.

Keywords : Planning, immagination, climate change

Deconstructing Venice Futures. Reflections On Scenario As A Design Toolkit For The Island Survival

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Venite a Venezia, la più antica città del futuro! Shamans or prophets, it is the place where you can learn from the future.

Venice is an amphibious, fragile, and complex territory. Venice is a unique and exceptional place, in which stasis and change are constantly alternating; it is, therefore, a territory that can best be taken as a living laboratory to test the necessary and pressing challenges of an increasingly uncertain and unpredictable future. This is why today, the city and its citizens require an effort of imagination and anticipation (Secchi, 2002), which will lead to a change but not its death (Settis, 2014).

To challenge this fate, as part of the Department of Excellence of the Iuav University of Venice, a group of research fellows is setting a preliminary study that will stress the proposal of a 'business as usual' project for the 'Venice city-campus' – as a project that questions the role of the University and the knowledge economy in the Venetian territory - with some 'vectors of change' that outline trajectories for different possible futures. The aim is to elaborate an adaptive masterplan that, according to an incremental approach over time, takes into consideration the transition phases, leading it from the present to the future state(s).

How can we reinterpret the existing assets towards a trajectory of change? By choosing a few themes – such as mobility, water/ecology, economies, and housing –, some 'what if…?' questions were set. According to a long-term temporality frame, some not-alternative but complementary scenarios will shape the 'socio-ecosystem' of Venice and its lagoon (Giupponi, 2022). The aim is to analyse, compare and superimpose several exploratory forecasting scenarios (Bozzuto et al., 2008) that have different levels of development: some are developed from previous or ongoing research, and others are just clues of ongoing explorations from the activism field that can foster the building of a specific scenario.

"What would happen if cars no longer reached Venice?" tackles the issue of mobility starting from the disruptive and innovative 'Novissime' project (1964) in which the bridge connecting the island to the mainland was removed, up to the studies on the post-car city, passing through Benevolo's masterplan (the 1990s) that emphasised the need to increase city gates to the island through spreading new hubs along the edges of the lagoon.

"What would happen if the Venice lagoon turned into a lake?" is a scenario explored by the Fabian & Centis team (2022) as a result of fixed protection systems to counter rising sea levels, according to scenarios developed by the IPCC.

"What would happen if the main economy of the Venetian metropolitan area became the knowledge economy?" by counterbalancing the development of mass tourism and instead building new alliances with the creative and manufacturing industry developing different and new skills for the Venetian area employees. Finally, "What if Venice increased its inhabitants (not just as permanent residents)?" emphasises the need for a housing policy that overcomes the dimension of over-tourism that besieges the city and contrasts the spiral of depopulation.

The research aims to change the narrative of the present by acting through stories from the future.

Keywords *: future, scenario, Venice*

Scenario Planning Method In Conceiving Future Development Of Peripheral Areas: Island – City – Spatial Interconnecting For The Sustainable City Of Tomorrow

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Peripheral areas of Europe as well as areas with geographical specificities, including islands and island archipelagos, are particularly interesting and challenging for both researchers and planners. Since the inner peripherality is the result of multiple combinations of features and processes in the space and different development dynamics, such spaces can also have significant development potential limitations. Conventional peripherality, as a result of physical geography and remoteness, is strong and in fact difficult to improve. As peripherality is determined also with non-spatial processes and factors, it is necessary to comprehensively look at and conceive appropriate development strategies, as well as policies and measures so that these areas have better accessibility, better economic potential and access to services of general interest, and consequently a better demographic situation (ESPON, 2017; ESPON,2019).

In order to choose the most suitable development direction for islands and island archipelagos, it is necessary to consider the regional and national development plans, think strategically about the space and look at the long-term needs of the inhabitants, as well as the possibilities and potentials of the space at the local level.

The aim of this work is to emphasize the importance of the scenario method in planning as a par excellence tool for the future development. Its importance in the education of future spatial planners is pointed out so that they can think strategically about space, and to design and valorise possible scenarios of cities and regions in the 21st century (ECTP-CEU, 2013).

For this research, the Zadar Island archipelago in Croatia was chosen as a case study, due to its geographic specificity, the process of depopulation and emigration, and the relatively old population. The Zadar County (area 7,276.23 km^2 and 159,776 inhabitants) is located in the central part of Adriatic Croatia and is specific for the number of islands, the indented coast, the fertile zone of Ravni Kotari and hilly - mountain area. Zadar County is made up of seven spatially developmental and geomorphological units regarding its natural-geographic features. One of the units is the islands area, which is formed by the northern fragmented group, the Ugljan-Pašman group, and the Dugi otok group. The island archipelago represents one of the most sensitive and endangered areas of the county with specific demographic and developmental problems of aging and displacement of the population and the consequent decline of economic activities.

A vision of the future development of the islands of the Zadar archipelago was proposed as part of the Spatial Planning Workshop at the master's Study of Architecture and Urbanism. On the basis of detailed analysis and the application of the scenario method (Abou Jaoude, Mumm, and Carlow, 2022), the result of the work is the definition of eight possible scenarios for the future development of the Zadar Island. Based on the set goals, in accordance with the recommendations of the European documents on sustainable development, the valorisation of the proposed scenarios was carried out and the best rated scenario was selected as optimal for the future development of the area. In order to implement the selected scenario, necessary activities in the form of different models (housing, transport, economy, agriculture and energy production, as well as green infrastructure, sports, recreation and facilities) and related development projects for a period of 25 years were proposed, which could be (with minor modifications) applicable to areas with similar characteristics. (Kustić and Marelić, 2023).

Keywords : development vision, education, islands of the Zadar archipelago, scenario planning, strategic thinking and planning

Creating Futures: Planning Tools For Keeping The Future Abundant

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If a game-changing transitioning of society is to be achieved, there is a need for a coordinated effort amongst a variety of actors who work towards a shared vision. Planning and in particular spatial planning has a role to play in visioning and organising desirable futures.

Planning is traditionally seen as a discipline that works to assert control over future events and in recent decades planning theory has discussed how planning can function as a democratic arena for deliberating futures. The more-than-human agenda opens this space to include other than anthropocentric agendas. Still, it is acknowledged that the planner holds power through the planning process to control how the future is discussed and perceived. Through the planning process and methods of futuring, planning deals with an ontological perspective that relates the future to the present. Through including or excluding "knowledge objects" in the futuring process the planner builds a particular ontology of the future. An 'ontological view on futures planning has the potential to open the debate about possible futures and how such futures should be handled in the planning process. The paper presents a theoretical account of the ontology of futures planning by discussing different methods of futuring. It does so by focusing on two aspects, one being the ontological space-dimension of the future (open or closed). The other being the moment during the planning process when a future settles and becomes "locked". The argument is that postponing settling on a future, as far as possible, is the most democratic, while the process should expand the ontological space-dimension of futures, not as much as possible, but through multiplicity, to allow inclusion of necessary perspectives to achieve true sustainability. A discussion of the UN Sustainable Development Goals (SDGs) as a futures perspective, will act as a case and reference throughout the paper. By focussing on how the top-down implementation and how SDGs has overrun the sustainability agenda from national to local planning arenas, the paper shows the destructive elements in vague global agendas – but also highlights the different scales on which sustainable futures should operate. While the SDGs helps local, under resourced, planners to discuss the complexity of the sustainability transition, it stops short of facilitating a visualization of sustainable futures, leaving planners to discuss implementation strategies and frameworks rather than inclusive and sustainable futures.

***Keywords** : scenarios, methods, planning tools*

Representing Futures

Exploring The Intersection Of Language, Perception And Place

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Urban morphology is a collaborative narrative written by the city's built environment and its inhabitants. This symbiotic relationship doesn't only shape the physical matter of urban spaces but also influences the socio-cultural identity of its inhabitants (Wilson, 1994).The diverse perceptions of a city like Hong Kong challenge the notion of its singular existence. Can a large metropolis like Hong Kong be truly perceived as a single entity, or do the varied perspectives of its inhabitants create multiple realities within its boundaries? This question invites us to explore the multifaceted nature of cities and the dynamic interplay between individual and collective identity.

This research explores these connections between language and the way people perceive and experience urban spaces, using 6 main categories of language and urban perception: vocabulary limitation, grammatical gender, frames of reference, spatial categories, noun types and numerical ability, and event recollection (Boroditsky, 2001; Pederson et al., 1998; Bowerman, 1996; Lucy, 1992).

By examining the interplay between language, cognition, and the urban landscapes, this study aims to shed light on the complex relationship between language and the perception of urban space, and the potential for these perceptions to reciprocally shape the city itself.

***Keywords** : Cognition, Perception, Urban Landscape*

Spatial Strategies - A Solution To Increase Visualizing In Strategic Planning

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The lack of adequate visualisations is at the core of various problems in strategic spatial planning. This leads to communication difficulties between individual disciplines and a lack of understanding of the meaningfulness of such planning by the population. Spatial strategy is an informal instrument that works intensively with visualisations to address these issues. In the field of spatial strategies, various terms have emerged in recent years. However, there is often a lack of basic definitions. The purpose of this paper is to establish an understanding of these terms based on theoretical considerations of the purpose, impact, and limits of spatial strategies, particularly at the regional level, and their associated visualisations. Additionally, this paper provides an outlook on the objectives of such constellation processes.

The term 'visualisations' refers to the use of pictorial representations to communicate information and present factual or fictional contexts in a simple and vivid manner, beyond a mere pictorial description (Lange, Schroth and Wissen, 2003, p. 30). In spatial planning, visualisations are closely linked to the visual perception of space and the mental images of those involved, with maps playing a decisive role. Visualisations serve not only to depict spatial conditions but also to promote interdisciplinary discussions and enable new perspectives on planning problems. In cooperative planning processes, they help to visualise complex relationships and explore the space together.

The paper explores the relationship between spatial strategies, spatial images, personal ideas, and cultural imprints. It begins by discussing initial, imaginary interpretations of space, which are shaped by individual experiences and acquired knowledge. These interpretations are then transformed into planning arguments that influence spatial developments. Spatial strategies can be effective tools in participatory planning processes. The use of images and visualisations in a cooperative context offers great potential for uncovering overlooked spatial relationships and identifying conflicts and opportunities for action (Langner, 2022). Working with spatial images enables the discovery of spatial relationships that may have been overlooked and facilitates the identification of conflicts and opportunities for manoeuvre.

In regional planning, authorities are increasingly using customised concepts and integrated strategies to address problems. Alongside formal instruments, innovative formats are gaining importance, accompanied by comprehensive participation and communication processes. The uncertainty surrounding spatial decisions increasingly necessitates informal planning formats across municipal boundaries (Pszola et al. 2021: 6). Spatial strategies are guiding principles for planning areas, taking into account specific spatial characteristics and challenges. They also visualise the desired state and are conceptually convincing.

Formal planning systems are frequently inadequate in keeping up with the dynamic transformations of the landscape. Spatial images in informal processes serve as effective instruments for exchanging arguments and ideas, as well as identifying issues relevant to the future. Informal planning allows stakeholders at different levels to participate without being bound by official decisions. Early and diverse involvement of stakeholders promotes the preparation and discussion of spatially relevant decisions. The aim is to reach agreement on development directions, without binding specifications, to create a consensus that includes all levels. The process and end product are equally important, with the initial phase emphasizing cooperation, eliminating hierarchies, and giving equal consideration to regional concerns.

Keywords *: Spatial Strategies , Informel Instruments, Visualisation*

Spatial Scenarios As A Tool For Future-Proof Spatial Planning In The Netherlands

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In the Netherlands, a range of spatial challenges accumulate on a limited territory. The densely populated country is located in a river delta and therefore threatened by rising sea levels, salinization of agricultural areas and increasing river floods. At the same time, the country has ambitious national policy goals to become a circular and climate-neutral society by 2050. While there are traditional short-term spatial planning tasks, such as creating and maintaining space for living and working as well as protecting nature and improving the environmental and landscape quality, new planning tasks have emerged, concerning long-term transitions related to climate adaptation, energy transition and the circular economy. The accumulation of urban, rural and infrastructural developments on the same relatively small territory contributes to the country's increasing difficulties in achieving all of its goals.

In order to help policymakers and planners to develop future-proof spatial policies and plans, it is necessary to gain insight into and anticipate a diversity of plausible future developments. Therefore, the PBL Netherlands Environmental Assessment Agency (PBL) has developed four spatial scenarios for the Netherlands in the Spatial Outlook 2023 (PBL 2023). In this multidisciplinary scenario study, a combination of story lines, maps and other visualizations was used to explore and describe how the country could look like after the transition towards a climate-neutral and circular society.

The four scenarios of the study show how land use in the Netherlands might look like in the year 2050, specifically looking at the following questions: Where do spatial conflicts arise? Where do opportunities lie? Who will take the lead? Policymakers can use these scenarios to respond to the uncertainty inherent in long-term policymaking. Using the scenarios, policymakers can explore robust strategies: which approaches fit into multiple scenarios? They can also explore the possibilities for adaptive policies: what adaptation options are available and conversely, how can 'lock-in' situations be avoided?

The development of the story lines of the scenarios and the related maps was an interactive and participatory process together with experts and stakeholders, including policymakers from national, regional and local level. However, it is important to mention that the scenarios and maps should not be seen as blue prints for future developments. The scenarios can be further developed and adapted for different spatial contexts or serve as an inspiration for policymakers. To support this after the publication of the scenario study, the PBL project team held several lectures and organized numerous workshops with municipalities, provinces and different departments of ministries.

In the research phase, the lectures and the workshops, the use of maps had an important function to explain spatial patterns and to explore the scenarios in different spatial contexts with stakeholders. Maps, with their ability to convey spatial relationships and patterns, are powerful tools to develop spatial scenarios and to help to communicate and discuss the content of the scenarios with policymakers, planners and the public (Salewski 2012).

This paper describes the method of how the scenario story lines and the related land use maps of the Spatial Outlook 2023 were developed by applying a new mixed methods approach that combines participatory and multidisciplinary scenario development, GIS-based land use modelling and creative tools of research by design. Moreover, the paper reflects on the multiple functions the maps and visualizations had in different phases of the scenario study.

Keywords *: Spatial planning, Scenario method, Multidisciplinary research, Land use modelling, Research by design*

Prototyping Future Scenarios For Urban Planning Through The Production Of Virtual Reality Scenes

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Urban planning is an activity deemed to the co-production of endurable future by multiple actors. Scenario writing, as the dominant technique for representing futures in scenario planning methods, offers the potential to engage the natural ability of humans for making sense of stories (Burnam-Fink, 2015), creating a common understanding about urban change. But it is the design of narrative environments (von Stackelberg and Jones, 2014), using a wider array of forms to experience the future –perceptually, cognitively, emotionally–, which may foster the transferability and usability of scenarios across different professional and non-professional domains in urban planning. The concept of scenario prototypes encompasses all those narrative forms – i.e. stories of the future – that bring abstract or partial ideas/images of conventional future-scenario narratives into a present experience of such future. Immersive Virtual Environments are being explored as the ultimate means of producing scenario prototypes, combining Virtual Reality (VR) capacity for sensory immersion and spatial presence with the natural capacity of humans for building their own stories about places (Stepanovic and Ferraro, 2020). The production of VR 3D urban scenes using scenarios to transform present places into virtual futures offers the opportunity to expand scenario narratives towards richer narrative environments. Nevertheless, there is a current lack of conceptual frameworks to deal with two main challenges of VR scenario prototyping: (i) transforming global scenario narratives into localized stories, whose interpretation may differ across cultural contexts; and (ii) adapting scenario narratives to visual communication strategies of 3D / VR environments, balancing "spectacular" realism with efficient 3D-scenes design – focusing on main themes and messages of the scenario.

This research addresses previous challenges by asking how conventional scenario narratives might be enhanced and communicated by using Virtual Reality Environments through the production of 3D urban scenes. Potential answers are explored by designing and testing a framework for converting Scenarios to Scenes (StS framework), which relies on expanded scenario narratives and 3D urban scene concepts as prototypes for creating immersive VR narrative environments. Designed under principles of generative and narrative semiotics (Barricelli et al., 2016) and well-known grammars for virtual environments (Fencott, 2001), the StS framework proposes 3 steps in the elaboration of VR scenario prototypes: (i) generation of future stories and themes from the original scenario narrative, illustrating main scenario changes; (ii) generation of real/virtual places representing future themes in specific locations and moments, as experienced by a figurative observer; and (iii) generation of the VR experience by combining routines and surprises offered to an imagined VR user.

The applicability of the StS framework was tested in 2 sequential collaborative workshops. The first one, as consultancy workshop, was composed by planning practitioners, and the second one, as VR production workshop, integrated developers of VR/3D environments with some of the participants of the consultancy workshop. The goal of the consultancy workshop was interpreting the original narrative and producing expanded scenarios to enhance VR experience, while the VR production workshop focused on the 3D urban scene itself - specifications and interaction opportunities - validating and expanding previous alternatives. Workshops were recorded, together with elaborated materials and participants opinion in a final survey. Results showed the contributions and limitations of the StS process from three main dimensions: the capacity of participants to translate original narratives into a set of specific changes, events, and actors; their capacity to connect the narrative with real and/or virtual places; and their capacity to elaborate communication strategies that explicitly consider how users interact with given places in order to gain consciousness of the temporality, contingency, and relevance of the content of the original narrative.

Keywords *: scenario prototyping, Virtual Reality, narrative environments, 3D urban scenes*

Using Computational Models To Explore Future Scenarios And Gain Insights For Urban Planning: The Case Of The Technological Shift In Transportation In Singapore

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Planning cities to adapt to the future is challenging due to the complex interactions in the urban system and the need to account for future uncertainties such as social, economic, environmental and technological change. For example, future mobility is expected to embrace the development of new technologies such as autonomous, connected and electric vehicles (i.e., the technological shift in transportation). However, the timing for technologies to be ready, to what extent they are going to be adopted and how people interact with such technologies is highly uncertain.

As an alternative to traditional urban planning practices, exploratory scenario planning aims to develop alternative stories about the future, as combinations of external factors that are deemed relevant, and assess their implications (Abou Jaoude et al., 2022; Avin and Goodspeed, 2020). For example, to plan urban interventions for the technological shift in transportation, scenarios can be developed as combinations of 1) no change and a 20% increase in travel demand by 2050 and 2) no autonomous vehicles and a fully autonomous fleet. Scenarios are usually developed qualitatively and only then some quantitative models are used to evaluate their implications (Avin and Goodspeed, 2020).

Two main criticisms exist of such an approach in the long-term policy analysis literature (Bankes, 1993; Lempert et al., 2003). First, due to uncertainty and complexity, the relevance of the scenarios cannot be identified intuitively. When using a few discrete scenarios, the likelihood of missing relevant scenarios is high (e.g., it might be that a 20% decrease, instead of an increase, in travel demand is much more relevant). Second, a few discrete scenarios prevent the identification of the main factor impacting certain goals (e.g., is it the travel demand or the autonomous fleet the factor causing travel delays?) and the delineation of relevant scenarios (e.g., where in between current travel demand and the 20% increase is the boundary between acceptable/unacceptable travel delays?).

To tackle such limitations, computational models can be used to explore the implications of future scenarios and to extract insights for planning (Bankes, 1993; Bryant and Lempert, 2010; Lempert et al., 2003). In this approach, large ensembles of simulations are used to explore a wide range of possible futures. Then, analytical procedures are applied to reveal influential factors and relevant scenarios. This approach is referred to as exploratory modelling (Bankes, 1993).

This paper attempts to bridge the fields of exploratory scenario planning and exploratory modelling. We propose, that exploratory modelling can be used as a screening tool, to help build the exploratory scenario narratives and inform urban planning. As an example, we study urban interventions in response to the technological shift in transportation through an agent-based transport model (MATSim) of a fictive neighbourhood in Singapore. The studied interventions are alternative network configurations, the deployment of public stops for shared autonomous vehicles and parking strategies. Three future uncertainties were evaluated over time: changes in travel demand, automation development and ride-sharing preferences. We developed an ensemble of 500 scenarios and used regression and classification algorithms to better understand the system behaviour, identify relevant scenarios and suggest robust (e.g., the superblock configuration) and contingent plans.

Keywords *: Exploratory Modelling, Exploratory Scenario Planning, Future Uncertainty, Autonomous Vehicles, Scenario Discovery*

Rooted Imagination: Beyond The Imagination Paradox

Peter Pelzer (Utrecht University), **Wytske Versteeg**

In response to the mounting environmental crises, planners and planning scholars increasingly turn towards imagination as a way to enable long-term thinking. This 'imaginative turn' involves both novel perspectives and a reappreciation of older traditions, such as futures studies and utopic thinking (e.g. Davoudi, 2023; Hoch, 2016). Whereas we appreciate the benefits of this 'imaginative turn', we have two worries about the way imagination is currently deployed. First, we observe that imagination is typically underconceptualized or even undefined, leading to the implicit assumption that more imagination is simply better for planning. We argue that more attention should be paid to how imagination shapes planning. To address this question, we coined the concept of imaginative logics: 'the set of principles underlying or constituting an imaginative intervention, by means of which an abstract phenomenon is made present to the audience' (Pelzer & Versteeg, 2019, p.16). The notion of imaginative logics makes explicit how the form and purpose of imaginative interventions are interrelated, and how this can affect possibilities for participation. Second, we observe that many imaginative long-term interventions in planning, like scenarios or visions, are detached from place-based interests, such as land ownership or local knowledge. We describe this as the 'imagination paradox'. If an imaginative intervention is oriented towards a more radical long-term future, rootedness becomes important to prevent it from becoming abstract and 'free-floating', however, that same rootedness makes it difficult to imagine a radically different long-term future because it comes with ingrained knowledge about how things are. To understand this paradox and potential solutions better, we analyze two 'deep time organizations' (Hanusch and Biermann, 2020) that did manage to solve the imagination paradox and foster long-term spatial transformation: a church in Lund (Sweden) and one in Utrecht (the Netherlands). We will reveal how their imagination is rooted and which kind of imaginative logics they deploy and why.

Learning Through Futuring

Bridging Qualitative And Quantitative Methods Of Futures Knowledge Creation In Strategic Spatial Planning

Mikko Airikkala (Aalto-Yliopisto), **Matti Sahlberg**

This paper aims at developing scenario planning methods by bridging quantitative and qualitative scenario creation approaches so that a more robust methodology for creating and utilizing futures knowledge in planning could be formed. Both qualitative and quantitative methods of creating futures knowledge have been criticized. There is little research output on the effectiveness of qualitative scenario planning (Wright, Bradfield and Cairns, 2013). Most scenario projects are executed in-house by practice-orientated organizations and not exposed to scientific peer review. Furthermore, there has not been an academic consensus on scenario methodology, which has led to scenario planning being criticized as unscientific (Spaniol and Rowland, 2018). Quantitative forecasts, on the other hand, are known to be misleading over long time periods (Amer, Daim and Jetter, 2013). This can lead to path-dependent behavior if forecasting is utilized in a simplistic way to guide long-range planning.

The paper examines the nature of futures knowledge by using the division between positivist and interpretive knowledge (Davoudi, 2012), and reviews the state of the art in combining different types of futures knowledge in planning-related foresight. The research theme is studied through a case analysis. The case project PERUS-SKENE aimed at developing a model for a constant monitoring and foresight process concerning the future of the urban and regional structure of Finland. The project was ordered by the Finnish Council of State to support development of an integrated, cyclical development outlook of Finnish spatial development that could be used to support and steer state policy development and execution.

The project combined statistical data, forecasts, creative scenario-making, and participative assessment in an integrated manner. In this study, the model created in the project is used to analyze how the combination of quantitative and qualitative knowledge creation methods might strengthen the credibility of foresight work. We also reflect on how the model created in PERUS-SKENE was applied and adapted in the development of a national development outlook by the Finnish Ministry of Environment and based on these reflections analyze the obstacles in utilizing different types of knowledge in planning practice. The material from the case project includes scenario material, survey results, interviews, and workshop output. Content analysis is used to investigate the extensive material.

According to the research findings, combining quantitative and qualitative futures knowledge enables creative scenario storytelling that is robustly grounded in data of historical and current development and ongoing trends, increasing the credibility of the produced scenarios. The case project participants favored the proposed foresight model combining the two knowledge creation methods and saw it as a validity-increasing factor. It was also recognized that there is no readily available model for bridging quantitative and qualitative futures knowledge, revealing a gap in the literature. Observation of further ministry work shows that utilizing different types of knowledge in planning practice remains a challenge as path dependent expectations, political pressures, and familiarity with positivist knowledge at the expense of interpretive knowledge risk to diminish the anticipatory dimension.

This study contributes to discussions on scenario development and use of scenarios in the spatial planning context by discussing possibilities of intertwining quantitative and qualitative data in scenario development in a search for more robust scenario methodology. As the discussion progresses beyond analyzing what is a scenario (Spaniol and Rowland, 2019), the time is ripe for developing scenario methodology that bridges the gap between quantitative and qualitative scenario methods. The presented case study offers insights for scenario development that meaningfully utilizes both quantitative and qualitative data. The study is currently ongoing as the development outlook by the ministry of environment will be officially published in February 2024.

Keywords *: foresight, scenario planning, strategic planning, case study*

Transformative Urbanism. Navigating Uncertain Futures As A Societal Searching And Learning Process

Luis Gabriel Hilti (University Of Liechtenstein)

In the face of unfolding and converging ecological and social crises, a fundamental transformation of our living environment is imperative. Considering the scope of the change needed and its reach into an uncertain future, the involvement of the affected civil society is vital. This poses the problem of any participatory approach: the complexity of the problem seems to exceed the language and skills of the targeted group.

The paper proposes Transformative Urbanism as a practical framework geared at civil society's long-term and large-scale involvement in imagining futures beyond the horizon of the fossil fuel-based status quo. It is based on the understanding of spatial development as an ongoing collective experiment (Latour, 2006) and the role of the urbanist as a planner and facilitator of the agonistic confrontation (Mouffe, 2005) of the public with experts and decision-makers and as a cultivator of collective imagination processes.

The research design is a real-world experiment (Gross, Hoffmann-Riem and Krohn, 2005), characterised by an overlap of scientific and practical goals, the entanglement of academic and practical approaches, and the oscillation between knowledge creation and application. The real-world experiment ELF has unfolded since 2019 in the Alpine Rhine Valley through a series of 42 workshops, exhibitions, and events in five municipalities and over 1500 participants.

The proposed framework derived from the real-world experiment consists of nine design principles for Transformative Public Realms, the central instrument in transformative urbanism.

The study explores the intricate interplay between societal sustainability transformations and spatial development. It delves into the evolving roles that urbanism can assume in this dynamic relationship, contributing actionable knowledge and expanding the profession's significance in the sustainability discourse.

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Mouffe, C. (2005) 'Some Reflections on an Agonistic Approach to the Public', in Making things public: atmospheres of democracy. Cambridge, Mass. : [Karlsruhe, Germany]: MIT Press ; ZKM/Center for Art and Media in Karlsruhe, pp. 804–807.

Keywords *: transformation research, transformative urbanism, real-world experiment*

Beyond Simulation: Digital Twin Cities As Catalysts For Learning And Participatory Urban Development.

Evelyn Riemer (Kassel University)

Beyond Simulation: Digital Twin Cities as Catalysts for Learning and Participatory Urban Development.
This study delves deeper into the multifaceted topic of learning potentials that manifest themselves in the wake of the progressive implementation of digital twin cities, virtual duplicates of urban environments. Digital twins primarily act as an initiator for the development processes towards the smart city (Deren et al. 2021), but the focus of this research involves analysing how this digital replication of urban living spaces influences individual learning and to what extent it can act as a driving force for participatory urban development.

This research examines how people can learn from the functions of Digital Twin Cities, which have proven potential in fields of action such as scenario development, visualisation and data management (Shahat et al. 2021). The focus here is on the application of this innovative technology as a tool for promoting individual learning and improving participatory urban development. At the centre of this study is the idea that Digital Twin Cities can function not only as simulation tools but also as living learning environments. The functions of these digital twins offer individual users the opportunity to understand urban processes and include not only urban planners and decision-makers but also individuals from the civilian population.

Following on from research looking at the proven awareness raising potential of selected simulation tools such as city builder games (Readiness 2023), the relevance of this research extends beyond the specific context of Digital Twin Cities. It contributes to a deeper understanding of how simulations of urban environments can influence learning behaviour and individual development in the real world. This becomes increasingly important as we understand the global trend of urbanisation and the ever-growing need to design sustainable and liveable cities.

The findings of this research offer insights into how the integration of Digital Twin Cities into urban development strategies can influence not only planning but also collective and individual learning. The findings can help optimise the use of urban simulations as a tool to promote knowledge, participatory citizenship and sustainable development.

Keywords : digital twin cities, scenario development, learning city, City Simulation, Simulation Tool, , sustainable development

The Use Of Future Scenarios For Exploring Collaboration Strategies With Key Actors In Transport Planning

Alberto Rojas-Rivero (Universidad Politécnica De Madrid (Upm)), **Miguel L. Navarro-Ligero** , **María-Eugenia López-Lambas** , **Julio A. Soria Lara**

In the face of increasingly rapid technological and social change, strategic planning is considered a valuable approach for finding short-term solutions to complex urban challenges while keeping long-term goals and visions. In particular, spatial strategic planning has been defined as the art of dealing with people in a politically contentious context, drawing from a historical and anthropological understanding of particular geographies (Healey, 2009).

Under the described context, the use of future scenarios in strategic spatial planning aims to enhance the transformation capacity of strategic actors by offering alternative long-term images of complex systems (e.g., cities, transportation, energy). The main idea is to explore how places and institutions will be operating under various future possibilities, covering a range of strategic goals that enable the common perception and prioritization of challenges (Mäntysalo and Grišakov, 2016). Such a problem-framing process under alternative futures aims at creating and strengthening collaborative networks (i.e. social capital) during planning practice. Therefore, it is key that the scenarios' outcomes enable discussions regarding collaboration strategies, that is, the perception of key actors, alliances and competition under a certain vision and a set of goals.

Traditionally, the strategic aspects that ground scenario methodologies in urban and transport planning mostly focus on the description of visions regarding future technologies and physical changes leading to the transformation of transport systems (Timms, Tight and Watling, 2014). Thus, during the depiction of alternative visions, there is a lack of attention to how collaboration strategies can use such knowledge to create common frames, motivating other actors to pursue joined transformation paths. To address this important issue, the present research studies how the depiction of long-term futures for urban transport systems can be used to revisit current collaboration strategies during planning processes.

The adopted approach uses a set of exploratory scenarios about the future of transport planning in Spanish mid-size cities to gain insight into the collaboration strategies followed by key actors (i.e. urban public transport operators). These scenarios include archetypical forms of collaboration and actors' roles, pre-defined in previous research through a two-round Delphi panel with academic experts. The research was operationalised through a series of semi-structured interviews. Each interview first examined the current goals of the actors and their vision of the internal and transactional environments (i.e., that in which they perform current collaboration strategies). Secondly, they focused on the effects that alternative future scenarios would have on adapting such strategies. The content of such interviews is focused on and later analyzed by mapping actors through typical planning roles in transitions and urban planning literature. Exploring these actor maps in alternative scenarios is expected to broaden the scope of identification of key strategic actors and institutions with a high potential for transforming transport systems and strengthening links with other actors (Wangel, 2011).

As a result, the contrast between the actor schemes that arise from the worldviews depicted in each scenario enabled the representation of distinct possible networks driving social and technological change in transport systems. This shows the potential of scenarios for highlighting key planning actors and the mechanisms to mobilize them (i.e., by translating problems to understandable representations or other instrumental problems, offering alternative policy measures and urban/transport models and designs...). Moreover, it can be concluded that the exploration and interpretation of scenarios by key strategic actors can enhance a wider consideration of their available collaboration strategies that purposely guide spatial planning decision-making.

Keywords *: Scenario Planning, collaboration, integrated urban and transport planning, strategic decision-making*

Shared Imaginaries: Co-Creating A Sustainability Learning Journey One Building Block At A Time With The Roundview

Joanne Tippett (Planning, Property And Environmental Management, University Of Manchester), **Fraser How** (How Creative), **Jamie Farrington** (The University Of Manchester And Manchester Unesco City Of Literature), **Matthew Rabagliati** (Uk National Commission For Unesco)

Transformational change towards sustainable futures will require profound imaginative leaps by people in all aspects of life. A recent review of Sustainability Science emphasises the importance of asking: transformation to what? "The narrow framing of most efforts to envision sustainability transformations is now being questioned by scholarship emphasizing the importance of crafting more radical shared imaginaries" (Clark and Harley, 2022, pg. 357).

This paper reports on a British Academy Innovation Fellowship with the UK National Commission for UNESCO, testing innovative approaches to sustainability learning and engagement.

This work builds on fifteen years of action research at the University of Manchester that led to the RoundView, a science-based framework of sustainability. The RoundView's conceptualisation of the root causes of environmental problems, and their opposites, facilitates shared understanding and inspires positive action. It offers a simple set of guidelines to redesign our systems so we don't cause environmental problems in the first place. The RoundView was a key engagement tool in reimagining post-industrial sites between Manchester and Liverpool in a £3.2 million National Lottery project, the Carbon Landscape (Tippett et al 2022). The final evaluation demonstrated its value as a means to reframe perceptions: "I found the RoundView process genuinely inspiring; it's very easy to feel overwhelmed and powerless against the planet's problems, but I left feeling optimistic that change is possible for a positive future." (How and Tippett, 2021).

Until 2022, this represented the only large-scale application of the RoundView framework. Roll out was limited by the need to be run by experienced facilitators, who are confident with the underlying scientific concepts. A recent innovation is creation of is a suite of tactile, three-dimensional learning tools, that combine art, poetry and word puzzles. This makes it much easier for facilitators to embed the RoundView into visioning processes, as the core concepts are revealed through the game mechanics. These learning tools are designed as boundary objects, "stable enough to enable coordination across communities of practice" (Ewenstein and Whyte 2009, 10), that reveal common principles through activity, and spark dialogue based on this emerging, shared understanding.

A key component of the British Academy Innovation Fellowship has been testing the learning tools in different contexts to see how this potential for widescale use can be realised. This project asks:

What shifts in understanding about the possibilities for change and transformation are sparked?

Does this process lead to more willingness and capacity to take sustainability action?

What role do boundary objects play in this learning?

What are the barriers and enablers to wide-scale deployment?

To date this has included engagement with 140+ participants to develop a vision for the River Nith. Analysis demonstrates that the learning tools meets a clear need identified by UNESCO (2022), to provide site managers with new approaches to create a common understanding of sustainability amongst the wide audiences of people who live and work in, and visit, their sites.

A multi-method approach to data gathering (workshop outputs using Ketso, visitor feedback and interviews with practitioners) allows for triangulation. Over 130,000 community members and stakeholders have engaged with these learning tools in the first year and a half of trials. Initial analysis is positive, participants are "hopeful that we can move towards a better future for the planet" as it "shows clearer what we are doing wrong and what we could do to make things better".

Cognisant of the vital need for shared imaginaries and vocabularies to support transformative dialogue towards sustainable futures, our ambition is to turn the RoundView into 'the fourth R' (Reading, wRiting, aRithmetic, RoundView). These new learning tools represent a potential game changer towards this goal.

***Keywords** : spatial imaginaries, shared imaginaries, future visioning, design for sustainability, transformational change*

Future Tranformations

Utopias As A Design-Thinking Keys For Counter-Hegemonic Ecological Transitions

Camilo Vladimir de Lima Amaral (Polito / Ufg), **Antonio di Campli** (Polito), **Elisa Veri** , **Rishabh Srivastava** (Polito)

We are facing a time of structural crises where no alternatives to the current system seem reasonable. On the one hand, planetary urbanization connects global society and earth ecosystems in a series of crises: an unprecedented social crisis with raising social inequalities and lack of confidence in political institutions tears apart old compromises; an ecological crisis as we enter the capitaloscene with climate change, mass extinction and environmental disasters; and a one step beyond crisis of rationality that, on the one hand, is unable to acknowledge non-instrumental ways of thinking, and on the other hand, undermine science with fake news, robots and the threats of artificial intelligence. Besides this context of great changes and social unrest where (environmental) change is inevitable, society fails to produce viable alternatives and implement new approaches to social changes.In one way or the other, change will happen through collapse or adaptation. Thus, the old polemics between reform or revolution (light social adjustments or complete social transformation), is now dominated by the theory of ecological transition (circular economy, energy efficiency and sustainable practices towards a new social-natural contract). In this realm, the resilience approach is a theory of how can we adapt better to unknown eminent changes. Letting intentions behind, it overcomes the reform or revolution paradox with a more pragmatical and apolitical approach: can collapse be handled, survived or creatively explored?This paper explores an action research developed in an one week workshop in the city of Goias - Brazil, which used 'utopias' as key for reading counter-hegemonic urban ecological relations that could provide possible images of alternative futures. For that we explored the six main concepts (Neoliberal contradictions; Postcolonial approaches; Coexistence; Ethics of Care; Mobility of frontiers; and the Co-poesis of Nature) that resulted in three dialectical utopias (Queer planet; Matriarchal Society; Afrofuturism).Examining Neoliberal contradictions allows to understand the historical moments and the conflicts at play. They are formed by a series of processes entailed by instrumental logic, parasitic exploitation of nature, commodification and thingfication of both nature and subjects, financialization, individualism and spectacle. Postcolonial approaches allows to unveil contradiction and interests, focusing on dark ecologies and its unknowns, on dependencies and power relations at play. Coexistence allows an approach to diversity and the multilayered relations that exists in contemporary society, besides the intricate connection between human and non-human processes. Ethics of care allows to refrain individualistic approaches and the role of others (human and non-human) in building a caring society that acknowledge diversity and collective risks. The Mobility of Frontiers aims to build a non-binary framework that acknowledges the complexity of dialectical processes and interchange in complex social and ecological systems. Finally, the co-poiesis approach develops Maturana's concept of auto-poiesis to acknowledge how nature is produced in a political aesthetics.Exploring the role of design-thinking to visualize and imagine future solutions, these concepts were combined in utopian experiments that aimed to explore current contradictions and formulate alternatives to current social trends.

Keywords : ecological transition, utopia, design-thinking

Creating Flexible Plans For An Uncertain Future: From Exploratory Scenarios To Adaptive Plans With Real Options

Thomas Machiels (Faculty Of Design Sciences, University Of Antwerp), **Robert Goodspeed** , **Tom Coppens** , **Tine Compernolle**

Motivation
This is an abstract about a paper that was published in June 2023 (https://doi.org/10.1080/14649357.2023.2220701) . We believe it is relevant for this track because it proposes an original approach for futuring. Although already published, I welcome a debate about how the approach can influence planning theory & practice.
Abstract
Long-range plans often rely on forecasts, an approach sometimes called predict-and-plan. Future predictions are often based on extrapolations of historical data that ignore uncertainties in these predictions, which can result in decisions that waste public resources, ignore emerging threats and opportunities, and inappropriately embed past values and assumptions into current issues (Skrimizea et al., 2019). Scholars have stated that planning practice must move from predicting-and-planning to incorporating uncertainty (Skrimizea et al., 2019).
A well-established method to facilitate this shift is scenario planning, a method that better informs decision makers by creating multiple plausible future states (scenarios) based on descriptions of key uncertainties (Avin and Goodspeed, 2020). Within scenario planning, there is a growing interest in moving from normative scenarios (defining preferred futures) to exploratory scenarios (creating multiple plausible futures), or a mix of both (Avin and Goodspeed, 2020). Despite its increased use, scenario planning has been criticized for its limited impact on decision making and its vague guidance for preparing communities for multiple futures (Avin and Goodspeed, 2020).
One challenge that planning practitioners face is the lack of a conceptual bridge between scenario planning, which outlines multiple plausible futures, and the specific decisions communities must make, which are often analyzed through conventional methods that rely on a single best-estimate future. The planning field has lacked specific methods and guidance for how to implement adaptive planning in land use and infrastructure planning. Real option theory (ROT) can serve as a complementary method to scenario planning and fulfills the need to show how individual decisions can be made at different times in the future in light of uncertainty described by scenarios (Lyons & Davidson, 2016). The ROT approach aims to capture the value of flexibility when there is uncertainty about the future. It offers a planning toolkit of generic adaptation options to develop adaptive decision-making strategies in a structured way. ROT's value for planning has been discussed in recent literature (Coppens et al., 2021), but its potential remains underexplored.
The main contribution of this article for planning theory and practice is an integrated framework that outlines how ROT can be used to extend scenario planning practice to prepare adaptive plans for multiple futures that incorporate uncertainty. We investigated how the framework can support planning and prepare decision making in uncertain contexts. We offer guidance with an application of the framework to Plan Bay Area 2050 (PBA2050), a scenario planning initiative and long-term vision for the San Francisco Bay Area, and one of its specific strategies, Link21, a rail infrastructure program. The case provides a context where high-quality exploratory scenarios were created for PBA2050 for which there is a need to incorporate an analysis of uncertainty and adaptive strategies into the particular project (i.e., Link21).

Futuring For Transformative Change In Spatial Planning: A Comparative Case Study From The Netherlands

Saskia Naafs (Utrecht University)

As a low-lying delta country that feels the constant threat of water, The Netherlands has a strong tradition in spatial planning. Starting in the late 1800s with big infrastructural works, spatial planning really took off after World War II (Van der Woud, 1987). An important part of this tradition is producing long term visions, causing one author to claim that the Dutch image of the future isn't to be found in literature or in art, but in spatial planning (Salewski, 2012). Since the 1980s, planning has suffered from 'short-termism' in politics, drawing its attention away from long term visions. Spatial planning was decentralized to lower government levels and to the market in the early 2000s, resulting in the dismantling of the ministry for spatial planning and housing in 2010 with the famous words of the then-minister: "I'm the first liberal minister that made an entire ministry disappear".

Fast forward to now and spatial planning in the Netherlands is facing a poly crisis: a housing crisis, an energy crisis, a nitrogen crisis, a biodiversity crisis and an agricultural crisis. On top of that, climate change and sustainability policy goals such as reaching net zero CO_2-emissions and a circular economy in 2050 stress the need for transformative change. Scientists, policy advisors, planners and designers are pressing for the return of long term visions for a sustainable future and are producing their own.

Since 2016, there has been a rush of scenario's, spatial visions, utopias, dystopias, immersive installations and exhibitions all focused on the long term future (De Hoog, 2023). These are produced by a dispersed group of actors outside government. At the same time, the national government has responded to the call and is co-producing its own images of the future with the aid of design firms, signaling a return of national spatial planning.

This paper will compare the current project NL2100, a program by the Board of Government Advisors (an independent council for spatial quality) that addresses the need for long term planning through future design studios, a future academy, immersive installations and exhibitions on the future, with a case study from the late 1980s. Then, as now, a group of urban planners, scientists and designers signaled a lack of long term thinking in spatial planning and decided to do it themselves. Their five year design manifestation was called The Netherlands Now as Design (Nederland Nu Als Ontwerp, 1984-1989) and comprised of four scenario's for the Netherlands in 2050, translated into regional and urban designs by a group of then relatively unknown architects and urbanists. The pinnacle of the project was an exhibition in Amsterdam luring visitors to come and experience the future. Although the project was criticized for lacking coherence (the designs did not match the scenario's), comprehensibility and participation, it is still considered one of the prime examples of futuring in the Netherlands (Salewski, 2012).

As an active practitioner in the NL2100 case study, I will compare the techniques of futuring in both case studies. Techniques of futuring are defined as practices bringing together actors around one or more imagined futures and through which actors come to share particular orientations for the future (Hajer & Pelzer, 2018). Using qualitative research methods and action research I will explore how these images of the future are constructed, by whom, when and how. Zooming in on three aspects of techniques of futuring - storylines, dramaturgy and structure (Oomen et al, 2022) - I will explore how the co-production of these images of the future in both case studies can lead to new imaginaries of sustainable futures.

Changing The Game With Exploratory And Transformative Scenarios

Bojana Pjanovic (University Of Belgrade Faculty Of Geography, Department Of Spatial Planning), **Tijana Dabovic** , **Dejan Djordjevic**

With the "communicative and collaborative turn" and the rise of participatory approaches in spatial planning, rationality was no longer seen as based solely on logic, but as an "informed consensus formed by a community of individuals in a particular place and time" (Healey, 1992). This has been applied to the scenario method, shifting from the use of quantitative techniques in scenario building to qualitative techniques and involving political actors and citizens in joint decision-making. In transition management, scenarios are the fundamental element to support process transitions with the aim of sustainability (Loorbach and Rotmans, 2010). Transition management includes the creation of scenarios that not only aim to make decisions, but also to create them in a collaborative environment where learning, co-creation and integration of knowledge take place (Wiek, Binder and Scholz, 2006). The combination of scenario types and quantitative and qualitative techniques in scenario building avoids the problem of trying to make the right prediction for a one possible future. Rather, the focus is on developing multiple possible or desirable futures, i.e. multiple scenarios in a collaborative environment that allows the necessary flexibility under conditions of complexity and uncertainty and provides alternatives in planning. The aim of this paper is to present a benefit that the combination of exploratory and transformative scenarios could bring to spatial planning. The basic idea of the "combined approach" is to first examine possible developments with an exploratory scenario - what can happen if we behave in a certain way? - then redefine and set the goals (desired future) and develop transformative scenarios by analysing what actions should be implemented to achieve the desired future. Scenario building with a combination of exploratory and transformative scenarios in a collaborative environment (the active participation of spatial development actors (experts, stakeholders, public)) within the planning process and the use of geo-information technologies and planning support systems is a way to explore, visualise, evaluate and discuss possible futures under conditions of complexity and uncertainty and to reach a consensus on how they should be implemented. Emphasising the basic principles of planning, the value system, enabling learning and knowledge sharing through structured communication between spatial development actors and complementing scientific knowledge with local, intuitive and experiential knowledge leads over time to an integration of the different interests, values and tensions that arise in the creation of the spatial development plan, which improves and facilitates decision-making and subsequent implementation.

Keywords *: scenario types, scenario building, envisioning futures, complexity, planning support systems*

Planning Transformational Accessibility For Uncertain Futures: A Research Agenda For New Methods To Cope With Uncertainty

Guy van Nifterik (Radboud University)**, Vincent Marchau** (Radboud University)**, Sander Lenferink** (Radboud University)**, Peraphan Jittrapirom** (Radboud University)

The ecological crisis we are facing is requiring us to drastically rethink and adapt interactions with our environment. This is calling for a transition towards new (sustainable) futures with new instruments and paradigms for planning. Specifically, in the transport field, a call for shifting the focus from transport-oriented planning towards accessibility planning encompassing physical transport, spatial proximity, and digital connectivity, also known as Triple Access Planning (TAP) (Lyons and Davidson, 2016) has been argued. However, planning for sustainable accessibility remains highly uncertain – due to, for example, changing mobility routines, changes in land use, or the uprise of new mobility technologies – especially in rural and suburban areas where distances are greater and densities lower. Moreover, transforming accessibility systems requires transformational change, since it involves behavioural change with new practices, routines, and paradigms, potentially calling for significant system changes in accessibility planning. It is therefore both unclear how to plan for TAP and how TAP might help foster and unlock desirable futures through transformational change. Planning for sustainable futures using TAP therefore requires considerable efforts and commitment from public authorities, market partners, and civil society actors and important changes in the transport and accessibility systems.

In this context, current model-based Decision Making under Deep Uncertainty (DMDU) methods such as Robust Decision Making (RDM), Dynamic Adaptive Planning (DAP) or Dynamic Adaptive Policy Pathways (DAPP) fall short since they are unfit or too complicated for usage in the real-world encompassing complex multi-level systems with multi-actor networks dealing with wicked problems (Wise et al., 2014; Kwakkel et al., 2016; Bonjean Stanton and Roelich, 2021). Moreover, these methods primarily assume the current systems and state of the world with its own values and objectives as the starting point for new robust or adaptive policies (Wise et al., 2014; Kwakkel et al., 2016), which prevents them from proactively guiding changing values, paradigms and realities, and retain them from triggering transformational change. In this light, new approaches making use of stakeholder collaboration, action-oriented planning, and innovative planning techniques hold great potentials to facilitate this system change for sustainable transitions. This paper therefore presents a research agenda for the development and testing of new methods in accessibility planning to achieve sustainable futures. It argues that transdisciplinary and co-production methods along with, for example, shared visioning exercises by developing common imaginaries (Hajer and Pelzer, 2018) are promising research paths and hold great potential to both envision and plan for these desired futures while acknowledging the complexity of governance networks and allowing coping with uncertainty.

Urban-Industrial Spatial Re-Integration: Examining Seoul Metro Area's Manufacturing Landscape

JEONG-IL PARK (Keimyung University)

Historically, cities were the home to the diverse industrial activities. However, the process of deindustrialization has gradually led to separation between urban and industrial spaces. The intensification of environmental regulations within cities, addressing issues such as pollution and noise, along with the demand for extensive land and affordable real estate on the outskirts for mass production systems, have long driven the suburbanization of industry. This has, until recently, restricted the entry of industry into cities, and has reinforced the spatial separation of production-consumption and living-working spaces. Recent literatures, however, have highlighted a resurgence of 're-urbanization of industry' or 're-industrialization of the city,' with a particular emphasis on manufacturing (Gornig and Werwatz, 2018; Hosoya and Schaefer, 2021). It is argued that the application of cutting-edge digital technologies enables enhancements in industrial productivity, facilitates lighter and cleaner production, and ultimately facilitating the return of industry to urban settings (Herrmann et al., 2020; Lane and Rappaport, 2020). Specifically, Park's (2023) case study in South Korea particularly highlights this pattern of re-urbanization of new manufacturing facilities post-2010s, characterizing urban manufacturing as small, clean, and high-tech. Despite these progresses, there remains a significant gap in empirical research concerning the re-integration of urban-industrial spaces, particularly regarding their regional attributes. Accordingly, this study aims to examine the patterns and regional characteristics that drive the re-integration of urban-industrial spaces, with a focus on the Seoul metropolitan area in South Korea. Using spatial micro-data from 2000 to 2021, this study calculated an urban location index for each 1km x 1km grid and examined the trends and spatiotemporal dynamics of areas experiencing this re-integration. The findings from the panel regression model showed the critical role of urban industrial spaces, such as vertical factories and industrial parks, in fostering this re-integration. This study diagnoses the urban spatial restructuring process as facilitated by the Industry 4.0 and the advancement of digital technologies, which encourage proximity between living and working spaces or the re-integration of production (living)-consumption (working) spaces. It also suggests several policy implications for the development of future urban industrial spaces.

Keywords *: urban-industrial spatial re-integration, re-urbanization of industry, urban industrial space, urban manufacturing*

Leaving No One Behind

Centering Indigenous Knowledge And Values In The Development Of Integrated Agroecological Renewable Energy Systems Through Convergent Research

Diana Denham (University Of Oklahoma), **Raúl Bayoán Cal** (Portland State University), **Lara Souza** (University Of Oklahoma), **Marc Calaf** (University Of Utah), **Clifton Cottrell** (University Of Oklahoma)

The deployment of renewable energy systems across vast landscapes across the world - expected to advance the transition from national reliance on fossil fuels to renewable energy - brings with it questions of competing land uses, effects on soil and water systems, and implications for equity, justice, and Indigenous self-determination. Indigenous lands house considerable potential for renewable energy generation and are increasingly targeted in initiatives to transition countries away from fossil fuels. Yet top-down planning practices and a failure to integrate Indigenous knowledge and goals into the larger project of a renewable energy transition risk violating the sovereignty of Indigenous nations. This project advances the frontiers of sustainability planning by forging a convergent research paradigm that not only deeply integrates disciplinary modes of thinking from otherwise siloed fields, but also incorporates the values, knowledge, and priorities of Indigenous communities, thus confronting legacies of dispossession and demonstrating the potential of communities underrepresented in STEM to contribute to convergent research that can address society's most urgent problems. Our convergent framework addresses asymmetries in the relations of knowledge production in renewable energy by integrating Indigenous knowledge and priorities into a promising but nascent field that explores how wind and solar power can be embedded into agricultural systems. Participating disciplines include engineering, Native American Studies, geography, and biology. At present, there is little research regarding how renewable energy systems can be put to the service of Indigenous communities or how Indigenous knowledge could shape the field. Given that such systems are expected to be deployed in diverse socio-ecological contexts, this represents a serious oversight. This convergence research addresses food, energy and other environmental planning priorities through deep engagement with Indigenous communities in North America.

Marginalizing The Banlieues Or Confronting With The Colonialism Of Everyday Life?

Deniz Kimyon (Dr.)

After the police force assassinated Nahel on 27 June 2023, a response to the ongoing rebellion in the peripheries resembling the revolts came out in 2005, France witnessed a profound shift in its political landscape. This upheaval began prominently in the Nanterre banlieue, radiating into several other urban areas, as resistance against racial attacks by the police gained momentum nationwide. The banlieues, the working classes' urban living environments, played a crucial role in fueling this revolt within a matter of weeks. Amidst the growing unrest, the focus turned to the challenges posed by the banlieue, with some framing the issue as a consequence of territorial stigmatization. The banlieues were perceived as threats, dangerous spaces, and locus of dangerous classes, prompting scrutiny of socio-spatial segregation. These urban peripheries, where housing areas for impoverished working-class migrant communities were concentrated, became the focus of discussions on how urban planning could address the underlying problems and pacify the rebels. This paper critically examines whether urban planning or coercive housing reforms, as instruments of state territorial organization, can effectively address the suppression of banlieue resistances without acclaiming the sources and processes of colonization in urban space.

The paper delves into discussions on the stigmatized aspects of banlieues, the politics of reterritorialization, and the inherent limitations of planning. Emphasis is placed on the urban scales of colonialization, exploring superior aspects and dominance over the banlieues. Drawing from theoretical perspectives informed by Fanon and Lefebvre's debates on colonization and everyday life (Kipfer, 2019), this paper provides an analysis of the roots of the insurgent movement in France, which materialized by 2023. The temporal and spatial dimensions of everyday colonialism are examined as drivers of unrest, leading to (un)expected resistance. As in the case, the unspoken power of young people of migrant origin is portrayed as a manifestation of domination and exploitation in the forms of everyday colonization, racial discrimination, alienation, and dispossession. This work will examine the debates on this revolt through spatial politics. Ultimately, this work, by empirical research and conceptual understanding, aims to contribute to analyzing urban politics and resistance, change politics for the future, limits of planning concerning contradictions, center-periphery conflicts, (de)colonial politics in spatial organization, and the colonialization of urban margins.

Taking 'Displaceability' Seriously: A Game-Changer For Just And Sustainable Planning?

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Current dominant planning practices are leading us to a dead-end. In Europe and elsewhere, cities and urban areas are marked by deepening inequalities, escalating housing crises, vulnerability to growing risks (environmental, pandemic, digital, etc) and, in most contexts, increasingly divisive politics. In this context of polycrises, dominant planning practices are at best palliative, at worst complicit, contributing to what we term pervasive 'displaceability' – that is, the susceptibility of groups and individuals to be distanced from or to lose their rights to urban opportunities, resources and wellbeing. In this paper, building on the work of Oren Yiftachel (2020), and bringing together accumulated reflections from research in Cairo, Colombo, London, Paris, Tel Aviv and elsewhere[1] we elaborate the situated notion of 'displaceability' as contemporary urban condition, and argue for its centring as a vital approach to reclaiming planning as supportive of urban majorities.

Specifically, we propose a comparatively robust framework for reading the manifold and space-specific drivers, manifestations and resistances to displaceability. Our analysis pays particular attention to the continuum of planning-induced vulnerability – the making of disposable subjects – through processes ranging from the reliance on outdated planning tools or ways of knowing the city, to the usurpation of legal mechanisms, the invisibilisation of established and novel mechanisms of displaceability, or state violence. Just as critical, we highlight the counterpoints to displaceability, often uncovered through practices of resistance, namely the tangible and intangible dimensions of 'irreplaceability' - as pointers to alternative/forward-looking imaginations and practices that centre on locally-articulated conceptions of planning as care and repair.

Being attentive to the locality-based dynamics of displaceability (and its resistances), indeed developing a displaceability-attentive lens for reading urban development processes, we argue, holds the promise of a game-changer approach to future planning, reinvigorating the transformative potential of planning - in dark times.

[1] The authors build on the following completed and/or current research programmes: ANR SpacePol - Cairo; ANR Co-Polis (Coproduction Sociale de la Ville et Recherche Citoyenne) - France and Brazil; Horizon Europe Fairville (Facing Inequalities and Democratic Challenges through Co-production in Cities) - London, Cairo, Marseille, Berlin, Brussels, Dakar, Calaraçi; ISF project (Urban Displacement: Implications for Cities in Israel/Palestine); UCL and Bartlett Development Planning Unit-financed research collaborations with the Just Space Network in London; UKRI-GCRF (Living Off-Grid Food and Infrastructure Collaboration) – Tamale, Mossel Bay, Epworth, Bangalore, Colombo).

Enhancing Local Sustainable Development: A Digital Spatial Decision Support System To Recovery Marginal Areas In Italy

Maurizia Pignatelli (Politecnico Di Torino)

Marginal areas constitute approximately 21 per cent of the global land area (13.5 billion hectares). The recovery of the urban systems located in these areas is a crucial goal in the international pursuit of sustainable development. Consequently, planning processes at the local level have gained significant importance. A multitude of methods and tools are available for analysing urban processes and activities. However, today decision-makers need to embed them with best management practices, quantitative data and digital tools to support policy decisions towards technological innovation.

This study focuses on enhancing existing decision support systems by integrating Multi-criteria Assessment (MCA) tools and Geographical Information System (GIS) instruments to address local issues in small marginal areas in Italy. The study aims to create an interactive web dashboard, serving as a digital Spatial Decision Support System (SDSS), to assist local authorities in fostering a responsive environment for future local policy actions aimed at sustainable local development. Furthermore, it envisions active stakeholder involvement and the implementation of multi-sectoral analysis and spatial assessment approaches on a multi-scalar basis.

The methodological framework of this study is structured in three parts: (I) Explore socio-economic and territorial dynamics in the Italian context, select villages as the current most distressed marginal areas in Italy, and develop a multivariate cluster analysis to assess the context in which each village is located, identifying four archetypes of villages. (II) Define the web dashboard with a GIS structure, complemented by an evaluation framework based on Key Performance Indicators (KPIs) useful for setting targets and strategies through the implementation of MCA and a Social Design System Thinking (SDST) approach. (III) Implement the dashboard in four villages chosen as case studies. The results demonstrate the operability of the interactive web dashboard and the key findings of its implementation in the case studies, providing a set of suitable strategies and actions to enhance local development.

This study supports Italian policymakers by offering an innovative digital SDSS that analyzes, measures, and assesses territories to streamline spatial planning processes and define future scenarios that align with global goals at the local level.

Keywords *: Spatial Decisions Support Systems, Digital innovation, Urban sustainable transition, Interactive GIS-based platform, Key Performance Indicators*

The Internet-Induced Restructuring Of Urban-Rural Spatial Relationships: A Case Study Of Q Town In Shaanxi Province In China

LiangKai DENG (Tongji University), **DE WANG**

The rapid development of the digital economy has instigated significant transformations in the conventional production and living relationships between urban and rural areas. This has led to shifts away from traditional modes of production and daily life, affecting the functions of villages, towns, and county-level cities. Previous studies related to the impact of the Internet on restructuring urban-rural relationships mainly focus on how villages integrate into regional production and consumption systems through the Internet(Luo & He, 2013), the evolution of society and production from agriculture-based villages into online industry-driven ones(Zhang et al., 2018; Xie et al., 2023), and the mechanisms of economic growth, spatial expansion, and urbanisation in towns and villages(Yuan et al., 2022). These studies have identified characteristics such as the expansion of construction land, three-dimensional land use, and the compression of living space (Zhang et al., 2019). However, most prior research examines the impact of the Internet on urban and rural areas separately, without a detailed exploration of the restructuring of the urban-rural relationship. Taking Q Town, located in Shaanxi Province, China, as an example, this study investigates the impact of the Internet on the production and living space usage among rural residents. The research methods and materials include face-to-face interviews, in-depth surveys, and sales orders of agricultural productions. This study aims to explore emerging patterns of urban-rural relationships due to the Internet. We found that: (1) There are significant obstacles to the digitalization of rural production processes, which have not yet had a notable impact on the general urban-rural relationship. (2) The sales process for agricultural products has a high degree of digitalization, which promotes cooperative relationships between urban and rural areas and expands the marketing spatial scope of product sales. (3) There is a high degree of restructuring in the rural spaces used for living and leisure activities: Shopping spaces for goods with high purchase frequency and low value, such as food and daily necessities, are still following a 'town-dispersed' pattern, while spaces for purchasing items with lower purchase frequency and higher value, such as clothing, footwear, digital products, and home appliances, have shifted from being 'county-centered' to 'Internet-centered'. (4) Leisure activities migrating to mobile Internet show a clear trend, but without significantly affecting residents' use of traditional leisure and social spaces. This research promotes the theoretical basis in this field on urban-rural relationship transformation in the digital economy era, particularly in how the Internet affects traditional urban-rural production, lifestyles, and spatial structures. Moreover, it provides policymakers with empirical evidence to improve rural informatization and promote online agricultural sales, advancing integrated urban-rural development. Additionally, for enterprises, it also gives insights into shifts in consumer shopping patterns and changes in leisure habits. Ultimately, this study contributes to realising rural revitalisation strategies of China, promoting a more balanced urban-rural development.

Keywords *: Digital Economy, Urban-Rural Relationships, Rural Revitalization, Sustainable Development, Production and Living Spaces*

Futuring Governance

Digitalization, Artificial Intelligence And Technological Innovation In Tourism Cities Through 2023 European Smart Tourism Capitals: A Comparative Analysis

Hilal Erkuş (Akdeniz University), **Merve Orakçı** (Akdeniz.university)

This research is located within urban studies, information technology, and tourism discussions. Inspired by the emerging conceptual frameworks on Smart Cities and urban innovation technologies, this study aims to compare application examples according to indicators determined by the European Commission, together with conceptual frameworks to understand the future trajectories of tourism cities in the context of digitalization, Artificial Intelligence (AI) and smart cities.

The study explores through examples how the integration of these technologies will shape the urban tourism space, redefine tourism experiences, and affect the socio-economic fabric of these cities (Boes, Buhalis and Inversini, 2016 ; Gretzel, Werthner, Koo ve Lamsfus, 2015). The main purpose of this study is to elaborate and compare the process of digitalization and getting smart in tourism in both Paphos and Seville, which were selected as 2023 European Smart Tourism Capitals, subject to the competition in the fields of Accessibility, Sustainability, Digitalization, Cultural Heritage and Creativity determined by the European Commission (European Union, 2023). One of the objectives of the study is to highlight the relationship between the tourism place (city) and the reflections of technology and digitalization on the place by comparing the practices of the award-winning smart tourism capitals with the application examples in the European Commission's guide.

The study aims to discuss the role of artificial intelligence-driven urban infrastructure, immersive digital experiences and data-based decision-making in shaping the future of the urban area of tourism cities by comparing smart tourism capitals by comparing applications. As a result, this research contributes to the theoretical discussions on the future of Digitalization, Artificial Intelligence, and Technological Innovation in tourism cities, and to the interpretation and development of application examples.

Keywords : smart tourism cities, , Digitalisation, technological innovation

Modelling Scenarios And Pathways For Climate-Smart Landscapes In New Zealand

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Nature-based solutions are being proposed to address the global climate and biodiversity crises. Climate-Smart Landscapes (CSL), a type of nature-based solution, consists of reconfiguring land use for multifunctional goals of sustainable production, climate change adaptation and mitigation, with biophysical and social trade-offs (Lavorel et al., 2022). Current integrated landscape research has emphasized social and governance aspects, while ecological mechanisms and critical spatial dimensions are often overlooked, limiting transitions to CSL.

In this collaborative research, we address these gaps in a transdisciplinary approach to generate ecological and governance knowledge for creating pathways towards CSL. The aim of our work is to define strategies for landscape adaptation to climate change using geospatial modelling and land-use management methods integrating both ecological and governance mechanisms at different scales. Three complementary model approaches are used to build scenarios and evaluate possible or probable futures, to acceptable pathways to CSL. Those three approaches evolve from a) 100% science focussed scenarios, to b) understanding of multi-decision level processes, and eventually c) decision making by stakeholders given a scientific blueprint to target environmental, sustainable, resilience and profitable goals:

a) We developed a spatial multi-objective land use optimiser (McDowell et al., 2022) embedded into LUMASS (Land Use Management Support System) software. Scenarios have been developed and tested to deliver single or multi-objectives such as healthy diet, improving water quality by minimising nitrogen and phosphorus loss to waterways, maximising profits, minimising greenhouse gas (GHG) emissions, maximising carbon stock. For each scenario, land use change has been targeted to areas not currently meeting the objectives and spatial organisation of new land use strongly depends on local constraints such as topography, hydrology, stakeholders' requests, etc. When an optimised landscape reaches the scenario objectives, Ecosystem Services (ES) are computed and evaluated against the new landscape (Richards et al., 2023).

b) We developed a socio-environmental stylized exploratory Agent-Based Model, as a flexible model made for exploring a large diversity of landscapes, agent types, decision levels, including bottom-up patterns emergence analysis and top-down feedback loop from higher policy representation. This model is used to create pathways between science pushed scenarios (from the land use optimiser) to feasible and acceptable landscape reconfigurations using a backcasting-type approach (Brunner et al., 2016) to highlight the various decision-making levels activated and explore those processes with stakeholders to reimplement in a more satisfying way.

c) A systems dynamic model developed using Stella Architect was designed as a Decision Support Tool (DST) to bring together production, market values, land use, water use, energy, fertiliser consumption, and emissions for each of the main agricultural sectors (dairy, beef, sheep, cereals, horticulture, and forests)(Vannier et al., 2022). More detailed sub-systems were developed focusing on the arable and livestock sectors. The parameters are customisable by the user for scenario building. With stakeholders' consultation, a large set of scenarios were explored, i.e., future trend scenarios (Business as usual, Optimisation and technology), breakaway scenarios (Carbon farming, Reduction in dairy demand) as well as food security, climate change adaptation and alternative protein production.

Most of the simulation results suggest potential synergistic opportunities between sectors and landscapes to enhance productivity, reduce emissions, while land use change cost stay low and less than the estimated savings (e.g., health system, community well-being, food security, Carbon stock). The spatialised and interactive interfaces provided by this range of models, with clear output indicators displaying live-scenario simulations improved stakeholder engagement, which can facilitate future land planning and policy formulation. Those models support the development and assessment of pathways to achieve NZ's national environmental, sustainability and profitability goals and has the potential to be replicable in various landscapes and socio-environmental systems.

Looking For Robustness In Uncertain Futures: An Integrated Scenario – Policy Packaging Method

Geert te Boveldt (Vrije Universiteit Brussel), **Sara Tori** , **Imre Keseru**

Transport projects tend to be heavy in terms of investments and impacts. Formal evaluation, aiming to help informed and logical decision making, is therefore an established part of the transport planning practice with methods such as cost-benefit analysis and multi-criteria analysis. This contribution focuses on two challenges that these methods do not address.

The first challenge is deep uncertainty. For discerning 'good' and 'bad' options, current decision-making methods use criteria that reflect the interests of the decision maker. However, events beyond the control of the decision maker might be just as crucial. Second is the lack of problem structure. Current methods require a set of discrete, mutually exclusive alternatives, 'waiting to be implemented'. In reality, such 'neat' problems are rare and the real difficulty is not the choice between, but rather the combination of measures. For both challenges specific approaches have been developed, respectively scenario planning, and policy packaging. A fundamental difference is that scenario planning serves to anticipate events outside the scope of control of the decision maker (what if?), while policy packaging is concerned with combining elements within the scope of control (how effective is the combination of measures x and y?). The similarity between the methods (some of them, within their respective families) is that they both help constructing consisting packages out of sets of variables, i.e., events for scenarios, and policy measures for policy packaging. In this contribution we propose a formal approach that integrates both methods, demonstrated in a case of mobility strategy making in the Brussels region, Belgium.

For scenario planning we build on Cross-Impact Balance Analysis (Weimer-Jehle, 2006) This technique is used to construct consistent scenarios out of multiple factors of uncertainty (e.g. the economy), which in turn can be in different 'states' (e.g. boom or bust). Scenarios consist of different combinations of factors and states, between which the causal relations are indicated in a matrix on a Likert scale by the analyst. Higher numbers of factors and states quickly result in hundreds of thousands of possible scenarios. The use of CIB lies in rendering the most plausible (not be confused with likely) scenarios.

CIB thus far has been used either for assessing combinations of external variables (i.e., factors of uncertainty), over which the decision maker has no control, or for assessing combinations of internal (policy) variables. In this paper we propose a method based on CIB principles, with some modifications, to incorporate the interactions of external and internal variables (policy measures). The interrelations between external factor-states are assessed in terms of causality. For the interrelations between internal factors, we make use of Taeifagh's (2009) scale representing relations between policy measures in terms of precondition, facilitation, synergy, potential contradiction and contradiction. Next, for assessing the relations between external and internal variables, we propose a scale in terms adequacy: In the case of event x, how adequate is measure y?

We demonstrate how the approach allows addressing the following questions: 1) how to distil plausible (consistent) scenarios out of a set of numerous factors; 2) how to combine policy measures into consistent and synergistic packages; 3) what is the most adequate set of measures in a particular scenario (optimal strategy); 4) what is the most adequate set of measures in the face of the full spectrum of possible events (robust strategy)?

Power Of Futuring

Reclaiming Good Distant Futures For Planning Education And Practice : Lessons From History, Science Fiction, Future Studies, And Solar Punk

Lucie Laurian (University At Buffalo, State University Of New York)

Planning's focus is urban, regional, and always spatial. Planning is also an inherently and uniquely temporal field. This paper argues that rethinking planning as primarily temporal and future-oriented opens up new possibilities for radical urban change. It explores how to realize this potential through planning education, practice, and theory.

Transitioning toward sustainable and climate-resilient cities and economies that can support the wellbeing of future generations requires that planning reclaim ideas, imaginaries, narratives, and decision-making processes about long-term good futures. Yet, in modern and post-modern societies, the future is being colonized to the benefit of the present, e.g., by smart cities and internet-of-things narratives, net present value discount rates, prioritizing speed and immediacy, and greed (e.g., Adam 1990, Adam and Groves 2007, Laurian and Inch, 2019, Nowotny 2018).

This paper explores how planning thought, education, and practice can help reclaim good futures, and proposes a paradigm shift from "think global, act local" to "think far-futures, act present."

Planning education needs new tools to grow and develop students' future imaginaries. Future planners need to learn about the legal and regulatory structures, market forces, socio-political dynamics, and historical path-dependencies that shape and govern urban governance. They also need to explore what good urban futures might look like, and to build personal and collective visioning skills to (and backcasting from) good futures. Freeing planning students' future imaginaries requires denaturalizing the present. Voltaire spoke through imagined alien visitors to denaturalize the ancient regime, with great effect. Building historical knowledge and empathy can help both contextualize and denaturalize the current state of things, and opening doors to transitions pathways towards good distant futures.

In practice, urban and regional plans consider 5-10 to 10-20 year time horizons. Thinking and planning on 30-50 year horizons, i.e., plans for the 2060 or 2070s, is exceedingly rare. While thinking in 100, 200, 500 or 1000 increments may be considered futile in light of high uncertainties, thinking on very long timeframes (the proverbial 7 generations cover about 200 years) is necessary to orient development patterns towards sustainable futures. Recent experiments in Newcastle and Reading show that participatory long-term visioning, scenario planning, and backcasting can help co-construct aspirational, optimistic, inspiring, and feasible urban outlooks (Dixon and Farrelly 2020, Thompson 2015, Goodspeed 2020, Dixon and Tewdwr-Jones 2023). Beyond architectural renderings, gaming tools, such as "serious" collaborative games, could assist in those collective visioning processes.

Planning thought and planning theory can assist practice and education and lead efforts to reclaim good futures by engaging with new materials and fields. I discuss useful contributions from political narratives about the future, from the field of future studies (surprisingly disconnected from the planning literature), from Afrofuturism and from utopian science fiction (e.g., Mercier 1771, Bellamy 1888, Robinson 2017, Wakanda, Solar Punk).

I propose ways to supplement planning education to build students' far-future imaginary skills. I also recommend that planning practice encompass a wider range of plans, including 1-5 year plans implementing recent decisions and addressing immediate issues, 10-20 years plans shaping urban and regional development patterns, 30-50 year strategic transition plans, 50-100 year continuity, sustainability, and resilience plans, as well as 100-300 year long term vision plans. As time frames expand and uncertainties increase, plans and visions become more open-ended. They set broad directions towards good city-regions rather than specific transition paths.

***Keywords** : Time, futures, sustainability, post-growth utopia, imagination*

Desirable Futures: Human-Nature Relationships In Urban Planning

Fabiano Lemes de Oliveira (Politecnico Di Milano), **Israa Mahmoud** (Politecnico Di Milano)

This presentation explores conceptualizations of future relationships between humans and nature in urban planning. Although the act of planning involves futuring, and no shortage of possible futures have been envisioned in the discipline across history, the field often overlooks explicit connections to futures studies (Bell, 2003) in constructing sustainable futures. In light of the climate and ecological crises, attention to nature-based solutions (NBS) has notably increased in recent years. Posited as a critical approach to integrate nature and urban planning (Mahmoud, Morello, Lemes de Oliveira, & Geneletti, 2022) and unlock harmonious futures between humans and non-humans, research in the field has also not sufficiently grasped the question of time and embraced visioning practices.

The presentation initiates by examining how the future of human-nature relationships can be seen as a consequence of resilience to climate change, or lack thereof. Preferable futures often portray harmonious interactions between nature and humans. They are framed within frameworks such as co-evolution (Herrmann-Pillath, Hiedanpää, & Soini, 2022), ecocentric perspectives, more-than-human scenarios and multispecies planning (Celermajer et al., 2021). These visions emphasize recognizing nature's intrinsic and relational values, as well as acknowledging its agency in the context of urban planning. Additionally, the evolving role of technology in shaping these desirable futures is a growing area of exploration, incorporating concepts such as artificial nature and augmented nature (Mahmoud et al 2024), potentially challenging established definitions of nature and paving the way for the construction of new natures in prospective scenarios.

Desirable futures for human-nature relationships are often explored through methods that could be standardized and used in several settings. These include backcasting and forecasting, scenario planning and design methods, multilevel perspective (MLP), storytelling, and other narrative approaches.

Another facet of exploration will be the spatial dimension of human-nature relationships. The presentation will investigate various contexts where these relationships may unfold, spanning from within cities through biophilic approaches, to envisioning revised approaches at the urban-rural interface for a radical transformation of our connection to the natural world. Additionally, it will consider distinct entities, such as mountains or non-urban territories, as potential focal points for evolving human-nature relationships. The presentation will also contemplate the impact of technological revolutions in fostering ubiquitous nature, transcending traditional boundaries.

In conclusion, this presentation seeks to deepen our understanding of the intricate interplay between humans and nature in urban planning, exploring diverse visions of the future, methodologies for shaping desirable outcomes, and the spatial dynamics where these relationships may manifest. By integrating these elements, the aim is to contribute to a more comprehensive and forward-thinking approach to urban planning that embraces sustainable and harmonious futures for both humans and the natural world.

Keywords *: futures, urban planning, nature*

Winter Is Coming. Scenarios For The Italian School Infrastructure In The Demographic Decline

Ettore Donadoni (Dastu Politecnico Di Milano), **Cristiana Mattioli** (Dastu Politecnico Di Milano), **Cristina Renzoni** (Dastu Politecnico Di Milano)

Sociodemographic data point to a process of de-youthing in several European countries, with a drastic fall in the birth rate and a shrinking young population, including foreigners. Eurostat estimates that 190,000 fewer children will be born in 2030 than in 2020. The Mediterranean countries, in particular, have entered a spiral of quantitative and qualitative decline, which limits the opportunities for development and well-being of the regions. Italy is one of the least fertile countries in Europe, with less than 1.3 children per woman. It is the worst of the 27 if we look at the birth rate, which was the lowest in 2021, at 6.8 births per thousand inhabitants, compared to a European average of 9.1. The number of births in 2022 is almost a third lower than in 2008 (-31.9%). According to ISTAT projections, four out of five municipalities are expected to lose population over the next 10 years, and the population aged between 6 and 18 will continue to shrink by 13% over the next decade (Eurostat, 2019).

The impact of this change is disruptive on many fronts (health, pensions, employment), but it is particularly evident in schools in terms of the need for teachers and learning spaces. In Italy, it is already clearly visible in the youngest age groups (0-5 years) and if we look at the new births – which represented 0.68% of the Italian population in 2021 – we can imagine the extent of the demographic decline in the coming years, in the different orders and levels of education and the different areas of the country. The current Italian school infrastructure will be neither sustainable nor necessary. Indeed, a total of 1.1 million pupils will be missing in 2030, with higher values in the southern regions and islands. For upper secondary schools, second generations will mitigate the phenomenon, especially in the north. According to Fondazione Agnelli, 43,000 classes and 66,500 teachers will be missing, and around 2 million square metres of educational space will become vacant. These projections imply the need to rethink the regional and local distribution of schools and the organisation of space within school buildings. While it is crucial to intervene with policies on welfare, work-life balance, and family support, it is also essential to anticipate multi-scalar and integrated scenarios and strategies of action for the very near future.

How can we respond to and anticipate a process of shrinking students and schools in the territories? What criteria for analysis on a territorial basis can guide public decision-making processes regarding the maintenance or closure of a school?

Various hypotheses for merging and reducing the number of educational establishments have been studied and discussed, facing resistance from local communities and administrations. The paper will discuss two primary research operations to enrich the current reflection. The first one concerns some stress tests carried out with different selection criteria based on location, accessibility, and characteristics of the school building stock. What would happen if the smallest schools (with the fewest pupils) were closed? Or the oldest ones? Or those without any (sports or cultural) facilities? Or those located in specific areas? Original maps and datasets will be presented, exploring the potential geography of educational infrastructure according to spatialised criteria and data, focusing on intermediate Italy, i.e., areas with diffuse urbanisation and medium-sized towns outside the metropolitan and inner areas. The second research operation concerns the prefiguration of alternative scenarios, which, based on the previous selections, explore innovative pathways towards the demolition, maintenance, re-functionalisation (with new facilities) of existing school buildings as learning hubs open to the local communities.

Keywords : schools, de-youthing, mapping, intermediate territories, future scenarios

Analytical Study Of Hospitality Culture And Urban Identity And Its Impact On The Future Of Marine Tourism In Red Sea Coastal Port Cities: Case Study Of Jeddah Saudi Arabia

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Jeddah, 'the Bride of the Red Sea' is the oldest and most famous coastal port city in Saudi Arabia. Around 3000 years old, it has hosted pilgrims and visitors and developed, spatial and cultural approaches to welcome visitors. This is currently termed religious tourism, as the number of pilgrims from outside the Kingdom this year reached 1,660,915 through various ports and 6,831 through sea ports(Statistics, 2022).

This research positions this growth strategy within the cultural heritage traditions and spatial, cultural, and social identity of hospitality in future passenger port in Jeddah and Saudi Arabia. It seeks to design the forward-facing context for Jeddah as part of the repositioning of Saudi as a global tourist destination by developing a better understanding of the culture and spatiality of Saudi hospitality coastal city designs.

The Kingdom of Saudi Arabia is currently developing actions in relation to its Vision 2030 policy, introduced in March 2017, that aims to reshape the Saudi economy away from extractive industries. A critical part of this policy is developing tourism as a major aspect of future activity(Vision, 2017). Since the launch of cruise trips in the Kingdom, 170500 passengers have taken part in 65 trips(CruiseSaudi, 2024). This will lead to major development in Jeddah significant development to accommodate cruise liners and their passengers as an outcome of this, with a goal of increasing the number of visitors by one million by the year 2025, as part of the Kingdom's Vision 2030 initiative on Quality-of-life programs.

This study presents findings based on a literature review that charts the evolution and development of hospitality in Jeddah, identifying developments and changes to spaces of hospitality over time with a particular focus on the forms of building and urban space that have been created during this process. Additionally, how is this modernity affecting the identity and user experience in the space compared to how they used to be and considering them now as non-places? (Auge, 2010).

The work will enable future developments to be positioned effectively within the context of Vision 2030 in addition to the significant changes to hospitality, arrival infrastructure and passenger demographics that will arise in future. The result is a critique and dialogue between past rituals, culture and future aspirations, thus improving the quality of tourists' experiences during their visit to the Kingdom.

***Keywords** : Passenger experience, Port cities, Culture, hospitality spaces, Jeddah*

Backcasting As A Tool For Governing Transitions Beyond Techno-Solutionism: The Torino2050 And Tomove Projects

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The salvific power of urban smartification should not be taken for granted, nor should its sustainability (Cugurullo et al., 2023). Whereas techno-solutionism which dominates the smart city discourse highlights the potential of new technologies (including AI) for urban efficiency and performance, a passive laissez-faire approach from public administrations can lead to undesired, unexpected and ungovernable outcomes. The deployment of Autonomous Vehicles (AVs), being a dominant manifestation of the emergence of AI in the management and development of cities, fully encapsulates these dilemmas.

The advent of AVs is likely to produce significant changes in how we move and live. Yet, when, how and to what extent these changes will take place is unclear, due to several dimensions of uncertainty. Not only is there high uncertainty about when full automation will reach significant market penetration, but also the direction and intensity of the potential impacts of AVs are related to how public administrations will intervene in their diffusion. Public administrations need to deal with this challenge, in the short and medium term, but they are often reluctant to take up the challenge (Curtis et al., 2019). This is due to various factors, such as the high levels of uncertainty, the long horizon – much longer than the timeframe of administrative and political offices, for instance – and the lack of sufficient "actionable" information to direct investments or planning priorities. Scenario planning methods (Ariza-Álvarez et al., 2022; Tori et al., 2023) can be very helpful to support public authorities in dealing with these issues, but they rarely enter planning routines.

Aiming to stimulate discussion on these issues, this paper refers to two projects. Firstly, it summarizes the results of the Torino2050 project, aimed to address the issue of governing the transition to autonomous driving, defining, through a collaborative backcasting, a policy pathway toward urban liveability and sustainability in Torino (Vitale Brovarone and Staricco, 2023). The process involved public and private actors, and shed light on three very important issues. The first is the power of anticipatory visions and the importance of defining concrete propositions to govern the technological transitions, beyond techno-determinism and towards desired urban futures. The second is the opportunity to ride the wave of the seductive power of technological innovation to promote goals of liveability and reduction of vehicle traffic within urban neighbourhoods. The third is the challenge of actively involving public administrations in the scenario planning processes (Vitale Brovarone, Scudellari and Staricco, 2021).

Secondly, it discusses how backcasting is going to be applied in the recently launched ToMove project, that will test an autonomous public transport shuttle and a robot for last-mile delivery in a quasi-superblock testbed area. The project is promoted by the Municipality of Torino, and the authors, as part of the FULL-Future Urban Legacy Lab of Politecnico di Torino, are involved to set up a participatory scenario-planning process. In this case, the public administration is leading the process, and has accepted the researchers' proposal to use backcasting as a tool to envision a desired future and govern the transition to it, seeing AVs as just a part of a desired future. The project is therefore a useful opportunity to actively involve the public administration in the scenario-planning process, taking stock of the lessons learnt in the Torino2050 project.

***Keywords** : scenario-planning, backcasting, future, planning, Autonomous Vehicles , public administration, Participatory approaches*

Track 13: Theories

THEORIES - PLANNING THEORIES AS A GAMECHANGER?

Chairs:

- Ben Davy, TU Dortmund University

- Xavier Desjardins, Sorbonne Université

- Luciano Pana Tronca, Istituto Universitario di Studi Superiori, Pavia

Keywords: planning theories, planning practices, planning academia, theory-building, planning

This track invites the bold explorers of the game-changing potential of planning theories to share their ideas on creative destruction, disruptive knowledge, inventive borrowing, and turbulent polyrationality with respect to spatial planning theories. Leaving behind the final frontier of a Pure and Unified Theory of Planning, the track normalises and mediates a wide variety of theoretical approaches to planning. Moreover, it welcomes reflections on how planners employ or are disappointed by theories that address the methods, processes, and substances of planning.

Planning theories are the expression and foundation of planning knowledge and planning performance. However, these theories are not static but inspire constant change and development. The track highlights how planning theories change the game in favour of just and sustainable regional and urban developments. This track expects that questions of planning and theory will be raised and discussed in all tracks: it specifically encourages:

- unfolding the different meanings of planning and theory as object and subject of planning theories,

- contributing to a better understanding of the interconnections between planning practices, planning theories, and planning academia,

- understanding the strategies and dynamics of theory-building in planning theories,

- deconstructing the relationships between truth, the political, and ideology in planning theories, as well as

- stimulating a debate on the suitability of planning systems and approaches to encounter today's big topics and raise awareness for needful changes.

This track offers experienced as well as young planning academics an opportunity to engage with plural planning theories in a turbulent world. Their contributions will examine the scope of planning theories, the integrated or fragile knowledge shared by planning theorists, and the obstacles within planning theories. Recognising that theoretical narratives often are lost in translation and have vague meanings, the track also invites to improve quality through more precise and explicit language in planning theories.

Planning Entanglements: Dis/Entangling Planning In A Bounded Planet

Nathan Marom (Reichman University / Sciencespo)

In this paper, I develop reflections on urban planning as a set of "entanglements" and consider the contribution of such ideas to planning theories. These reflections are based on a wide-ranging multi-disciplinary literature beyond urban planning, as well as ideas and illustrations from my ongoing research project on the political ecologies of the Tel Aviv metropolitan region and its planning throughout the 20th and 21st centuries.

To begin with, I propose to think of urban planning in itself as an entanglement of its "urban" and "planning" components, which themselves open up to multiple elements. While we may analytically disentangle the physical properties of cites as places from the procedural elements of planning (as planning theories have been doing for decades), the "game" really changes when these dimensions are seen as irreducibly entangled and interconnected. Yet rather than thinking of planning as a mode of addressing "wicked problems" (and providing "clumsy solutions"), perhaps it is more useful – and fun – to think of planning as an ongoing game where not only the objectives, rules, and rewards keep changing – but also the ground itself on which it is played keeps reforming as it becomes entangled in other places, spaces, and scales, increasingly so on a planetary scale.

Such an approach recognizes that cities and their wider urban-metropolitan regions are intrinsically and intricately bound to the entire planet – as they also encroach on more of its natural resources and push it beyond its "planetary boundaries". Urban processes – economical, ecological, environmental, metabolic – are understood as boundless, while the planet is recognized as bounded and finite. Urbanization and land use change, urban expansions and concentrations, agglomeration economies, global supply chains, production and consumption, energy-water-food nexus, infrastructural and mobility systems, GHG emissions, pollution and waste, internet and cloud computing – each of these separately and all of them together are some of the processes through which the urban is entangled with the planetary. And these processes are also deeply political, as they reflect and entrench unequal power relations and lead to uneven distributions and recognition between global South and North, between continents, countries, cities, classes, castes, communities, and constituents.

While urban theory, especially planetary urbanization, urban political ecology, and urban metabolism studies, have highlighted these processes (as have other fields and approaches, e.g. global anthropology, STS, ANT, and climate justice) – urban planning theory has been slower to engage with this terrifying question: What would it entail to "plan" such political-metabolic processes at the boundaries of the planetary, when we are still struggling to plan through the messy politics of cities within their well-defined municipal boundaries? Are we ready to actively engage and entangle planning with the biggest risks to our urban societies, the biggest "game changer" of our entire human history and future – namely, our overstepping of the planetary boundaries and living beyond the "safe and just operating space" for humanity While the stakes of the game have never been higher, we can nevertheless embrace these entanglements to reenergize our planning theories and methodologies – and maybe even have some fun as we play the game.

Mundane Resistance: Civic Societies And Effective Engagement With The English Planning System

Christopher Maidment (University Of Reading), **Angelique Chettiparamb** (University Of Reading)

This paper focuses on how civic societies, as place-based, civil society organisations, engage with the formal English planning system, and its regulated rights to get involved in planning decisions for individual proposals. These rights range from being able to make formal written comments within a specified time window of 21 days, to speaking at a planning committee meeting (also with a specified time limit, usually three minutes), to taking legal action (albeit only to dispute the process, not the outcome). Using these rights to influence the decision is, on paper at least, dependent on being able to link any concerns to 'valid' matters as defined in planning legislation.

Civic societies are voluntary groups organised around places, engaging in actions to champion the quality and the built environment of places (Civic Voice, 2020). They have a reputation for aiming to protect built heritage, linked to a historical inter-relationship with the formal institutionalisation of planning and the planning profession in the United Kingdom, from the early 1900s onwards (Hewitt, 2014). Societies often include members from built environment backgrounds, including architects and planners. Consequently, they are unusually able to draw on professional expertise and institutional knowledge to engage deeply in the formal English planning system. In their broad acceptance of the legislative structures of planning, and ambition to work within them while still challenging decisions, the civic societies stand in contrast to more well-documented forms of resistance. We term this form of resistance as 'mundane resistance'.

With support from Civic Voice, we earlier surveyed the contribution that societies make to both plan-formulation and the scrutiny of individual planning applications. The data gave an insight into the relationships that Civic Societies have with both the planning system and the local community including the issues they choose to prioritise in shaping places (Maidment and Chettiparamb, 2022).

In this paper we draw on a subset of the survey data where respondents told us about the last three significant planning decisions they had engaged in, illustrating their engagement in forms of mundane resistance. The first part presents a quantitative overview of these applications, looking at key similarities and differences, to identify patterns in the types of development that societies choose to engage with, as well as how they engaged with them.

The second part uses discourse analysis to explore the issues raised by societies through their written comments on planning applications, when trying to persuade decision-makers to take their views into account, including considering the use of 'planning' language as a tactic to overcome power imbalances. We use a framework that analyses the language used and knowledges expressed, and their grounding in the values that civic societies seek to protect and/or the specific features of the proposed development.

We want to highlight the potential of acts of mundane resistance as a counterpoint to a system increasingly driven by economic efficiency (Sager, 2016), whilst being cautious of how the distinctive institutionalisation of civic societies facilitates this. Finally, we draw out the theoretical implications of this for how civil society organisations engage in spatial planning processes, considering whether a more nuanced understanding of the diversity of civil society organisations is necessary to properly theorise their normative role.

Perception Of Urban Morphologies

Zeynep Eraydın (Ted University)

Planning is a dynamic process that anticipates changes and developments. Cities are repeatedly approached through different planning processes over time to adapt to changing needs and conditions, aiming to address emerging problems. Throughout this dynamic process, future goals set for cities constantly change, and the physical space of the city follows these changes. Urban morphologists interpret this change by focusing on physical components but often neglect the human dimension. This study examines the morphological dimension of planning from a spatial perception perspective, prioritizing human existence. The study argues that an approach prioritizing human presence in physical space can only be understood and interpreted from the observer's position. Kevin Lynch's concept of image and mapping method, introduced in 1960, stands out as an effective method in reading a human-centric urban morphology. His typological approach, describing the subjective city morphology in individuals' minds with five elements, highlights the importance of a person's subjective interpretation of the "objective" urban morphology. This study aims to reveal the distinctive features of urban morphological elements that exist in physical space and stand out in subjective mental maps. In this context, the study selects Ankara as its case study, a city whose morphological structure has undergone significant changes through five main plan proposals and numerous partial planning studies developed based on various visions after being declared the capital in 1923. The historical readings of planning and spatial changes in the city have been mapped in the study and compared with mental maps obtained from survey studies conducted in 2019. In conclusion, it has been revealed that, in terms of meaning, experientially connected and symbolic meanings take precedence, while physically clear, visible, and easily readable forms have a more prominent impact.

"Experience" And "Perception" In Planning Objects. A Planner's Approach To The Dewey-Santayana Rivalry In Aesthetics.

Ángel Carlos Aparicio (Technical University Madrid)

John Dewey and George Santayana turned from a short initial period of mutual admiration to lifelong rivalry and controversy. Aesthetics was one of the fields in which such rivalry developed. While Santayana's Works in aesthetics, starting with The Sense of Beauty (1896) enjoyed general recognition along the XX Century, Dewey's Art as Experience (1934) was largely neglected, until the 1980s, when it became a reference for the consolidation of pragmatic aesthetics. Paradoxically, some features in these apparently opposed understanding to aesthetics become quite similar when applied to the objects of physical planning, or in short to "planning objects". For example, the essentialist concept of experience in Santayana become closer to the pragmatic experience of Dewey when understood as the construction of concepts widely shared by a significant part of the society.

This paper claims the legitimacy of considering physical plans as aesthetic objects, explores the commonalities between Dewey and Santayana's aesthetics, and builds upon them to suggest a pragmatic analysis of planning objects. The analysis builds upon Santayana's concepts such as perception, social functions, expression, beauty of expression and their convergence with the concepts of art experience and democracy in Dewey. Such concepts serve to look at planning objects with a fresh view. For example, the perception of the planning object can be considered as a result of a person's function (and need) to place herself within the space, and the experience of the planning object can be understood as the result of the association of such perception with memories and ideals closely linked to living in democracy.

Such concepts subsequently serve to provide a critical review of several case studies: the controversial reform just completed of an iconic square in the centre of Madrid (Puerta del Sol, completed in 2023), the relegated reform of a busy transport hub in the southern periphery of Madrid (Vallecas), and the implementation of a large railway project (Corredor Mediterráneo) in the Mediterranean coast of Spain.

Black Geographies In The Nordic Context: Re-Theorizing Segregation And Socio-Spatial Epistemologies Of Whiteness In Planning

Burcu Yigit Turan (Swedish University Of Agricultural Sciences)

According to Swedish sociologists Thörn & Thörn (2017), the Swedish cities are considered the most segregated in Europe. Segregation has emerged as a very contentious notion in politics and the media, sometimes leading to the stigmatisation of neighbourhoods with a high concentration of immigrants. However, it has also been utilised as a justification for implementing planning interventions in these areas. The interventions involve the privatisation of land and social spaces, reducing investment in social housing, social and cultural infrastructure, increasing the density developing on the green areas in stigmatized neighbourhoods, developing diverse architecture in post-industrial areas, and investing in transportation infrastructure to improve connectivity between the outskirts and city centres. The urban planning ideas have been associated with the neo-urbanist paradigm, which emphasises the need of incorporating elements such as mix-use, connectedness, safety, human-scale, and architectural variety in order to address socio-spatial segregation (Tunström 2007). The neo-urbanist paradigm has emerged as the dominant approach in neoliberal urban development. However, these ideas have also been embraced by the 'progressive' community in planning academia (see Grunström 2019) as a counter to the far-right conservative ideologies that promote exclusive spatial imaginaries centred around white populations, i.e. gated communities, white low-density suburban enclaves. Within the realm of ideological and theoretical paradoxes, communities that have been subjected to negative racialization are experiencing different types of socio-spatial injustices, which are intensifying the existing disparities. In the American context, the neo-urbanist theories and their critique of modernist social housing estates have been started to be examined through black geographies and social theories that question the white bias in socio-spatial theories that underpin claims and assumptions in planning (Brand and Miller 2020; Steil and Delgado 2019; Steil 2018). This paper aims to analyse the inherent white bias present in the socio-spatial theory underlying Swedish planning theory and practice in Malmö case . The focus will be on examining the conceptualization and use of segregation, and proposing a new theoretical framework based on Black geographic thought to envision more equitable futures.

Theorizing State Dispossessive Planning Vs. Community Self-Determinative Planning: The Case Of The Israeli King'S Garden Plan In Palestinian East Jerusalem

Yosef Jabareen (Columbia University)

In 2009, the Municipality of Jerusalem launched the King's Garden Plan, to transform Al-Bustan, a Palestinian neighborhood in the heart of the 1967-occupied East Jerusalem (Jabareen 2010; Jabareen 2017; Jabareen et al. 2019). The Plan called for demolishing Al-Bustan's buildings, displacing its residents, and constructing a park, named after the legendary Israeli national hero, the Biblical King David. The Al-Bustan community objected fiercely to the Plan, resisting it through a political campaign, preparing an alternative plan, and undertaking various measures to prevent their displacement and ensure their continued presence. This paper investigates what I call dispossessive planning, contrasting it with the self-determinative planning developed by communities in response. Both depend on a 'friend-enemy' antagonistic divide. Dispossessive planning is a regime of practices that dispossesses and displaces relatively disadvantaged groups of people, weakening the material foundations of their affective and existential security (Hirsh et al. 2020; Jabareen et al. 2017), as it deliberately constructs a new reality. Three logics are constitutive of its framework: In an aesthetic logic, the lived experience of the population to be dispossessed is effectively denied in favor of new ones to be put in its place through planning. A logic of accumulation by dispossession involves the capitalization of dispossession through spatial practices, including place alteration, oriented to profitable economic redevelopment. An exclusionary logic involves the set of reasons given for excluding specific people and places. In response to the dispossessive approach, self-determinative planning arises when the community becoming a political, struggling for recognition and building a new form of autonomy in their place, as dispossessed urban populations assert their right to autonomously plan, produce, and control their spaces of existence.

Keywords : Planning approach, Insurgent, Community, Resistance

Revisited Collaborative Planning Theory In The Era Of Digitalization

Yanliu Lin (Utrecht University)

Collaborative or communicative theory has been advocated since the 1980s to improve democracy and equity by engaging grassroots participants in planning processes (Healey, 1997). Embedded in deliberative democracy, it emphasizes free speeches among equal individuals. The theory assumes that discussions in the public sphere should be sincere, accurate, and comprehensive, meeting Habermas' ideal speech conditions resulting in agreement (Innes and Booher, 2015). Thus, it centers on a consensus -building process, through which selected representative stakeholders engage in face-to-face dialogue to address controversial issues. Another assumption is neutral power, i.e. all participants are equally entitled to get information, and question and make objections and proposals (Innes and Booher, 2015). However, this theory has received a lot of criticism regarding ignoring contexts, power relations, and conflicting rationalities. An emerging literature considered the potential contribution of agonism to collaborative planning, reflecting the debate on agonistic pluralism in the field of political science. Recent research has also shown the increasing impact of social media and new digital technologies on collaborative planning (Lin, 2022). The recent development of the Internet, social media, and online participatory platforms have facilitated social changes, new types of power relations, and new forms of public spheres. I argue that collaborative planning theory should be revisited in the era of digitalization. The theory can benefit from network power theory, media studies, and social movement literature. First, various forms of network power can be formed through the Internet and social media (Castells, 2011). For instance, social networking sites empower marginalized social groups and civil society to participate in planning events in real-time and create large-scale networks that may harness collective actions to challenge the government's decisions (Lin, 2022). However, the centralization of networks also reflects the unequal nature of power within a network. In other words, digital technologies may create new forms of power inequality in planning. Second, various forms of online public spheres can be formed through the Internet and social media. They are characterized by micro-publics around particular interests and themes, and thereby differing from the Habermasian public sphere engaging the general public (Bruns and Highfield, 2015). They may also reflect features of agonism such as emotion, contestation, and dissent. How a planning issue is framed and discussed by citizens and activists on online platforms can affect the planning process and outcome. An increase in social acceptance through framing issues in the way that are societal importance, fits to local culture, or links with political ideologies in the public sphere may enhance legitimacy and increase support in collaborative practices. In short, collaborative planning theory can be revisited by considering the impact of networks on power relations and various forms of communication and framing strategies in online public spheres.

Keywords : collaborative planning, power relations, network power, public spheres, digitalization

An Ontology Of Planning: Language As Human Capacity Of Organizing Future Cooperative Activity

Raine Mäntysalo (Aalto University), **Kaj Nyman** (University Of Oulu)

During the past decades, a fair share of planning theoretical discourses have leaned heavily on the philosophy of politics. The challenge of developing a philosophy of planning proper has received less attention. In outlining such a planning-philosophical approach, or an ontology of planning, this presentation turns to the philosophy of language that conceives human language as a medium for organizing future cooperative activity – that is, planning. The works of such philosophers and theorists of communication and activity as Wittgenstein (1953/2009), Mead (1936/1962), Leontyev (1981) and Wilden (1980) are used. The presentation examines the possibility that planning as professional and legal-administrative activity is not, by its origin, different from the kind of planning that all of us engage in as we organize our activities in our everyday lives. In different professional-cultural and legal-administrative contexts we do find elaborate norms, roles, tools, objects and objectives that characterize planning in its different contexts, but the essence of planning does not lie in such characteristics. Instead, it lies in the human capacity of organizing future cooperative activity, provided by language. This kind of planning philosophy would not overlook the political dimension of planning, but it would provide a distinctive planning approach to this dimension. It would aim to provide a standpoint for planning theory proper, also incorporating concepts and ideas developed in political theory, or other fields of research and disciplines related to planning. Accordingly, it would refuse to conceive planning theory as merely a realm for applying, in the planning context, theories and problem framings developed in other disciplines, without an ontology of its own.

Keywords *: language game, planning theory, political philosophy, phronesis, societal differentiation*

Everyday Utopianism And The Affective Politics Of Community Planning

Andy Inch (University Of Sheffield), **Michael Howcroft**

Despite historical ties between planning, urban transformations and the utopian tradition being subject to decades of critique and neglect (Harvey, 2000), calls for a 'game-changing' form of planning still sometimes invoke the urban utopias of the nineteenth and early twentieth centuries for inspiration. Recognising urgent imperatives to reimagine society (Wright, 2010), in this paper we seek to deepen planning theory's engagement with utopian thinking. Moving beyond a search for ideal city forms, we explore how community-centred planning practices might be understood to instantiate what Davina Cooper (2013) calls 'everyday utopias', embodied experiments in living otherwise, hinged between actually existing realities and a utopian horizon of hoped for possibilities. Such prefigurative practices can be understood in anarchist terms as attempts to build a new world in the shell of the old, living 'as if' a set of not-yet become aspirations have already been realised (Cooper, 2013; Thorpe, 2022). Building on other recent work on the affective atmospheres that sustain planning projects (Metzger and Tamm-Hallström, 2022), we are particularly interested here in examining the forms of affective power and politics involved in mobilising planning as an everyday utopian practice.

The core of the paper looks back to a largely forgotten historical example of such prefigurative practice. In 1983, Tony Gibson, best remembered as the charismatic creator of the participatory technique Planning for Real, worked with the Town and Country Planning Association and residents of the economically distressed Conway community in Birkenhead in the UK to create a community hub and advice centre in a derelict former art school. The project was part of a wider initiative called the New Communities programme through which the TCPA sought to explore how the utopian principles of the Garden City movement might be revived and adapted to the emerging realities of Thatcher's Britain. The Birkenhead project won a prestigious Times/RIBA Community Enterprise Award in 1986 and was celebrated in the local and national press. However, activities were soon halted by the discovery of dry rot in the building which the newly formed Laird Enterprise Trust could not afford, nor raise funds or local authority support to remedy. This led to the dispersal of activities and eventual disbanding of the Trust in 1990.

Drawing on new archival research, oral histories, and a range of visual materials, the paper explores the hopeful images of the future that Gibson and the project team, including his long-term collaborator the artist Jonathan Bean, produced. Contrasting the imagined community-orientated, sharing economy conjured by these images with the material realities of a rotting building and the harsh economic realities of deindustrialisation, we consider the affective political work involved in establishing the Laird Enterprise Trust as an everyday utopian alternative to the Thatcherite discourse of enterprise. In reviving the 'lost futures' (Fisher, 2014) projected for the Laird Enterprise Trust the paper develops a sympathetic critique of Gibson's practice and the forms of affective power through which he sought to build the Trust as an infrastructure for collectively navigating towards hoped-for futures (Inch et al, 2020). In doing so we will seek to draw wider conclusions about the modest and always fragile potential of community-orientated planning as an everyday utopian project capable of contributing to transitions beyond contemporary crises.

Practical Plans And Ubiquitous Design

Marco CREMASCHI (Sciences Po)

This study explores the intricate relationship between planning, design, and politics, acknowledging the complexity inherent in each dynamic. Design has become ubiquitous, permeating various sectors of society and influencing both material objects and services. Focused on the theoretical understanding of design and planning, the paper delves into the evolving nature of these disciplines. Departing from conventional definitions, design is defined as the common kernel of several political, technical, and individual activities The conventional definition of design that infuses the whole "project - plan - strategy" nexus starts from some notion of "intention", an act aimed at a process of change that emphasizes the role of intention in driving change. Planning, in contrast, emerges as a collective and spatially oriented activity where intention shows uncertain and negotiated boundaries, often serving vaguely defined aims.

Drawing on industrial design and architectural literature, the research first identifies four models that reflect diverse philosophical approaches to planning: idealistic intuition, rational calculation, strategic decision, and pragmatist conversation. Despite these conceptual frameworks, empirical and theoretical studies highlight the unintentional effects and inevitable drift of processes in design, planning, and politics. As clear-cut definitions blur, the paper explores how planning adapts when design becomes a dominant reference; and when intentions are problematic, and the pragmatic dimension is unstable.

Of late, scholars aborded three questions: what does the project represent concerning the plan, conception, and design (including in politics)? What happens when everything is projected (Manzini, 2015)? Moreover, what is the project when everyone designs, projects and plans?

Examining a case study of the proposed urban project in Clichy-Batignolles, Paris, initiated in 2008 for the 2012 first unsuccessful Olympics bid, the study sheds light on the intricate link between planning and design. The project aimed at depolluting an enclosed area between a railway strip and the city ring road at the boundary of the city.

Four perspectives—land use regulation, functional program, ecosystemic services, and morphological design—reveal the interdependence of planning elements. Land use regulation inscribes "property and building rights onto land" (Cremaschi 2019). The functional program pools public and private users mediating between needs and aspirations. The project incorporates the ecosystemic services provided by either natural green land or technological networks. Eventually, morphological design reshapes these rights through the detailed arrangements of things and shapes. The paper emphasizes that land, program, nature and form are the four tenets of all planning practices (Cremaschi, 2022) that need to adhere to rigorous requirements, including a tight schedule, a collaborative approach, and dynamic control of political interdependencies.

In conclusion, the paper aims to map the scope and sociology of project and planning activities, illuminate increasing commonalities in design and planning practices, and analyze the diffusion of innovative methods at the intersection of normative and analytical purposes.

Keywords *: Planning theory , Design, Regulation, Urban project, planning practices*

The Illusory Unity Of The Community – An Enabler Of A Change

Aino Hirvola (Aalto University)

The weakness of agonistic planning is suggested to lie in the difficulty in reaching planning decisions in the field marked by contestation (Bond, 2011). This paper goes to the roots of agonism and looks for answers especially in the thinking that precedes Mouffean agonism: Laclau and Mouffe's work together in Hegemony and Socialist Strategy (1985) as well as Laclau's later work on populism (2005a, 2005b). The paper suggests that here is the key not only to contestation but also to arriving at a decision. Agonism has made the opening-up of political space central, but in Laclau and Mouffe's hegemony theory, closing-down can be seen as equally important. Especially in his later work on the theory of populism, closure – although impossible in its final form – is essential to Laclau.

This paper suggests that an overemphasis on opening-up and disagreement not only slows down the process – slowing down is quite fine if it is the price of democracy – but it argues that the endless nurturing of diversity (paradoxically, in the name of equality and democracy) can be a threat to planning democracy, as it can prevent real change from occurring. If all differences are considered equal, not a single one standing out, we are left with homogeneous, undifferentiated mass (Laclau, 2005: 200), and then diversity can become a trap; no voice becomes strong enough to challenge the existing hegemony. This may be unconscious, but it may also be a deceitful practice of the governing body to reinforce its own power. Therefore, the multiplicity of voices – if having an egalitarian dimension – should be allowed to condense into unity. While this paper argues for the need to build unity out of diversity, it also highlights the necessity to understand that this unity is itself illusory; a conceptual tool to proceed to planning decision-making in field of differences.

Navigating "Planning Territories": Towards A Comparative Approach To Planning Theories Based On Applied Ontology

Camilla Perrone (Department Of Architecture - University Of Florence), **Stefano Borgo** (Laboratory For Applied Ontology, Cnr-Istc)

There is a common view that planning theory relies on several narratives, among which the notion of the territory has different meanings. However, there is no common view on how to compare these theories or integrate their contributions to the domain.

To face this problem, we suggest a possible strategy. We start from the "notion of event" proposed by Willard Van Orman Quine (who worked in theoretical philosophy and logic until 2000) to investigate a global understanding of reality. We believe that most views with which planning theories study systems (like cities, territories, ecosystems, socio-technical systems, etc.) can be represented within Quine's conceptualisation. If we are successful, the resulting approach reconstructs (most of?) the different planning views within a single conceptual framework without losing their differences and specificities. Such a framework can help build a general view of how the various theories relate.

Furthermore, we argue that the proposed approach is scientifically reliable: it builds on philosophical principles as exploited in applied ontology (a research domain across philosophy, logic, artificial intelligence and conceptual modelling). Applied ontology methodologies ensure coherently identifying the relevant entities (like objects, systems, concepts, relations, interactions, qualities, etc.) that are at the core of a theory, and we use it to analyse planning theories. In this way, one characterises the participants (by which we mean agents, devices, land, wind, etc.) of the interactions that define the specific notion of territory a planning theory builds on.

Our work provides a preliminary description of a general framework delineated above with a twofold purpose. On the one hand, it helps compare different notions of territory by looking at how they admit some types of assemblage vs. others and their (multi-dimensional, spatial, temporal, physical…) interactions so that comparing what exists for each approach tells us their intrinsic differences. On the other hand, it helps to highlight how decision-making within a planning theory is the logical consequence of the specific viewpoint adopted by that very theory.

Overall, we hope to provide a first step towards understanding the interconnections between planning theories and practices.

Keywords : *planning theory, applied ontology, territory*

Planning Without The Clock In A World Out-Of-Sync: Temporal Mismatches And Regional Planning Deliberations

Daniel Galland (Aalborg University), **Miriam Jensen** (Aalborg University), **John Harrison** (Loughborough University)

How do we (re-)imagine planning in a world which is increasingly out-of-sync? This is an important question because as a field of knowledge, policy, and practice that regards time as absolute, linear, and tameable, planning has yet to seriously engage with contemporary social science debates conceiving time as not only relative, diverse, and variegated. Our provocation in this chapter is to argue that planning mistreats and has a problem with time. Drawing on 'critical time studies', we engage with nascent scholarship on time and temporalities in and of planning to argue for a new approach of 'planning without the clock'. Assessing the leverage of critical time approaches to theorising planning, we then reflect on the prospective role of planning and planners in a world 'out-of-sync'. In conclusion, we call for greater engagement with developing 'temporal' tools, methods, and vocabularies to enable planners to place time at the forefront and centre of planning deliberation.

A Communicative Arena Framework: Deliberative Ideal As An Analytical Tool To Produce Actionable And Localized Public Participatory Solutions In Urban Renewal

Lirrey Ruikang Lin (The University Of Hong Kong), **Guibo Sun** (The University Of Hong Kong)

This paper aims to render communicative theories to practicable planning actions using an action-oriented theory, which entails a Communicative Arena Framework to overcome public participatory challenges in urban renewal.

We aim to instantiate Jürgen Habermas' ideal speech situation, which is a condition to a variety of his critical communicative theories (e.g., communicative rationality, communicative action, and the public sphere). "Insofar as we master the means for the construction of an ideal speech situation, we can conceive the ideas of truth, freedom and justice," Habermas once said. He presupposes a perfect discourse: interlocutors must communicate based on the same understanding of concepts, talk with sincerity, truth, and rightness, and be unconstrained from domination and repression by power asymmetry. The perfect discourse is required to yield a consensus (an objective truth), relying only on "the unforced force of the better argument." Since the 1990s, planning theorists have tried applying Habermasian communicative theories to urban planning. Among them is one of the most distinguished, Judith Innes, who rephrased communicative theories into a model to examine real-life cases (Innes and Booher, 2015). Although these applications heated planning theory debates, they are criticised for impracticability to urban projects, overlooking factors like reality power dynamic, individual priorities, and culture. Still, the "ideal speech situation" as a bedrock in communicative planning theories requires a pathway to practice.

We believe that public participatory problems in urban renewal expose this missing pathway. For this reason, concrete actions to solve public participatory problems in urban renewal should patch the loss. A systematic review of empirical qualitative literature shows that a communicative arena can simultaneously deal with mechanism, nature, stakeholder, knowledge, and power dynamic problems in urban renewal public participation.

The paper will first explain three pillars of constructing the Communicative Arena Framework: the theoretical geneses of an arena and a Habermasian communicative reason to define what a communicative arena is, the integrated set of solutions that a communicative arena can address to public participatory problems in urban renewal found by a systematic review, and the Habermasian normative philosophies and its Kantian precedents to support the definition and the normative approach to problematic public participation in urban renewal.

The paper will also highlight the layout and operation of the Communicative Arena Framework. The framework rejects the "idealism as outcome" stereotype in planning decision-making and supports the Habermasian "idealism as an analytical tool" alternative. Under this alternative, the framework is split into a frontstage and a backstage. On the one hand, the frontage represents an ideal deliberative scenario, which is analytical to a public participation reality (or setting) in urban renewal. On the other hand, the backstage represents five underpinned principles (communicative rationality, a "strong public" with social cohesion, consensual public interest, knowledge partnering, and "power with") that create contingencies to a contrast of ideal and reality and inquiries to different perspectives (e.g., the special purpose authority, social workers, and urban renewal relocated residents). Applying a case study in urban renewal triggers framework operation; the frontstage flips to the backstage for reality testing and flips back for reframing. Reflective on the policy vision and stakeholders' perspectives, the reframed deliberative scenario serves actionable and local-sensitive solutions for public participation in urban renewal.

To sum up, the paper elaborates on a Communicative Arena Framework to link Habermasian communicative theories to urban renewal practices. Conducting a case study will commence the framework operation. A shared practical understanding of a deliberative scenario will produce practicable, context-dependent planning actions to solve public participatory problems in urban renewal. This new proposition for the ideal speech situation will contribute to collaborative planning literature from a practice theory perspective.

Keywords : Jürgen Habermas, communicative reason, arena theory, collaborative planning

&Quot;Belonging To Two Worlds. The Contribution Of Italian Planners To The National And International Planning Theory: Luigi Mazza, Bernardo Secchi And Pierluigi Crosta

Alessandro Balducci (Dastu Politecnico Di Milano)

In a famous article about "The Uses of Planning Theory" John Friedman (2008) held that there are at least three tasks of planning theory:
•to evolve a humanist philosophy for planning and to trace its implications for practice (the philosophical task)
•to help adapt planning practices to their real-world constraints with regard to scale, complexity, and time (the task of adaptation).
• to translate concepts and knowledges generated in other fields into our own domain and to render them accessible and useful for planning and its practices (the task of translation).
And even if planning theory is becoming an increasingly global discourse, national languages and borders still constitute an obstacle for a real circulation of ideas. The paper will explore the contributions of three Italian planners to the national and international debates. Luigi Mazza, Bernardo Secchi and Pierluigi Crosta have been scholars who have worked on the three tasks of planning theory, belonging to two worlds the national one that has been their field of research and practice, and the international one where they have been differently active. Luigi Mazza was the organizer of the first international conference on planning theory and practice. Founder and first editor of the journal Planning Theory. Bernardo Secchi with his studies on the contemporary city and the need to refound an approach to planning capable of addressing the new urban question has had a major influence both in Italy and in Europe. Pierluigi Crosta, first translator of Albert Hirschman, was able to found in Italy the policy approach to planning by practicing a field of studies in constant contact with the international debate on the subject.I will argue that the need to practice two worlds simultaneously, that of national and international debate, have limited a full appreciation of their contribution to planning theory.

Keywords : planning theory, national borders, italian contribution

Theorising Political Public Space With Hannah Arendt

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Planning researchers largely agree on the need for increasing plurality in planning theories to counteract universalist one-size-fits-all approaches as well as respond to the contextual complexity of contemporary urban challenges (Davy et al., 2023). Today's reinvigorated interest in what planning theories are, how they are developed, and what they do, is fuelled by research exploring theorists outside the planning discipline. These include Jaques Rancière's political-philosophical approach to equality (see, for example, Legacy, 2021; Boano, 2023) as well as the theories of philosopher and social theorist Jürgen Habermas and political theorist Chantal Mouffe, which are widely recognised as foundations of communicative and agonistic approaches to planning (Mattila, 2020; Kühn, 2021). This presentation contributes to these explorations by critically thinking about planning with political theorist Hannah Arendt, whose work on The Human Condition/Vita Activa (Arendt, 1958; Arendt, 1960) provides methodological as well as conceptual entry points for examining the politics of (participatory) planning.

"Theories are children of their times" (Davy et al. 2023, 2271) and Hannah Arendt's understanding of political action is strongly influenced by her lived experience, including totalitarianism and her life in the US as a German Jew, the nuclear bomb and other existential threats emerging in the late 1940s and 1950s. However, the essence of her theoretical approach lies not in telling us what to think about political action in moments of crises. Rather, she provides a guide on how to develop a critical perspective; how to dare and develop our judgments amidst complex and challenging circumstances, although they may be inconclusive, preliminary or at times even incoherent.

Against this backdrop, we focus our investigation on her ways of thinking about public space and the public realm (öffentlicher Raum). We use Arendt´s trio of human activities - (everyday) labour, (productive) work, and (political) action - as entry points to unravel how participatory planning can become an arena for creating the conditions of possibility for political public space to happen. We draw our reflections from two colloquia as well as 15 semi-structured interviews with planning and political theorists and urban practitioners from cities in Austria, Germany, the Netherlands and UK. These encounters aimed at uncovering and de-constructing diverse framework conditions of participatory planning in relation to different activities and processes they foster or hamper.

We find that theorising political public space with Arendt can potentially be a gamechanger: her call to think "without a banister" (Arendt, 2018) encourages us to continuously and critically re-examine the assumptions and rules of the participatory planning game, the players and their roles and relations, the worlds we built to play this game, and the stories and terminology we use to narrate the process and outcomes of the game to others.

Keywords : *public space, political action, planning theory, participation, Hannah Arendt*

Planning As Magma. Notes On Imaginaries And Institutional Approaches Through The Work Of Cornelius Castoriadis

Loukas Triantis (Aristotle University Of Thessaloniki)

In this presentation, I find inspiration in the work of the Greek-French philosopher Cornelius Castoriadis (1922-1997) to inform institutional and theoretical approaches to spatial planning. Castoriadis's work (1987[1975]) introduces particularly interesting key concepts such as the imaginary institution of society, the magma of social imaginary significations, and autonomy. These are socio-historical lenses that may critically inform our understanding of planning's institutional aspects. They speak with institutional approaches that highlight social, economic, historical, and evolutionary matters, genealogies, embeddedness, path-dependencies, and development pathways (Salet 2019), along with the transfer of ideas, translation, and planning cultures (Sanyal 2005).

Planning is an institutional apparatus that links to diversified values and social imaginaries (Gunder, Madanipour, and Watson 2018). Post-war planning in Western countries was intertwined with welfare state provisions and liberal democracies. Planning in former socialist countries was intertwined with centralised economic programming and a bureaucratic state. Planning in colonised countries got intertwined with colonialism and the transfer of Western values. In the era of globalisation, spatial planning emerged as a dominant planning paradigm, coined with values of privatism, commodification, free market growth, entrepreneurship, and competitiveness as neoliberal imaginaries (Dardot and Laval 2017[2010]). We can think that planning theories and practices get intertwined with broader ideas and conceptualisations, institutional settings, and reforms, as well as different experiences of countries and regions of the Global North and South.

Castoriadis's notion of magma speaks of a dynamic and fluid universe of social imaginary significations, which shapes on a case-by-case basis the institution of society with unique characteristics relevant to communities, junctures, practices, and discourses. Planning as magma goes beyond legal frameworks, administrative processes, and professional practices. It constitutes an open-ended, under constant transformation, incremental, and complex resultant of multiple, heterogeneous, unequal, yet interconnected, dynamics: imaginaries, ideas, concepts, policies, social dynamics, and practices, which either work together or confront each other. We can also draw analogies to philosophical and political theory approaches that focus on power, governmentality, and normalisation by Michel Foucault, psychoanalytic constituencies of the real, the imaginary, and the symbolic by Jacques Lacan, performativity by Judith Butler, and democratic agonism in post-political and post-democratic times by Chantal Mouffe, Jacques Rancière, and Erik Swyngedouw.

Planning as magma highlights the political dimensions of planning. Derivative values such as fluidity, volatility, and vigorousness may open up future alternatives of creative questioning of norms and assumptions, self-reflection, self-determination, and radical imagination. In times of poly-crisis and perma-crisis, rapid global urbanisation, climate vulnerability, rising inequalities, and neoliberal governmentalities, to think of institutional change means challenging dominant planning imaginaries and paradigms. At the same time, we wish to re-create inclusive and decolonised imaginaries, theories, methodologies, epistemologies, policies, and practices, toward sustainability and justice.

Keywords : spatial planning , institutions, imaginaries, philosophy, political theory

Reviewing The Applications And Prospects Of The Concept 'Image Of The City' In Urban Planning Research

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In the 60 years since Image of the City was proposed by Lynch, it has been widely applied while also receiving various critiques and queries. However, recent developments in the internet have led to new theoretical frameworks and research paradigms based on the classical Image of the City. To explore application transformation of Image of the City in urban planning over the past 20 years, this study conducts qualitative and quantitative analyses based on 126 articles selected from the China National Knowledge Infrastructure (CNKI) and 244 articles selected from the Web of Science (WOS). It outlines the connotations and shortcomings of classical Image of the City, the overall progress, key issues, and proposes future research trends for Image of the City research. The study finds that the perception of physical spatial environment and the application of Image of the City in the planning for the preservation and renewal of historical districts are the two main research contents. Data related to big data and images, as well as new technological methods like deep learning and convolutional neural networks, have been successively applied in Image of the City research, replacing the classical cognitive maps and survey questionnaires. And the cognitive subject of Image of the City has shifted from tangible built environment spaces to encompassing culturally significant carriers with emotional value. Current research is concentrated on identifying the components of Image of the City and structuring Image of the City based on big data recognition of images, texts, and other elements that include emotional preferences and residency paths. Despite progress, gaps persist in interpreting Lynch's Image of the City, especially in linking urban spaces with cultural emotions. Future research must enhance the theory's interpretive power, focusing on the emotional ties between urban imagery and residents.

Keywords : Lynch, Image of the City, CiteSpace, Applications and prospects

Since When Has Regional Planning Been Vague? An Analysis Of Textual Data From 7 Regional Master Plans Of Ile-De-France Region Between 1939 And 2019

Thomas Buhler (Université De Franche-Comté), **Isabelle Chesneau** (École Nationale Supérieure D'architecture De Paris-Malaquais), **Annabel Richeton** (Université De Franche-Comté)

Recent planning research has highlighted a strategic dimension of plans that had previously been rather overlooked: discursive vagueness (Buhler, 2021; Chesneau, 2023). This series of discursive devices allows actors, and particularly local authorities, to deal with a subject imposed (often by their central government) without making too strong of a commitment when it is not intended (Kaza and Hopkins, 2009). Vagueness in contemporary planning discourse may seem paradoxical at first sight, since the plan no longer functions (for some subjects) as a way of saying "what is planned", but as a means of creating blurred zones, subjects where negotiation and other less "publicized" modalities of action take over (idem). These vague elements of discourse can be interpreted mainly as ways to maintain room for negotiation in order to avoid conflict with municipalities, landowners and developers (Levy, 2015).

In this paper we aim to explore the question of how long these discursive devices have been in use: (1) are they indicative of the current period of urban planning? or on the contrary (2) should we consider their use as an inherent element of the genre of institutional discourse (to which urban planning documents can be linked) and which may have existed for much longer?

To this end, we propose to examine the ways in which normative choices are made in regional planning documents in the long term, taking as an example the capital region of France, Ile-de-France, through a corpus of 8 regional planning documents between 1919 and 2019. Over a century, these documents have changed in form (law, development plan, master plan) and have been embedded in different political contexts (Saez, 2021). However, these dissimilarities do not prevent their structural proximity: all provide access to diagnostics, orientations, statements, and arbitrations established among various stakeholders (Chesneau, 2023). This corpus thus appears suitable for examining how normative choices have evolved over time in these documents (namely Cornudet Act 1919-1924, PARP 1939-1956, PADOG 1960, SDAURP 1965, SDAURIF 1976, SDRIF 1994, SDRIF 2013, and then SCOT-M).

Initial results suggest that, over a period of one hundred years, an increasingly abstract form of language has emerged, making more and more frequent use of concepts or acronyms rather than descriptions, or precise units and locations.

These initial results indicate that, over the long term, regional planning documents, particularly those relating to the Ile-de-France urban region, are gradually losing their normative substance. In our view, one of the main ways of understanding this is to identify the major and recent change in the role of regional planning. In our case, regional planning now plays more (1) the role of a flexible and strategic framework that can take both the economic market and citizen participation as its compass, and enables dialogue with the State on the basis of contracts (CPER and CPIER), and with the EU through the European Committee of the Regions, rather than (2) a document that "says what will be" and that would be binding on lower institutional levels.

'Care-Full' Planning: Towards A Relational Ethics Of Care In Planning

Simin Davoudi (Professor), **Emma Ormerod** (Newcastle University)

The Covid-19 pandemic foregrounded the centrality of care in how we imagine a 'good city' and a 'good life'. However, although care is present in much of what planners aspire to achieve, the ethics of care has not attracted much attention in planning debate. While concepts such as 'just city' and 'just planning' are widely debated by planning scholars and professionals, there is limited explicit engagement with concepts such as 'caring city' and 'care-full planning'. Furthermore, the relationship between justice and care has remained elusive in planning theory. We argue that this is not simply an oversight but rather an unfortunate legacy of positivist views of planning as a technical, rational activity predicated on objectively formulated goals and performed by impartial professionals. Despite the widespread criticisms of the traditional view of planning its influence has endured and forged a perfect alignment with rationalist moral theories which prioritise justice over care in moral judgements.

The perceived universality, impartiality, and rationality of justice have rendered it superior to the particularity, partiality, and relationality of care. In the prevailing Kantian and Utilitarian inspired moral theories, care is, hence, confined to the private-domestic sphere and 'feminine' emotions, while justice is elevated to the public-political sphere and 'masculine' reason. These binary and hierarchical views of morality are then mapped onto a binary spatial division between proximate and particular relations of responsibility and care and distant and universal relations of obligation and justice. Furthermore, given the anthropocentric nature of much of rationalist morality, another duality is invoked between humans and non-humans in which the former is ascribed with rights and justice and the latter remains subservient to humans' needs and demands.

We acknowledge that planning scholars, among others, have provided compelling critiques of: the universalist conceptions of justice and their prescribed rules and principles and disregard for history and context. However, the primary focus of these critiques is on justice itself, with little engagement with care, or the relationship between them. Whilst the importance of socio-spatial contexts and the need for situatedness in moral judgments are highlighted, the primacy of reason over emotion is seldom questioned. Thus, the prevailing western philosophical traditions of subordinating ethics to epistemic reasoning has remained unchallenged in much of these critiques.

We aim to fill this gap by providing a theoretically informed account of care and justice as complementary ethics. In doing so, we attend not only to contextual sensitivities but also feelings and emotions in moral judgements. Our main sources of inspiration are feminist, political, and post-structural theories of ethics, particularly the works of Joan Tronto, Emmanuel Levinas and Jon-Luc Nancy. The main contribution of the paper is the conceptualisation of what we call care-full planners (as individuals) and care-full planning (as a set of social, political and institutional practice). We suggest that the latter is the space where care meets justice, and through which planners' ethical responsibility towards the singular other (the nearest and dearest) and the plural others (the far away strangers) are mediated.

Keywords : planning, ethics of care, empathy, responsibility

Addressing The Absent Animals Of Planning's Anthropocentrism

Mick Lennon (University College Dublin)

Planning is ultimately focused on the governance of space. On this are layered concepts such as justice and sustainability. These and other considerations are theoretically framed and debated within a host of perspectives drawn from political philosophy, post-colonialism and critical political economy amongst others. However, such perspectives share an anthropocentrism that can blind planning to rethinking 'why' we do 'what' we do in a more-than-human world.

This paper seeks redress to such blindness by moving beyond worn appeals to ecosystems services, socio-ecological systems and other prominent approaches informing planning. It does so by taking seriously the subjectivity of non-human animals. Although enjoying representation across cognate disciplines in the sciences, social sciences and humanities, attention to non-human worlds remains largely absent in planning theory (Houston et al., 2018; Jon, 2020). Consequently, much thinking in this nascent field falls short of application in the governance of space. This limits its real-world impact on the future of cities (Pineda-Pinto et al., 2023; Sheikh et al., 2023).

Drawing on literatures missing from planning debates (Nussbaum, 2023; Rowlands, 2019; von Uexküll and O'Neil, 2013), this paper proposes a line of theory that explores planning for the multispecies city as an ethical response to the needs of its varied residents. It advances thinking anew the commonness of the common good, advocates reimagining the future city, and identifies the role of planning in realising this vision.

Keywords : more-than-human planning, theorising urban nature, animal subjectivies

673

Post-Growth Planning (Re-)Theorized: Transforming Game And Role Players

Christian Lamker (University Of Groningen)

Debates around post-growth planning are emerging in different countries in Europe (and beyond). They inspire potential tomorrows from two angles. First, as a response to crises in sustainability, climate, biodiversity, inequality, or even politics. Alongside perceptions of multiple crises or a 'polycrisis', academic, societal and political debates move from pondering on confined actions towards justifying wider system transformations. Second, as a future pathway to centre actions on human well-being, community, social and environmental justice. Sufficiency scenarios, positive future visions, and plural (economic) models aim to trigger behavioural and system change. However, the understanding, relevance, and connections to respective planning practices are little explored and remain context specific.

Post-growth has become recognised as a potential future paradigm for spatial planning, but a theory of post-growth planning is not yet crystallizing. A large internal diversity within post-growth debates renders its potential for theory-building in planning challenging: they hold approaches ranging from structural critiques, planning policy, instruments, and regulations, towards individual actions, and unfold along a bandwidth between degrees of radicality, agency, responsibility, and respective origins of academic debates. Most fundamentally, post-growth questions the notion of theory in planning. Clear-cut answers to avoid catastrophe or to reach a (quantified) goal are impossible. At the same time, new theory must be normative, political, and complex.

Does it have potential as a game-changer? To move forward, there is a need to understand obstacles and barriers beyond contexts to enable stronger developments of post-growth frameworks, which can conceptually benefit from the diversity of perspectives. This contribution takes up a small strand of debates that builds on sociological system theory. It enables conceptualising spatial planning as a complex configuration of roles, understanding practice as the organisation of decisions about space through the production and reproduction of roles. Following Niklas Luhmann (2018, p. 64) that "one must avoid being disturbed by oneself", entry points for transforming spatial planning beyond growth will be uncovered. Understanding the game-changing potential builds upon collecting obstacles and barriers as well as entry points in snowballing sample of mostly European scholarship. It uses an open research series of 22 podcast interviews with 24 key thinkers along the lines between spatial planning and post-growth between 2020 and 2024. The goal is supporting the theory debate with insights from diverse experiences of using post-growth in the field of spatial planning; potentially opening for further hypotheses and theory-building.

An effective way forward to theorizes about a post-growth transformation in spatial planning might be to conceptualise the trajectory as 'intentional unintentional'. Intentional towards the changes within spatial planning over which planners can exert direct control. And unintentional towards other systems over which direct control is impossible. By reducing the ambition to locate the exercise of control in theory and re-politicizing the role of planners, the window of opportunity to exert influence is more likely to open. Literally, game and gamers change concurrently. Navigating towards post-growth encompasses the transformation of spatial planning itself including its practical options (of acting) and its played roles (of being).

Keywords : Post-Growth Planning, System Theory, Roles in Planning, Planning Research, planning theories

Subjective (Social) Well-Being In The Neighborhood: A Conceptual Exploration

Elli Papastergiou (Aristotle University Of Thessaloniki), **Athanasios Kalogeresis** (Aristotle University Of Thessaloniki), **Georgia Pozoukidou** (Aristotle University Of Thessaloniki)

Neighborhoods are inherent features of urban living and have been the focus of interest of urban planners and researchers from various fields for decades. The significance of urban neighborhoods is not limited to their tangible spatial dimension. It also incorporates a social aspect, as spatial proximity creates the premises for people to engage in several activities and interactions that potentially lead to forming networks and communities. The relatively recent interest in more sustainable urban living and development, especially after the signing of the Paris Agreement, has sparked renewed interest in neighborhood planning (e.g., the walkable neighborhood or the 15-minute city concept), emerging as a cornerstone of quality urban life (Mouratidis, 2021). Along with sustainability comes the pursuit of understanding the essence of the good life, a coupling of 'eutychia' (happiness or good fortune) and eudaimonia (good spirit). This is not a recent topic either; well-being has been a subject of exploration since ancient times. More recently, the subjective well-being approach and its spatial determinants have gained attention. Studies indicate that the place of residency can be decisive for one's well-being (Aslam and Corrado, 2012). Although the scope of these studies varies, a significant number of them focus on the national or regional level. As we live at the peak of the urban era, investigating the subjective well-being in cities, and more specifically in neighborhoods, is considered crucial for urban planning applications and policy making. While nowadays the degree of connectivity between people spreads across the globe, urban neighborhoods remain their immediate socio-spatial context (Agnew and Duncan, 1989). The lived experience and the fermentation of people and space may lead to ascribing neighborhoods with values and meanings, thereby creating a distinctive sense of place and often nurturing a community. Considering the importance of the neighborhood unit and the assumption that proximity can directly or indirectly affect an individual's outcomes (Sprout and Sprout, 1965), it is argued that understanding subjective well-being at the neighborhood level is essential. The herein paper aims to link previously unconnected or incompatible pieces of knowledge in a novel way to propose a conceptual scheme of the relationship between the constructs of place -the neighborhood- and subjective -social- well-being. Within this framework, the mediating role of the sense of place is examined. Furthermore, the study investigates the impact of small businesses on place identity, social cohesion, and other dimensions of the sense of place in a neighborhood, thereby their impact on social well-being. Adopting theory synthesis methodology (Jaakkola, 2020), a review of the relevant literature streams is conducted. The domain theory adopted is subjective well-being, while the method theories relate to the neighborhood and the sense of place, but also to the transformative potential that small businesses have in forming them.

Keywords *: subjective wellbeing, neighborhood, sense of place, social wellbeing, micro and small enterprises*

Sufficiency Planning

Jin Xue (Norwegian University Of Life Sciences)

The current climate and nature crises are existential crises for both human society and other species on the planet. The fact of a finite planet changes the premises for planning which should prioritize the protection of nature and climate mitigation. In addition, we are in face of social crises where inequality increases both within cities and between cities. This changed reality requires a renewal of current planning theories. This paper aims to propose a new planning model that can better take on these new challenges and realities. To do that, the paper makes an ontological exploration informed by critical realism, namely the four-planar social being. It explicates the relationship between nature, social interactions, social structures and inter-subjectivity, underlabouring an interpretation of planning as a social act. In compliance with this ontological framework, the paper further draws on the sufficiency concept and proposes a mode of planning that is imbued with the idea of sufficiency as premise, end and means. As a premise, planning needs to take the point of departure of enoughness and planetary boundaries which suggests that caring of nature needs be given priority and our material living standard has been high enough. As an end, planning will aim at transforming the physical environment and land use that can reduce our consumption and production within the planetary carrying capacity and enhance well-being, conviviality and care. As a means, sufficiency planning means we will need to remove, improve, replace, rebuild, restructure, retrofit, and/or nature-restore existing spaces at various spatial levels. This will further bring the discussion to an exploration of how exiting planning theories can be made relevant to this new model.

Keywords : *sufficiency, efficiency, crises, planning theory, ontology*

Anti-Theory For An Indisciplined Discipline: How To Read Urban Design Positivity Out Of What Urban Designers Do.

Anthony Ximenez (Upec)

The idea that urban design practices have a disciplinary matrix (Kuhn, 2018 [1962]: 296-303) is much debated. Those practices are almost inherently plural since designing an urban project is never done by one single person. It is a vastly co-produced process, at many levels. Moreover, since the 1970s, the notion of "wicked problem" has been more and more used to describe problems as urban design ones. those do not fit easily in the paradigmatic representations of a rational problem-solving procedure. As Rittel and Weber (1973) put it, "the formulation of a wicked problem is the problem". This means that addressing a wicked problem —such as "the poverty problem" — is not a matter of finding the best solution to a clearly posed problem but as a design process during which both the problem and its "solution" are debated and interpreted in inextricable ways. Finally, design theories have long established that design practices such as architecture and urban design rely on a special kind of reflexivity that differs from the technical rationality of applied sciences (Schön, 2016 [1983]). However, according to Schön, they do work according to rational principles and rules, even though the professionals are not always able to express them verbally.

It seems that urban design practices, however undisciplined and ungraspable they may be, perfectly fit in Michel Foucault's definition of "knowledge" as that which is produced through regular "positive" practices that do not always constitute a science: "To analyse positivities is to show in accordance with which rules a discursive practice may form groups of objects, enunciations, concepts, or theoretical choices. The elements thus formed do not constitute a science, with a defined structure of ideality; their system of relations is certainly less strict; but neither are they items of knowledge piled up one on top of another [...]. This group of elements, formed in a regular manner by a discursive practice [...] can be called knowledge."(Foucault, 1972: 181-182) Based on this problematisation of knowledge, Foucault developed a particular method of analysis that he called the "archaeology of knowledge". His approach can be described as "antitheoretical" in that it requires to suspend one's belief in the importance of theory and well-ordered concepts in the actual production of knowledge. The rules that guide knowledge practices are, for the most part, "historically contingent". One has to develop a special way of analysing discourse in order to see them.

In this presentation, after introducing Michel Foucault's notion of "positivity" as an appropriate concept to grasp the particularity of urban design practices, an archaeological-styled analysis will be conducted on professional urban design documents produced in the course of urban projects in France. I will show what kind of results such a method can produce. In particular, by revealing some discursive rules of knowledge production such as the mixing of statistical and social norms, the construction of design problems as a list of development parameters, the emphasis on strategic thinking and action from as early as the diagnosis stage, the implicit narrative structure of SWOT analyses, etc., I will contend that, even though urban design practices do have rules, these are only vaguely theoretical. Contributing to changing them therefore demands the development of antitheoretical approaches to practices.

Indeed, in never-quite-so-scientific disciplines such as urban design, progress may take another form than theoretical revolution: it may rather consist in spotting "within what is given to us as universal, necessary, mandatory, the part of it that is contingent and due to arbitrary constraints". So that it becomes possible to make a "practical critique in the form of a potential breakthrough" (Foucault, 1994).

***Keywords** : urban design , epistemology, professional practices, critical theory, Foucault*

Planning Theory's Trajectories: A Retrospective Study Of The 50 Years' Theory Selections

Kang Cao (Zhejiang University)

Selections in the field of planning theory, like journal articles and monographs, serve as important platforms for disseminating research achievements in planning theory. Since the publication of the first Selections titling "Planning Theory" by Faludi in 1973, several volumes of Selections with various editorial purposes, themes, and characteristics have been published. Through a systematic analysis of these Selections, we can gain insights into the dynamics and trajectories of the evolution of planning theory over the past half-century. This paper suggests that the development of mainstream planning theory can be divided into three phases since the 1970s. These planning theory selections can be classified by three perspectives – the sources of included papers, the identities of readers, and the identities of editors . The past half-century has also seen the transition of planning theory in the following four respects: 1) discussion is not confined to urban planning but embraces the broader concept of spatial planning; 2) the publication nature of the Selections has transitioned from outcome compilation to research guidance; 3) research focus shows a trend from unipolarity towards multipolarity ; and 4) emphasis is more placed upon scholars rather than theories themselves.

Is It Time For A New Theoretical Framework For Spatial Planning? A Case Study To Support Participatory Energy Planning And Design In Urban And Rural Townscapes

Tom Becker (University Of Luxembourg), **Catherine Jones**

Current practices in spatial planning are bounded largely by neo-liberalist approaches that, depending on the schools of neoliberalist thought (Allmendinger 2016, Peck & Tickell 2002), support limited or more pronounced government interventions in the markets. Especially in case of the latter, government inteventions supporting the markets encourage private sector entrepreneurship which result in top-down policies that frequently prioritize the private sector. Consequently, several dysfunctional effects arise out of neoliberal planning that contribute to social inequality and inequity in cities (Storper & Scott 2016, Marcuse 1989). With their focus on deregulation and market-driven planning, neo-liberal planning practices leave the market to play an ever-increasing role in shaping urban and regional landscapes, despite the communicative turn and the rise of participatory approaches in spatial planning. With the focus on profit, the consequences of such systems give rise to both speculative practices and can result in exacerbating economic and social inequality. Initiatives to privatise urban services and urban spaces has resulted in the marginalisation of vulnerable and/or low-income communities. At the same time, urban entrepreneurialism tends to focus on high-income residents and businesses leading to gentrification, displacement and exclusion of established communities.

In this paper, we reflect upon contemporary theories for spatial planning that have seen a shift from traditional top-down planning towards neo-liberal perspectives emphasising entrepreneurial frameworks. We postulate that with the rapidly escalating issues of climate change and the need to decarbonise society alongside the need to minimising energy insecurity, the consequence of war and instability, now is the time to reflect on how a spatial planning system could be imagined if it sought to enable long-term resilience, security and stability but still supports flexibility and adaptability. We use a lens of energy systems to propose a new spatial planning framework.

As energy production and consumption systems evolve, we observe increasing decentralised and local solutions that are not always integrated into conventional urban spatial planning processes. There is a mainstream susceptibility to conceptualise them as collections of technology that are not the core focus of planning systems. We suggest that they are viewed as integrated and interconnected socio-technical systems, irrespective of their size, that not only manifest at the human scale of the everyday but actively reshape our geographical and social processes. Thus, they would benefit from being more fully integrated into the spatial planning process which is already the case in some European countries. We explore notions of energy communities and planning at a local scale, analyse relationships and investigate the disruption of rural-urban dynamics that are currently on a trajectory, that we predict, will result in the rural becoming energy suburbs of urban built environments simply because the latter cannot produce the energy it consumes. As such the emerging land and cityscapes that implement energy systems up front and centre where they are viewed and seen daily, ensure they are part of the public conscience that will impact on attachments, perceptions and belonging to place. Then we ask ourselves what is the role of the energy commons?

We propose a move towards planning systems that shift energy planning from a sub-domain of planning practice to one that should be at its core. In doing so we set long-term goals formulated to reduce energy vulnerability and increase stability, security and resilience whilst maintaining adaptability. We foresee such a system built upon notions of Justpreneurship (need to explain) that truly embrace participatory and communal action to embed local and expert knowledge within both the regulatory and decision-making framework as well forming part of economic development practice through Justpreneurship, a system will focus on a hyper-scaled framework to promote equity and equality.

Authenticity In Urbanism

Ali Madanipour (Newcastle University)

Authenticity is a key theme in contemporary culture, especially in the context of globalization, intensified social diversity and inequality, heightened mobility, spread of digital technologies, concerns about truth, accelerated temporality, and environmental decline. It is widely used in advertising, tourism, heritage, politics, environmentalism, and the arts, and has long been a battleground between major philosophical schools. While some see it as no more than a justification for narcissism and self-seeking behaviour, or a promotional and commercial tool, others see it as an important ethical ideal. It is a quality that is often associated with individuals, objects, and practices, identifying them as authentic or inauthentic. While authenticity has been discussed in several domains, and even mentioned in the call for abstracts of this conference, it has received less attention in urban analysis. The question is whether this concept may also apply to cities, which by definition are agglomerations of multiplicity and diversity, organized through stratification and fragmentation. Can cities be called authentic at all, and in what sense? If so, what is the role of urban planning and design and what would an authentic urbanism be like? Is it a contradiction in terms, or can it contribute to change in perspectives and actions? Can it go beyond individualistic frameworks and apply to places and communities? This paper investigates whether authenticity is a valuable concept, whether there is such a thing as an authentic city, and whether we can speak of authentic urbanism.

Therefore, the paper addresses three key questions: 1) Is the concept of authenticity an empty jargon, or is it a meaningful concept? 2) If it is meaningful, would it apply to cities and how? 3) If it applies to cities, what would it mean for urban planning and design? The paper looks for answers in philosophical debates, in the digital, institutional, and physical domains, in everyday urban social life, and in the ideas and practices of shaping and managing cities. The paper's aims are analysing the concept from a critical socio-spatial perspective and evaluating its relevance for urban theory and practice. The paper is based on a current research project, which will be published as a book by Routledge in 2025.

Keywords *: Authenticity, urbanism, urban planning, critical theoretical analysis, urban design*

Can Planning Theory Guide Urban Design?

Jarre Parkatti (University Of Helsinki)

Today's planning theory is mainly procedural and remains abstract in urban design terms even when treating formally substantial goals, such as a just city (cf. Gunder et al., 2018). The theory largely reflects Anglo-Saxon neoliberal weak planning conditions (op. cit., 1). While such circumstances might explain the felt need to reinvent the role of planning and its theory, the approach threatens to break planning theory's tie to town planning (whatever its geographical focus) and become inadequate for comprehending the workings of architect-led, still powerful and proactive planning organisations, such as that of Helsinki. My purpose is to help reintroduce an urban design focus into planning theory, integrating the latter's social scientific interests with an understanding of the social significance of urban design traits.

One may then apparently learn much from the common-sense reasoning and observations by writers such as Jane Jacobs and Gehl, or the more complex arguments of, for example, Lynch or Alexander et al. This appraisal, however, seems not to be shared by planning theory. While some of the above observers' specific results may certainly be refuted, possibly along with some of their principles, there are more deep-seated reasons for planning theorists' scepticism. Their doubts originate, inter alia, in a partial appropriation of Habermas's communicative rationality, critical of technocracy, and Foucauldian power/knowledge thinking. An extreme consequence of this is the dismissal of expert knowledge as any more relevant for planning than lay opinion (Beauregard, 2020, 32). Abstract theorising being favoured, even concrete studies may erroneously be taken to presuppose theoretical 'profoundness'. Research close to practice might then be perceived as academically unconvincing ('ideological') and unreconstructible.

Refocusing on socially significant design features, a claim such as that the design of the living room 'can drive the family apart' (Alexander et al. 1977, 829 (pattern 179)) may, with some possible reserve, be adopted as a guideline. Certainly, planners should realise that architecture cannot determine behaviour or repair all social ills, and that societal (e.g., neoliberal) conditions may force undesirable solutions even on influential planning. This should not dissuade theorists from paying particular attention to architectural features that create preconditions for diminishing loneliness, insecurity and criminality, or contribute to community feeling and integration of marginalised groups. Instead of, for example, abstractly emphasising the need of public space, planning theory should conceptualise various (partly theory-dependent) social-spatial properties on finely differentiated axes from the small-scale to the large-scale and from the private to the public.

A context where rather abstract planning theoretical purposes may be tied to urban design is that of traditional urbanity. If not providing irrefutable exemplars, it contains layered planning wisdom and useful principles, modifiable according to experience and reasoning, for reaching ecological sustainability, a socially well-working city, et cetera. A crucial task for content-focused theory is to define key notions in precise urban design terms to avoid a nebulous vocabulary in multi-sectoral academic and practice-related discussions. For instance, traditional urbanity forms a specific kind of urban tissue (Panerai et al., 2004) containing architecturally and socially noteworthy features requiring careful conceptualisation. Its multi-plot perimeter block structure, including a communicating ground floor/street interface, promotes pluralism and accommodates difference.

Planning theorists tend to problematise apparently consensual planning purposes, such as the promotion of sustainability by decisive urbanity, revealing the latter's dependence on technocratic knowledge and hegemonic discourses. Instead, dominant principles might be contextualised to further pluralism. Thus, the prototypically urban perimeter block may be complemented by liberalised block types and even suburban 'buildings in a park' (Tarbatt and Tarbatt, 2020). More importantly, debates on justice, inclusion and bottom-up influence may be conducted on different levels, including that of urban design solutions.

***Keywords** : planning goals, planning theory, public space, urban design, urban structure*

Masterplanning And Complexity Theories Of Cities: Discussing The Difference Between Complexity Of Design And Design For Complexity

Stefano Cozzolino (Ils - Research Institute For Regional And Urban Development)

Complexity Theories of Cities have influenced planning and urban design theoretical debates and practices in recent years. Awareness of the challenges of complex socio-spatial systems has expanded within the academic community. The knowledge accumulated in morpho-genetic aspects, participatory processes, and the numerous computational tools – to name a few – are striking examples of this success. Nevertheless, some muddles still hinder more effective addressing of crucial challenges of complexity theories of cities. This article argues that to overcome the current impasse, it is necessary to make a sharp distinction between the complexity of design and design for complexity - a difference that de facto exists but is still not clearly discussed in the literature. It suggests that while many advancements have been achieved in dealing with the complexity of design (i.e. the creative and technical process to conceive, develop and implement a certain plan), far less emphasis has been given to the conditions a large-scale masterplan (e.g. for the realisation of a new neighbourhood) should own in order to generate complexity on the long-run, that is design for complexity. In exploring this issue, this article will first present the main reasons why design for complexity is the prominent challenge. Then, it will propose some ideas for better integrating Complexity Theories of Cities in masterplanning.

Keywords : Complexity theories of Cities, Masterplanning, Self-adaptive urbanism

What's (In) A Contract? Towards A Theory Of State Territorial Contractualism

Harriet Dunn (Kth)

This paper contributes to a wider goal of building a comprehensive theory of state territorial contractualism. Territorial contractualism refers to the practise of using public-public contractual arrangements in strategic spatial planning. Examples include: Agreements for Transport, Housing and Land-use (MAL) in Finland, French Territorial Development Contracts, Swedish Negotiated Development Agreements, and 'City Deals' in the UK and Australia.

In much of the literature, public-private and public-public agreements are theoretically conflated. This is unfortunate. My claim is that public-public contracts possess unique and interesting characteristics which are denied by a literature which relies on insights from agreements with different actor constellations and dynamics. Moreover, despite authors applying the term contractualism in relation to public-public deals (e.g. Smas et al., 2017; Dunn, 2023) - insufficient theoretical footwork has been done to provide a comprehensive understanding of this concept in relation to planning theory.

This paper's departure point is that the instruments that are selected to conduct state activity are not random or inconsequential. The design and structure of the instruments chosen reveals much about the ideological commitments underpinning interventions. Focus is therefore directed at the 'contractual agreement', asking, what's (in) a contract? This paper embarks on a theoretical journey in the quest for an answer, unpacking the 'contract' from multiple philosophical perspectives. It moves from classical law, concerning the 'freedom of contract', to social contract theory, and new contractarianism, which focusses on the relationship between the state and citizen, and self-interest and the common good. The paper additionally draws on anthropological approaches to understand the essence of the contractual relationship, as well as the object of exchange. The paper attempts to bring these ideas together in a comprehensive framework of the 'contract' to support the analysis of varied public-public contractual arrangements.

Keywords : planning-by-contract, contractualism, deal-making, planning instruments

Turns And Returns In Planning Theory

Manfred Kühn (Irs - Leibniz Irs - Institute For Research On Society And Space)

The history of planning theories is characterized by multiple "turns". New theoretical approaches are often accompanied by a radical break from old paradigms, which lead to a division of planning theories. Fundamental to planning theory was the model of rational-comprehensive planning from the 1950s, which assigns planners in public administration the technocratic role of an expert who neutrally examines alternatives and selects the best solution in the interests of the common good (Meyerson/Banfield 1955). This rational planning model was soon challenged by incrementalist approaches. A key point of criticism of rational planning was that planning is not value-free but is subject to political interests in pluralistic democracies. According to the pluralistic policy research, planning can only make incremental changes. The incrementalist turn therefore referred to small steps and projects instead of big master plans. The deficits of incremental planning again triggered a turn to "strategic planning" (Salet/Faludi 2000), which conceived planning strategies as a mixture of rational and incremental elements as well as long-term visions and short-term projects. In the 1980s and 1990s there was a "communicative turn" (Healey 1992) resp. "argumentative turn" (Fischer/Forester 1993) in planning theory, which focused on consensus building through forms of cooperation and participation. With the rise of the governance research, communicative planning theory became a dominant paradigm since the 1980s. After a while, communicative theoretical approaches have been questioned by approaches from agonistic planning theory (Hillier 2003). In contrast to consensus building, these approaches focus on conflict resolution in planning. The lecture reflects the scope of these turns in planning theory and examines the question of the extent to which the change from rational to communicative and agonistic planning is a profound paradigm shift or a dialectical movement of thesis, antithesis and synthesis. Using empirical examples from spatial planning in Germany, the article shows that rational, communicative and agonistic planning approaches are not mutually exclusive, but are often mixed in planning practice. This also includes the possibility of a "return" to rational planning, which in times of crisis can be associated with an acceleration of planning processes and a reduction in levels of participation.

Keywords *: turns and returns, planning theory, rational planning, communicative planning, agonistic planning*

Instituting Planning: Navigating Hegemony In Planning Theory

Giulia Li Destri Nicosia (University Of Catania)

In recent decades, the discourse within urban planning has progressively centered around the intricate interplay between civil society and institutions. Scholars in the field have extensively explored this relationship from diverse perspectives, highlighting the opportunities and challenges inherent in its various configurations. Some have delved into the dichotomous and conflict-laden aspects of the institution/civil society dynamic (Watson 2014), while others have advocated for a collaborative approach grounded in mutual learning and co-production (Albrecht 2012). More recently, scholars such as Savini (2023) have underscored the significance of maintaining a mutually autonomous and independent relationship. This perspective is founded on the unavoidable tension between civic agency (looking at the extent to which self-organized spatial practices are able to produce and mobilize new meanings in the context of public action) and institutional structure (analyzing how rules, procedures, institutional patterns and discourses make institutions resistant to change while giving consistency to their actions).

The emerging conceptual framework of instituting planning (Li Destri Nicosia and Saija 2023) seeks to redefine the institution/society relationship, drawing inspiration from the work of the Italian philosopher Roberto Esposito (Esposito 2021). Esposito's insights provide a pathway to acknowledge the planning relevance of insurgent practices, civic mobilizations, commoning processes, and more, while also reinterpreting the traditional socio-democratic ideal of institutions as vehicles for expressing the public interest. The instituting endeavor, guided by Esposito's propositions, involves the creation of socially meaningful temporary instituting systems, which, on one hand, are nurtured by the plural and conflictual forces that characterize civil society and, on the other, are able to translate those forces in a collective political action.

This contribution aims to delve deeper into the reflection on the instituting paradigm within planning theory, exploring the unfolding of the instituting endeavor and the primary challenges associated with it. Employing the interpretive lens of the Gramscian concept of hegemony (Gramsci 1971), the argument posits that, especially in contexts where civil society organizations are highly fragmented and disempowered, authentic instituting processes must exhibit hegemonic drives. These drives manifest through practices of organizing and representing—processes that involve creating an organizational infrastructure capable of achieving widespread engagement and translating individual needs into social demands.

Ultimately, this contribution reflects on the implications of the instituting paradigm on planning practice. It suggests that, particularly in contexts grappling with significant development challenges, such as those in the global South, possessing interpretive and operational tools to address the pitfalls of democratic systems may be the most effective approach to catalyze spatial transformations toward spatial justice.

Keywords *: New institutionalism, civil society, (counter)hegemony*

What If Planning Is Not A Science? A Call For Consideration Of 'Epistemic Plurality' In Planning Theories

Ruggero Signoroni (Politecnico Di Milano)

Over the last century urban planning has been repeatedly theorized and practiced as a science. Just to give a few examples: the 'city scientific movement' of the 1910s-1930s (among whose major exponents George B. Ford is worth mentioning); the Taylorism model advocated by the Modernists (for instance by Le Corbusier); the attempt, pursued by Rexford Tugwell, to treat planning as a 'fourth power' of the state (or, more effectively, as a scientifically founded 'directive force'); the 'systems view' introduced in the 1960s and followed, a decade later, by the Rational theory of planning. More recently, notwithstanding three decades dominated by the post-positivist shift (led by the Argumentative Turn), planning is still regarded as a science. However, unlike previous attempts of scientization of the discipline, the current one takes a peculiar form. Instead of acting from the inside of the disciplinary field, resorting to well-established paradigms and traditions, this movement promotes the construction of a new cross-disciplinary area called 'new urban science' (Karvonen et al., 2021). Drawing on urban modelling (experimented since the 1970s) and the latest urban technology (such as Urban Artificial Intelligence), this 'science of the city' is sought to provide a method to understand and predict the evolution of cities. At the basis of such a scientistic attitude is possible to trace two main objectives, namely prediction and control. The first, rather counter intuitively, would not be so much the goal as the means to reach it: predictions, carried out through models and simulations, are made more and more sophisticated thanks to the increasing availability of data. They become the means by which planning establishes control over the future – in terms of the dynamic evolution of urban processes. However, control – which, as stated, is the true purpose of the scientific paradigm in planning – necessarily implies a deterministic, if not even mechanistic, view of urban phenomena. In general terms, the source of scientism in planning lies precisely in the application of the scientific method – derived from the hard sciences – to social phenomena. The consequences of this approach are alarming, especially with reference to a couple of issues. The first one is of an epistemological nature, that is: the understanding of the city as a complex system from which to extract data to power algorithms able to make decisions autonomously (Cugurullo, 2020). This leads to the second problem, which is of a more strictly political nature. If the available technology is controlled by a few powerful private corporations (Sadowski, 2020), interested in profit and much less in transparency, what kind of scrutiny can be exerted on the use of data and, above all, on the decision making? By admission of its own proponents, the scientific approach tends to value the procedural component of planning. What matters, then, is not so much the content of the plan as the (data-driven) process it unfolds. What alternatives to such a hyper-quantitative procedural approach can be explored? Above all: if planning is not a science, what paradigm should planning theory rely on? To avoid falling into the trap of eclecticism (Palermo, 2022) – a drift that has plagued planning theories since the 1980s – it seems more prudent to talk about 'epistemic plurality' (Van Assche et al., 2023). Instead of relying on a wide array of traditions (and related epistemologies), epistemic plurality foresees the combination of different research methods in urban governance. Drawing on relevant literature, the article investigates the potentials of epistemic plurality as a possible alternative to the scientific paradigm in planning theory and decision making.

Keywords : *Planning theories, Scientism, New urban science, Eclecticism, Epistemic plurality*

Creativity In Urban Planning: A Critical Examination Of Theoretical Engagement And Its Impact On Planning Practice

Moozhan Shakeri (University Of Twente), **Johannes Flacke** (University Of Twente)

The urge to look for new ideas, creative solutions and innovative methods in planning is at its height today. So is the tendency to talk about the current planning state and cities as a crisis. In response to such an increased sense of urgency to find new ways of addressing complex urban challenges, planners have over the past decade ferociously, adopted innovation and creativity concepts and frameworks from fields like design, innovation management, and computer science (Dinardi, 2022). Living labs, urban experimentations, municipality entrepreneurship, and innovation helix, are just some of the models tested in cities, in an attempt to accelerate the generation and implementation of creative ideas; ideas that are new and useful in addressing complex issues cities face today.

Despite the interest in creative ideas and new planning forms, planning theory's engagement with creativity as a concept has been surprisingly limited. Other than a few attempts made by urban planning theorists in the early 2000s to define the value of creativity in planning (Albrechts, 2005; Healey, 2004) and what creative urban planning can be, the topic has received little attention in recent years. The conceptualisation of creativity, how it is defined, and how it is achieved, even in those early attempts, were borrowed from the then-popular narratives popularized by the creative economy. They all rendered creativity as something repeatable, reproducible and accessible to everyone. Today, the failed experiments of the past and dishonest or at times ill-fated promises of the future in some recent practices have led urban planning theorists to refrain from thoroughly scrutinising the concept of creativity altogether.

In our work, we explore the consequences such lack of engagement with the concept of creativity has had on the works of planners today in general, and on limiting their creative agency in particular. We present a brief history of how the conception of creativity has changed over the past 70 years and how urban planning theorists have interacted with these various narratives. We particularly revisit the debates about creativity between Herbert Simon and Mihaly Csikszentmihalyi (Csikszentmihalyi, 1988; Simon, 1988) and cast doubt on what we know and do not know about creativity in planning. In doing so, we would also highlight how the building blocks of creativity as a concept relate to the core of what planning theory seeks to achieve and how engaging with the wider narratives around creativity can open new doors in rethinking planning itself.

Keywords : Creativity, urban planning theory, innovation, design, urban experiment

Uneven Geographies Of Urban Knowledge: Status Quo And Agenda

Martin Müller (Université De Lausanne - Unil), **Laura Neville** (Université De Lausanne - Unil), **Quentin Rihoux** (Université De Lausanne - Unil)

More than four-fifths of the world's urban population lives outside the Global North and urban areas grow most strongly in Africa and East Asia (Nagendra et al. 2018). Better understanding, explaining, and addressing the challenges of these cities requires dedicated knowledge and theories attuned to their contexts and particularities. This paper asks to what degree the current production of urban knowledge corresponds to this need. It analyses a sample of 25 leading Anglophone journals from urban studies and planning with a total of 14,582 authors who published articles between 2020 and 2022. It finds that while 84% of the urban population live in the Global South and East, only 42% of the urban knowledge is produced there, most of it in China. The presence of scholars from the Global South and East in important gatekeeping positions is even lower at 18% (editorial board) and 15% (editors). Most contributions from the Global South and East are focussed on modelling and computation, with few contributions in theory development and qualitative research. The contribution and gatekeeping to urban theory making remains strongly dominated by the Anglophone Global North academia. A regression model identifies three important predictors of a higher presence of Southern and Eastern scholars in knowledge production: a higher proportion of board members from the South and East, larger journal size and a lower proportion of women on the board. Our findings highlight the urgency of shifting the geographies of urban knowledge production to the South and East. It suggests that journals introduce systematic monitoring and policies, in particular for editors and board members, to encourage more diverse urban knowledge and theories and to better represent plural epistemic positions.

Keywords : Urban knowledge and theories, academic journals, epistemic exclusion, urban knowledge production

Making Sense Of The Just City. Defining, Choosing, And Applying Different Conceptualizations Of Urban Justice

Edwin Buitelaar (Utrecht University)

The just city is a concept that has received traction in both planning theory and practice. Despite its popularity, the definition of alternative conceptualizations, the tradeoffs between them, and thinking them through systematically towards policy measures, largely remains unchartered territory. The goal of this paper is to provide a framework that helps to inform academic and policy discussions about planning for urban justice. In doing so, it draws on political and economic philosophy. Four different ideal types of The Just City, based on four different philosophies are being identified and compared: The Prosperous City (utilitarianism), The Equal City (egalitarianism), The Providing City (sufficientarism), and The Free City (liberalism). The paper shows that each of these translates differently into planning policies. Moreover, although each of them might appear sympathetic and desirable, at first glance, they do not all go well together or are even incompatible. Being precise and making choices about what urban (in)justice entails is necessary for effective and legitimate policy making.

Navigating Justice In Spatial Planning: Insights From A Systematic Literature Review

Claudia Rot (Wageningen University And Research)

The Netherlands faces a wicked problem for its current and future land use planning with the challenge of reducing nitrogen emissions by 50% by 2030. To achieve that goal, substantive spatial interventions are required, such as compulsory purchase of farms and the establishment of buffer zones with heavy restrictions on nitrogen applications around nature areas. Such interventions heavily affect existing user and owner rights of farmers, leading to societal and political turmoil. These multifaceted challenges often concern contested spaces and conflicts over land use, particularly in densely populated regions and their peripheries. In the pursuit of 'just,' 'fair,' and 'efficient' spatial allocations, such conflicts are inevitable. Justice considerations play a pivotal role in navigating these societal and spatial contestations. Hence, the intersection of justice concepts and spatial planning research and practice becomes increasingly pertinent (Córdova et al. 2023).

Within planning literature, a variety of justice interpretations exist, ranging from prioritizing meritorious ideas over majorities to addressing existing inequalities and advancing social justice (Davy 1997). Each perspective offers a unique lens through which to view planning's role in achieving justice. Moreover, justice in planning encompasses a spectrum of ideological concepts, domains, and thematic fields, leading to a diversity of operationalization indicators (Moroni 2020). The mixing of these indicators with various conceptualizations can result in misinterpretations, potentially carrying over from theory into practice. While numerous frameworks and indicators exist to operationalize justice, a lack of clarity persists regarding the use of justice concepts in planning theory, hindering their effective application in practice. Ensuring that justice considerations are explicitly addressed in planning processes is crucial for aligning with the expectations of stakeholders and the public interest. This alignment is an important element in legitimizing planning actions (Dadashpoor & Sheydayi 2021).

This study aims to identify and analyze the indicators used to operationalize justice concepts in spatial planning literature. It also explores how these indicators are associated with procedural and distributive justice. We use a systematic literature review to identify relevant studies, assess their methodologies, and extract data on justice indicators and their associated domains. The research reveals a limited diversity of justice interpretations within planning literature with a wide array of operationalization indicators that are used, highlighting the need for clarity in their application. We observe that spatial planning literature uses ambiguous indicators that leave a lot of room for interpretation regarding the used ideological concepts to apply justice.

By addressing this gap in knowledge, this study contributes to the ongoing search for adjusted formats and principles of co-production in spatial planning. It seeks to enhance the understanding of justice and foster more informed and equitable decision-making processes. The research offers valuable insights into the operationalization of justice concepts, highlighting how conflicts and contradictions can be viewed as opportunities for innovation. These insights will be illustrated through the case of the nitrogen crisis in the Netherlands.

Keywords *: distributive and procedural justice, justice operationalization, spatial conflicts, nitrogen crisis*

Reconceptualizing "Justice" In Planning: From Procedural And Distributive Justice To Recognition

Hanna Mattila (Aalborg University)

The nature of justice and the most proper ways of promoting justice in urban planning have been debated in the fields of planning research and urban studies for quite some time (e.g. Dadashpoor and Alvandipour, 2020). Planning theorists, especially the proponents of communicative or collaborative planning, have been charged of prioritizing procedural justice, and of failing to consider the justness of the outcomes of planning, especially the distributive outcomes with their spatial dimensions (Fainstein, 2010). However, both the proponents of communicative planning, who emphasize procedural justice, and the proponents of "Just City" (e.g. Fainstein, 2010), who emphasize the distributive dimensions of justice, have been criticized for neglecting to consider "recognition justice" (e.g. Fincher and Iveson, 2008), which concerns especially the inclusion of traditionally under-represented and unrecognized stakeholder groups in planning, and which can be argued to be located at the interface of procedural justice and distributive justice.

This paper investigates the position and role of recognition justice by building on Axel Honneth's (1995) philosophical theory of recognition. Honnethian theory not only places justice as recognition in between the two more traditional forms of justice, but also argues that the concept of recognition can cover both the procedural and distributive aspects of justice (Fraser and Honneth, 2003). This is possible, because Honneth (1995) builds on an exceptionally broad concept of recognition covering the private dimension of care, social and economic dimension of esteem and legal dimension of respect of people's rights, all these dimensions being relevant for urban planning.

The paper explores the implications that Honnethian theory would have for the conceptualization of justice in planning theory. Furthermore, it examines what would these implications mean for planners and planning organizations aiming at promoting justice through their practices. Recognition justice is discussed in light of planning cases where Danish planning institution encounters – and plans for – vulnerable groups such as people in homelessness and immigrants, who typically have not traditionally participated in planning and for whom the outcomes of planning procedures are often not satisfactory.

A Multi-Strata View Of Institutional Action And A Canvas Conception Of The Just City

Stefano Moroni (Milan Polytechnic University)

One of the most influential theories of justice has been that of John Rawls. The very idea of the "just city" is deeply indebted to Rawls's view. However, the way in which Rawlsian theory of justice has often been imported into urban and regional planning seems debatable. The paper aims to discuss this aspect critically. The objective is not merely to discuss certain planning approaches inspired by Rawls. It is also to explore, in more general terms, what meaning and role (any theory of) justice could and should have for urban and regional planning. In revisiting Rawls's approach, the paper is organized around two points: first, a critical discussion on how Rawls's theory of justice has been generally applied to planning; second, an exploration of an alternative way to interpret and apply certain Rawlsian insights in this field. The paper is not intended to recommend Rawls's normative theory as a whole, but to highlight certain Rawlsian contributions of a general nature that are crucial. Nor is it the aim of this paper to contribute directly to the development of a specific substantive idea of the just city; instead, it is to highlight fundamental methodological and analytical caveats that are decisive in this regard. Rather than a "theory of the just city", the paper suggests a "meta-theory of the just city": that is, an approach specifying precautions and conditions for any coherent just city theory.

Who Owns The Just City?

Ben Davy (University Of Johannesburg)

John Rawls, the Western authority on justice, displayed an almost indifferent attitude towards "the ownership society" and property rights. Perhaps for this reason, most treatises on the just city ignore or downplay the issue of ownership of and in the just city (e.g., Fainstein 2010; Moroni 2020; Soja 2010).

The question as to who owns the city has two archetypal dimensions (Table 1). The institutional dimension distinguishes private and common property. The personal dimension distinguishes between one, many, and all urban residents as owners or members of the common use community (Davy 2016).

personal	institutional	
	private property	common property
one owner/user	the enslaved city	the regal city
many owners/users	the democratic city	the two-thirds city
everybody owns/uses	the wasteful city	the egalitarian city

Table 1: Institutional and personal aspects of urban ownership (Source: B. Davy)

Even libertarians dislike private or common property owned by only one owner/user. Once property rights have been introduced to urban settings, however, the flow towards elitist or monopolistic patters is difficult to curb. Many consider a city with many private owners as a democratic city, but if the use of the commons is limited to only a segment of urban residents, the two-thirds city is too exclusionary for most authors. If everybody is admitted to use urban commons, the egalitarian city emerges. Unfortunately, if everybody owns urban land, the resulting use pattern (endless one-family house subdivisions) is wasteful. The model underlying Table 1 alerts us to the fact that no ideal combination on the institutional and personal dimension of the just city exists.

Within the framework of Table 1, the presentation discusses three issues of the ownership of and in the just city:

Are landlords and tenants the best combination of ownership in the just city (and if yes, who decides who is a landlord or a tenant)?

Most cities combine restricted land uses (under private property) and shared land uses (under common property). Are some of these polyrational combinations more suitable for a just city than others?

How does the just city respect and promote the rights of Nature (and if it doesn't can it really be called just)?

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Adaptive Planning In China: Research Progress, Key Issues, And Major Actions Based On Knowledge Graph Analysis

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Cities worldwide are grappling with unprecedented challenges in economic development, environmental climate, public health, and infrastructure, resulting in substantial uncertainties in spatial planning. Adaptive planning, as an innovative planning concept, is gaining traction in academic circles, offering cities a dynamic approach to navigate short-term uncertainties and build sustainable long-term futures through collaborative adjustments involving multiple stakeholders.

Our research provides a comprehensive analysis and exposition of adaptive planning's development, applications, and conceptual logic in China over the recent years, aiming to share governance insights within the context of Chinese spatial planning.

Leveraging the China National Knowledge Infrastructure (CNKI), the largest literature retrieval database in China, we conducted a bibliometric study. This study covers literature from 2004 to 2024 related to "adaptive planning" in China, using CiteSpace to visualize the knowledge graph structure.

Specifically, we quantified research quantity, academic focal points, and visualized the knowledge graph structure, including authors, collaborative networks, institutions, core keywords, etc. We conducted analyses on literature co-citation, co-occurrence of high-frequency keywords, dynamic evolution of high-frequency keywords, and emerging keyword analysis. This provides insights into the evolutionary trends, research directions, and recent hot topics in the field of adaptive planning in China.

Subsequently, employing a meta-analysis method, we systematically summarized and evaluated recent Chinese policy documents related to adaptive planning. Considering the policy background of China's territorial spatial planning, we analyzed their logical connections.

Furthermore, by collecting and summarizing typical cases of adaptive planning implementation in China, we elucidated the implementation process and its effectiveness, aiming to showcase representative planning achievements embodying adaptive solutions with Chinese characteristics.

Adaptive planning in the Chinese context raises four key issues, for which various levels of government and relevant planning units have taken a series of major actions.

Firstly, how urban planning can effectively adapt to national strategic policies. Considering China's unique political context, coordinated efforts are essential to capitalize on unified execution, encompassing responses to strategic directives like "Ecological Civilization," "Dual Carbon Goal," and "A Country with Strong Transportation Network."

Secondly, how urban planning can effectively adapt to climate change and disaster risks. Some Chinese cities address these challenges through spatial planning that integrates disaster prevention, emergency resource management, and defensively resilient spatial coordination.

Thirdly, how urban planning can effectively adapt to the dynamic changes in living environments and resident needs. According to the Northam curve, as China enters the mid to late stages of urbanization, diverse cities have adopted tailored adaptive planning strategies. High-density cities focus on contraction planning and refined governance, while rapidly urbanizing areas pursue smart growth, promoting urban-rural integration. In addition, the people-oriented approach gains traction and fosters adaptive spatial planning that is friendly to diverse groups such as children, the elderly, and disabled individuals, or for promoting walkability and bike-friendly transportation modes. These measures have been implemented at the community level.

Fourthly, how urban planning can adapt to the technological explosion of the era. Some Chinese cities actively address new technologies like autonomous driving and artificial intelligence by setting up dedicated lanes or using machine learning methods to simulate residential patterns or identify ecological risks.

In conclusion, we contextualized the theory and practice of adaptive planning within the context of China. Against the backdrop of national territorial spatial planning, we summarized the evolutionary process of adaptive planning in China and shared practical cases related to climate, urbanization, and society. This facilitates a better understanding within the European planning community of the current development of adaptive planning in China and shares Chinese practical approaches to spatial planning at different scales.

Knowledge And Power: The Legacy Of Educating Professional Planners

Enza Lissandrello (Aalborg University)

In the last 20 years, urban planning education has shifted its focus from technical knowledge to managing complex and uncertain issues. This change is the result of significant social and practical transformations that have been reflected in the discussions on sustainable development and ecological transitions. As a result, we are witnessing profound changes reflected in the role and identity of planners as urban "scientists". This paper delves into how planning practices depict the changes that have occurred, starting from the "legacy" of inquirying the relationship between knowledge and power within the reflective and deliberative planning traditions. Through three brief episodes, and in conversation with professional planners situated in the present-day planning, this paper explores contemporary significations of urban sustainability. Planning professional identities are re-negotiated in various forms and dynamics of knowledge/s and power/s in their practice, single-loop learning processes and changes in their routines, mapping out their influences, and practical judgments involved. Urban planning and policy have become increasingly complex, beyond issues such as "who wins" and "who loses." Reflexivity is becoming the situational condition of planning in contemporary time, questioning the relationship between knowledge and power, reconfiguring ways of knowing (creating signs, ideas, minds, and selves) and power to enact (experimenting, modelling, testing, making). These dynamics are reinvigorating reflection on the necessary skills and competencies required in educating future planners, to develop the ability to imagine, to act and to reflect on a sustainable urban future and its contradictions.

Experimentation And Planning. Identifying And Realizing An Emergent Potential

Luca Bertolini (University Of Amsterdam)

Experimentation is increasingly prominent in planning. Experimentation is seen as demanded by daunting environmental, social, and economic challenges which current, mainstream planning approaches seem ill suited to address. However, there is also ongoing discussion about what the potential of experimentation for planning specifically is, and what is concretely required to realize the potential (Schreiber et al., 2023). This paper seeks answers to these questions in the research and practice state of the art, but also finds the need for, and possible ways of moving beyond the state of the art.

The arguments are illustrated by the topical example of street experiments: "an intentional, temporary change of the street use, regulation and/or form, aimed at exploring systemic change in urban mobility, away from "streets for traffic", and towards "streets for people"" (Bertolini, 2020, p. 735).

The potential added value of experimentation for planning concerns both the content and the process dimensions.

On the content side, the potential added value of experimentation for planning is that it allows exploring problems and solutions beyond obdurate disciplinary and organizational boundaries, foregrounding a holistic, emergent view of challenges rooted in the systemic complexities of the world. For example, street experiments foreground the city street as a place where not just moving persons and goods, but also socializing, or playing are legitimate and even priority uses.

On the process side, the potential added value of experimentation for planning is, first, that it allows implementing options for intervention that are too radically alternative, contentious, and/or undefined for implementation within established planning procedures. Second, and related, experimentation allows adapting interventions 'on-the-go', following emerging insights about their effects. For example, street experiments temporarily suspend, or drastically reduce the function of the street as channel for traffic – the accepted norm - to explore that of the street as a place for play or social interaction – a radically alternative, contentious, and undefined norm.

Central to the realization of the potential added value of experiments for planning is enabling the 'learning-by-doing' (and the 'doing-by-learning') of a multiplicity of participants, including both those initiating and directly affect by the experiment, and relevant actors beyond the experiment. This requires activating and connecting a plurality of learning modes, both including formal processes (e.g., monitoring and evaluation), and informal processes (e.g., learning by means of direct experience, dialogue among participants, or public debate) (Beukers & Bertolini, 2021). While there are pioneering and instructive practices, how to articulate such a multi-dimensional learning process is still a largely open question. For instance, in the case of street experiments, there are questions about how to monitor and evaluate effects in a way that does justice to a multi-purpose view of the street, or about how to learn from the conflicts that street experiments generate, both locally and city-wide (e.g., in the media).

A key, but poorly recognized condition to the realization of the potential of experimentation for planning is acknowledging the deeply political nature of experimentation (Sierhuis et al., 2023). Central to the political nature of planning experiments is their being prefigurative of alternative future socio-spatial arrangements. For instance, a street experiment might be prefigurative of a city where proximity, rather than mobility, is the preferred way of accessing resources. This begs the question of how prefigurative politics can impact broader, obdurate socio-spatial arrangements. In searching for answers to this question, we must look beyond prefigurative politics (e.g., experiments), also consider contentious politics (e.g., social movements and political protests), institutional politics (e.g., procedural democracy), and above all ways of connecting the three (Schiller-Merkens, 2022).

__Keywords__ : Experimentation, planning, street experiments

'Spatial' As An Adverb, Taking Space Seriously In The Dutch Policy Discourse On 'Spatial Quality'

Joost Tennekes (Pbl Netherlands Environmental Assessment Agency)

For some years now, 'spatial quality' has been an formal objective of the Dutch central government's spatial policy. However, it is a difficult and confusing concept: on the one hand, policy makers agree that the quality of a planning intervention depends on its context, and no generally valid blueprint can be drawn up. On the other hand, they want the concept to work as a directional general objective for spatial planning.

This policy discussion is a good reason to take to heart again the insight of Lefebvre and others that space is a construction, and is being constructed. It is object of an act which can be done better or less well. This insight is a good starting position to interpret the differences between views on spatial quality and clarify the debate. The difference between the views in circulation in the policy discussion lies less in the definition of 'quality' than in de conception of what 'act' is actually meant by 'spatial'. Likewise, the differences concern less which 'end state' defines quality, but rather the question: what is the best way to engage with a context while making the intervention?

In this paper, we construct a conceptual framework inspired by the school of thinkers who see space as construction. By doing so, we can make sense of different views on the subject in the policy discussion, and enrich the debate.

The key insight is that 'the' space is actually three different spaces at once: 1. 'conceptual space'. This is the space with which the formal system works (zoning plans, land registry, scientific categories) 2. The 'lived space' (personal meanings, routines). 3. The 'physical space' (constellation on a specific location, its material structure).

One could draw up quality criteria for each of the three spaces separately, but that hardly does justice to to the activity that planning is. The quality of the aforementioned three spaces 'separately' can safely be left to disciplines that are not specifically spatial (e.g. law, sociology, ecology). Specific to the spatial view of reality is the issue that these three spaces stand in a tense relationship to each other. Planning involves making a translation between the three. Differences between views on spatial quality are, in essence, about which of the translations between the three spaces one deems most important, and what one considers the right manner to undertake that translation.

In the paper, we apply this conceptual framework in an analysis of Dutch spatial vision documents, i.e. the Regional Energy Strategies, in which 'spatial quality' has been an policy objective. In the paper, different approaches to achieve quality in Regional Energy Strategies can be identified using the conceptual framework.

Using this conceptual framework has important implications for policy, such as taking the process of decision making as an integral part of 'spatial quality'. In that sense, it is a game changer within the context of Dutch policy discussion. However, the framework provides an overarching framework for spatial planning that is equally applicable in other national contexts. It could be applied not only in the context of policy making, but also of planning education.

Institutional Incommensurability Of Rational Choice In Spatial Planning Practice

Therese Staal Brekke (Norwegian University Of Life Sciences (Nmbu)), **Terje Holsen** (Norwegian University Of Life Sciences (Nmbu))

Society is complex, and societal problems are inherently wicked (Rittel and Webber, 1973). Urban planning practices and their quest to shape urban spaces are thus dealing with non-ergodic problems and uncertainty (North, 2005). Historically civilisations have aimed to structure the physical environment to organize society. Society, architecture, and the city were linked in spatial structures. Like then, today we plan to improve our spatial surroundings. Specialization, division of labour, and the urge for quantification and measurement is related to the complexity of the environment. Although acknowledging bounded rationality (Simon, 1997), we still tend to deal with non-ergodic wicked problems by splitting them into individual components and analyse and solve them divided and piecemeal as ergodic problems in the safe economic man tradition through rational choice.

Related to the wicked, non-ergodic planning problems, this paper is an investigation of planning practice and the connection between institutional constraints, both formal and informal, rational choice, and urban form. The empirical starting point for the paper is shaped by observations of recent Norwegian urban development projects, which according to the Planning and Building Act, section 1-1, shall promote sustainable development in the best interests of individuals, society, and future generations.

Although the planning processes were based on a goal of sustainable development, requirements for impact assessments were followed, the public was engaged in participation, and recommendations from sector authorities were implemented, the development still ends up being questionable. Aiming for compact city development, human scale, accentuation of local characteristics and urban qualities for common good in the municipalities studied, the developments tend to have more of the characteristics of financial growth, represented by urban sprawl, stretched limits of highest and best use, and scattered developments within an originally planned whole. In all cases public space end up as the weakest link. How can this be? What is the perceived reality of the actors, and which are the dominant beliefs forming the institutional arrangements (North, 2005) of planning?

After a history of neglecting the city as a spatial structure, densification and transformation of existing urban spaces are currently presupposed as the main Norwegian land policy. Urban form may be considered as a product shaped by a series of choices based on the actor's motivation, and an interpretation of institutional constraints. Guidelines and other rules or norms contain quantifiable recommendations on how to shape the physical environment for preventing or securing problems or qualities such as flooding, fire, daylight, outdoor space, quality of life and living etc.

Although the notion "that law must mirror the growing complexity of society" is debatable and causing conflicting goals in planning, the urge of a "risk-rule reflex" (Moroni et al., 2018 p. 320) to prevent risk and reduce uncertainties, leads in the direction of legal complexity, causing reduced ability to understand the overall effect of this urge. Resolving wicked non-ergodic problems into single constituents, in order to quantify solutions for each of them, is not sufficient in spatial planning and urban built environments. Proposed solutions must also be discussed holistically, both locally and globally. The assemblance must also be addressed (Bavoux, 2010). The converging process is missing, caused by the long-lasting risk-rule reflex. In the alteration and iteration over time between institutional constraints, rational choice, and urban form we seek to discuss the resulting identified mismatch between goal and form.

Thinking Low Impact And Evidence-Based Urban Development Outside The Box: From Recipe To Alternative Approach

Ignacio Castillo Ulloa (Technische Universität Berlin)

In this paper I revisit the notions of low impact urban design and development (LIUDD) (van Roon and van Roon, 2009; Lewis, 2009) and evidence-based urban planning and development (EbUPD) (Davoudi, 2006; LaPlante, 2010; Johansson and Forsemalm, 2021) to offer a different, rather unconventional view by turning them, as it were, inside out. To that end, I first address them from 'inside the box' and consider the distinctive elements that determine what LIUDD and EbUPD are thought to look like: definitions, implications, 'foundational pillars', synergies. Afterwards, I reassess from 'outside the box' what LIUDD and EbUPD could be like by offering a critique and sketch out some steps outside the box. More specifically, I turn to "phronetic questioning" (Flyvbjerg, 2004) – given that it is concerned with ethics, value-laden deliberations, pragmatism and variability all the while situated in specific contexts – to shed light on central aspects such as: the need to tell the notions of growth and development apart; the assessment of 'the impact' and 'how' and 'by what measure' it could be considered as 'low'; the advantages and limitations of evidence-based planning tools; and dealing with dilemmas like the "strategic misrepresentation-optimism bias" conundrum (Flyvbjerg, 2008). In addition, I draw on a handful of examples and map them along the good idea-not good idea continuum (Munroe, 2015) to illustrate how pervasive the vision from inside the box actually is and at the same time how it could be expanded and enhanced in a somewaht counter-intuitive manner. By and large, I conclude that LIUDD and EbUPD neither constitute 'formulaic' methods, but rather approaches whereby fostering urban sustainability, nor does furthering them necessarily have to be triggered through yet-to-realize projects – sometimes doing 'very little' may translate into 'very much'. Moreover, while specific and small-scale LIUDD initiatives are desirable, they require an overarching scheme (that is, for example, when comprehensive, more traditional takes come into play) which may well be underpinned and scaled up by EbUPD strategies. All in all, understanding LIUDD and EbUPD from outside the box and as powerful research methods bears a fundamental lesson to 'phronetic' urban designers and planners: projects, master plans and policies may well be substantiated on palpable and measurable evidence and still not seem 'low impact' at first, inasmuch as their impacts are not considered in a mid- to long-term view. After all, sudden measures are not likely to lead to substantive, transformative and lasting change.

Keywords *: Low impact urban development and design (LIUDD), evidence-based planning (EBP), phronesis, urban sustainability*

Toward A Practitioners' Experience-Centered Agenda In Planning Theory

Qingyuan Guo (London School Of Economics And Political Science)

Many planning practitioners perceive planning theory as irrelevant to them. This problem has haunted the project of planning theory for decades. Facing this challenge, some seminal theoretical projects were developed, notably the development of communicative theory (Forester, 2009) and pragmatist theory (Hoch, 2019). However, the problem of the theory-practice gap persists without being satisfactorily resolved. Through an innovative emphasis on practitioners' experience, the contribution of this paper is a proposal of an integrated theoretical and empirical agenda, providing a new perspective to bridge the theory-practice gap.

To bridge the gap, this paper emphasises the gap's perceptual aspect. In other words, instead of employing an intellectualist approach to investigate the relationship between rationally structured narratives and empirical materiality, this paper focuses on a simple question – Why many practitioners do not perceive planning theory as useful? Upon reviewing the landscape of planning theories, this paper identifies three common theoretical practices that contributed to the perceptual "not usefulness", and all of them are symptomatic regarding a single problem, that is the neglect or alienation of practitioners' experience during theorisation. These three theoretical practices are 1. Theorising the concept of planning with the neglect of practitioners' daily practice; 2. Focusing on how to make good planning with the presumption that planning practitioners want to or should make good planning; 3. Trying to materialise planning theory through educating individual practitioners. It is identified that even prominent planning theories, centred around the analysis of planners' daily work, are not immune to the second and third practices.

To overcome these practices, this paper argues the need to develop theories centred around practitioners' experience. The neglect and alienation of practitioners' experience during theoretical development is not a unique phenomenon for planning, and it could be helpful to investigate how similar challenges were responded in other fields. Thus, to further develop the arguments, this paper employs American pragmatist John Dewey's thinking in his Reconstruction in Philosophy and French sociologist Pierre Bourdieu's idea in his The Logic of Practice, when they were dealing with similar problems in philosophy and the French intellectual sphere. Both Dewey and Bourdieu have been introduced to planning theory, yet their potentiality to understand planners' practices is not fully realised. This paper will emphasise two complementary points from their theories, namely Dewey's focus on intentionality and instrumental use of knowledge; and Bourdieu's focus on structure's influence on individual preference.

Drawing from all analysis, this paper reaches an interesting conclusion: there is a need to revitalise Andreas Faludi's (1973) concept of procedure theory qua theory of planning but from a different angle. Seeing it as a key prescription to bridge the theory-practice gap, this paper advocates Faludi's emphasis on the need to systematically study the behaviour of planners and planning organisations. However, with the aim to make theory 'useful', this paper argues for the need to emphasise the perspective and experience of planning practitioners instead of holistic interpretation and universalisation, which was pursued by procedure theory. To make this emphasis, this paper builds on Faludi's original structure and suggests a need to develop two integrated theoretical-empirical agendas: 1. Developing 'meta-substantive' theories drawing from empirical investigation of what traits make a theory/doctrine/knowledge perceived as "useful" in practice, situated in certain context; 2. Developing complementary 'managerial' theories drawing from empirical investigation of planning organisations' formal and informal structure as well as directors' practical know-hows.

***Keywords** : theory practice gap, Pragmatism, planning theory, Faludi, Bourdieu*

Track 14: Policy Mobility

POLICY MOBILITY - Planning models, circulation and learning across boundaries

Chairs:

- Divya Leducq, Université de Lille

- Chandrima Mukhopadhyay, UN-Habitat India

- Marcela Alonso Ferreira, Sciences Po Paris

Keywords: Mobile urbanism, international exchange, environment, urbanization, green-city models, planning practices, postcolonialism, gender lens, urban strategy, policy transfer, local assemblage, global age, placemaking, traveling theory...

Within a more interconnected world, urban professionals through their references and practices are contributing to the international circulation of ideas and policies in and around spatial planning, experimenting with solutions to environmental and social challenges. Track 14 "Policy Mobility" aims to critically examine not only the circulating planning ideas, both in theory and practice, but also the transnational circuits of knowledge (how do ideas travel?), international benchmark, local experimentations, urban production that result from them, and urban resistance towards them. The session will focus on the political-economic, institutional, ethical, and methodological issues of international exchange in the planning field (process of diffusion). While the circulation from Norths to Souths - and reverse (even though limited) - of ideas and policies (such as: Olympic urbanism, transition towns, smart cities, Green European Capital, Transit-Oriented Development, 15-minutes city, etc) is not a new topic, new debates have emerged: hybridization of models, entrepreneurial urbanism, adaptive urbanism, decolonization of planning practices, provincialization of policy, etc.

We invite contributions from different intellectual traditions such as the history of planning ideas, international development studies, urban studies, the globalization and postcolonial literatures and the policy transfer and social learning fields. The session will look into North-North, North-South, South-North as well as South-South circulation of ideas and policies. So, we call for studies from various contexts such as Europe, North America, and also Asia, Africa, Middle East.

We welcome studies on roles of international networks, actors and agencies and their expertise and ethics (e.g. ICLEI, UN-Habitat, C40...) in transferring such ideas and policies. While the presentations would discuss land use planning, transportation planning, basic services, and infrastructure planning, we are interested in learning which policy traveled to what context and by whom, and to what extent it was successfully implemented and why.

Contributions to this track might cover the following urban planning issues (although this list is not exhaustive):

- ??Assemblage and hybridization of planning models; adaptation process

- Provincialisation of planning theories, ideas and policies; situating planning practice

- Planning culture/ Culture of practice

- Institutional changes in sustainability transitions

- Role of epistemic communities

- Role of civil societies in either promoting or resisting international ideas

- Tracing policy mobility and policy networks

- Transnational circuits of knowledge

- Carriers of ideas and Struggle of local experts to adopt; urban resistance

- Outside observer and Insider practitioner; reflective practitioner.

- Local ambitions, policy experimentations

- Sustainableplanning models, new urbanism, European Green Capital, European Capital of Culture, Olympic urbanism, Smart-city, compact city, 15-minutes city, transition towns, TOD, gender mainstreaming strategies...

For all these themes, one might wish to discuss: theoretical perspectives, methodologies and empirical contributions exploring shared urban models, ideas and practices and stakeholder involvement, including activists, across as well as key results/impacts achieved or not achieved such as environmental planning policies, local development, spatial justice or better territorial cohesion.

Urban Climate

Re-Shared Neighborhoods: The Key To Bringing Circular Principles To The Urban Neighborhoods? The Case Of Oslo

Mina Di Marino (Norwegian University Of Life Sciences), **Tanu Priya Uteng** (Norwegian University Of Science And Technology Trondheim, Norway And Senior Researcher, Institute Of Transport Economics), **Hossein Chavoshi** , **Anja Kristin Standal**

Among the circular principles, sharing is emerging and affecting the ways of living, socializing and working as well as the mobility in our neighborhoods. The Covid-19 pandemic has also highlighted the importance of sharing services and spaces, considering more activities that can be merged in the neighborhoods, as well as several functions that can be combined (e.g. residential, social, recreational and work) to improve urban vitality and reduce daily commuting (see e.g. the 15' minute city concept). However, our neighborhoods present some physical, planning and regulatory limitations to host sharing facilities, places and mobility. For examples, the cities have been characterized by the development of monofunctional neighborhoods in both semi-central and peripheral areas which are less multifunctional and flexible to sharing solutions. Thus, there is a need for analysing to which degree contemporary districts are prepared/equipped to host the combination of sharing mobility, spaces and services, and places (so-called re-share model by the authors), as well as the current sharing experience of people and needs for future re-sharing facilities and practices. In addition to the literature review and theoretical understanding of (re)sharing approaches, the study first presents the outcomes from the spatial observations that were conducted in the selected neighborhoods of Løren and Økern (in the north-eastern part of Hovinbyen in Oslo). Data collected through the spatial observations and other information on existing buildings and related features are integrated into a dashboard to provide a visual representation and an interactive form to a larger audience. Second, the study analyses the current planning framework and building regulations to further understand norms and rules and related constraints and opportunities to re-share at the first floors of residential, office and commercial buildings including parking areas. Third, the outcomes of three focus groups (a group of stakeholders and two groups of residents from the selected neighborhoods, respectively), are presented. The findings show which buildings are more adaptable to the re-sharing solutions in other words, see what the 're-shareability' conditions of the buildings are, and the way in which they are supplemented by the current planning regulations. Moreover, the study reveals that the residents are rather familiar with sharing practices, but shared mobility and spaces remains for the most two separate domains. This study contributes to the understanding of the features of the built environment and people's needs, as well as guiding/supporting official planners in revising their planning/architectural approach to the neighborhoods and make them more 're-sharable', livable, inclusive and sustainable.

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Keywords : *shared mobility, shared spaces, re-sharing, re-sharing neighborhoods, circularity*

Development Path Of High-Tech Industrial Parks From The Dual Perspectives Of Planning Guidance And Policy Regulation: A Case Study Of Chengdu Xinchuan High-Tech Innovation Park

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Against the backdrop of high-quality development, China has proposed the policy objective of constructing high-tech industrial parks to transform inefficient ones. However, the specific paths and methods for transformation are not yet clear. The land policy-driven development mode that previously guided spatial development is no longer suitable for the current stage of stock development and must transition to a more intensive 'spatial economy' model. Based on this premise, this paper proposes the use of urban design as a platform to link industry and policy, constructing a planning policy framework that considers the integration of land, industry, and space to achieve the successful transformation of inefficient parks into high-tech industrial parks, thereby realizing the industrial upgrading of stock industrial parks and enhancing land-use efficiency.

Using Chengdu Xinchuan High-tech Innovation Park as an example, the study first summarizes its development history and assesses the difficulties and challenges encountered. Then, employing Suzhou Industrial Park, Singapore's Jurong Innovation District, and Sweden's Kista Science City as case studies, the paper summarizes their development paths and experiences using three types of planning policies—industrial, land, and spatial—to enhance the quality and efficiency of industrial parks. To address the issues faced by Chengdu Xinchuan High-tech Innovation Park, which include mismatched land supply and industrial demand, rising land costs, and rigid planning policies, the paper draws on successful domestic and international development experiences to propose context-specific solutions. For land, it advocates the use of a full-cycle industrial land management approach, establishing a balance and supervision system to ensure consistency and responsibility in the development process. For industry, it suggests building a development-oriented industrial carrier, based on the current status and future positioning needs of enterprises, segmenting enterprise scale, and quantifying carrier space needs according to environmental sensitivity, transportation needs, and differentiated capacity. For space, it recommends customizing space supply in coordination with the growth stage of enterprises to ensure a diversified land supply model.

***Keywords** : Planning Policy Framework, High-tech Industrial Park, Case Experience, Development Pathway, Industrial Upgrading*

Policy Mobility Through Space And Time: The Case Of Trans-Municipal Climate Policy

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In recent years, climate policy has been one of the key issues in urban policy and planning. With climate crisis no longer being a distant future in many global regions, local councils worldwide have enacted a "climate emergency declaration" (Spratt and Sutton, 2008) – an idea that since a first declaration in 2016 in Darebin, Australia spread around the globe. Being the maybe most prominent of many local climate policy documents it is part of what can be regarded as actions of a transnational municipal and activist network, informed by scientific publications such as the IPCC reports, public interest and, last but not least, major global strikes and demonstrations (O'Neill and Sinden, 2021). However, these actions are not unprecedented. Since the early 1990s there have been at least three temporal waves of trans-municipal environmental politics that have decisively shaped municipal climate politics in many places around the world at the same time: 1) Local Agenda 21 between 1992-2002 (Xavier, Jacobi and Turra, 2019), 2) Transition Towns between 2006 and 2015 (Taylor, 2012), 3) Climate Emergency Declarations between 2016 and now (Ruiz-Campillo, Castán Broto and Westman, 2021). Each wave has different characteristics in terms of underlying governance models, theory of change and scope of transition, role of planning and civil society, or output orientation. However, research has focussed on each wave as a singular phenomenon taking place in space looking for e.g. mobility between cities and regions and spatial distribution. What is lacking is a perspective that recognizes these different approaches as interconnected constellations that challenges the status quo of municipal planning policy - across specific temporal and spatial configurations. Hence, in the proposed paper we want to examine the temporal mobility of climate policies in the last three decades by looking at the issues, solutions and examples and extracting those with a clear focus on climate change mitigation. This enables us to trace intertemporal lines of policy mobility. Which policies have been available through time, which innovations can be observed? What has fallen into oblivion? The paper is based on first findings of an emerging research project. Combining quantitative and qualitative methods, on the one hand an overview of the three waves is generated from publicly available databases. On the other hand, policy papers of municipal networks and social movement organisations are interpreted.

Keywords : climate policy, sustainability, transition, local agenda

Performative Scales Of Urban Climate Action: Challenges Of "Community-Based" And "Locally-Led" Adaptation In Pacific Cities.

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The nexus of climate change adaptation, development, and justice is now vastly researched in the Global South, and constitutes a fruitful area for academic debates (Inderberg et al., 2015). This is especially true in Pacific Island Countries (PICs), where climate emergency, colonial legacies, and development challenges are deeply interlinked and constitute the base for a rich literature and numerous participatory action research projects (Bryant-Tokalau, 2018).

As such, a number of progressive frameworks of climate action have been shaped in PICs, and found a large echo in a region still deeply marked by colonial power dynamics. The concern for more just, context-sensitive, and 'transformative' climate change adaptation has notably led to the emergence or popularisation of concepts like 'community-based adaptation' (CBA) or, more recently, 'locally-led' adaptation (LLA), the latter pushing for a 'shift in local people's power to decide their own adaptation' (Soanes et al., 2021, p. 4). Arguably, the construction and circulation of these adaptation models has contributed to 'centering' climate action discourses around the Pacific over the last few years.

However, this trend has tended to fall short of influencing urban adaptation discourses and pathways in the region, despite the critical role of fast and largely 'uncontrolled' urbanisation on the transformation of Pacific societies over the last 40 years (Trundle, 2020). This paper thus aims to explore the urban obstacles to 'local' framings and forms of adaptation in Oceania, but also how they are currently being overcome and the frameworks being translated to urban contexts. To do so, it builds on extensive qualitative fieldwork in Suva, Fiji, and on a review of the relevant academic literature and official documents in the region.

Overall, the paper presents the fundamentally multiscalar character of adaptation in urban areas of the region, the relative 'rural bias' of Pacific governments and development aid in the Pacific, and the 'hybrid' character of Pacific cities - between 'modernity' and 'custom' (Phillips and Keen, 2016) - as three factors making the definition of a 'local' particularly challenging in urban Oceania. It presents as a main argument, however, that those obstacles are currently shaping novel, translated progressive adaptation frameworks, with Pacific urban informal settlements as their epicentre. In turn, the translation of these ideas generate new conflicts around the framing and 'performance' of the local scale. The paper concludes with a reflection on the circulation, translation, and hybridisation of climate adaptation models within the Global South, and the role of the urban in these processes.

Keywords *: urban Oceania, Climate change adaptation, Local scale, Circulation of urban models, translation*

Planning Theory And Practice

Studying Policy Travel In Spatial Planning: A Review And Comparison Of Theoretical Approaches

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Many recent changes in spatial planning and territorial governance relate in some way to the travel of policies between different contexts. Various theoretical approaches have been employed to study and explain these changes. This paper identifies focuses on four analytical frameworks that can be employed to study policy travel: policy diffusion, policy transfer, policy mobilities and Europeanisation. Each framework differs in terms of research methods and explanatory variables that are taken into account, reflecting the separate academic disciplines in which the four frameworks were developed – policy diffusion and policy transfer from political science (e.g. Dolowitz & Marsh 2000; Marsh & Sharman 2009; Radaelli 2000), policy mobilities from urban geography (e.g. McCann 2011 & 2013; Temenos & McCann 2012 & 2013) and Europeanisation from European studies (e.g. Börzel 2002; Ladrech 1994; Olsen 2002). After setting out an overview of each framework, this paper then presents selected examples of how the frameworks have been applied in studies of policy travel related to spatial planning. The main emphasis of this paper is on summarising the main characteristics of each approach rather than highlighting the diversity of interpretations that can be found for each approach. The paper provides a structured comparison of the four analytical frameworks and an assessment of their strengths and weaknesses. It also considers some of the practical challenges associated with the transfer of policies and practices related to spatial planning between different contexts.

Keywords : policy travel, spatial planning, policy diffusion, policy transfer, policy mobilities, Europeanisation

How Do Comparative Planning Studies Drive Policymaking? Transnational Territorial Knowledge Communities As Knowledge Brokers

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The rational spatial planning model, assuming that the public actor, following a sequence of analytical steps, could define the ideal spatial configuration to achieve a determined goal or set of goals, started to be questioned in the 1970s, with the acknowledgement of the wickedness of spatial planning issues and the bounded rationality according to which planners are required to take decisions (Forester, 1984). New interpretations have thus emerged, emphasising the communicative aspects of planning (Healey, 1992) and how the latter is inextricably embedded within power and knowledge dynamics. The complex interplay of power and knowledge and its implications for developing spatial policies and plans has gained increasing relevance with the progressive rescaling and redistribution of competencies among the different territorial levels and the incremental consolidation of global multi-level governance. Within this framework, public actors increasingly need to back up their decisions with convincing evidence to strengthen the legitimacy of their policies and actions.

Among the evidence base upon which policy and decision-makers develop and legitimise their choices and actions, a particularly relevant role is played by international comparative studies that contribute to analysing, comparing and often assessing how spatial planning operates in different contexts around the world (Bragaglia and Cotella, 2024). This activity of knowledge (co-)production very often concretises in identifying good practices, mechanisms or models, in turn favouring their circulation and influence over policy-making, either directly or mediated by the action of international organisations such as the United Nations, the OECD, the European Union etc.

In this contribution, we argue that this process linking the production of comparative spatial planning knowledge to its use in policy-making is not neutral but driven by the vested interest of the various communities of actors that engage with it. More specifically, we discuss the role that different transnational 'territorial knowledge communities' (Adams et al 2012) play as 'knowledge brokers', facilitating the co-production, collection, systematisation, and distribution of knowledge in support of policy-making while at the same time influencing the type of knowledge that is produced and, potentially, the outcomes generated through its use. In so doing, we aim to shed some light on the complex dynamics of knowledge and power that permeate the 'territorial knowledge channels' that allow knowledge to influence policy.

Post Covid19 Topiography: Prospects Of The Polycentric Operational Model For A Greek City

Katerina Christoforaki (School Of Architecture, National Technical University Of Athens)

Covid pandemic served as a benchmark for the reconsideration of the way users operate in the urban environment. The shifts that happened rapidly not only in the economic sector and the social activities but also in day-to-day life, leading to a global reconsideration of the way developed cities function under these new circumstances. In addition to this, the demands of the strategy towards battling climate change, promote the research for the optimal operational model of the modern city, regarding trivial functions and needs, car use, networking, and communication.

The model of a polycentric city formation is promoted as an answer to these challenges. This contemporary polycentric city theory is enhanced with the technological advancements and oriented towards the city user, aiming to create a greener environment-friendly urban space, that promotes the battle against climate change. Given the turn towards a more viable sustainable environment with a more user-friendly city formation that subjects to the principles of sustainable mobility, as well as the technological means available, the implementation of a structure with multiple centres, a mix of functions and extended networking, can produce a new urban topiography that derives from the environmental principles of the 21st century.

This paper follows previous research where this polycentric city model was evaluated using the economic theory, and specifically a cost-efficiency analysis, to establish a foreseeable outcome and determine and quantify the possible benefits on an environmental, economic, and social level. The analysis applied an ex-ante evaluation and uses simulation techniques and indicators to define the cost-effectiveness ratio, combined with mental mapping activities, in order to promote people inclusion in the decision-making process.

The findings showed that the cost that needs to be allocated to implement a polycentric model of operation in Greece, although dynamic and varied from case to case, is relatively low compared to the benefits that come as a result. In fact, the most of said benefits are linked to the European Sustainable Development Goals, the promotion of which is a strategy all European countries and cities are already committed in following.

The main reason why the cost may appear lower for Greek cities to shift to a polycentric model, is that Greek cities in particular, are characterised by a small scale of the urban fabric and a variety of uses, both equally important when implementing this model of operation. The formation of neighbourhoods is thus favoured and, on a first level, already present, which gives the Greek city an advantageous starting point regarding the possible cost of rearranging the city from scratch.

This paper builds on the previously established evaluation model and employs a case study to validate the evaluation method and furthermore produce a series of observations and results regarding the actual costs and benefits of polycentric city operations in Greece.

Keywords : post-pandemic city, urban environment sustainability, social inclusion , Polycentric city

Tracing The International Circulation Of Bottom-Up Urban Regeneration Practices: What Innovation For Planning?

Carla Tedesco (Università Iuav Di Venezia)

The main objective of this paper is to trace the international circulation of bottom-up urban regeneration practices and their impact on places. In recent years, many authors have highlighted the international circulation of urban plans and policies from different perspectives, spatial scales, and thematic foci. However, their work seems to have mainly considered codified ideas, approaches, tools, and practices. Practices emerging from civic activism and self-organisation seem to have been left in the background.

Based on this idea, this paper uses two different theoretical approaches - that of 'mobile urbanism' (Mc Cann, Ward, 2011), developed within assemblage theory (De Landa, 2016), and that of trading zones (and boundary objects) (Balducci and Mäntysalo 2013) in order to explore the relationships between self-organised urban regeneration practices and innovation in the planning context. It is based on research work carried out in the Italian context, where self-organised urban regeneration initiatives triggered by the return of abandoned buildings and areas to public use have multiplied in recent years. This research work focused on case studies that can certainly be considered significant both in terms of bottom-up activation capacity and the circulation of ideas and practices in international contexts.

Several mechanisms of migration of urban practices through the international scene were highlighted. These allowed the idea of local/global as a dichotomy to be overcome. In most cases, social mobilisation was met by the ability of institutions to intercept it. The mix between what Mayer (2013, p. 11) defines as 'movements corresponding with the creative city brand' and 'movements of the urban outcasts' is also crucial in all cases.

Keywords : mobile urbanism, bottom up urban regeneration, assemblage, self organisation

Rethinking The Location Of New Towns From A Commuting Perspective: Acase Study From Korea

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In urban planning, the strategic selection of new town locations, particularly in relation to their distance to Central Business Districts (CBDs), is a critical factor influencing commuting patterns and transportation mode choices. Existing research has shown mixed outcomes regarding how distance to CBDs impacts commuting times and the choice of transport modes. Initiatives to develop new towns often aim to reduce congestion in city centers. However, positioning these towns further from CBDs can lead to increased commuting times and a greater reliance on private vehicles. The precise effect of new town locations on commuting patterns, especially considering various distances from CBDs, is not well-established. This lack of clarity creates a gap in empirical knowledge necessary for effective urban planning.

This study aims to address this gap by examining the specific impacts of new town locations, measured by their distance to CBDs, on commuting times and transportation mode choices. It seeks to provide a comprehensive understanding of these dynamics, contributing to more informed and efficient urban planning.

To achieve these objectives, the study employs a multilevel multiple linear regression and logit model, analyzing data from the Household Transportation Survey of the Seoul Metropolitan Area, S.Korea. This approach enables the investigation of both individual and aggregate-level influences on commuting patterns and transportation mode choice. The model incorporates various factors, including distance to CBD, demographic variables, and characteristics of urban infrastructure. This methodological choice is particularly suitable for its ability to handle complex, hierarchical data structures, commonly encountered in urban planning research. Such structures often involve individual behaviors influenced by both micro-level (personal) and macro-level factors.

The findings reveal a non-linear relationship between the distance to CBD and commuting times, characterized by a ∩-shaped curve. New towns located either very close to or significantly far from CBDs tend to have shorter commuting times. Conversely, new towns at intermediate distances from CBDs experience longer commutes. Moreover, residents of new towns at intermediate distances show a higher propensity to use public transportation compared to those in towns closer to or further from CBDs. This indicates a possible trade-off between commuting time and transportation mode choice based on the town's location relative to CBD.

These insights can help resolve the mixed results of previous studies and assist urban planners in comprehending the implications of new town locations on commuting times and transportation choices. This knowledge is vital for effectively planning future urban developments. Urban planners can use this information to strategically position new towns to optimize commuting times and encourage public transportation use. Additionally, these results can guide the development of transportation infrastructure and services to meet residents' needs based on their distance to CBDs. By addressing both commuting times and transportation mode choices, this study contributes to creating efficient, sustainable, and livable urban environments.

Keywords : Location, Newtown development, Mobility, Commuting times, Seoul, Korea

The Evolution Of Desakota Theory And Its Application In China: A Theoretical And Empirical Analysis

Tian TAN

In the late 1980s, the Canadian scholar T.G. M. Gee conducted a field study of urbanization in Asia. He summarized a new pattern of mixed urban-rural area called Desakota, which departed from widely accepted Western theoretical paradigms in hopes of developing an Asian-focused model that emphasized the interaction of locally specific conditions and transformation processes. However, over the following three decades, theoretical research on Desakota stagnated, and its content and true meaning became increasingly conflated with other theories. This period also marked a period of rapid urbanization and industrialization in East and Southeast Asia. The question remains: does the Desakota phenomenon still exist and is it a universal theoretical paradigm applicable to East and Southeast Asia, or is it a transitory phase?

This paper first traces traces the background of the proposal of Desakota, clarifies the main ideas of it. And then distinguishes the concepts of metropolitan belt, peri-urbanization, urban fringe, and post-suburbanization which are similar to it. Thirdly, it reviews the progress of Desakota-related research and discusses the significance of continuing to use this concept. Finally, it introduces the introduction of Desakota theory and related research in China. Using the Shanghai-Nanjing-Hangzhou region in China as a case study, it analyzes urban-rural spatial change processes to determine if its spatial pattern aligns with Desakota.

Currently, research on Desakota-related theories exhibits three main trends: (1) Confusing Desakota with other concepts :Currently, a significant portion of research confuses the concepts of Desakota and peri-urbanization, inaccurately defined them as transitional regions with mixed urban and rural landscapes, possessing intertwined functions, and falling outside the traditional categories of urban and rural. It overlooks key aspects of Desakota, such as its extensive presence in traffic corridor zones between major cities, its high degree of non-agricultural industrialization with labor-intensive characteristics, and the growth trend in service industries. (2) Desakota is used as a theoretical weapon without in-depth discussion of its spatial pattern: Some scholars adopt a geopolitical perspective by borrowing the concept of Desakota to resist the simplified generalizations found in Western theories regarding Southeast Asia. (3) It has similar characteristics to Desakota in terms of space. The study of "corridor-type" urban-rural interface areas along major roads does not fully align with Desakota's original theses regarding industrial backgrounds.

Given the current misinterpretation and misapplication of Desakota in the academic community ,it's imperative to reframe this theory, not only to enhance clarity in the theoretical framework of urban-rural relations and urbanization but also to but also to clarify the applicability of the theory to different regions, and to guide future research on urban-rural relations in the global South.

***Keywords** : Urban-Rural Relationships, Urbanization, Global South*

On The Trail Of A Policy: Rendering Business Improvement Districts Mobile And Experimented In Southern European Cities

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Over the last few decades, Business Improvement Districts (BIDs) – geographically bounded areas in which property owners and/or business occupiers democratically vote to pay a levy or assessment that is ring-fenced to enhance the 'business climate' and 'quality of place' through a range of placemaking strategies within the district, including cleaning, security and marketing services – have been showcased in a range of global-urban policymaking circuits as a best practice to revitalize neglected areas (Silva, Cachinho and Ward, 2022). Because of their plaudits elsewhere, BIDs have been successfully set in motion, even though with some nuances, towards many advanced, mostly Western, and liberal cities across the 'Global North' ranging from the UK to South Africa and from Germany to Sweden (Peyroux, Pütz and Glasze, 2012). However, and perhaps surprisingly, BIDs are also found to be flourishing in different political-institutional contexts in which different welfare regimes and state-market geometries are in place. Building on a comparative and multi-sited research programme that draws upon 50 interviews with elites and key informants, along with documentary analysis, this paper brings into relational proximity two Southern European metropolises – Greater Barcelona and Greater Lisbon – and demonstrates how the BID 'model' has been rolled-out and experimented in Southern-Mediterranean shopping districts. In doing so, the paper advances urban policy mobilities debates and illustrates four emerging trends in urban contemporary policymaking processes and politics. First, it stands as an invitation to nourish multidisciplinary conversations between urban policy mobilities and science and technology literatures. In particular, we argue that both formal and informal urban experiments embedded in real-world environments are fundamental governing instances through which best practices from elsewhere can be locally experimented and, as a result, eventually transform policy futures (Montero, Whitney and Peñaranda, 2023). Second, it emphasizes that the 'national' and 'regional' remain fundamental scales in the making of 'urban' policies and places, often in sites of more centralized political-institutional welfare regimes. We thus highlight that the literature on legal geographies is particularly useful to advancing contemporary policymaking debates as it is sensitive to the existing administrative regulations and inter-scalar intertwining in sites of state and legal verticality (Delaney, 2016). Third, it expands the range of social actors that have been traditionally involved in the production and circulation of urban policies. In particular, it advances that academics and research institutes are also important informational infrastructures that assemble, legitimize and shape how urban policies are compared, mobilized and exchanged. Fourth, and finally, it opens up generative grounds of comparison, exchange and learning that illuminate the potential to extend and disturb in-built theorizations about the circulation of contemporary policies (Robinson, 2015). Building upon the learning outcomes generated by the 'actually existing' BID experiments in Southern European metropolises, we argue that theorising urban policymaking and politics from Southern-Mediterranean Europe illustrate the abnormalities wrapping up the territorial making and experimentation of entrepreneurial policy futures in contexts where different planning cultures, less advanced and less liberal welfare regimes and more centralized state-market power geometries are in place.

Keywords *: policy mobilities, experimental governance, urban policies, urban policymaking, Southern Europe*

Walkable Cities

Walkability Or Parental Safety Perceptions Influence Children'S Active Commuting To School: A Systematic Review

catarina cadima (Research Centre For Territory, Transports And Environment (Citta), Faculty Of Engineering Of The University Of Porto, Portugal), **Paulo Pinho** (Research Centre For Territory, Transports And Environment (Citta), Faculty Of Engineering Of The University Of Porto, Portugal)

Walkability is a concept designed to evaluate to what extent the built environment promotes or is pedestrian-friendly. Regarding urban mobility, walking and biking are widely recognised in scientific and political circles, with active school travel as a target to encourage physical activity, with short and long-term positive effects on children's autonomy, free air pollution, health, economy, and society. However, it requires supportive environments that safely accommodate children's activities. In this regard, walkability indices for streetscape and school neighbourhoods are growing, but just a few consider parental safety perceptions and children's specific characteristics. This systematic review offers a comprehensive overview of the existing evidence, examining and summarising quantitative and qualitative studies. The evidence presented in this review is clear and convincing, demonstrating the need for further research in this area. The updated information provided in this review highlights the link between the urban environment, parental fear of traffic, children's travel behaviour to school and outdoor independent play. We used the PRISMA method, and from the initial analysis, we retained 37 from 1479 papers. The results show different research methods, namely audit tools, GIS-based tools, GPS tracking, surveys, and just a few using interviews or focus groups. Studies results highlight geographical differences. Social and environmental diversities apply to different solutions for promoting active commuting to school. Distance and good infrastructures are critical regarding environmental perceptions and measures but not exclusive. Parental fear of traffic and cultural background may influence results. These results suggest the importance of including qualitative approaches when evaluating existing policy approaches and designing new policy tools, regulations, or other interventions.

***Keywords** : Walkability, Independent travel, Children, Parental safety perceptions, Active commuting to school*

From Vision To Reality: A Mapping Of 15-Minute City Strategies And Practices Worldwide

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The 15-Minute City (15mC) has emerged as a transformative urban planning paradigm (Moreno et al., 2021), envisioning cities that are not only sustainable but also socially just. This concept has gained global attention, with numerous cities either adopting or contemplating related strategies. The academic discourse surrounding the 15mC has predominantly focused on assessing cities' adherence to its principles (Papadopoulos, Sdoukopoulos and Politis., 2023) and exploring conceptual foundations (Lu and Diab, 2023). However, only limited attention has been devoted to understanding the practical policies and measures required to actualize this vision.

This study, conducted as part of the Driving Urban Transition's (DUT) 15mC Mapping Activity and funded by DUT, systematically gathered worldwide case studies, documenting 15mC concepts and their associated practices, including policies and measures. Employing the Diffusion of Innovations (DoI) theory (Rogers, 2003), we classified cities based on their implementation status, ranging from innovators to laggards. In a detailed examination of six selected cities, we analysed planning documents and conducted interviews with key stakeholders from public administration, consultancies, and academia.

Our comprehensive dataset comprises 98 case studies, with a predominant focus on Europe (58) and North America (22). Among the 94 cities examined, three pioneers—Paris, Barcelona, and Melbourne—stood out, demonstrating advanced implementation of 15mC principles. In accordance with the DoI theory, most cities fall within the early majority (34%) and late majority (41%) categories. Pioneering cities distinguished themselves by adopting a diverse array of practices, spanning sustainable mobility to urban logistics, and implementing innovative policies such as Barcelona's Superblocks and Paris's Les cours oasis.

For the in-depth examination, our focus centred on Paris, Edinburgh, Lisbon, Vienna, Ghent, and Bologna, chosen for their representative diversity in the context of the DoI theory. The analysis largely affirmed their earlier categorization within the DoI framework. Paris, as a pioneering city, showcased multifaceted strategies such as the cycling-focused Plan vélo, the community-centric Pact parisien de la proximité (Parisian Pact of Proximity), and the neighbourhood enhancement initiative Embellir votre quartier (Beautify Your Neighbourhood). In contrast, cities like Vienna and Lisbon were observed to be in the adaptive phase, incorporating and tailoring pioneer strategies to align with their unique urban contexts.

A key commonality among cities that demonstrated successful implementation of the 15mC was the integration of diverse planning disciplines, particularly of transport and land use planning. This integration emerged as a critical factor in realizing the vision of the 15-Minute City, underscoring the importance of cross-disciplinary collaboration in urban planning endeavours.

This research contributes valuable insights into the practical realization of the 15-Minute City, offering a nuanced understanding of its adoption across different urban contexts.

Keywords *: 15-minute city, Diffusion of Innovation, Proximity planning, Accessibility planning, Sustainable urban development*

The 15-Minutes City Model In Rome, Marseille And Rotterdam : A Comparative Analysis

Marida Borrello (Università La Sapienza And Amu)

The 15-minute city model (Moreno 2021) not only affects mobility flows but also presents a polycentric vision of urban planning, which can promote a renewed relationship between institutions and civil society. While various scholars have emphasised the importance of the local scale for the sustainable development of territories (Rueda 1999, Magnaghi 2003, Cerda 2005), it is after the Covid crisis that these ideas coalesce around the 15-minute city model proposed by Moreno.

Municipal-level institutions, such as Rome or Paris, have embraced this model in their urban planning through program agendas. An international network of aspiring 15-minute cities, the C40, has also been created, which is more broadly related to a common program against the climate crisis.

However, is this model merely a political narrative "slogan" or a genuinely useful way to structure services and mobility, as well as spaces for meeting and democracy, evenly across urban territories? Are the practical and situated actions related to this model truly effective in regenerating numerous cities worldwide, and if so, how?

We examine the city of Rome as an example, the third largest city in Europe by surface area, where significant problems exist in the unequal territorial distribution of services (Monni et al. 2019) due to uncontrolled urban expansion over many different periods, spanning almost since the Roman Empire. We compare the applicability of this model in Rome with two other contexts that historically developed in entirely different ways: Marseille and Rotterdam. Both cities originally exhibited a "15-minute city" morphological structure, as they recently evolved from a collection of distinct villages into one unified city. How do the distinct urban and social structures and histories of these three cities relate to the 15-minute model and chrono-urbanism in general? Are the challenges for sustainable transitions, considering both the climate crisis and the Right to the City, the same, or should they differ in form and approach?

Keywords : 15-Minute Cities, polycentric cities, democracy, spatial justice

Transit-Oriented Development Approach To Social Sustainability, Doha City As A Case Study

Sara nafi (Qatar University)

In the past two decades, transit-oriented development (TOD) has been widely implemented as an integrated strategy to enhance urban livability. TOD is designed to reduce car dependency, air pollution, and environmental damage (Calthorpe, 1993). Moreover, it allows for more efficient space use. TOD promotes a compact, walkable city by encouraging residents to use public transportation (Al Saeed and Furlan, 2019, Ali et al., 2021). Doha, the capital of the State of Qatar, has faced urban challenges including excessive reliance on private vehicles, inadequate public transportation, and difficulties integrating last-mile connections (Park et al., 2021). To address these challenges, the city of Doha has been implementing a range of initiatives, such as the development of an integrated public transport network and the promotion of green mobility options (Amerio, 2020). These initiatives are aimed at creating a more sustainable and livable city. This paper explores the impact of transit-oriented development (TOD) on creating livable cities. A qualitative approach will be adopted through comparative-analysis to identify and analyze the various components of the TOD model and sustainability. The travel behaviors toward public transport in Doha, the capital city of Qatar will be examined through a questionnaire survey. Additionally, this paper will identify strategies and policies to promote TOD. This study points to better integrating TOD models with sustainability indicators, to achieve more sustainable urban development. Therefore, this research will provide valuable insights into how TOD can enhance urban livability. It will also provide policymakers with a range of innovative strategies for promoting TOD-friendly cities.

Keywords : Transit-Oriented Development (TOD), Sustainable Development, travel behavior , doha, qatar

Barcelona's Superblocks: An Unfinished Urban Planning Policy Paradigm Shift

Simon De Boeck (University Of Antwerp)

Collective space in the city is facing major crises of acute scarcity, unequal accessibility, and insufficient versatility of public space, provoking a lack of resilience to tackle environmental challenges, and a shortage of green public space, particularly for the socio-economically most vulnerable people. In response, cities around the world are taking the lead by setting up new paradigms and transforming existing public space accordingly, from monotechnical car-dominated spaces to liveable public places, serving a wide range of sustainable development goals. Consider, among others, the 'Superblocks', the 'National Park City', or the '15-Minute City'. However, between the conception of a paradigm and its realisation lies a difficult implementation process, in which both the level of ambition and the initially set - sometimes opposing goals - inevitably come under pressure (Rueda, 2019; Gössling, 2020; Moreno, 2020).

Scholarly literature on political processes provides a clear conceptual framework for what can be defined as a paradigm, a policy paradigm, and a policy paradigm shift, as the antithesis of an incrementally evolving planning process. Peter Hall (1993) posits an impactful theory explaining the characteristics of such a Policy Paradigm Shift and which socioeconomic, political, and institutional mechanisms are involved. Within the field of transformative urban planning, a knowledge gap exists regarding, firstly, a substantiated qualification of emerging disruptive concepts as a paradigm shift; secondly, a systematic recognition of its underlying mechanisms; and thirdly, a structured description of how and to what extent the policy processes lead to effective realisation and achievement of the claimed objectives during its implementation trajectories.

To explain a comprehensible application of a Policy Paradigm Shift in the field of urban transformative planning, this article applies the theory to the case of the Superblocks project in Barcelona, Spain. The ambitious multidisciplinary urban concept, aiming for a city-wide conversion of streets into multifunctional liveable places for people, is commonly described as an emerging new urban planning paradigm and has recently been going through a tensed embryonal implementation trajectory.

To conduct this research, firstly, I set up an analytical framework relating the field of transformative urban planning for the sustainable city, to the field of policy process analysis, taking the Policy Paradigm Shift theory as a starting point, next to a view on proceeding or alternative approaches to policy processes, such as the Punctuated Equilibrium Theory, the Multiple Streams Approach, and the Advocacy Coalition Framework (Daigneault, 2015). Secondly, I analyse planning and policy documents, press coverage and town council decisions describing the design and implementation process of the Superblocks in Barcelona. Finally, to provide in-depth insights into the concept design and perceptions of the implementation process, a set of semi-structured interviews is conducted with key actors, including policymakers, managing experts within the city administration, renowned urban planners in the private sector, and academic researchers focusing on the case of the Superblocks.

With this research approach, I aim to analyse how and to what extent the highly debated case of Barcelona's Superblocks can be acknowledged as an urban planning Policy Paradigm Shift, rather than a mere incremental transformation process. However, I aim to demonstrate why the qualification is primarily valid as a snapshot in time; why a distinction must be made between 'ideas' and 'policies' constituting a policy paradigm; and how the subsequent transition process might reinforce or strain the original disruptive power of ideas. Anyhow, the identified adaptations of the paradigm during the transition process, call at least for an extension of the applied theory or invoke the need for the involvement of alternative policy process theories to qualify and analyse disruptive transformative urban planning processes more accurately in future research.

***Keywords** : policy paradigm, transformative spatial planning , public space, superblock, Barcelona*

Olympic Games And Culture

The Nexus Between Mega-Events' Sustainability And Their Local Context: An Exploration Of Concepts, Plans, And Projects In The 2002-2022 Winter Olympic Games

Abdallah Jreij (Politecnico Di Milano), **Davide Ponzini**

Over the past three decades, there has been a growing focus on the environmental impact of sport mega-events, prompting organizers to take corrective measures, as exemplified by initiatives such as the IOC Agenda 2020. Acknowledging that inadequately designed venues can have enduring local repercussions on the environment and landscape, particularly in the context of winter sports dependent on specific environmental conditions (e.g., mountainous areas, snow, frozen lakes), the paper explores the nexus between mega-events and their local contexts. Climate change further intensifies the challenges to sustaining mega-events like the Winter Olympics. While scholars and practitioners have made considerable efforts to develop models assessing the impacts of mega-events at various levels, from the overarching event to individual infrastructure projects, limited attention has been paid to the urban and regional contexts in which mega-events are hosted and projects are executed.

This paper introduces a theoretical framework aimed at enhancing our comprehension of the local context within mega-event planning, infrastructure development, and the resultant urban and regional effects, both positive and negative. Through an examination of the Winter Olympic Games spanning from Salt Lake 2002 to Beijing 2022, the study underscores the pivotal role of contextual features in planning practices. The findings emphasize the significance of considering urban and regional structures, strategies, and plans when hosting mega-events. In doing so, the paper not only contributes to theoretical insights but also offers practical policyrecommendations to enhance urban and regional planning practices, particularly in the context of Winter Olympic projects.

Keywords : Mega-events, Olympic Games, Winter Olympic Games, Environmental Impacts

Transnational Projects In Unesco World Heritage Sites And Buffer Zones: Mapping, Analysis, And New Questions For Planning And Cultural Heritage Policies

Davide Ponzini (Politecnico Di Milano), **Zachary Mark Jones** (Politecnico Di Milano), **Anita Martinelli** (Politecnico Di Milano)

Cultural heritage has gained importance in distinguishing cities and places in the competition for attracting international tourists. In the last decades, this prompted new projects to make historic sites more accessible and functional to visitors. Also, a certain degree of novelty – e.g. new projects for historic buildings, museums and heritage areas – proved to be attractive. In the projects and transformations of heritage-rich sites, international organizations such as UNESCO and transnational architectural firms are the obvious protagonists as these projects generally need high-level technical expertise and specialized interventions, powerful narratives and legitimization in potentially controversial situations. However, Gravari-Barbas and Renard-Delautre (2016) showed how the simplistic narratives of the successful use of iconic architecture in the promotion of tourism contribute to the commodification of heritage places. The increasing internationalization of the designers and users of heritage areas risks disconnecting from (and sparking conflict with) local communities and heritage preservation powers (Gravari-Barbas 2020).

The fraught intersection between architectural projects led by transnational firms and plans for the conservation of heritage has been noted in recent planning literature. In a survey of Europe, Cominelli and Jacquot (2020) identified more than 400 projects designed by transnational firms that are located within UNESCO-listed sites in the 1990-2015 period. The in-depth observation of specific cases showed the likeliness of conflicts arising around the transformative projects. Besides this paper that focused on Europe, little is known about how recurrent and geographically distributed these kinds of projects are.

This paper proposes to explore the geographies of projects designed by globally prominent transnational firms in UNESCO World Heritage Sites and buffer zones between 1990 and 2021, based on an original GIS database (Ponzini and Mafredini, 2017; Cominelli and Jacquot, 2020). The paper provides an overview and basic analytics of where these projects occur and when. Additional analysis will present basic descriptions of such projects, their physical dimensions (footprint size, height, ..) and morphological patterns with reference to their urban context. The engagement with transnational firms will be explored by discussing the forms of competition or direct procurement used in such instances. The key question about how these projects connect with local heritage will be explored by analyzing the official narrative of selected projects: how they refer to heritage and to the local context more generally. A visual analysis of the renderings and the projects' representation in relation to (iconic) heritage places and buildings. The paper will highlight key gaps and open questions regarding transnational architectural and urban projects in heritage areas.

***Keywords** : Transnational projects, Cultural heritage, Mapping*

Exploring The Socio-Material Assemblage Of Transnational Urban Projects

Davide Ponzini (Politecnico Di Milano), **Zachary Mark Jones** (Politecnico Di Milano)

Cities have become increasingly connected with ever more information available, influencing how experts and policymakers approach the making of places. Investments, policy ideas, design firms, and planners travel at unprecedented speeds from one city to another, often under the assumption that international experts know best. Urban research has cast light on the circulation of policy solutions within "learning networks" which suggest that adapting similar models from other locales will produce similarly positive results (González, 2011). Local elites connect with a narrow transnational group of design experts, star architects, and larger multinational firms for their perceived greater capacity to operate across multiple locales (Ponzini, 2020). The processes of mobilization, de-contextualization, and re-contextualization of similar urban policy solutions allow for a deeper understanding of transnational actors' narratives and strategies (McCann and Ward, 2012; Ponzini, Ruoppila and Jones, 2020). However, research has yet to question and study in-depth how transnational firms and local city experts conceive and use contextual features, their effect on the completion and functioning of these projects in place. The understanding of how key urban projects and transformation processes connect transnationally and adapt locally remains limited in such debates. These adaptations may be determinant in practice, limiting opportunities for developing further theorization and improving projects (Roy and Ong, 2011).

This paper begins to respond to these issues by exploring, in literature, the conceptual and methodological integration of global urbanism with assemblage and actor-network theories to provide new understandings of the planning, circulation, and development of transnational architectural and urban projects. These methodologies leverage fine-grained and context-specific understanding to argue that material features intertwine with social action and their interaction is key to understanding the process and completion (or failure) of plans, projects, and transformations (Lieto and Beauregard, 2015; Molotch and Ponzini, 2019). A set of examples of trasnational projects affecting local heritage areas will show the practical relevance of this discussion of European cities. This paper calls for in-depth and fine-grain observations of local socio-material assemblages, rather than continued assumptions that similar networks operate similarly in different places and that the successful completion of urban and architectural projects depends on transnational firms' capacity and bravura.

***Keywords** : transnational projects, assemblage theory, actor-network theory*

The Olympic Games' 'New Norm': Planning For Legacy And Sustainability For Brisbane 2032

Tony Heynen (The University Of Queensland)

Brisbane, Australia will host the Olympic and Paralympic Games in 2032 – the first to be delivered under the International Olympic Committee's 'New Norm', with a focus on sustainability. The New Norm reimagines how the Olympic Games are planned, providing more flexibility in designing the Games to meet long-term development plans. The New Norm centres on a fit-for-purpose delivery model that sees the needs of the region prioritised. This should promote Games delivery in a cost-effective and commercially viable manner, increasing flexibility, efficiency and sustainability and decreasing complexity, risk and waste. A practical manifestation of this is maximising the use of existing and temporary venues, and the hosting of events over a wider geographical area than in previous Games [1]. These reforms were critical for Brisbane, a mid-size Beta world city, to plan its games over the wider conurbation of Southeast Queensland with its many existing stadia.

Legacy – the long-term benefits from hosting the Olympic Games - has long been a recognised goal for the Olympic Movement. In the past, legacy has materialised in the form of new stadia and infrastructure required as part of the delivery of the Olympics. However, legacy under the New Norm could look very different, with a greater emphasis on intangible benefits such as health and sport behavioural changes and long-lasting sustainability improvements. Simultaneously, sustainability is emerging as a core component of the Olympic moment. Olympic Agenda 2020 +5 [1], commits to the delivery of Climate Positive Olympic Games by 2030 at the latest. Thus, Brisbane 2032 is the first to include an obligation to be Climate Positive in the host contract. However, scholars such as Gold and Gold [2] have commented that the IOC has failed to provide a coherent definition of the dimensions of sustainability and have noted a persistent gap between rhetoric and reality in the sustainability commitments of the Olympic host cities. This has been compounded by the complexities of the evolving notion of sustainability in mega-events [3]. Some scholars consider that mega-events such as the Olympic Games, with their large infrastructure, travel, and operational requirements, are impossible to be truly sustainable—and as such, sustainability claims are pursued more as a branding and greenwashing exercise [4]. Others consider that such events, with defined scopes, provide an opportunity to exercise agency by host governments to achieve sustainability outcomes. Such events may also provide an opportunity to showcase innovations and can effectively mainstream sustainability practices in local and global realities [5]. Increasingly, sustainability outcomes are seen as a key component of the legacy outcomes of the Olympics.

This work establishes a framework for evaluating legacy and sustainability in the Olympics and other mega-events. It then applies this to examine and rank legacy and sustainability across previous modern Olympics using publicly available information such as reporting. In so doing, it examines the questions and interrelationships between legacy and sustainability for mega-events, which is important in the context of the New Norm.

Keywords *: Olympic Games, sustainability, legacy*

Multi-Level Governance And Design Of Impulse Projects In International Building Exhibitions (Iba)

Agnes Förster (Rwth Aachen University), **Ann-Christin Sreball**

As a 'temporary exceptional situation', International Building Exhibitions (IBA) address the pressing issues of our time in an unconventional and novel way. The open-ended process and format are designed for learning. Even the launch of an IBA contains learning moments for the subsequent process, as does the consolidation of the accumulated knowledge with the transition to the post-IBA phase. However, the central "learning mode" takes place through the individual projects or project networks of an IBA. The entire IBA process is thus decisively oriented towards the selection, development, monitoring and completion of projects, because it is only through the implementation of IBA projects that the respective IBA strategy comes to fruition. Simultaneously the path via the projects in many IBA processes proves to be tedious and full of stumbling blocks. Projects are supposed to be innovative and promise excellence, but an IBA can only advise and qualify projects, and in many cases only provide start-up funding for project development.

The German Federal Government's intention to strengthen the innovative power and excellence of IBAs through project funding offers a great opportunity to provide both guidance and stimulus. This will help each individual IBA and its communication with local and regional actors. It simultaneously promotes the overarching qualification and learning process between the IBAs. Regarding the research project "IBA as a catalyst for excellence in urban and regional development: supporting impulse projects in IBAs", the aim was to find ways of evaluating the future support of selected IBA projects, so-called impulse projects, by federal and state funding programs. The project addressed the following research questions: 1. What impulses do IBA projects develop? 2. What are the genesis and factors of success and failure of impulse projects? 3. What support and opportunities do IBA impulse projects need? The empirical research was based upon six comparative case studies including desk research and a series of expert workshops.

The results show that impulses from IBA projects develop at different speeds, but usually require long periods of time before their effects become apparent. The impulse effect of IBA projects can therefore only be assessed with a significant time delay. However, relevant dimensions of the impulse power of the projects can be estimated. These include, for example, learning effects for the continuous further development of a specific IBA during the exhibition period, the mobilization, empowerment and networking of actors, the creation of new constellations of actors, a rethinking of social and planning practices, pioneering work in planning and construction or the continued development of planning or funding regulations. In addition, the creation of favorable conditions can promote the emergence of IBA impulse projects.

The procedural features and characteristics of IBA projects, as well as their genesis, made it clear that support for IBA projects should not be reduced to financial support alone but also include professional support, public awareness as well as political support. As a result, a differentiated perspective on support and funding is proposed in a "trialogue" of perspectives. In this basic understanding, IBA impulse projects are developed in interaction between local project sponsors (1st perspective), the respective IBA (2nd perspective) and supporting third parties in the federal state, the federal government, the EU and other actors such as foundations (3rd perspective). These three perspectives form a multi-level context and interact with each other. The quality and potential of an IBA project is determined in a trialogue between self-assessment and external assessment and is reflected on a regular basis. Furthermore, the interaction of these three perspectives is dynamic during the course of the project.

Keywords *: trialogue, regional innovation, regional design, project partnerships*

North-South Policy Transfer: The Case Of Creative Cities

ludmila kolouchova (Czech University Of Life Sciences)

An increasing number of cities of the Global South are introducing the creative city policy and pledging to adopt creativity as their main developmental focus to improve the living conditions of their population. Although European cities have long used creative city policies to tackle their problems of rising social inequalities and tensions in the urban context (Scott, 2014), some of such policies have been unsuccessful in creating amenities, requiring massive financial investment and land consumption (Rius-Ulldemolins, Hernàndez I Martí and Torres, 2016). Since developing countries of the Global South are participating in such international models, caution should be applied when adopting these schemes in their specific context (Molho et al., 2020). Frequently, cities in such context are not designed to tackle local inequality problems and primary infrastructure access or enhance the issues due to gentrification. This study aims to build on earlier research on creative city policy in developed countries. It addresses a gap in the literature on the urban planning effects of creative city policy in the Global South. This study presents a conceptual, theoretical framework of creative cities from the North-South perspective. Based on an extensive literature review, the framework presents a focus on the urban regeneration of cities in developing countries through rehabilitation of cultural creativity, diversity, and social inclusion. Approaches adopting policies that address the issues within communities, creativity in urban development projects, and projects for community involvement are also included. The research may provide a valuable knowledge base for international exchange of experience in the planning field.

Global Agenda

Towards A Postcolonial History Of City Networks.the Connection Between « Developed » And « Third World » Cities, Between Decolonization And Democratic Transitions (1960s-1990s)

Samuel Ripoll (Centre Méditerranéen De Sociologie, De Science Politique Et D'histoire (Mesopolhis))

City networks (such as UCLG, ICLEI, C40…) are now powerful transnational actors, which structure dense circuits of knowledge sharing across the world and take substantial part in global governance (see for example Michele Acuto and Harriet Bulkeley various works). Observing their proliferation in the 1990s, political scientists and geographers have invited us to take a closer look at the nature of these networks, their governance, the conditions of city involvement, how they promote specific urban ideas and their relationships with global governance actors and issues. They have also suggest the persistance of a « north-south » asymmetry in many networks, where the governance and agenda-setting remains dominated by northern cities and ideas (Bouteglier, 2013). Following on from calls from various policy mobility scholars, our paper suggest that it is essential to further historicize the policy mobility debate, especially in the analysis of city networks, to better understand the contemporary shaping of global urbanisms (Harris & Moore, 2013).

UCLG, created in 2004 through the merging of the United Towns organization (UTO, 1957), International Union of local authorities (IULA, 1913) and Metropolis (1985), occupies a special position. It is the largest network (gathering more than 240.000 members, covering more than 140 States from Europe, America and also Africa and Asia) : it ambitions to voice and represent local authorities in international arenas. But this dynamics has a long history which to date has been studied through a european and transatlantic perspective (see works of Pierre-Yves Saunier and Renaud Payre). These first city networks where indeed all created in western Europe, gathering mainly french, belgian, german and italian cities.

Our paper will offer a postcolonial perspective (Robinson) by studying the dynamics of extending these european networks to « Third World » cities. Based on our doctoral thesis in political science, mobilizing both archives and interviews, we concentrate on the UTO (fédération mondiale des cités unies). Our aim is to identify the main actors and of this extending, the circuits of policy circulation they build and, more fundamentally, their geopolitical project and how they relate it with urban policies ideas.

This extending is led by to successive forces : decolonization and democratic transitions. The 1960s are shaken by waves of decolonization and by the emergence of the field of "development". Transnational municipal movements, mainly European and transatlantic, gathered within the World Federation of United Cities, get involved in the newly independent 'Third World' countries. They are led by French left-wing anti-colonialist activists and African "socialists" leaders who want to rely on cities to propose an alternative to the cooperation policies of the former colonial powers and those of the two great powers that are fighting each other in the Cold War.

This commitment to 'developing cities' gained new momentum in the wake of the democratic transitions that affected Latin America in the 1980s. Hopes were raised that democracy would spread throughout the world. Urban experts and local politicians from France, Spain (especially Barcelona) and Italy developed in Latin America, with social-democrats leaders, a project of municipal democratization, claiming that the organization of municipalities and the urban management constitute an integral part of democratization processes, inseparable from the reform of the State and political institutions.

***Keywords** : City networks, uclg, policy circuits, postcolonial urban studies*

Ligurian Transfer: When Territorial Constraints May Hamper Mobility Policies Replicability.

Daniele Soraggi (University Of Genoa), **Valentina Costa** (University Of Genoa)

At international level, as well, but especially within EU context, policy transferability and replicability have played a pivotal role. Nevertheless, best-practices' approach has along the decades proved particularly ineffective whenever fragile and peculiar areas and regions were concerned, whenever standardization need failed facing "not-standard" territories. In this direction, place-based strategies gained progressively space, especially among cohesion policies. The idea is that marginalised areas' needs require tailored policies to be met, not being responsive to one-fits-all measures.

At the same time at EU level, sectorial policies have to be developed following shared and common actions. As far as mobility policies, Sustainable Urban Mobility Plans (SUMPs) constitute one the main expressions of EU will to provide all Member States with an only tool that larger cities initially could design and implement, thus declining its actions and goals according to local context starting from standardized toolkit and guidelines. Pursued strategy has been to progressive extend SUMP implementation from urban areas to wider regions, to support an integrated and widespread development of sustainable mobility transition.

A similar approach descend from the reading of EU regional system as a polycentric intertwined network, where a set of hierarchical layers of centralities may be identified, and main hubs constitute the nodal structure connecting higher and lower networks. In this direction, mobility policies may be started there and progressively spread across the system.

Nevertheless, not all EU regions may be easily conceptualized through a similar territorial model. Liguria, in North-Western Italy, for instance, does not.

Best-practices approach proves extremely critical when mobility policies' up-scaling is concerned, in this direction, present contribution focuses indeed on the definition of a user-centred perspective based on use-cases methodology to tackle similar accessibility issues.

The idea is to shift from a case-study to a use case approach, shaping inductively mobility policies that are tailored around Ligurian metropolitan region users' needs. Focusing on functions and services provided by a system, use-cases methodology supports indeed the design of solutions meeting users' needs according to their interactions with the system itself. To implement similar approach authors will identify different "personas", representing different potential users' profiles within Ligurian contexts, whose mobility patterns may be influenced by individual (e.g. age, gender, work conditions...), travel routes' (where starting and ending points may be clustered being them within urban or metropolitan area, belonging to coastal or inner municipalities, etc.) and mobility patterns-related (e.g commuters, non-systematic travellers) features.

Ligurian geo-morphological asset has indeed deeply influenced urban and infrastructural development along the centuries, with steep mountains running behind the coastline, thus shaping a linear system with a main hub located in the centre -the city of Genoa- and smaller centralities along the coast, representing the gravitational barycentre of the inner valleys.

It is therefore evident that even though Genoa has progressively implemented SUMP and other related initiatives (Mobility-as-a-Service experiences have for instance been launched on a metropolitan level) regional-scaled effective mobility actions lack.

In this direction, a similar context-based approach proved to be ineffective according to the deeply different territorial structure, an alternative approach needs therefore to be identified. Whether within a polycentric model, connection is developed independently from the physical distance according to functional and hierarchical complementarities, a similar polarized network suffers from relevant congestion and poor-accessibility issues.

Finally, the paper aims to show that through the user's perspective, as representative of a spatially unconditioned mobility pattern, it is possible to identify similarities in needs and requirements. This would provide a solid basis through which defining and planning mobility policies bypassing the morphological and administrative spatial constraints that hinder normal up-scaling and identifying most ideal user-driven solutions.

Keywords *: Mobility Policies, Use case Methodology, User centred, Up-scaling mobility policies, SUMP*

Is There A Gap In The Gap (Global Agenda For Planning)?

Olivier Sykes , **Richard Dunning** , **Tatiana Moreira de Souza** , **David Shaw**

The United Nation's Sustainable Development Goal (SDG) 11 commits the signatories to making 'cities and human settlements inclusive, safe, resilient and sustainable'. The SDGs are reflected in many UN initiatives, such as the International Guidelines on Urban and Territorial Planning (IGUTP), adopted in 2015, which are intended to be 'a framework for improving global policies, plans, designs and implementation processes, which will lead to more compact, socially inclusive, better integrated and connected cities and territories that foster sustainable urban development and are resilient to climate change'. Meanwhile in 2016 the New Urban Agenda (NUA) was adopted by nearly 170 countries, committing the global community to acting in the face of the challenges of urbanization. Such agreements and 'statements of intent' constitute a global agenda for planning ('GAP') (Sykes et al., 2023).
Exploring how this GAP might mould and influence the development of particular forms of planning and development outcomes across a range of spatial scales is an important theme of current international planning studies. However this is a challenging area for international comparison, with the UN identifying SDG11 as having the greatest insufficiency of data of the SDGs (United Nations Department of Economic and Social Affairs, 2023). This paper reports on research being undertaken with members of the ARUP Global Skills Network on planners' perspectives of the GAP and whether it actively shapes their planning practices and local and national planning outcomes.

Bridging The Funding Gap: Path Dependencies In Financial Model Changes Of Metro Infrastructure Provision In Guangzhou And Hong Kong

Guibo Sun (The University Of Hong Kong)

Aims: This study aims to analyse the financial model changes of metro railway provision in Hong Kong and Guangzhou to tease out what lies in the institution and governance that determines the success and failure of bridging the funding gap and why it cannot work in the neighbouring cities in the policy and practice transfers.
Background: There are massive metro investments in China, with 53 cities having a metro system being built in the past two decades, where Hong Kong's TOD model is often regarded as a best practice. The sheer amount of metro investment demands massive funding – 1 km costs over 100 million USD. Local governments suffer from heavy debt, with some metro projects suspended after construction for several months. The Hong Kong metro is used as a successful case, being self-finance and profitable. However, its successful application is rare. We still lack an understanding of the critical issue, how to bridge the funding gap for metro provision in Hong Kong, and why other cities in China fail to replicate the financial models but evolved into something else, for which Guangzhou is used for a detailed case comparison (Robinson, 2018). Method: We interviewed 24 key informants with significant roles in metro projects in both Hong Kong and Guangzhou. The interviewees are representative to discuss our research questions, which include staff working in local government sectors (land, transport, and planning), transport planning institutes, metro agencies, and real estate developers (state-owned enterprises and private). The face-to-face interviews took 1 ~ 3 hours for each participant and were conducted from March to August 2023. We used a reflexive thematic analysis method for the coding and interview analysis. In addition, we conducted a policy document analysis of typical projects to supplement the analysis.

Results and Discussion: Our results revealed a strong path dependence (Booth, 2011) on the financial model changes for metro projects. Bridging the funding gap for metro provision is determined by the institutional design of metro railway companies. Our findings suggest that in Hong Kong, financing metro projects has always been a reactive solution guided by a prudent commercial principle laid out by the ordinance of the metro company (MTR). It is reactive against changes due to requests from civil society, large developers, and the government, transforming from property development to a management model in its TOD practices (Aveline-Dubach and Blandeau, 2019). This transformation has resulted in consistent profitability and the provision of high-quality metro services to the public. In contrast, the changes in Guangzhou Metro's financial models show a strong self-reinforcement of the nature of state-owned enterprises. Because of enormous funding pressure in the past decade, the local government has been pushing Guangzhou Metro to transform from subsidy-dependent to self-finance, learning from Hong Kong TOD and looking for ways to use land and property development to bridge the funding gap. However, Guangzhou Metro reinforces its state-owned enterprise's political nature. It has limited engagement as a genuine market player, further solidifying its reliance on channels with the municipal government and acting as an extension of certain government functions to collect land leasing fees with limited consideration of metro usage or urban design outcomes. Its partnerships with developers primarily are other state-owned enterprises. The financial calculations for project costs, payoffs, and risks lack market prudence. The borrowed TOD model became more of a formality than an essence. Our results suggest the institutional design of the metro railway companies could have persistent impacts on their interactions with the state and the market, thereby affecting the efficiency of the financial models and their resilience when facing policy and governance changes.

A Comparative Study Of Small Town Development Policies And Implementation Effects In Different Regions Of China (2000-2020): Commonalities, Differences, And Transformations

Xueqi ZHAO (Tongji University)

Small towns embody a global phenomenon, and the dual integration of urban and rural elements stands out as a defining characteristic of small towns in China. These towns play a crucial role in China's ongoing urbanization process and regional development, serving as a vital support for extensive rural areas and contributing to the realization of integrated urban-rural development. Since the inception of China's reform and opening-up policy in 1978, there has been a consistent effort to actively promote the construction and development of small towns.

From the years 2000 to 2012, the primary focus of most regional small town policies was addressing issues such as irrational spatial layouts and lagging infrastructure development during their rapid expansion. However, post-2012 marked a notable shift from a strategy of quantity and scale expansion to an emphasis on high-quality development, with a particular focus on differentiation and the exploration of distinctive features becoming key policy considerations.

Nonetheless, due to China's vast territorial expanse, significant variations exist in the economic and social development stages of small towns, as well as the construction policies and implementation effects. In this paper, we select one representative province from each of the four major geographical regions, including the Eastern, Central, Western, and Northeastern regions, to compare the changes and differences in small town construction policies and implementation effects over the study period. Jiangsu Province, representing the economically developed coastal region in the East, has its small town development rooted in rural industrialization. Henan Province, situated in the central plain region, is an agricultural and populous province. Shaanxi Province, located in the western region, exhibits a relatively lower economic development level for its small towns. Liaoning Province, in the Northeast, represents a typical area characterized by heavy industrial development and scaled agriculture.

The research findings indicate that since the year 2000, the small town construction policies in the provinces of Henan, Liaoning, and Shaanxi have undergone two phases. Initially, there was an emphasis on industrial development, followed by a subsequent shift towards a focus on both software and hardware facility construction. In contrast, Jiangsu Province has attained a higher level of development in its small towns, having transcended the initial two phases. Furthermore, it has gone through a stage of refining town functionalities and has now entered a phase focused on comprehensively enhancing the quality of living environments. Small town construction policies result from rational decisions made by local governments based on national policies and local realities. The development stage of the region in which a small town is located determines policy orientation differences, while the foundational strength of the small town and the government's implementation capacity influence the effectiveness of construction policies.

Finally, the paper discusses insights drawn from recent global trends in the shrinkage development of small towns and puts forth strategic recommendations for high-quality and sustainable development of small towns in China.

Keywords *: small town; development policy; regional difference*

Track 15: Histories

HISTORIES - Knowledge exchanges in urban developments from a historical perspective

Chairs:

- Clément Orillard, Ecole d'Urbanisme de Paris

- Olivier Sykes, University of Liverpool

- Yi Xin, Southeast University of Nanjing

- Asli Ulubas Hamurcu, Istanbul Teknik Üniversitesi

Keywords: Transnational planning histories, knowledge exchanges, planning models, cross-national fertilisation, technical aid

This thematic track is dedicated to exploring the intricate history of knowledge exchange among urban experts from various countries along the last waves of globalization. Starting with WWII and continuing to the present day, the landscape of urban development worldwide has been profoundly shaped by the transfer of knowledge, ideas, and urban models. This track focuses mainly on the impact of the third wave of globalization, during the 1980s, 1990s and 2000s, which witnessed a particularly rich and influential cross-pollination of concepts, strategies, and experiences that has left a lasting and transformative impact on urban development practices in numerous nations.

One of the central focal points of this track is the detailed examination and comparison of knowledge exchange processes themselves and their impacts on urban development. The types of exchange include technical aid missions, transnational academic and scientific exchanges, foreign commissions of architectural/planning firms or consultants, etc. This track considers exchanges between countries in Europe, between European countries and other countries in the Global North, and European countries and the Global South and East. Through this exploration, we seek to unravel the multifaceted interplay of ideas, strategies, and shared experiences that continue to shape our ever-evolving urban world.

A special session will focus on exchanges between China and Europe. Within this session, there will be an particular emphasis on urban regeneration practices, a vital facet of urban development that plays a pivotal role in revitalizing and rejuvenating urban areas. By studying the experiences and approaches of these exchanges between Europe and China, we aim to draw valuable insights that can inform and enrich urban regeneration practices on a global scale.

Architecture, Morphology And Strategies

Where Can I Find Justice? The Changing Relation Between The Courthouse And The City In Sweden 1970-2023

Mattias Karrholm (Lund University), **Eva Löfgren** (University Of Gothenburg)

The re-organisation of first instance courts in the 1970's led to the building of more anonymous complexes, often resembling other administration buildings in the city. However, we have recently seen new tendencies of singularisation and monumentality. Starting in the beginning of the 21st century, courthouses are anew becoming emblematic elements in the city, often designed by renowned architects and rising on central plots next to headquarters and expensive residential areas. This happens at a time of centralisation, upsizing and property privatisation, and where the number of courthouses in several places in Europe, and not least in Sweden, have radically decreased in number. Building on a transdisciplinary research project on the architecture, technologies and spatial practice of contemporary law courts, this study aims to describe and pinpoint the changing relation between the courthouse and the city as it has developed during the last decades, taking Sweden as a case. In particular, we are interested in how the territorial threshold between the court and the public space of the city is expressed and negotiated on different scales. Examining twelve district courthouses built in Sweden between 2000 to 2024, comparing them to the courthouses of the earlier period (1970-2020), we analyse their changing location in the city. Discussing aspects such as e.g., connectivity, accessibility, permeability, visual and symbolical presence, we show how the courthouse gradually takes on a new role, being better connected on one scale, while becoming more exclusive and isolated on another.

Keywords *: public space, courthouses, visibility, accessibility, Spatial Thresholds*

Beyond Symbols: Redefining Urban Semiotics Through The Lens Of Petržalka And Slovak Mass Housing Neighbourhoods

Milan Husar (Slovak University Of Technology In Bratislava), **Matej Jasso** (Slovak University Of Technology In Bratislava)

This paper explores the significance of mass housing neighborhoods, particularly focusing on Petržalka, the largest Slovak panel block residential area. Emphasizing the role of such neighborhoods in shaping the identity of a city, the paper discusses their historical development, architectural characteristics, and societal impact. These housing estates, constructed during the 1960s and 1970s, represent a tangible manifestation of 20th-century modernity, offering standardized housing while imposing mass scale and uniformity. Despite initial shortcomings and the neglect of local specifics, these areas have evolved into unique communities with their own narratives, social climates, and challenges. The paper discusses the importance of identity and place attachment in contemporary spatial development, emphasizing the need for a unique and sustainable identity to foster community cohesion. The case of Petržalka, situated on the former East-West iron curtain and boasting specific geographical features, is explored as an example of how mass housing neighborhoods can transcend their initial monolithic nature to become chronicles of diverse stories and experiences. The paper highlights the evolving identity of Petržalka, shaped by factors such as its riverside terrain, social mix, and the integration of positive elements from its past. Examining Petržalka's aftermath, the paper discusses its resilience and adaptability over almost four decades. Unlike the stereotypical ghetto-like neighborhood, Petržalka has maintained a versatile social mix, fostering a sense of place attachment and community building. The paper also explores the challenges faced by Petržalka, including the clash between old and new developmental plans and the need for ongoing interventions to enhance the urban environment. Despite the failure to fulfill modernist dreams, Petržalka has become an integrated part of the city, demonstrating surprising adaptability and resilience in the face of societal changes and spatial pressures.

From Pompidou To Chirac: Architectural Reforms And Urban Metamorphosis In Paris. A Shifted Roles For Architects & Engineers

Isabel Soto Antunez (Latts (Enpc))

The role of architects and structural engineers in the construction industry shifted significantly by the end of the 20th century, particularly in Europe. The period between 1970-2000 left a lasting imprint on the contemporary French urban landscape. Initiated by major reforms in architecture, technology and engineering, this period was characterised by challenges such as the search for material efficiency through the development of lightweight structures. Stimulated by architectural movements like High-Tech in England and visionary figures such as Frei Otto in Germany, this era ushered also in a new construction policy in France, epitomized by landmarks like the Centre Pompidou.

Recognised as the culmination of High-Tech, the Centre Pompidou initiated a series of 'grands travaux' that affected Paris, shaping its cultural dimension (Hélie, 2021). From the tenure of Georges Pompidou (1969-1974) to that of Jacques Chirac (1995-2007), French construction policies were primarily focused on Paris and its cultural development (Poisson, 2002). The Centre Pompidou, the greenhouses and canvas roofs at La Villette, the pyramid at the Louvre, and hall 2F of the Roissy terminal at Charles de Gaulle airport reveal the undeniable importance accorded to the structure, which has even become a defining feature of its architecture. Thus, contributing to the elevation of the figure of the French structural engineer to the forefront of the architectural design team.

Our research examines through a socio-historical approach, the evolution of the structural engineer's role and his relationship with architects in the last 50 years. It adopts a multidisciplinary perspective by highlighting the complex interactions between architectural advances, urban reforms and political and cultural aspirations. The adopted research methods include archives review and supplemented by semi-structured interviews with privileged actors. By crossing this material, we aim to understand the societal challenges of our recent history, helping us to prompt some reflection axes and future perspectives on the approaches adopted previously.

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Foreign Models, Colonialism And Spatial Analysis In China

Preservation And Regeneration Pattern Of Historical Sites Related To Political Activities Based On Multi-Source Spatio-Temporal Data Analysis: Case Study Of Nanjing, China

Xin Yi (Southeast University)

Nanjing served as the capital for a long time during the Republic of China and witnessed a series of key events in China's political changes. The city has also experienced tremendous development over the course of history. In recent years, people's interest in the investigation, protection and regeneration of historical sites related to Chinese political activities in Nanjing in the early 20th century has been increasing dramatically.

This article focuses on the protection of historical sites of political activities in the old city of Nanjing and the renewal of the surrounding environment. By using multi-source spatio-temporal data analysis, it conducts an in-depth interpretation of the spatio-temporal correlation network characteristics of historical sites of political activities in Nanjing in the early 20th century.

In this context, the paper proposes that it is necessary to develop new models for the protection and utilization of historical sites of political activity in the process of social and spatial transformation to cope with changes and challenges in the existing environment.

From the perspective of the narrative space network of historical cities, this paper studies the complex network of connections among places, people and events between political activities and historical sites, analyses and summarizes the possibility of constructing semantic connections with related topics, and proposes a proposal based on the narrative nature of historical cities. The spatial network's protection and regeneration planning for historical sites of political activities is to achieve the purpose of protecting and updating historical sites of political activities from the perspective of the city as a whole.

Integrating Curation And Retail In Chinese Urban Commercial Revitalization: The Transnational Exchange Of The Curatorial Concept In Shanghai And Beijing: Transnational Exchanges, Curetail, Retail Commercial Space, Urban Regeneration

XiaoYu Shi (Tianjin University)

Nowadays in China's leading cities, a growing buzz emerges introducing curation and art into commercial spaces, as a way to revitalize old declining buildings and districts. CURETAIL (Curated Retail) is created as an innovative strategy to attract younger generations (Alexander 2020). It has been applied in key urban regeneration projects like Shanghai's TX Huaihai and Beijing's the Box Chaowai, and successfully transformed traditional malls into iconic retail and pop-culture centers. Against the impacts of online shopping and pandemics, CURETAIL provides consumers with choices that go beyond algorithm-led, fixed recommendations at a time of material abundance, and allows the consumers to have a personal emotional experience.

The paper accordingly traces the transnational diffusion and exchange of the curatorial concept, and intends to uncover the dynamic reasons behind. Historically, curate comes from the Latin, meaning "cure, or take care of," and was originally used to mean "the person who takes care of people's souls." Literally, curation means the process of carefully choosing and thoughtfully organizing or presenting. The curatorial concepts were pioneeringly experimented and evolved in Museum and art galleries, like interactive facilities in London's Science Museum during the mid-19th century, the immersive experience at Chicago Museum of Science and Industry around 1933, the 3D visual scene at London's Victoria and Albert Museum in 1989, the field engagement projects at American Museum of Natural History, and etc. What's more, the curatorial concept have been innovatively used in more urban space since late 20th century. For instance, eye-catching art works can be found along city streets or in commercial complexes. In general, curation becomes a form of organization and presentation that promotes freshness, relevance and inspiration, not only covering people's everyday life but also delivering surprises (Ibrahim 2022).

Focusing on CURETAIL, the research selects two projects, namely TX Huaihai in Shanghai and the Box Chaowai in Beijing, as specific cases. Located in downtown areas, they are both planned and operated by a transnational company The Urban Revitalization Force, and achieve iconic success not only economically, but also culturally and socially. The company's bi-lingual leader Mr Dickson Sezto, born in Hongkong and educated in Australia, has been deeply engaged in the field of comprehensive commercial real estate worldwide for over 20 years. The transnational experience of Mr Sezto contribute to the creation of CURETAIL strategy. Besides, transnational design firms like CRTKL and AECOM were also invited to participate in the regeneration planning and design (Chen 2023). Via field work and interviews, my research will further explore the latent transnational connections, and also reveal local fertilization of CURETAIL.

The "Urban Life Circle" Concept Adapted To The Renewal Of Urban Neighborhoods. Retrovision On The Case Of A Major Chinese City, Nanjin

Corinne Jaquand (Ensapb-Ecole Nationale D'architecture Paris-Belleville)

Chinese urban planning contemporary history has been the subject of French research on heritage issues (Zhang, 2005; Ged, 2014; Ged, Cheval, 2019; Mengin et altri, 2023). Otherwise, rapid mobility and the technological aspect of soft traffic have drawn most attention, as concomitance of transport projects with gigantic urban extensions has never ceased to impress the French milieu (e.g. Mazzoni, 2017). Some studies have targeted neighborhoods situations, such as Shanghai herited 'lilongs' and 'urban villages', but researches on generic residential fabrics are more likely to be found in as yet unpublished doctorates.

As the Chinese authorities are observing an ageing population and expecting a decline in urban dynamics, experts and academics are beginning to address strategies that would be suited to a certain degree of shrinking. The need to improve the living environment in existing urban fabrics and adapt cities to soft mobility and climate change is being recognized. Some fifteen Chinese cities, led by Shanghai, have adopted the doctrine of the "15' minutes city", implementing it on an experimental basis through the development of public spaces and multi-functional buildings dedicated to local facilities. The Chinese terminology used is "Urban Life Circle".

My talk will focus specifically on the 'chronotopia' approach in urbanism by covering an historical survey, ranging from projects and doctrines since the urban extensions of the mid-nineteenth century, the garden city and its American variations, through to contemporary issues. I will draw on an urban analysis that I carried out with around fifteen students as part of a Master Class in Urban Planning at Nanjin South East University at the invitation of Prof. Dr. YI Xin (Oct.-Nov. 2023). The four study cases addressed were fairly exemplary of the morphology of different block patterns that make up Nanjin through history: an old area inside the city walls, run down but with a heritage character; an working-class neighborhood of the 1970's impacted by the dynamics of a new metro; a large-scale linear extension along the north-south axis in the Olympic zone (2012); and, further out, a huge single-function campus separated from a new residential area. The theoretical framework proposed to the students combined the '15' minutes City' concept, disseminated worldwide by Prof. Carlos Moreno (since 2015) and recommended by UNO-Habitat, with the 'ground floor' concept ('rez-de-ville'), as developed by David Mangin and Soraya Boudjenan (2023) in French architecture schools. By associating the notion of time with that of distances travelled ('itineraries') and measurements of built space, the students in the Master Class appropriated methods of morphological and social analysis, discovering at the same time that Chinese-style extreme planning is also accompanied by vernacular appropriations of open space for slow mobile populations (the elderly, children, fitness groups), and thanks to small shops in rows or at the foot of buildings.

In conclusion, I will try to look at what the Chinese urban phenomenon can contribute to a critical approach of contemporary French urban planning.

***Keywords** : Neighborhood Planning, Urban morphology, Critical urban studies*

Planning And Strategies

Invention Of National Identity: The Planning Of Seoul Olympic Park And Its Sociopolitical Implications

Joonhyun Kim (Environmental Planning Institute, Graduate School Of Environmental Studies, Seoul National University)

This study explores the history of Seoul Olympic Park and the socio-political influences on the planning and design process. Seoul Olympic Park was built in 1986 to celebrate the first Olympic Games held in South Korea in 1988. From an urban historical perspective, the Park is significant not only for the legacy of the mega-event but also as the first Korean urban park that actively adopted discussions of public parks integrating post-modern urbanism and environmentalism. However, this urban edification has a flip facet that reveals political ideologies and national hegemonies imposed by the military government, notably evident in many monumental features in the park's later design iterations. Despite being one of the largest and most comprehensive urban projects in South Korea in the 1980s, critical research on the legacy of the park has not been properly undertaken. This paper examines the sociopolitical implications of Seoul Olympic Park, focusing on the influential role of political ideologies.

Many urban parks built in the past indicate that political ideology and design expression were not distinct from each other. The qualities of such public parks, marked by heavy monumentality and theatrical spectacle, often originated from a complex interplay between state power and the aesthetic paradigm that dominated that era. Evidently, official memorials, monuments, and public parks play a unique role in the creation of national identity because they reflect how political elites choose to represent the nation's identity. As such, the planning and design process of Seoul Olympic Park and its monumental legacy reflects the relationship between place-making and its political intent.

While preparing for the '88 Olympic Games, the Korean military government was tasked with generating a national identity differentiated from the former political regime and thus legitimizing its authority. As evident in modern Korean history, one of the common gestures to validate the political power of new leadership is by building monuments and ideology-driven public parks. Since the hosting of the Olympic Games was announced, the Seoul government set the urban agenda towards the new paradigm by reforming the city environment to global standards. Many large-scale urban development projects that required integrated approaches among the disciplines of planning, design, and engineering were executed. The project emphasized the quality of surroundings and aesthetic pleasure for the citizens' lives. Such an attempt is prominent in many design features in the Park, especially in Mongchon Fortress relics wherein an ancient Korean kingdom's military supremacy embeds in the park site, The Peace Gate, the entering gate of the park, and monumental sculptures around the park field.

To discuss, the study first develops an argument about the role of public parks involving symbolic capital in the formation and transformation of national identity. The interplay between elite and popular uses of the monumental spaces, particularly the mechanism of controlling and manipulating the meaning in the symbolic capital. Following the literature reviews, the study analyzes the gathered research data through fieldwork observations and archival materials, then looks into the creation process of the park and monument, thereby examining the underlying hegemonic motives.

In short, the paper aims to address the following research questions: How did state power influence the park design process? To what extent is the political ideology reflected in the design and functional aspects of the park? Furthermore, what would be the innovative strategy to inject ideas of conservation and adaptation into such an ideology-driven public park? The paper argues that socio-cultural analysis of the power, space, and art in the park is critical not only for uncovering the park's historical identity but for generating its vision for future urban parks.

Keywords *: Seoul Olyimpic Park, Monumental space, National identity, Political ideology*

Planning For Sustainability Through Historical Perspective Of Cities

Anjali Krishan Sharma (School Of Architecture Planning And Design, Dit University)

Impact of the third wave of globalization, during the 1980s, 1990s and 2000s across the world has been uniform however the responses of urban regions have varied: from developed nations to developing nations and also continents. The socio-cultural connotations coupled with geo-political determined the decisions at large. In Asia China and India are the key players of which the thrust of the paper shall focus on Delhi, India. The milestones of third wave of globalisation in India in 1980's computers were introduced while 1991 liberalisation policy by government of India set in a paradigm shift was witnessed at the turn of century. Interestingly, the Covid pandemic stalled the growth for a limited period only to continue the trajectory thereafter.

The current living city of Delhi is about four centuries old, is a rich example to demonstrate the strength of sustainability and counting. The historical layers comprised of geographical context wherein the socio-cultural was nurtured; however, the governance plays a unique role in case of Delhi it spans across Mughals, British to independent India. The said political heads belong to the living historic city while Delhi was built seven times over the years and the current one being the seventh one, is living; the earlier cities have their imprints embedded within the fabric of the city fairly legible. The paper shall highlight these various layers of history demonstrated through numerous planning approaches/ polices/ master plans/ zonal development plans to recent other interventions for heritage, smart city, etc. The planning models varied based on the political will and agenda to need based in the recent past. The paper shall trace the planning measures changing over time and its study the transformations of the planning framework. The intent is to enumerate the key issues that governed the planning models through history and put in perspective the larger picture of sustainability of the city.

Keywords : Traditional planning histories, Planning models, Delhi.

Becoming A Post-Growth Metropolis – A Historical Perspective On Regional Transport Planning And Urbanisation In Greater Paris

Mariana Reis Santos (École Des Ponts Paristech)

Transport infrastructure and policy are central to Greater Paris' current public and planning debates. Two main factors have contributed to this situation. Firstly, the increasing importance given to environmental sustainability in the past two decades. A period where many valuable reflections on the role and potential of transport planning for reducing emissions happened. Encouraging experimentation with environmental policies connected to mobility practices. Secondly, the conception and beginning of the construction works of the Grand Paris Express. A project that involves a significant extension of the current metro network and the transformation of the neighbourhoods surrounding it (quartiers de gare). However, sustainable development was not always at the core of Greater Paris' planning schemes. Such an agenda is the culmination of a lasting tradition of planning that underwent numerous changes to respond to regional challenges over the years.

This article analyses regional planning discourses and practices in Greater Paris from the 1960s until recent days. It focuses on the interplay between transport infrastructure development and regional urbanisation strategies. Precisely, it traces the evolution of Parisian planning practices and discourses from the conception of the new towns (villes nouvelles) to the zero net artificialization vision. The underlying goal is to demonstrate the historical importance of transport planning and policy for Greater Paris' socio-spatial configuration (Roseau, 2022). For that, this research conducted a thorough examination of key regional planning documents. Namely, the Plan d'Aménagement et d'Organisation Générale de la Région Parisienne (PADOG; 1960), the Schéma Directeur d'Aménagement et d'Urbanisme de la région de Paris (SDAURP; 1965), the Schéma Directeur d'Aménagement et d'Urbanisme de la Région d'Île-de-France (SDAURIF; 1976), the Schéma Directeur d'Île-de-France (SDRIF; 1994), the Schéma Directeur de la Région Île-de-France (SDRIF; 2019), and other documents drafted to support their formulation and implementation.

Through this analysis, this article highlighted the main ideas that have historically informed planning discourses and practices in Greater Paris. It focused on the notions of density and compactness and assessed to what extent the considered planning schemes have (or have not) articulated such ideas to prevent sprawl. The interest of this analysis in these interactions places this article under the frame of suburbanisation and related urban development theories (e.g., sprawl, post-suburbanisation, polycentric city model, peripheralization, and others). Moreover, by juxtaposing transport infrastructure development and urbanisation processes, it also resonates with the discussions on transit-oriented development. The intersection of this body of knowledge and the collected empirical data allows for a reflection on what is an equitable distribution of transportation resources and their socioeconomic benefits (Moraglio, 2017).

Summarizing, the aforementioned analysis demonstrated that transport infrastructures have had a two-folded role in the socio-spatial configuration of Greater Paris. Between the 1960s and early 1980s, they facilitated the implementation of new towns in relatively faraway locations. That is, they enabled sprawl. It is worth remarking that this process was coherent with the regional policies for the de-densification of central Paris and the State's ambition of creating a polycentric region. Nevertheless, after the 1990s, planning discourses and practices demonstrated a change of paradigm. Regional planning schemes became interested in fostering sustainable land use and development. Starting a post-growth regional planning tradition. Within this framework, density and compactness are desirable outcomes of urban renewal. Particularly when connected with public transport development. Within current planning practice and discourse, public transport infrastructure is indeed perceived as a key element for fostering a dense and compact (therefore, sustainable) urban future (Cervero, 2006).

***Keywords** : Regional Planning, Transport planning, Urban sprawl, Future of metropolises, Transit-Oriented Development (TOD), Sustainable and Equitable Development*

Is The Suburbanization A Contemporary Process? Gis Tools In Long-Term Morphological Analysis In Suburban Areas

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Suburbanization is a relatively well-known process today. This is evidenced by the number of studies that have been devoted to this issue. This phenomenon has been described in the literature, and the topics of publications on post-socialist cities and their immediate surroundings basically focus on six main thematic blocks (see Kubeš, 2013): [1] physical spatial structure of the city and its transformation, [2] functional spatial structure of the city and its transformations, [3] housing structure in urban neighborhoods in connection with changes in housing policy and market, [4] social spatial structure of the city and its transformation, [5] suburbanization and urban sprawl in the near hinterland of city, and [6] urban planning and management on city territory. This increased interest in the phenomenon in countries of CEE results primarily from the scale and dynamics of the process itself (Brezdeń, Szmytkie, 2019), however the attention of researchers dealing with the problem of suburbanization in post-socialist countries in the CEE is basically focused on the last 30 years, ignoring that similar processes have occurred earlier. Already in the Middle Ages, the development of suburbs resulted from the location of some inhabitants and activities in the close vicinity of the city, which was related primarily to the limited territorial scope: the city was closed within its walls. In turn, in the industrial era, due to the expansion of cities beyond their administrative boundaries, as well as with the development of suburban settlements under the influence of the city center, the beginning of centrifugal tendencies can be observed. (Lawton, 1972; Krzysztofik, 2014). Therefore, the turn of the 18th and 19th centuries was assumed as the beginning of the research period, which was also the beginning of changes related to the partitions in Poland, which contributed to significant differences on the socio-economic level.

Hence, suburbanization in this study is understood as a stage of urban development and occurs when the inner ring or commuter belt grows at the expense of the urban core (Pacione, 2001).

The study aims to conceptualize a research procedure for morphological analysis in suburban areas using GIS tools based on a retrospective approach. The investigated procedure consists of three main research stages, each related to the spatial scale of suburbanization: (1) identification of dynamics of spatial development in macroscale including retrospective analysis on the basis of historical maps and plans, in particular with hot and cold spot analysis, (2) quantification and assessment of the transformation magnitude in mesoscale with graph methods and other spatial statistics, and (3) spatial transformation of urban blocks based on the Conzenian approach in microscale. The presented procedure is a novel solution for the analysis of suburban development in historical perspective using GIS Tools.

***Keywords** : Conzenian methods, GIS, spatial statistics, urban morphology tools, historical perspective*

Transnational Exchanges

From Uk To Singapore, China, Ethiopia. Exchanges For The Creation Of Industrial Parks And New Towns

Paola Pellegrini (Xi'an Jiaotong - Liverpool University)

Singapore has exported its governance and urban design models for developing some Industrial Parks. One of these Parks, built since 1996 in an agreement between the Singaporean and the Chinese Governments, is Suzhou Industrial Park (SIP) 苏州工业园区, which is one of China's largest manufacturing area and one of the most celebrated (Shi et al., 2012). In choosing Singaporean technicians and investments for realizing SIP, China declared its will to learn from what it considered a world-class economic hub able to attract foreign investments.

Singapore, a laboratory for the 21st century city (Koolhaas, 2010), was chosen as a governance model able to create a competitive international business environment, and an urban design model for realizing a modern new town (L'Heureux, 2010). As UK and US design and planning references strongly influenced the creation of the infrastructures and built environment which supported Singapore's growth and prosperity since the '60s (Kiang, 2016), a transfer of knowledge, ideas, and urban models from the West via Singapore is evident in the development of SIP. The Singaporean designers established their office in Suzhou – the international design office FuturePolis LLC – and applied in SIP the same western design references which define the living environment on the island, starting from Jurong Industrial Park: car-oriented development and orthogonal grid of wide roads, mono-functional zoning and organization in districts, large blocks and neighbourhood units, garden city idea (Lin, 2015).

The new urban environment expanded the existing city toward neighbouring Shanghai. It was achieved with the destruction of the existing conditions: as Singapore levelled down the hills and refilled lands to create profitable land and increase the surface of the island. In this pre-existing rural land, SIP lays with approx. 70 villages and the related historical water and wetlands system were demolished and people were relocated. The original context – its culture, urban landscape, ecological value, forms of community – vanished almost completely and was replaced by a homogeneous urban environment. The urban morphology and building types for the relocation of the dispossessed farmers adopted a mix of slabs inspired by Le Corbusier's model and more usual Soviet Union low-budget middle-rises.

SIP was not conceived as an industrial park only, but as a New Town. Today it is a township of 288 sqkm and approx. 700.000 people where work-live- learn-play are integrated and different functional areas assembled such as IT Park, Export Processing Zone, International Science Park, Dushu Lake High Education District and Modern Logistics Centre.

SIP is evolving as China is changing; the latest Master Plan of Suzhou plans to relocate cheap manufacturing, increase the presence of creative industries and replace the industries with residential and commercial buildings, given the increase in the value of the land.

This knowledge exchange for urban development has a new step: recently under the Go Global strategy China is transferring to Ethiopia what Singapore has transferred to China; the Western references adapted in SIP, are now being exported to Dire Dawa Industrial Park (Wang, 2015). The international design office of SIP FuturePolis LLC, is realizing Dire Dawa IP with the support of the China Civil Engineering Construction Company since 2013.

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From Paris To Shanghai. The Exportation Of Planning Expertise By The Institut D'aménagement Et D'urbanisme De La Région D'ile-De-France (Iaurif) In The 1980s And The 1990s.

Clement ORILLARD (Ecole D'urbanisme De Paris - Lab'urba)

In 1960, the national government created a new organism initially responsible for the study of the Paris Region, which then was quickly charged with its planning: the Institut d'aménagement et d'urbanisme de la région parisienne (IAURP), renamed Institut d'aménagement et d'urbanisme de la region d'Ile de France (IAURIF) in 1976 and Institut Paris Région in 2019. Created as a foundation, it developed a new regional planning document for the Paris Region, the Schéma directeur, which became the basis for the Institute's international practice as a consultant for municipal authorities and governments around the world (Orillard, 2017).

In 1983, following a national policy of devolution, the Institut was decentralized to become an agency of the Région d'Ile-de-France, the authority of Paris Region. Thanks to this decentralization, paradoxically, its worldwide consultancy reached a new level. In 1984, the Institut and the Région organized a symposium about metropolitan planning named "Metropolis 84." They partly used the Institut's international network built through its consultancy work, but also invited local authorities beyond this network as the Region intended to develop, thanks to this symposium which gathered 31 local authorities from across the world, its own foreign policy through exchanges about planning and other local governance issues. It led to the creation of the Metropolis association one year later, which became pivotal in putting metropolitan regions on the global agenda.

The symposium was the starting point of an expansion of the Institut's international consultancy in particular into China. Beyond the interest of the Region to expand its network, this happened thanks to the combination of the personal involvement of one of its planners and the foreign policy of the national government. The Institut worked at first for different municipalities from Beijing to Tianjin but quickly focused its efforts on Shanghai. This municipality initially asked the Institut to help evaluate their new masterplan; however this evolved into numerous missions about different topics lasting until 2000. The Institut contributed to reflections on Shanghai's change of scale (Hu, 2019) by working on two new issues: a North-South transportation corridor and the development of Pudong. It gave advice in particular for the building of Pudong's CBD in conjunction with other French consultancies.

This proposal is a contribution to the history of postcolonial transnational planning (Ward, 2010) by analysing the exportation of French expertise beyond the case of new town developments (Orillard and Ward, 2020). It is a part of a broader research (Henriot and Orillard, 2022) and will use original interviews and archival material from the Institut.

Keywords : *knowledge exchanges, metropolitan areas, Globalization , France, China*

Global Knowledge Transfer: Retrospective Evidence From China's Oversea Planning Practice Since The 1990s

Kang Cao (Zhejiang University)

The transnational transfer of planning ideas and experiences has been a research hotspot in recent years, especially since the early 2000s, against the trends of increasing interactions, closer tie between globalization and planning (Afshar and Pezzoli 2001; Parnreiter 2011), and Europeanization (Tölle 2013; Jakola 2016). Scholars with different research interests have approached this hotspot through diverse perspectives. Planning historians have traced their studies back to the colonial period (King 1977), the turn of the nineteenth and twentieth centuries (Sutcliffe 1981), and the neo- or post-colonial and post-war time (Hein 2014; Harbin and Larsen 2017). They invite concepts like exporting and importing planning (King 1977; Nasr and Volait 2003), innovation diffusion in planning (Sutcliffe 1981), and the international diffusion of planning (Ward 1999) to reveal the global spread of the colonial (King 1976) and modern urban planning (United Nations Human Settlements Programme 2009), and the transatlantic exchange of planning ideas (Hein 2014). Scholars who are interested with the international, global or transnational (Miraftab 2011) planning studies have paid attention to the transnationalities of planning, which happen between the Global North and South (Khirfan 2011), across the Atlantic (Kunzmann 1992), among the European Union countries (Tölle 2013; Vicenzotti and Qviström 2018), and among the Global South countries (Ultramari, Cantarim, and Jazar 2019). Naturally, process of rescaling occurs in these transnational studies as the transregional (de Jong and Edelenbos 2007) and cross-urban level studies (Stead, de Jong and Reinholde 2010) have also emerged. Planning educators mainly put their efforts on a global approach to planning education (Afshar and Pezzoli 2001) and knowledge transfer via the traveling of the planning educators (Haselsberger 2015).

In terms of the current state of the art of transnational transfer of planning ideas and experiences, we endeavor to study how China has transferred its planning experiences, or what we call practical planning knowledge (PPK) through a retrospective study. China has been exporting its planning ideas and experiences to other countries. Such 'knowledge exporting' has taken on new characteristics since the 1990s. Introducing a perspective of planning knowledge transfer, we investigate the global transfer of China's practical planning knowledge (PPK). Employing semi-structured interviews and data crawling, we deal with the PPK transfer mechanisms, division of knowledge transfer stages and its characteristics, as well as overall trends of knowledge transfer. We argue that although China's PPK's transfer is still in a development stage, it has stepped up its efforts to go abroad, and the effect of PPK's external transfer has been highlighted. We propose transfer mechanisms of PPK with activities of planning making and implementation, and of exchange of learning for core. In addition, the key events and changes of China's Opening-up lead to three distinct stages of China's PPK external transfer from the 1990s. Furthermore, China's oversea PPK transfer has three general trends: multinational participation and multiple types, rich tacit knowledge, and localization of knowledge. We hope to provide a basis for understanding the global transfer of a special practical-oriented knowledge and add new perspectives to the study of innovation and knowledge.

***Keywords** : Knowledge transfer, practical planning knowledge, Overseas planning projects, transnational ideas and experiences*

Export The Parisian'S Urban Knowledge (1977-2000)

Florence Bousquet (Université Paris 1 Panthéon-Sorbonne - Hicsa)

From 1977 to nowadays, the « Atelier parisien d'urbanisme » (APUR), which is an urbanism organization supported by the Paris municipality, leaded a program to disseminate its urbanistic knowledge abroad, especially in Global South countries.

Created in 1967, the architects of the APUR organization designed many new residential areas in Paris since the mid 1970's. Over the years, these architects acquired skills and know-how in urban planning and town-planning thought, especially in dense cities. This urbanism, called « postmodern urbanism » by Nan Ellin (Ellin, 1996), refers to the « traditional city ».

Building on these experiences, APUR launched a new program of dissemination of its know-how abroad and several architects from the organization began to travel in order to work on urban studies in big cities. This voluntarist international policy was driven by the Mayor of Paris, Jacques Chirac, who offers to share the APUR knowledge to his foreign counterparts. This dissemination of knowledge began in 1977 when the city of Beyrouth asked APUR to work on the reconstruction of the downtown of the city after the Lebanese civil war. Then, from 1986, this program was declined in different ways: urban studies (for cities in Africa like Brazzaville or Kinshasa, in Beirut, Santiago de Chile or Phnom-Penh), exhibitions about new parisians districts (especially in fourteen cities in the Middle East, including Abu-Dhabi, Cairo, Sanaa, Rihyad, Baghdad, Damascus and Amman), or involvment in international conferences about urban planning (as in Istanbul in may 1988 or in Malmö in june 1988).

This communication will focus on APUR's networks all over the world to highlight the way of the french way-of-thinking urbanism have been diffused abroad. Also it demonstrates that some countries was asking for an occidental know-how in urbanism. So first, we will list all the cities and the events or projects in which the APUR was involved.

Then, we will analyse especially the APUR's projects for the reconstruction of the city center of Beirut (1977), the project for the Poto-poto district in Brazzaville (1986), and the design of the public spaces in Phnom Penh (1993). We will analyse how the french architects applied some existing practices in other cities, and what was the process to design this new districts, knowing that the philosophy of the APUR was to take into account the specificities of each territory.

***Keywords** : urban planning, district, Global South, Paris, cross-culture*

Morphological Inquiry Into Historical Concepts Of Urban Deconcentration And Spatial Dynamics In Polish Agglomerations

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Urban planning plays a pivotal role in spatial transformations across various geographical scales, with urban policies being widely acknowledged as critical components for fostering sustainable development. Despite extensive research focusing on the institutional changes in Polish urban planning post-1989, there remains a notable gap in the exploration of the long-term spatial impacts of deconcentration policies specifically implemented in urban agglomerations. Against the backdrop of unregulated spatial expansion escalating in Poland since the 1990s, traditional urban planning paradigms appear incongruent with the contemporary settlement dynamics observed in suburban areas of Polish cities. In this study, our objective is to consider historical urban planning theories, concepts, and policies related to spatial deconcentration and their enduring influence on urban transformation. We meticulously examined 84 historical concepts, categorizing them into six main thematic threads, such as greater cities, functional development, garden cities, greenbelt conservation, regulatory zoning, and small-scale densification. Adopting an urban morphology approach, we conducted a comprehensive investigation utilizing archival cartographic materials, literature, and field inventory data across major Polish agglomerations, including Warszawa, Kraków, Wroclaw, Lodz, Poznan, Gdansk, Szczecin, and Katowice. Our research was further enriched by a detailed case study on the Greater Wroclaw Concept introduced in 1921, exploring its further and contemporary spatial outcomes. Our findings affirm that numerous deconcentration theories and concepts were indeed incorporated into urban planning in current Polish areas prior to 1989. However, their effective implementation within urban agglomerations was hindered by political and administrative factors that fragmented city and regional development. The Greater Wroclaw Concept, conceived as a comprehensive plan for city development, exemplifies the challenges faced in translating theoretical frameworks into practical urban outcomes. Drawing on Raymont Unwin's adaptation of May's concept to elucidate the rules governing Berlin's city development through satellite districts, we observe that while physical urban deconcentration occurred within agglomerations, it cannot unequivocally be attributed to historical urban concepts. The spatial development manifested in a bottom-up, spontaneous manner, resulting in a lack of spatial coherence.

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Exploration Of The Revitalization Mechanisms Of Residential Historical Districts From A Resilience Perspective: A Case Study Of Xiaoxi Lake Area In Nanjing

Zijia Wei (Tongji University)

In the context of urban stock renewal, residential historical districts, serving as vital stock spatial resources within cities (Chang Wei,2022), give rise to a complex "ecological-social" system continually facing dual risks from the natural environment and society. Throughout the process of this renewal and transformation, issues often arise, such as historical spatial elements being constrained by rigid cultural preservation and excessive commercialization, alongside challenges involving the mixture of diverse spatial types and conflicts of interest among various stakeholders.

This paper aims to delve into the revitalization mechanisms of residential historical districts by introducing the concept of resilience. The primary focus is on analyzing the impact mechanisms of residential historical districts from four dimensions: spatial resilience, economic resilience, social resilience, and institutional resilience (Zhao Ruipeng,2022). Correspondingly, strategies are formulated to enhance their systemic resilience when confronting changes.

The study selects the historical area of Xiaoxi Lake in Nanjing as its research subject. This area has been undergoing progressive urban renewal, adopting an "retain, transform, and demolish" organic renewal model that departs from the previous chaotic practices of demolishing and rebuilding historical blocks and large-scale relocation. In contrast, this model, based on clarified property rights, respects residents' intentions regarding staying or leaving and preserves the complete local cultural atmosphere. Local residents have transitioned into voluntary participants, engaging in communication, collaboration, and joint action with the government, state-owned enterprises, and community planners (Yang Yimin,2023). The research results indicate that the spatial resilience of residential historical district renewal is manifested in the protection and continuation of traditional spatial forms and textures. Economic resilience depends on differentiated business models, social resilience emphasizes the continuity of neighborhood relationships, and institutional resilience relies on the participation of diverse entities (Li Zhen,2023).

Ultimately, based on a resilience perspective, this paper explores future models of renewal for residential historical districts, with a focus on small-scale transformations and community self-governance. Strategies are discussed across four aspects: protection of spatial features, revival of cultural vitality, reshaping of social spatial structures, and development of renewal institutions (Li Zihao,2021).

Keywords : Resilience Perspective, Residential Historical Districts, Revitalization Mechanisms, Community Self-Governance

Regeneration In China

An Analysis Of Value Reconstruction In Constructive Protection Practice For Archaeological Sites Parks

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As a government led model of archaeological site protection and utilization, the archaeological site park is reflected in a series of constructive protection practice aimed at the site, involving the archaeological site itself and its surrounding areas. In the construction process of the archaeological site park, not only should the focus be on protecting the site itself, but also on meeting the practical needs of the population. This article reviews the relevant theories of heritage value and re-examines the important role of value construction in the construction of site parks in the modern context of aesthetic evolution. Propose a basic path for the reconstruction of heritage value based on value selection and creative transformation, and explore the planning strategies and design techniques of archaeological site parks through practical cases.

Formation, Characteristics, And Responses To Commercial Gentrification In Historic Conservation Block From The Perspective Of Spatial Production

Yiwen Tang (Tongji University), **Yang Xiao** (Tongji University)

The commercial gentrification of historical and cultural districts is one of the most important issues in the protection of historic conservation blocks, however, how to dialectically view the phenomenon of commercial gentrification in historical districts and reasonably guide the development of gentrification in these districts is still a practical problem. Based on this, this study introduces the theory of spatial production, combines it with the development context of Tunxi Old Street, and constructs a three-dimensional spatial analysis framework of "material-social-institutional" to carry out empirical analyses. It is found that the phenomenon of commercial gentrification in Tunxi Old Street shows significant changes in material, social, and institutional spaces under the role of power and capital, leading to crises such as the loss of local culture and the marginalisation of local residents. To address its drawbacks, this study focuses on the subject of interest in spatial production and the triadic space. Exploring the development path from the perspective of spatial production, it is proposed that the subject level eliminates the power-capital-orientated subject role. At the spatial level, it is suggested to (1) implement local culture oriented business stratification, (2) practice built heritage oriented continuous growth, and (3) promote balanced and sustainably oriented planning upgrade strategies. This study provides insights for identifying commercial gentrification risks and breakthroughs in the process of regeneration and development of historic conservation blocks.

Research On The Construction Of The Tang-Tibet Ancient Road (Qinghai Section) Heritage Corridor From The Perspective Of Cultural Ecology

Weining Shi , Yimin Wei

The Tang-Tibet Ancient Road has borne witness to the history of the Tibetan Plateau and the intermingling of diverse nationalities. Over more than 1,000 years, it has evolved into a "golden road" for fostering friendly exchanges between people of different ethnic groups. In the context of advancing the construction of the Belt and Road, the preservation and perpetuation of the Tang-Tibet Ancient Road holds immense significance in promoting economic development and cultural enrichment in the Western region. The Qinghai section, with its abundant cultural heritage, has emerged as the focal point for the cultural preservation of the Tang-Tibet Ancient Road. However, the current development and preservation efforts lack a comprehensive analysis and evaluation of heritage resources, leading to fragmented preservation of the Tang-Tibet Ancient Road itself.This paper takes a cultural ecology perspective as its starting point and conducts a comprehensive survey of historical records and existing cultural heritage sites along the Ancient Road. It employs hierarchical analysis, kernel density analysis, and the gravity model to elucidate the spatial arrangement of heritage sites at different levels and their interaction intensity. Additionally, it utilizes a comprehensive surface layer, integrating natural environment, socio-economic, and public service factors, to analyze the accessibility and suitability of the corridor space.Ultimately, this paper constructs a cohesive cultural heritage corridor for the Tang-Tibet Ancient Road (Qinghai section) and proposes a targeted strategy for ecological protection and cultural coexistence. This research provides valuable insights for the preservation and perpetuation of urban and rural history and culture, as well as the seamless integration of culture and tourism development in Qinghai.

Keywords : Tang-Tibet Ancient Road, Heritage Corridor, Cultural Ecology, Linear Cultural Heritage

Analysis Of Block Space Characteristics And Regeneration Strategies From The Perspective Of Historical Evolution: A Case Study Of Siwenli And Its Surrounding Blocks In Shanghai

Zeyin Chen (Tongji University), **Siying Li** (Tsinghua University), **Zhimin You** (Tongji University)

Driven by urbanization, urban regeneration has shifted from pursuing incremental growth to revitalizing existing resources, moving from extensive push down reconstruction to more refined and gradual regeneration. The lilong is a unique modern architectural space form in Shanghai, but with the development and construction of the city, these distinctive spaces are gradually disappearing. How to protect the heritage of the lilong and preserve its memories has become an important issue. At present, many studies have explored the protection and renovation of traditional blocks from the perspectives of regeneration models and policy systems. Analysis based on the perspective of historical evolution can provide important basis for understanding the mechanism of problem generation and selecting regeneration strategies. As a historical fragment, the lilong is a product of the response to evolution in the social environment made by predecessors and the accumulation left behind in historical development. Its relationship with the city should also be explored and analyzed from the perspectives of temporal and spatial continuity. However, existing research lacks interpretation of the changes in the style, space, and characteristics of lilong blocks from the perspective of urban spatial historical evolution.

Based on this, the study selects the representative lilong blocks of Siwenli and surrounding plots in Shanghai as a case study, analyzes the evolution process of their spatial form characteristics from the perspective of historical layering, summarizes the change mechanism and problems, and clarifies the objects of protection and regeneration.

Firstly, based on spatial sorting and literature research, a systematic spatial and historical transformation of the research area was conducted from five aspects: 1) In terms of spatial form and texture, by sorting out the texture of the site in different eras, it is found that the driving force of its evolution comes from the development of the lilong itself and the urban collage regeneration; 2) In terms of spatial scale pattern, by sorting out the scales of different spatial elements within the site, such as transportation, architecture, etc., it is found that the driving force of their evolution comes from changes in residential and urban development needs; 3) In terms of the characteristics of the style and features interface, by investigating the changes in the work and life of residents in the site, it was found that the driving force of its evolution comes from the historical accumulation of space and the diversified regeneration of the city; 4) In terms of landscape and open space, by sorting out the landscape and open space systems in different stages, it is found that the driving force of its evolution comes from the change and diversification of urban demand; 5) In terms of the characteristics of historical heritage, by analyzing and evaluating all historical heritage within the site one by one, it was found that the driving force of their evolution comes from the differences in development and utilization under different historical characteristics.

Subsequently, based on above, the formation mechanism and current issues of site spatial characteristics were summarized. The direct cause of the current spatial problems within the site is the disorderly placement of heterogeneous spaces, which is the result of the combined influence of rapid urban development and inadequate planning control. Specifically reflected in the three major contradictions of urban demand and spatial mismatch, the placement and reconstruction of heterogeneous spaces, and the absence of historical protection.

Finally, the study proposes three spatial optimization strategies: texture and style, functional space, heritage and place, making the research area an important resource for enhancing urban charm and vitality. To provide reference for the protection and regeneration of relevant historical spaces.

***Keywords** : spatial characteristics, conservation and regeneration, texture and landscape, Shikumen Lilong, historical evolution*

Rural Heritage Governed As Commons: Case Study Of A Chinese Heritage Village From A Cultural Capital Perspective

Jiaying Cui (Tongji University), **Weizhen Shen** (Tongji University), **Qianzheng Geng** (Tongji University)

The concept of 'commons' in economics and management has been positioned within the heritage field to emphasise heritage's collective economic, cultural, and social values as well as their conflicts in a community or national level. This paper critically re-examines the governance process of a centuries-old living village, concentrating on the conflict between official and community power throughout the transformation of cultural-economic-social capital (Bourdieu, 1986), and ultimately seek an alternative path towards the safeguarding of heritage and communal benefits.

Initially, the article analyses the two typical governance eras of the heritage village:

Governance based on natural resources in the salt-industry era: the development of salt resources fostered economic capital as core, from which the related social network in the community was gradually formed. Subsequently, the cultural capital accumulated and existed in three forms: embodied, objectified, and institutionalize. Cultural capital progressively accumulated via reproduction and now serves as the foundation for the material and intangible cultural resources of modern communities.

Governance based on cultural heritage in the commodity economy era: With the stagnation of salt production and social transformations in the 20th century, investments in the preservation of cultural capital declined. However, as the government has progressively acknowledged the heritage values over the past two decades, the private, individualized cultural capital has again evolved into a hybrid public-private cultural capital via heritagization, commodification and spatialisation. The absence of a shared objective among stakeholders has impeded efforts to convert cultural capital into social and economic capital that actually benefit the community's residents.

Under the framework of 'resource–communities and values–commoning management' in heritage commons (Lekaki, 2020), this paper then reveals dilemmas as follows which lead to in inefficacies of village planning:

Tensions between "community heritage" and "official heritage". Observations in the case reveal that as official heritage titles institutionalize governmental responsibilities in heritage conservation and the public good nature of heritage sites, they in the meantime undermine the role and power of community governance. The higher the level of official title a site holds, the less likely it will be perceived as a community asset and stimulate community participation in its management.

Multiple actors with nuanced divergences in the government-community relationship. While the governance structure of rural heritage in China is commonly understood through a model of government-community dichotomy, such understanding tends to neglect the variety of governmental actors at play, which include different agencies in township and county-level governments. These agencies, often with different goals and stances, create a complex heritage common with the local community, where nuanced divergences add to the difficulty of collective undertakings.

Disparities in the management of the heritage common. Although a cultural brand shared by the community, inadequacies within the distribution system hinder a fair share of cost and benefits between government, community, and private enterprises. Specifically, the pro-growth stance of the government-private capital coalition has marginalised local residents in the stewardship of cultural heritage, contributing to the imbalance of governance structure.

The article concludes by examining the prospects of re-establishing a rural heritage common-based governance structure through two initiatives: community-led reinstation of the traditional Dragon King festival, and the engagement of external NGO in the advancement of heritage education. These discussions focus particularly on the pathways through which cultural capital, currently in an embodied form, can be sustained in a more dynamic, lived and experienced manner. Undoubtedly, coordinating public and private interests and achieving consensus will be more difficult when heritage is governed as a common, but it also opens up the opportunity to establish a truly community-led model of heritage governance.

Keywords : rural heritage, commons, cultural capital, governance

Research On Sustainable Protection And Inheritance Of Overseas Chinese Hometown Cultural Heritage: A Case Study Of Xiangshan Ancient City

JIE TANG (Tongji University), **XIAOQI YE** (Shanghai Tongji Urban Planning And Design Institute Co., Ltd.), **HAIDONG ZHOU** (Shanghai Tongji Urban Planning And Design Institute Co., Ltd.)

The overall protection of urban and rural historical cultural heritage in China began in the early 1980s with the recognition of the first batch of national historical and cultural cities. Through four generations, the protection, restoration, and renovation of the material spatial aspect have gradually matured, forming a relatively complete system for the protection and utilization of some historical and cultural cities, towns, villages, and historical districts. Therefore, as heritage protection enters the 4.0 phase in China, consideration must be given to the "regeneration" and sustainable use of urban and rural historical cultural heritage.

Overseas Chinese hometown cultural heritage is a highly unique category within Chinese regional cultural heritage, mainly located in the southeastern coastal areas, including Guangdong, Fujian, Hainan, and Zhejiang provinces. Overseas Chinese hometown cultural heritage not only possesses distinctive characteristics on the material spatial level but also carries special cultural connotations. It has a certain symbolic significance and is endowed with profound humanistic spirit and patriotic feelings.

Due to its unique characteristics, the protection and utilization of overseas Chinese hometown cultural heritage face numerous practical challenges, and debates on conservation or development persist in actual implementation. In the past, the protection of overseas Chinese hometown cultural heritage primarily focused on the material aspect and achieved significant short-term results, but it was not sustainable in the long run. Past efforts in the protection of overseas Chinese hometown cultural heritage have primarily focused on the material space, showing significant achievements within a certain time frame but proving unsustainable in the long run.

Therefore, building upon the shortcomings identified in the summary of the three previous coping models, a transformation towards a sustainable model for the protection and inheritance of overseas Chinese hometown cultural heritage is proposed. Simultaneously, based on years of practical experience in the protection and utilization of historical and cultural cities in overseas Chinese hometowns such as Zhongshan, Quanzhou, and Haikou, empirical research is conducted, using Xiangshan Ancient City in Zhongshan, Guangdong Province, as an illustrative case study.

Firstly, analyzing the sustainable potential and impact of overseas Chinese hometown cultural heritage is approached from two dimensions: the supply side and the demand side. This analysis takes into account both the material space and social space, covering three aspects: people, material, and events.

Subsequently, sustainable conservation and inheritance strategies are proposed, including: In terms of cultural sustainability, establishing a cultural core and reshaping the Great Xiangshan Cultural Sphere; In terms of residential sustainability, prioritizing facility upgrades and addressing key issues in people's livelihoods; In terms of spatial sustainability, preserving the ancient city's character and revitalizing a thousand years of county history; In terms of industrial sustainability, upgrading and adjusting business formats to showcase Xiangshan's cultural memories; In terms of social sustainability, reconstructing social spaces and strengthening overseas Chinese hometown social networks.

Overall, our study puts forward a new approach to the sustainable protection and inheritance of overseas Chinese hometown cultural heritage, aiming to address practical issues in past practices in overseas Chinese hometowns, such as unclear property rights, misallocation of resources, and inefficient utilization, resulting from the neglect of sustainability.

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Miscellaneous

Organic Urban Planning In Alvar Aalto: New Evidence From Spatial Analysis

Gianni Talamini (City University Of Hong Kong), **Weike Li** (City University Of Hong Kong)

There is overwhelming evidence that maximising exposure to the natural environment benefits health. Throughout all his work, Alvar Aalto has always strived to minimise the environmental impacts of urbanisation while providing inhabitants with the advantages of direct contact with nature. Some of the greatest modern architecture historians, such as Kenneth Frampton, advocate Aalto's work as the finest example of the only viable alternative to the generic city produced by the wave of recent urbanisation. Yet, despite all this, there is a paucity of research on the theoretical paradigm underpinning Aalto's organic urbanism and the generative patterns of the spatial configurations he designed.

This study combines archival research and spatial analysis of Aalto's postwar regional plans, offering an advanced understanding of the organic proposition established by Alvar Aalto, outlining and affirming its unicity and novelty. The article illustrates the generative logic of spatial configurations developed and employed by Alvar Aalto in his plans. Furthermore, it illustrates how Aalto's methodological advancement in drafting regional plans in the 1940s anticipated Ian McHarg's scheme by at least two decades. Doing so will provide scholars with new theoretical underpinning for a novel approach to analysing and interpreting Aalto's work, laying the foundation for the possibility of a contemporary interpretation of his planning principles. Bringing Aalto's organic proposition to the forefront of the current disciplinary debate aims to improve the well-being of urban inhabitants by maximising their exposure to the natural environment and shaping a sense of community.

Keywords : Alvar Aalto, organic urbanism, regional planning, spatial analysis, critical regionalism

Self-Built Neighborhoods: Looking At Urban Morphology In The Main Agglomerations Of Chile.

Andrea Urbina (Department Of City And Regional Planning, Cornell University.), **Fernanda Gomez Saenz** (Institute Of Urban Design And Planning, Leibniz Universität Hannover)

Innerburbs of Latin American cities constitute a relevant area of now consolidated neighborhoods. Ward et al. (2011) define the innerburbs as the old periphery, the first ring of the city close to city centers, built progressively through self-built efforts. In Chile in 1965, the government established a national housing policy known as Operación Sitio [1] that constitutes a milestone in the country's housing history and the daily relationships within the plots and neighborhoods. This housing policy delivered inhabitants a plot of land where families self-built their dwellings, promising to be urbanized by the State in the future. During the '50s and '60s, significant migrations from the countryside to the city occurred, which consolidated these innerburbs areas over time. The origins of these neighborhoods created strong community ties since the self-construction process depended on the inhabitants' resources they could obtain. Between 1959 and 1988, in the capital city, Santiago de Chile, 466 neighborhoods were created, with 216.367 plots between 160 and 250 square meters (Tapia, 2016).

Moreover, in Santiago, the accessibility to services, plus the social and family networks, have enhanced the cohabitation of many families and kinship relations in the same plot. Families prefer to live as allegados or cohabitate in well-located areas before getting a housing subsidy in the periphery. In fact, 90% of the families who live as allegados want to stay in their original neighborhood (Tapia et al., 2012). Indeed, in the same plot, even four generations of the same kinship can live together, where children and the owners' grandchildren share inner spaces.

Self-built neighborhoods formed in the 60s have been amply studied in Chile's capital, Santiago, but not in the rest of the country. Considering the magnitude of these neighborhoods and the opportunities for regeneration, this article aims to investigate the composition of self-built neighborhoods in other cities where Operación Sitio was also put in place. Antofagasta and Concepción, with 571.748 and 1.379.015 inhabitants, respectively (Corporación Ciudades, 2019), constitute the country's second and third urban agglomeration. Both cities have received important urban changes, particularly given the recent natural disasters and migratory waves from other Latin American countries.

This paper aims to look in-depth at Operación Sitio neighborhoods in Antofagasta and Concepción, seeking to understand their urban structure centered on urban morphology. Historically, these neighborhoods have compounded the first ring of Latin American cities. However, studies around innerburbs have been analyzed mostly in capital cities. Thus, this research's central question is: How are the urban morphology and dynamics in Operación Sitio neighborhoods in Antofagasta and Concepción? To answer this question, the methodology includes a spatial analysis of historical maps from the formation of these neighborhoods in the 50s and 60s, together with current shapefiles of the cities. The analysis will also include descriptive data using a national socioeconomic survey (CASEN 2022) and Census (2017).

This research will contribute to discussing ways of renewing innerburbs areas of Latin American cities. Particularly in Chile, since 2015, a housing policy called Pequeño Condominio[2] emerged as a state subsidy towards urban regeneration processes inside plots of Operación Sitio neighborhoods. This new initiative proposed to preserve family and social networks inside the plot where families and community ties are predominant, placing the inhabitants at the center of the public policy discussion. Thus, this research can contribute to expanding the possibilities for developing urban strategies promoting the co-residence logic through the housing policies of urban renewal outside Santiago, focusing on Antofagasta and Concepción.

[1] Emergency public policy originated in 1965 by Eduardo Frei Montalva's government.
[2] Translated as Small Condo.

Keywords : *self-built neighborhoods , latin america, Urban morphology*

Last Bathhouse Standing: The Allen Street Public Bath, New York City, 1905 - 1975

Naomi Adiv (University Of Toronto Mississauga)

The municipal public bathhouses of New York City first opened in 1901, in the immigrant-heavy lower east side of Manhattan. In an era that saw the birth of public health, and many civic institutions, more than three decades of plans, attempts, and legislation led to municipal bathhouse construction. Various historiographies depict the baths as sites of cleansing and socializing in crowded immigrant-dense sectors of the city, as well as a project of social control on the part of elites. While these bygone public spaces are well-studied by planners and social historians, they have been rendered as part of the Progressive Era project for the masses that flourished based on need, and then disappeared when plumbing came in to most of the city.

In this paper, however, I focus on the bath that outlived them all: the Allen Street bathhouse, which remained open for seventy years. Most of the other two dozen public baths of the early 1900s were either shuttered, or converted to pools and recreation centers by mid-century. This downtown bath, however, remained operational for decades after the ideas and budgets that supported public bathing were no longer central to state projects of public life. Indeed, by 1960, Allen Street was the last bathhouse, as such, standing, serving more than 131,000 people each year, 28,000 of them women, and charging nothing for admission but a quarter for the use of soap and towel. (Allen Street would finally close in the face of the city's fiscal crisis of the 1970s.)

While the Allen Street bath was sited in New York City, in the United States, the larger municipal bathing project surrounding it had an international valence – particularly in concert with European cities - as urban populations boomed with migrations of the late 19th and early 20th centuries, that changed whole economies and ways of life. The liveliness, as well as the social conflict associated with cities of this era, had a robust expression in the kinds of public spaces developed in cities.

Using archival sources from city agencies, journalistic sources, and oral history, I will examine what caused this bathhouse to stay open. Who were its clients, and what was the continued draw long after public baths for health and hygiene fell out of fashion? Which political agents remained in support of this orphan institution from another time, and who did they represent? Was it simply forgotten and left to operate without interference?

The case of Allen Street is significant because it asks: what persists in the urban environment, even as change continues apace? Furthermore, how many patrons are required for a municipality to maintain a public space – particularly an anomalous one – and who gets to make those decisions? How can we think about the futures of our cities and their spaces through the acts and places that ought not to have occurred, but did?

Construction Of An Interpretation And Presentation System For Railway Heritage In Metropolitan Areas - Taking Shanghai'S Songhu Railway And Its Branch Lines As An Example

Xiaoyan Zhang (Tongji University), **Han Yang** (Tongji University), **Zheqi Zheng** (Tongji University)

Interpretation and Presentation are crucial aspects of heritage conservation and utilization. The abundant railway heritage within a metropolis serves as a unique testament to its developmental history, yet it often lacks a cohesive system of interpretation and presentation.

The railway lines, stations, and their surrounding ares in Shanghai bear witness to the city's journey through opening as a treaty port, striving for survival and progress, pioneering industrial advancement, and embarking on a strategy to re-establish itself as a global city.

In this study, the Songhu Railway and its branch lines are used as a case study to categorize railway heritage into three groups: transportation nodes (such as stations), tracks (including dismantled, abandoned, decommissioned, repurposed, and operational railways), and other spaces related to railway heritage (like industrial buildings and railway communities). It identifies that the current interpretation and presentation of railway heritage are confronted with problems of insufficient systematization and inclusiveness. These issues include: (1) the absence of a clear interpretative theme; (2) the homogeneity and monotony in the types and functions of objects interpreted and displayed, along with their dispersed locations; (3) the singularity of participating entities.

Based on this analysis, the paper proposes a structured system for interpreting and presenting railway heritage across various functional categories and states of use. It advocates for the involvement of railway community residents, employees, designers, and the online public, aiming to enhance the inclusiveness of these interpretative and presentation efforts. This approach seeks to broaden public awareness of the inherent value of railway heritage in metropolitan areas. By anchoring itself on railway heritage, it aspires to stimulate sustainable economic and cultural diversification in the surrounding regions.

Track 16: Networks And Data

NETWORKS AND DATA - Planning and socio-technical systems, digital methods and technologies

Chairs:

- Daniel Florentin, Mines Paris Tech

- Michele Campagna, Università degli Studi di Cagliari

- SaeBom Song, Karlsruher Institut für Technologie (KIT)

Keywords: -

Are metropolitan-oriented major infrastructure networks adequate and aligned with growing environmental pressures and raising calls for just and sustainable urban regions? Planning activities are increasingly destabilised when not ontologically questioned by the environmental turmoil and its different facets. Large-scale infrastructure systems have long been framed as resource-efficient socio-technical arrangements of service provision. However, their material and energy footprint and the dynamics of growth of resource-intensive practices they have often supported have largely been neglected. Can the LTS (Large Technical Systems)-urbanism and the thermo-industrial nexus it encapsulates be somewhat overcome? Is one such transformation a shared concern or a new form of geographical divide? Recent examples like the road projects assessment in Wales, where a vast number of infrastructure projects have been halted or abandoned due to their contribution to environmental degradations, shed light on possible new infrastructural trajectories, hence transforming planning practices in the face of climate pressures.

At a larger level, the activity of planning of/for urban/regional infrastructures thus seems to be torn between potentially incompatible transitions and objectives, i.e. the quest for sufficiency and resource-sensitive approaches on the one hand and continuously growing, supply-driven, material-intensive and carbon-heavy infrastructural developments on the other one. There is a vivid need to equip reflections on what ecological networks and a redistributive sufficiency-oriented ecological planning of infrastructures can be, which coalesces environmental and justice concerns and considers the level of material and social interdependences between territories.

Concomitantly to these raising issues, and possibly in contradiction with them, continuous advances in digital technologies and Artificial Intelligence (AI) have had enormous impacts on the evolution of socio-spatial systems and on planning practices. How is such a transformation shifting the type of problems addressed by planning (only those subject to digitalisation and quantification) and the type of urban order that it entails? This questions how digitalisation may create the new broad geographical and

social divide and pushes to challenge the so-called promise of smart infrastructural systems that are supposed to improve resource efficiency, to grasp their variegated contributions to tackle or even to contribute to environmental and social transformations.

This track welcomes critical contributions on substantive and processual issues and socio-technical approaches, such as (but not limited to):

- Ecological expertise in planning practices (presence, implications)

- Sufficiency-oriented infrastructure networks

- Urban justice, urban sustainability, and urban networks

- Planning support methods, technologies, systems

- Conflicts around digital technologies in urban planning

- Articulation between digital and ecological perspectives in planning

- Alternative forms of planning for socio-technical systems and their governance (grass-rooted, demand-oriented, resource-sensitive, etc.)

- Infrastructural violence, inequalities of access to networks and planning

- Big geospatial data for planning (open, social, volunteered, sensors, infrastructures, platforms)

- Urban and regional models (multi-dimensional representations, digital twins, Virtual/Augmented reality, simulation, impact assessment, forecasting, what-if, etc.)

- Artificial intelligence in spatial planning and governance

- Innovative technologies for smart urban and territorial systems (in transport, energy, nature, agriculture, tourism, housing, industry, etc.)

- Diffusion of digital technologies in spatial planning and governance research, education, and practice

- Social appropriation of digital technologies in urban and regional systems.

Artificial Intelligence

The Game-Changing Role Of Ai In Urban Development Decision-Making: Trends And Future Perspectives

Nataliia Yehorchenkova (Slovak University Of Technology In Bratislava), **Oleksii Yehorchenkov** (Slovak University Of Technology In Bratislava)

Applications of artificial Intelligence (AI) for sustainable regional development are indispensable in today's intricate world, given the escalating volume of data in the field of spatial planning. AI applications can play a critical role in supporting sustainable regional development by providing valuable insights and information that inform decision-making and guide action. Through the use of data analytics and reporting tools, organizations can gather, process, and analyze large amounts of data to uncover patterns, trends, and relationships that inform sustainable development strategies. For instance, AI applications help identify critical areas where improvements in environmental and resource utilization are essential, such as reducing energy consumption, waste generation, or biodiversity reduction.

AI applications also can support sustainable spatial development by providing stakeholders with data-driven insights into the social and economic conditions of communities. For example, by analyzing demographic data, municipalities, cities, and regions gain insights into the needs and aspirations of their residents. This information can be used to develop targeted programs aimed at promoting social, environmental, and economic well-being.

The paper explores the transformative influence of artificial intelligence on decision-making processes within the realm of urban development. Investigating emerging trends, the research provides insightful perspectives on how AI is reshaping traditional approaches to decision-making within regional authorities and urban planning frameworks.

The analysis encompasses using of application of AI-supported tools designed to enhance the efficiency and effectiveness of planning processes. By incorporating these tools, the paper underscores their potential to revolutionize decision-making in local and regional planning and governance. These AI-driven solutions serve as interfaces for data services, facilitating a more efficient utilization of available datasets in the decision-making processes that drive urban development initiatives.

Additionally, the paper discusses the application of artificing intelligence techniques in spatial planning, offering benefits such as improved decision-making, increased processual efficiency, enhanced transparency, and a deeper understanding of policy implications. These benefits contribute to a more informed, sustainable, and efficient urban development decision-making landscape.

The objective of this research is to provide a comprehensive overview of the game-changing trends and insights facilitated by AI in the field of urban development decision-making. By delving into the transformative potential of AI and its impact on decision-making processes, this paper aims to contribute valuable insights to the ongoing discourse on the evolving landscape of urban planning and governance.

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Keywords *: Urban development, Artificial Intelligence, decision making*

Ai In Urban Climate Change Mitigation - Systematic Mapping Of Urban Planning Impact Areas

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Cities worldwide are increasingly committed to practicing sustainable urban planning, for example as a means to reduce GHG emissions radically. The potential, however, of advancing artificial intelligence (AI) and machine learning (ML) to aid these efforts remains largely untapped and under-researched (Rolnick et al 2022; Milojevic-Dupont, Creutzig 2021). This paper aims to bridge this gap by providing a comprehensive overview of existing research at the nexus of ML, urban planning, and climate change mitigation. We conducted a systematic mapping covering almost three decades of research (1994–2022) to identify and analyze a diverse set of impact areas across sectors. Next, we assess how those impact areas correspond to urban mitigation options recommended by the Intergovernmental Panel on Climate Change (IPCC) to gain an understanding of the nexus' mitigation potential.

Based on our analysis of 1215 relevant records we find that the majority of the literature concentrates on building and transport sectors, in agreement with urban action space. Overall the range of impact areas is wide (over 40 impact areas), ranging from using ML to predict CO2 emission production linked with urban form features to optimization in wastewater management. We observe that some impact areas that have been highly researched while other impact areas received little attention. Among the most researched impact areas we find 'traffic management and routing', 'spatial configurations and travel patterns', or 'district heating and cooling'. We find that most researched impact areas match IPCC urban mitigation options with high mitigation potential. The literature is geographically skewed, with a predominant focus on China, the USA, and Europe, and a notable underrepresentation of the Global South. We identify more than 230 different cities in the sample, with eight of them studied the most. Few studies conduct research in multiple cities across country contexts. The literature focuses on using ML to optimize existing systems or impact simulation of planned interventions and omits quantitative evaluation of GHG emission reductions. This study provides a differentiated overview of research at the nexus of ML and urban climate change mitigation. As such we contribute to a better understanding of the role ML can take in low-carbon urban planning, as well as its limitations. We discuss leveraging governance to further align AI development with high-impact climate change mitigation solutions as well as for solving challenges around scaling ML-based approaches across urban contexts. We call for transdisciplinary collaboration in steering this emerging nexus towards meeting the real-world needs of cities, specifically urban planners, in implementing climate change mitigation.

Anticipating Future Demographic Shifts: Ai-Enhanced Population Projection Methodology

jiah lee (Seoul National University)

This study developed a method for selecting and applying artificial intelligence (AI) models as a new approach to support future urban planning. Problems with the current urban planning process include the application of uniform planning criteria that do not take into account municipal characteristics and conditions, and under- or overestimation of population and land estimates.

In particular, the population estimation method uses a cohort methodology that extends past trends, which has been shown to have several problems. These include difficulty in accounting for non-linear trends, difficulty in accounting for a variety of physical and environmental variables, limited data availability, and the inability to predict inflection points in population change trends. Inflection points are points where a graph takes a sharp turn, indicating a point at which the population plummets or surges.

In this study, we developed a population estimation model using artificial intelligence algorithms to reflect the diverse and non-linear changes in modern cities. We used three models to model sequential data: recurrent neural networks (RNN), gated recurrent units (GRU), and long and short-term memory (LSTM). As a first step, we derived the estimated population of the target year using time series training data of the resident population.

The analysis process was as follows. First, we set the spatial scope of Seoul, the capital of South Korea, as the analysis case, the target year as 2022, and the historical data to be trained from 2008 to 2021. Second, we reviewed the population status of the target area in detail, comprehensively identifying gender and age groups, future population estimates from Statistics Korea, planned population status, population growth and decline, and migration status. Third, we estimated the resident population using the trend extension method and AI-based model. The specific steps of the AI analysis method are as follows: Input data variables and objective functions were designed, and various scaling datasets were formed using MinMaxScaler to improve model performance. Next, we designed a neural network structure to find the optimal solution of the time series data and performed hyper-parameter tuning. Finally, the model was tested with training and learning data, and the performance of the model was evaluated using evaluation metrics such as MAE, MSE, RMSE, and MAPE.

As a result of the analysis, we derived a table of population estimation results for 5 years up to the target year, and checked the reliability of each method (using MAE, MSE, RMSE, and MAPE values), and found that the AI-based model showed higher accuracy compared to the traditional estimation model.

These results prove that AI-based estimation methodologies can estimate inflection points and factors of population trends that are difficult to estimate using conventional methods, pointing to the need for new methods, technologies, and systems in urban planning, and suggesting that conflicts around digital technologies in urban planning need to be discussed more actively. In the future, we plan to explore the characteristics of future population change based on AI, reflecting environmental changes by considering more variables.

Utilizing Artificial Intelligence For Declining City Classification And Policy Application: Suggestions For Revising South Korea'S Urban Planning Guidelines

Minju Kim (Kict)

This study addresses the critical issues of low birth rates and aging populations, leading to a looming crisis of population extinction, with a particular focus on South Korea. In this context, the nation has experienced a continuous population decline for three consecutive years up to 2022, with the elderly population aged 65 and over constituting about 20% of the total population. This demographic shift presents a formidable challenge to urban sustainability and growth, necessitating innovative policy responses. To aid in the formulation of such policies, this research endeavors to harness artificial intelligence technology to develop a sophisticated classification algorithm. This algorithm aims to not only diagnose the phenomenon of population decline in cities but also to categorize declining cities into distinct types based on their unique characteristics and challenges.

First, utilizing time-series k-means clustering algorithm, the study meticulously analyzed the population change trends of 161 Korean cities across the nation. The determination of the optimal number of clusters was achieved through the elbow method and silhouette scores, resulting in seven distinct city types. These types include nonlinear growth/decline, stable growth/decline, inverted U-shaped, and low/high volatility increase types. This nuanced classification allows for a deeper understanding of the varied dynamics and trajectories of urban decline, moving beyond simplistic binary categorizations of growth versus decline.

Second, further advancing the research, AI-based population prediction models were developed for each city type. These models delve into a comprehensive analysis of factors influencing population change, encompassing demographic variables such as birth, death, and migration, as well as urban characteristics like city development and infrastructure placement, and architectural elements including building types and construction years. This multifaceted approach enables a granular understanding of the drivers behind population dynamics in each city, providing a robust foundation for targeted policy interventions.

The implications of this study are profound. By equipping urban planners and policy makers with a detailed typology of urban decline and the underlying causes of population change, the research facilitates the formulation of tailored, evidence-based policies. These policies can more effectively address the specific needs and challenges of each city type, thereby enhancing the resilience and vitality of urban areas in the face of demographic shifts.

In conclusion, this study represents a pioneering effort to integrate AI technology into the field of urban planning and policy formulation, offering a novel and impactful approach to tackling the complex challenges posed by population decline and urban decay. The findings of this research hold significant promise for informing and guiding the development of adaptive, forward-looking urban policies in Korea and potentially in other regions facing similar demographic challenges.

Keywords : *Machine learning, planning, population*

Big Qed: Thinking Together With Ai To Learn From Big Qualitative Engagement Data

Joanne Tippett (Planning, Property And Environmental Management, University Of Manchester), **Fraser How** (How Creative), **Justin Larner** (University Of Cumbria)

Engagement in its many forms—with citizens, communities & stakeholders—is recognised as a vital component of successful systemic change towards more sustainable and equitable societies. We spend a huge amount of resource and time gathering diverse views to inform projects. There is, however, little understanding, capacity or supporting infrastructure to enable the ever-increasing data from engagement activities to be stored, integrated and—critically—learned from over time. This paper sets out findings from a Turing Institute funded project to develop a specification for an open platform to support learning from the outcomes of participatory engagement.

Data analysis from of fuzzy, qualitative data is time-consuming, requires skill, and is often not feasible for very large data sets. Artificial intelligence currently "excels at providing descriptive overviews, frequency counts, and statistical connections" in qualitative data, and can potentially "support developing qualitative insights from large datasets" (Feuston and Brubaker 2021, pp 1-2).

AI technologies can increase feasibility and effectiveness, from digitisation of handwritten contributions and automation of data encoding, through to AI-enhanced analysis of data, finding patterns and actionable knowledge. This would alleviate an oft-reported barrier to successful engagement, the difficulty of managing large quantities of data that have been contributed by individuals and communities.

This project has emerged from decades of engagement with stakeholders through the development and deployment of Ketso, a hands-on toolkit for community and stakeholder engagement (Tippett and How, 2020). This has led to codification of three pillars of effective co-production processes: 'hear everyone's voice', 'structure effective thinking and creativity' and 'link information across time and place'. AI has potential to add value to all three pillars. It would enable the capture, encoding and digitisation of large quantities of qualitative data, including handwritten notes, which would help turn under-used outputs from participatory workshops into a data commons. It would enable learning about the process of engagement itself: what sorts of questions, asked in which order, elicits effective dialogue and creative thinking? The ability to search for patterns across disparate data sets would enable learning over time and place – which is frequently limited by a lack of resource and capacity amongst project officers to analyse large data sets.

There are, however, many ethical concerns about the deployment of AI. A lack of trust is seen as a major weakness in a recent systematic review of public participation and AI (Du et. al., 2023). Ensuring that humans are 'in the loop' and actively engaging with analysis (Küstermann and Bittner 2022) is a key component of the proposed system.

Specifying the open learning platform was informed by reviews of participatory data types and analysis methods, and the affordances and limitations of existing platforms. Three stakeholder workshops with 85 participants spanning agencies, funding bodies, academics and project officers, demonstrated the value of the proposed platform for potential users.

A key component of this proposed platform is mapping multiple data sets with fuzzy boundaries, and enabling new ways to visualise the data through AI-assisted sentiment and thematic analysis across multiple geographies. Such application of AI may reduce inequities in access to mapping and analysis (Huck et al, 2021). Exploring the intersection of spatial analysis and the rich seams of data that emerge in participatory workshops will lead to improved knowledge of cross-sectoral sustainability solutions and new spatial insights.

In use, the proposed platform will create a new, open and accessible data commons, which we are referring to as 'Big Qualitative Engagement Data'. This has the potential to become a game-changing resource for people to learn more about what works, for whom, where, and why, as we collaborate to build new systems and solutions.

***Keywords** : Participatory planning, artificial intelligence, fuzzy data, qualitative analysis, big qualitative data*

Data, Smart City

Openness As Smartness? : Sociotechnical Evolution And Imaginaries Of Open Data Initiative And Smart City In The Republic Of Korea

SaeBom Song (Karlsruhe Institute Of Technology), **Andreas Lösch** (Institute For Technology Assessment And Systems Analysis (Itas), Kit)

This paper argues for approaching the open data initiative as a socio-technical imaginary within the evolving socio-technical narrative of the smart city in the Republic of Korea. By conducting a discourse analysis of primary source material from prominent public websites and official public documents, forums, and social media over a decade, as well as the 11 narrative interviews, I argue that the socio-technical imaginaries of openness and smartness in Korea have evolved in their different and pluralistic path. However, amidst the global embrace of open data and smart city in urban planning, I want to identify how the globally shared values and expectations of open data and smart city are being shaped, evolved, and developed in the nation-specific context of South Korea.

In the last decade, Korea is well known for technical innovations and the rapid implementation of the vision of a smart city. Korea is a significant example of how smart city policy has evolved over time, demonstrating that smart city policy is changing dynamically. In the early stages of smart city development in Korea, the national focus is on top-down techno-driven adoption to solve urban challenges by actively establishing digital infrastructures and services. The smart city driven by digital technologies was the tangible manifestation of an envisioned political goal and the projection of smartness onto the city as a whole, dominated by a global corporate discourse. Beyond this technological determinism and corporate narrative, sociotechnical narratives of the smart city in Korea have recently underlined that the autonomous participation and collaboration of civil actors will foster greater sustainability and resilience in urban planning in the long run.

Apart from smart city initiatives. the open data initiative has become one of the most successful digital infrastructures since 2012. In the beginning, the implementation of open data initiatives was strongly driven by distinctive national digital policies, a vigorous commitment to the administrative transformation of local government, and local-specific social issues. However, the concepts of smart city and open data initiative have ultimately become complementary, and each can leverage the other's narrative to reinforce the development logic of the respective projects. This complementary relationship between smart city and open data has been successfully intertwined over the past few years, accelerating the formation of integrated policies and their performative realization in the socio-technical imaginaries of both.

Furthermore, I argue that the premise of the smart city and open data imaginary of the Republic of Korea is strongly rooted in a particular narrative that emphasizes technological solutions to achieve more economic growth, political participation, better urban management, and the resolution of urban crises. Such a sociotechnical framing of shared beliefs, values, and expectations surrounding the smart city and open data initiative in Korea creates a visionary and reactionary force and presents itself as "politically benign and commonsensical (Kitchin et al., 2015)". However, the Seoul Metropolitan Government's open data initiative reveals that there is a discrepancy between the actual use of open data by citizens and the private sector and the sociotechnical narratives pursued by open data policies.

Consequently, this work addresses the limitations to the sociotechnical imaginary of open data initiatives in the Republic of Korea and suggests that we require to reimagine what openness and smartness can mean and create counter-narratives that open up space for alternative values and models.

Keywords : Smart City, Open Data, socio-technical systems, socio-technical imaginaries, STS, smart technologies

Reflection And Prospects On Data Sources, Management, And Application In Chinese Smart Cities From The Perspective Of Platform Urbanism

Qianhui He (Southeast University), **Shijie Sun** (Southeast University), **Jinyi Wang** (Southeast University)

Smart cities are on the rise globally, in which data resources are regarded as key elements in the process of smart city construction. However, at present, the data in smart cities are mostly obtained through tracking and detection by sensors and control rooms. In addition, the difficulties in managing, transforming, sharing, and interoperability of heterogeneous data have led to the problem of "data silos". Moreover, urban issues and developmental trajectories are complex and difficult to be solved by data computation alone.

From the perspective of platform urbanism, this study attempts to take advantage of the platform's features of a broad user base, high interactivity, diverse content generation, and open sharing to provide new ideas for smart city development. The research posits three strategic approaches:

Firstly, it suggests leveraging platforms to engage the public as distributed agents in collecting both subjective and objective urban data. This encompasses the gathering of voluntary, real-time, participatory data including activity paths, spatial imagery, textual information, and emotional insights. Such data acquisition is crucial for a nuanced understanding and experience of urban life. It not only enriches the human-centric data sources vital for smart city construction but also stands as an invaluable resource for urban development and management.

Secondly, the study advocates for the interconnectivity of different platforms through Application Programming Interface (API) technology, alongside the use of wireless and location technologies, to assimilate diverse subjects and spaces into a cohesive smart platform ecosystem. This system aims to facilitate smoother data collection and transmission, integrate various spatiotemporal data based on geographical coordinates, and store them effectively. In this way, it may establish a solid foundation for refined data analysis and utilization.

Thirdly, the data sharing achieved by the platform provides a new path for the use of collective wisdom for data analysis. It allows public institutions, NGOs, scholars, and citizens to access and utilize this data, engage directly in discussions pertaining to urban issues, and express their collective voices through these digital mediums. This convergence of collective intelligence is pivotal for identifying, analyzing, and resolving complex urban issues, thereby advancing towards smarter urban governance.

However, the study also recognizes and emphasizes the importance of addressing the associated challenges. These include ensuring data privacy and security, mitigating the risks of data monopolization, and overcoming the "digital divide" that isolates technologically disadvantaged groups.

From the perspective of platform urbanism, this study considers how to enhance the diversity and human-centric nature of data access with the help of platforms, strengthen data resource integration, and advocate the use of collective intelligence to process data and solve urban problems. It provides insights for transitioning from mechanical automation to demand-driven, human-centric smart urban development.

Keywords *: Platform Urbanism, Smart Cities, Data, Human-Centric, Collective Intelligence*

How Data Centers Have Come To Matter: Governing The Spatial And Environmental Footprint Of The "Digital Gateway To Europe"

Jochen Monstadt (Utrecht University), **Katherine Saltzman** (Utrecht University)

Data centers, the material backbone of smart cities, power the digital economy and advanced digital services. Whereas metaphors of "the cloud" and "cloud computing" obfuscate their materiality, data centers consist of massive computing and storage infrastructures. To date, smart city research and policies have been concerned less with the materiality of enabling data infrastructures than with the material effects of increasing datafication and digitalization of urban services. Only recently has urban data infrastructures' rapidly expanding spatial and environmental footprint pushed their materialities to the forefront of public and academic controversies. Building on recent research on cloud geographies and ecologies, this article traces the politicization and emerging regulation around data centers in the Amsterdam Metropolitan Area, the self-proclaimed "digital gateway to Europe". Here, after years of unconditional political support and regulatory passivity, a cascade of policy reforms has been introduced to confine data center growth. Nevertheless, severe urban governance challenges remain in mitigating data centers' massive electricity, resource, and land demands, and in exploiting their residual heat. We thus advocate broader dialogue across the affected policy fields and silenced publics about which political objectives merit prioritizing given the scarcity of electricity and land.

World Bank's City Planning Labs Global: Towards Municipal Spatial Data Infrastructure And Ecosystem Capacity For Smarter Cities

Gayatri Singh (World Bank, Senior Urban Development Specialist), **Champaka Rajagopal** (World Bank And Urban School, Sciencespo, Paris)

Despite tall promises as panacea for growth and better quality of life, the idea of 'smart cities' has neither yielded results nor gained trust, particularly from governments, businesses and inhabitants of low and middle income countries. Critics have shown how siloed governance arrangements, technology bias and fragmented decision-making processes adopted by Smart Cities programs have exacerbated uneven development, increased disparities in access to basic services for all, and thwarted the (re) distribution of resources, leaving city governments weaker in terms of political, administrative, fiscal and financial management capacities than before. Several perspectives are relevant from countries of the Global South. Researchers in urban law and policy in India for instance, argue that national government's advancement of new institutional arrangements such as Special Purpose Vehicles for governance of smart cities under the national government's mission, circumvent democratic oversight while channelling public and private sector investments to privileged spaces controlled mainly by political and business elite (Idiculla, 2016; Sood and Kennedy, 2016; Sood, 2019). Human geographers engaged with post-colonial urbanism throw light on the emergence of 'smart citizenship', characterised arguably by the pursuit of coercion by the state and technologically motivated performance by the citizen, given technocratic enclosures of the global smart city (Datta, 2018). On smart cities initiatives in Indonesia, researchers show how voids in systemic and substantive knowledge generate information asymmetries between national and local governments, produce incomplete projects and impede the desired efficient delivery of services (Panjaitan M.P, et al, 2023). They urge the national government to establish processes and standards for management of smart cities which will aid people's overall prosperity (ibid). Others discuss challenges in effective implementation of national government initiatives in Indonesia that support sharing and reusing geographic information for cities through National Spatial Data Infrastructure (Dwi Putra, et al, 2019). The management of geo-spatial infrastructure, they argue, suffers insufficient technological, financial, and human resources (ibid). Practice driven educators focus on methods and tools in geo-spatial information science as crucial to collaborative decisions in sustainable spatial and environmental planning and territorial governance (Campagna, 2006; Murao Moura and Campagna, 2018).
A gap in scholarship and practice of smart cities is conceptual framings and operational protocols in the use of geo-spatial data for planning, that combines institutional arrangements, technology standards and national-local government capacities, with an aim to alleviate profound, real life problems for inhabitants of cities through an integrated approach.

As a response, this paper argues that an ecosystem approach to Spatial Data Infrastructure is essential to steer fundamental shifts in thinking about smart cities, where technology solutions must go hand in hand with institutional arrangements, people, data and systems to support municipal governments deliver their functions effectively. While international organizations and national governments are advancing the concept of National Spatial Data Infrastructure (NSDI), we contend that the establishment of Municipal Spatial Data Infrastructure (MSDI) at local levels is imperative for effective implementation of NSDI and for bringing governments closer to inhabitants of cities. By mobilizing efforts of the World Bank's City Planning Labs initiative, in three pilot cities in Indonesia, Semarang, Balikpapan and Denpasar, we show how the MSDI approach disrupts data silos, fosters data sharing, incentivizes innovation for problem solving, and builds ecosystem capacity across government agencies, businesses and inhabitants, while offering robust and long-term solutions. The paper concludes with three instances from the pilot cities during Covid-19, to show how the success of this first phase of the initiative has created demand from seven countries across the world to adopt CPL Global's MSDI.

Keywords *: Smart cities, National Spatial Data Infrastructure, Municipal Spatial Data Infrastructure, Ecosystem capacity, Geo-spatial data driven planning*

Insights Into Urban Spatial Dynamics Around Marmaray Stations In Istanbul, Türkiye: Evidence From Location-Based Social Network Data

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The expansion of public transportation systems in large cities is a key strategy for reducing traffic congestion and fostering sustainable urban development. Public transportation hubs, including transfer centers, and stations, are instrumental in enabling intra-urban travel and enhancing accessibility to surrounding areas. However, a deeper understanding of urban activity patterns around these stations is essential for improving urban planning and transportation infrastructure, thereby elevating urban livability (Lang et al., 2020). Traditional research methods, such as surveys and questionnaires, are often limited in their ability to comprehensively capture individual activity-travel patterns over time.

In contrast, the proliferation of location-based services in social media applications, which has ushered in an era where people willingly share their activity-related choices on various platforms like Facebook, Foursquare, and X (formerly Twitter), has emerged as an alternative data source. This has resulted in the accumulation of user-generated data, providing valuable insights into urban activity patterns. This valuable data source contains not just specific geographic information but also offers insights into how different types of activities are chosen for various purposes, categories of activities, and patterns of movement. In the recent studies (Zhong et al., 2016; Üsküplü et al., 2020; Mohammadbagherzadeh and Terzi, 2022), location-based social network data has gained growing interest due to its wealth of information, which links each geographical record to a venue category that explains the reason behind the activities taking place. Consequently, it has opened the door to novel applications, from recommendation systems for physical locations to travel route optimization.

Within this context, the purpose of this research is to demonstrate the possibility and flexibility of location-based data from social media to gain insights into the urban activity patterns around the stations of Marmaray mass rapid transit railway system on the Anatolian side of Istanbul, Türkiye. The research aims to answer two main questions: (1) What are the differences among Marmaray stations in Istanbul in terms of urban activity spaces in their surroundings? (2) What characteristics can be observed through venue data in the surroundings of these stations?

In this direction, Foursquare venue data within 500-meter radius of 29 Marmaray stations, from Üsküdar to Gebze, were collected using Foursquare API database. To reveal the spatial distribution of venues' density and clustered characteristics, Kernel density estimation and K-mean cluster analysis were conducted in ArcGIS pro after data cleaning and categorization in Phyton. As a result, the stations are divided into four distinct clusters: retail-based stations (Cluster 0), stations with a balanced mix of retail and dining-drinking activities (Cluster 1), undeveloped stations (Cluster 2), and stations predominated by dining-drinking activities (Cluster 3). Cluster 1 and 3 comprise the majority of the stations, whereas cluster 2 includes only one station. The results lay a groundwork for the potential enhancement of the strategies and decisions in shaping urban policies and transportation network design.

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Keywords : *activity patterns, Foursquare, Marmaray stations*

Enhancing Transparency In Urbanisation Dynamics: Leveraging Open Big Earth Data For Monitoring Variegated Urban Expansion Impacts

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Understanding variegated urbanisation dynamics is a complex task for two reasons. Firstly, urban areas, inherently tied to specific locations, exhibit unique forms of spatial organisation, structures, and densities. Secondly, urban areas are constantly changing at different scales, driven by broader political, social, and economic dynamics. As a result, cities must exhibit pronounced spatial differences and variegated development trajectories. Recent conceptualisations of massive urban agglomerations (Taubenböck 2019) and the multifaceted dimensions of urban form (Wentz. et al. 2018) have advanced analytical frameworks to explore how the dynamics of urbanisation unfold in a given location. Despite these advances, urban research and planning have historically been constrained by the lack of consistently available and high-resolution information on urbanisation dynamics. The lack is most pronounced in Global South regions, where resources are limited and urbanisation rates are increasing rapidly. Yet, such information is crucial to support decision-making and enhance transparency in planning-related processes.

To address this issue, the paper proposes an analytical framework for monitoring variegated urban expansion impacts from 1975 to 2023. While urbanisation affects all dimensions of life, the focus is on the spatial evolution of urban form, changes in land use and land cover, and the spatial distribution of population. At the heart of the framework is the use of Open Big Earth Data and spatial analysis supported by artificial intelligence (AI). Moreover, the paper quantifies the dispersion pattern (Gerten et al. 2019), the spatial structure (Brown et al. 2022), and the morphological configuration (Zhu et al. 2022) for two highly urbanised regions: the Ruhr Agglomeration in Germany and the La Paz metropolitan area in Bolivia. The paper then suggests, firstly, that urban expansion can be quantitatively traced back to 1975. Secondly, the monitoring of spatial transformations and the significant urban expansion impacts can be supported with near-real-time (NRT) land cover and land use information from 2015 onwards. Thirdly, local climate zone-based classifications allow for a finer-grained, intra-urban analysis of morphological configurations. On this basis, the paper argues that Open Big Earth Data should play an increasing role in urban research and planning. Moreover, the proposed analytical framework is posited as a source of action for enhancing transparency in urbanisation dynamics.

Keywords *: Urbanisation dynamics, Urban morphology, Remote sensing, Land cover and land use, Open Big Earth Data*

Digitalization

Urban Digital Observatory: Socio-Spatial Informatics Model For Collective Urban Experiences, Knowledge Share And Decision-Making

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Since their emergence, urban observatories have taken the form of digital data platforms that enable user access to urban datasets and aid the understanding through accessible data visualisations. Currently, urban observatories are advocating to shift from this initial data-centric approach to a model emphasising social interaction and collective perceptions (Miller et al., 2021, p.10). This paper explores this transition from the socio-spatial network standpoint, examining how urban observatories are adapting user engagement to foster social emergence across various urban scales including regions, cities, and towns. It leverages insights from exemplary crowdsourcing spatial platforms highlighting how these platforms facilitate innovative, user-centric urban planning by amalgamating diverse knowledge, underscoring the potential of participatory approaches in enhancing web informatics and urban development. The research delves into the changing interface of digital urban platforms and data dynamics, with a focus on enhancing user experience, knowledge acquisition, and participatory methodologies for interactive urban innovations and decision-making. The study is part of The Impact Hub project, a town observatory in Loughborough, which seeks to serve as a prime example of this transformative approach, demonstrating how to enhance digital user involvement in urban planning.

Employing an innovative theoretical and methodological framework, the paper conducted a systemic review of the interaction between digital informatics systems including the web interface and data system, the type of knowledge acquisition and user experiences of urban observatories, and exemplary crowdsourcing platforms. The study collates 50 UK and international urban observatories at diverse scales and exemplary crowdsourcing spatial platforms such as OpenStreetMap and Nextdoor. To thoroughly assess the impact of urban observatories on social-spatial dynamics, this research is conducted on three levels: macro (interface system), meso (data structure and technology), and micro (types of user participation). The study is novel in applying representative methods of network analysis, such as weighted network graph (Newman, 2004), to complex structures of digital informatics to derive an assessment of digital urban observatories. Primarily using the path distribution and clustering coefficient to assess the system functionalities at the macro level, the approach involves weighting the data functionalities at the meso level, all while considering the participatory usability of diverse users at the micro level.

Our findings derive socio-spatial classifications of the urban observatory and crowdsourcing platform informatics, primarily focusing on: 1) System features, categorised as rational, natural, and open types, 2) Data functionalities, encompassing institutional, observational, and inclusive aspects, and 3) Participatory usability, which includes authoritative, tactic, and intuitional approaches. Our assessment demonstrates the interconnectedness of various data points and user interactions, underscoring the potential of collective engagements for greater societal impact in urban development. The study further investigates future pathways from crowdsourcing platforms for improving user experience, contributing to a deeper comprehension of daily lives, and augmenting collective urban decision-making. The case study of Nextdoor is particularly illustrative of new participatory features, like user-defined target areas, boost the collective functionality of future local planning. Crucial for understanding local living spheres, such user engagement advances digital systems, including Artificial Intelligence and human-focused digital twins. These technologies enable the platforms to be both hybrid and locational, merging multidisciplinary data to deepen understanding of human life. It underscores the importance of employing socio-technical approaches in the diverse realm of urban governance.

This research shows the growing significance of digital observatories in urban management and public involvement highlighting users' evolving role. The findings underscore shaping a more socially interactive and user-engaged model and it emphasises future trends in advanced digital spatial experience. This will provide valuable insights into how these digital platforms can contribute to social constructivism in diverse urban development, fostering a more human-centred approach in shaping contemporary social-spatial dynamics.

Socio-Spatial Determinants Of Digital Transformation In Istanbul

Burak Belli (Istanbul Technical University), **Turgay Kerem Koramaz** (Istanbul Technical University)

The research on digital technologies has developed in recent years; however, most studies conducted so far have focused on general issues that do not address the main problems of local governments. Thus, narrow-scoped technological solutions overlooking major urban problems have been central to academic research and implementation efforts (Aráuz, 2018).

Today, the ubiquitous use of digital technologies is mainly associated with the concept of smart cities, which has yet to have consensus on its definition. It is a self-claimed label taken by cities that use information and communication technologies (ICTs) intensively for purposes such as increasing their competitiveness, facilitating the provision of urban services, introducing new forms of governance, improving the quality of life and contributing to sustainability (Kitchin, 2014; Mora, Bolici and Deakin, 2017). Although the use of ICTs is deemed a necessity to make traditional cities smarter, it is emphasised that other factors that are not related to ICT -which are understudied in the common literature- are also influential in the digital transformation process (Yigitcanlar, Degirmenci and Desouza, 2022). Digitization is not merely driven by access to the ICTs but also determined by the digital competency and sociodemographic status of their users, and the spatial configuration of the region they are employed in. However, being conducted "in a spatially blind manner", limited empirical studies so far fail to factor in the human capital and address the spatial complexity of urban regions (Haefner and Sternberg, 2020). This study aims to statistically analyse and map the relationship between ICT availability and the internal characteristics of Istanbul's 39 municipal districts within the context of digitization of the city. Findings reveal strong correlations between ICT-related factors such as penetration of broadband and mobile internet, location of ICT companies, free public Wi-Fi service, communication expenditures, adult learning programs on technology; and socio-spatial factors like household size, income, and expenditures, demographic profile (education and age dependency rates); employment and market size; and spatial proximity to social and technical infrastructure.

The research deepens the understanding of socio-spatial inequalities affecting digital transformation in a developing country and the research findings provide a basis for urban decision-makers in the process of policy-making and implementation of planning decisions regarding the future of digital transformation.

An Open-Source And Digital Approach To Urban Complexity

Arjama Mukherjee (Hafencity University Hamburg), **Mehmet Akif Ortak** (Hafencity University Hamburg)

The intricate nature of urban planning often engenders complex information and impedes effective communication between urban planning experts and decision-makers within city governments. Given that decision-makers at municipal, regional, and national levels rely on the expertise of urban planners, the imperative lies in simplifying the intricacies of urban planning. A notable example is the Geographic Information Systems (GIS), a pivotal software for spatial analysis and urban planning complexity (Rai and Kumra, 2011) typically confined to the realm of urban planners and GIS experts, rendering it inaccessible to decision-makers. The critical impediments include the intricate nature of many GIS systems and their associated high costs, coupled with limited customization possibilities. In response, the TOSCA Toolkit for Open and Sustainable City Planning and Analysis, an open-source web GIS tool, was conceived as a solution characterized by low complexity, affordability, technological simplicity, and high customizability (Moleiro, Mukherjee and Noennig, 2023). Developed collaboratively since 2019 by HafenCity University Hamburg (HCU) as a research partner and the German Agency for International Cooperation (GIZ) GmbH as a funding partner, TOSCA aims to devise strategies and tools for sustainable urban development, initially piloted in India and Ecuador, and subsequently expanded to Palestine from 2022, engaging additional local partners. This scholarly exposition delves into the evolution of TOSCA, tracing its development in various global regions (Mukherjee, Moleiro and Noennig, 2023) and its ongoing upscaling in four Indian partner cities—Chennai, Kochi, Mangaluru, and Manikonda. The paper elucidates the methodological approach employed to translate intricate urban challenges into technical solutions, facilitating effective communication with decision-makers within city governments. Focusing on the Master Plan, citizen participation, and urban flooding in the Indian context, the paper scrutinizes the process of city and use-case definition that culminated in the delineation of generic technical functions and features within TOSCA, designed to address the problem statements articulated by the four cities. The investigation aims to ascertain the effectiveness of TOSCA in mitigating complexity for decision-makers, considering its potential impact in rapidly urbanizing contexts, particularly in countries with strong technical ecosystems such as India. Additionally, the paper contemplates the role of tools like TOSCA in democratizing urban planning by rendering GIS accessible to non-experts through the power of FOSS (Yap, Janssen and Biljecki, 2022). Its overarching objective is to explore the viability and extent of simplifying complexity to enhance communication between urban planners and decision-makers in cities, ultimately expediting decision-making processes and bolstering efficacy in urban planning endeavours.

Keywords *: digital, opensource, urban planning processes, GIS, urban complexity*

The Open Source Option For Experiencing Urban Simulations In Hamburg

Catherine Vandermeulen (Hafencity University), **Maria Moleiro Dale** (Hafencity University)

Digital Twins and digital twinning have become a top technological-entrepreneurial strategy in the last ten years. Inspired by the physical twining process used by NASA in the 1960s in the Apollo 13 mission, the concept flourished with the advent of the IoT, making the process more accessible and cost-effective for businesses. Digital twins have since been applied to all kinds of objects, systems and process development in multiple industries. The drive behind such a technological-entrepreneurial strategy is often but not limited to – improved efficiency, reduced costs, and enhanced decision-making. Since there is this common understanding that DTs can also have potential benefits for sustainable urban design and climate adaptation, as well as supporting the democratization of the data required for decision-making, we propose to further explore the evolution of DTs in the urban planning sector through the interim results of the Connected Urban Twin (CUT) Prototyp project funded by the Hamburg Port Authority (HPA). In this context, we will focus on the following questions: 1) What opportunities and challenges do DTs pose? 2) What are the policies supporting DTs? 3) How are planning practices being transformed by DTs?

The CUT-Prototyp project is an online simulation tool that supplies algorithmic analysis and predictive simulation within the framework of the City of Hamburg's Open Source Geoportal, known as the Masterportal. Specifically, the system demonstrates the capacity to simulate two environmental performance factors: 1) wind[ii] and 2) noise[iii] in a 2D web-based setting. The simulation provides a rapid assessment of a user's selected urban area with wind results displayed on a scale using Larson's criteria and noise results in LDEN (Day-evening-night levels) using a dBA scale, where the sound is evaluated for human perception. Applied for the first time within the CUT Project[iv] of the City of Hamburg, Germany, these new simulations are based on the COUP (López Baeza, et al., 2021) which is a physical touch table initially designed to support the decision-making of designers and planners in the process of developing sustainable urban design proposals and competition juries mandated for the evaluation of the same proposals.

The CUT simulation tool is a step in a new direction giving open access to data that was previously only accessible to planners and architects. Creating an online tool to enable testing of selected urban areas provides open access to pedestrian-level wind and noise simulations. This allows users of the Masterportal to combine urban data that are not only used for visualization but also for what-if scenarios. For example, how will a neighbourhood develop if traffic decreases or wind velocity increases? Thereby identifying areas with dangerous wind turbulence or with insufficient natural airflow. This is all without having to gather data via a lengthy process of live sensors. Likewise, any user can click on a simulation to understand what the potential increase/reduction in traffic volume or speed would mean in terms of noise. In using a descriptive approach and reviewing user testing we hope to contribute some insight into the evolution of digital twins in urban planning in the Hamburg context.

[ii] Collaboration with InfraRed City GmbH, a project initiated at the Austrian Institute of Technology

[iii] Adapted from the open source Noise Modelling Software of the Institut francais des sciences et technologies des transports, de l'aménagement et des réseaux

[iv] CUT Project is a collaboration between the Cities of Hamburg, Munich and Leipzig financed by the Bundesministerium für Wohnen, Stadtentwicklung und Bauwesen.

Social Digital Twin: A View From The Urban South

Meirav Aharon Gutman (Smart Social Strategy Lab, Technion), **Shahar Haskell** (Resasrch Student), **Bat El Ravid-Yosef** (Faculty Member, Sce, Israel)

Urban Digital Twin (SDT) is a computerized platform for data collection, representation and analysis within spatial models (Batty:2018), it mainly concentrates on the physical aspects of the city. We asked what new horizons open up in analysis, representation, and formulation of planning policy when dealing with social issues through the platform of SDT. SDT, we suggested (Ravid Yossef and Aharon-Gutman:2022) contributes to the theory of urbanism because it engages in new ways the physical and the social components of the city. At the same time, we proposed a protocol in which we explained the steps in the production of social digital twins.

We challenge ourselves and ask in what ways social digital twins can shed light on the neighborhoods of the "South"? In formulating the question, we rely on the concept of the "Global South" which seeks to place at the center of the investigation on and within the neighborhoods and populations that are in ongoing socio-economic struggle. The agenda of the Global South is both thematic and raises questions of poverty, exclusion, and inequality, and the epistemological, offers the Southern view as a framework for an overall urban interpretation (De Satgé and Watson: 2018).

Working from and about the southern neighborhoods is a significant challenge because there are many cases cataloged as illegal and there is a large undocumented population in those hoods. Therefore, SDT "from the south" requires a combination of two seemingly different frameworks: the first sees the city as a scientific event that relies on statistics and AI, and the second relies on the digital humanities and sees the city as a text that advanced modeling and visualization technologies enable us to re-read the cities.

Digital humanities (DH) makes use of digital technologies to support research in the humanities as research on the new capabilities for knowing the world around us. These technological capabilities include the collection and processing of substantial data, audio-text-image conversion, advanced scanning and mapping, visualization, and more. They are the capabilities that create a new space of activity for the research community, with new horizons for collection, coding, analysis, and the presentation of quantitative and qualitative empiricism (Gibbs, 2016).

Within the world of DH, this study focuses on the relationship between society and space - the exploration of this relationship is referred to as spatial humanities (Bodenhamer et al., 2010).

In the lecture, we will share the first findings of the research. We will show how an AI-based analysis helped us formulate patterns about the weakest groups in society: we created an expanded database according to the scale of the "block", and we collected more than 400 physical and social variables about the neighborhoods. Using an algorithm (Wizwhy) we asked which social variables are correlated with the parameter of the proportion of apartments up to 30 square meters in size. The result was a series of laws that bound older men, with high seniority in the neighborhood, who owned the apartments. Another series of findings identified a high correlation to small apartments for older women who did not own the small apartment and the older they were, the more precarious their ownership pattern and labeled as squatters. The contribution of this investigation is enormous in imitating the exact mechanism of the populations suffering from housing insecurity.

These findings, based on statistical analysis, underwent another analysis - this time from the angle of digital humanities. Through the computerization of historical maps and an analysis of the buildings according to years, I wish to give the statistical findings a broader interpretation.

Keywords *: Social Digital Twin, Digital humanities, Mapping, Big Data, Grid, Models, Territorial Resilience. , Global South, Urban Sociology*

Miscellaneous

Local Residents' Grassroots Spatial Planning And Design: Findings Of A Geodesign Study In The Coastal Quartu (Italy)

Michele Campagna (University Fo Cagliari), **Laura Tolu** (University Of Cagliari)

The contribution aims at demonstrating how geodesign methods and tools may enable intensive planning and design workshops, and the development of a meaningful strategic scenario designed by local residents, and at the same time increasing understanding and expanding perspectives on most urgent sustainability issues for the participants. In the latter sense, beside building a meaningful future development strategic scenario the process itself represents a capacity building exercise which may enable citizens to earn competence for further active citizenship, or in other words, to contribute to build a smarter community as cherished by SDG 11.3.

The above assumptions are demonstrated on the base of the findings and critical analysis of the results, both in terms of the process and of its results, of a grass-roots participatory geodesign workshop involving more than thirty local residences from the coastal Quartu Sant'Elena (Sardinia), which was held in 2023. In twelve hours spread over three meetings, the participants, thanks to the support of a user-friendly Planning Support Systems (i.e. www.geodesignhub.com), were enabled to express their individual ideas in a spatially-explicit meaningful way, to share them with others, to assess their possible conflicts or synergies as well as their impacts, and eventually to select among them to compose through iterative co-design a final scenario based on consensus through negotiation.

The workshop, it is argued, represented a learning experience to the participants as documented in a post-workshop questionnaire survey. In addition, the analysis of the design results as well as the survey provide hints on the successful mediation of expert and experiential knowledge by the participants and the coordinating technical team of experts.

Keywords : geodesign, strategic planning, public participation, co-design

Bit By Bit: Pathways Of Grassroots Digital City-Making

Martin Bangratz (Rwth Aachen University)

Urban planning faces ever-increasing challenges to reconcile digital innovation with ecological and justice imperatives. This research examines the role of grassroots digital city-making initiatives in reshaping urban planning towards more just and sustainable outcomes. Through a mixed-methods, cross-case analysis of three geographically diverse contexts, the research unveils the nuanced ways in which digital technologies are appropriated by communities.

These digitally enhanced bottom-up processes, ranging from supporting local governments in Japan, leveraging corporate skills for societal benefit in the U.S., to creating alternatives to hegemonic planning in Germany, can be seen as complementary and impactful ways of urban participation. They do not just utilize digital tools and methods such as open data, mapping, or participation platforms; they actively (re)appropriate them with the intention to serve the community's best interests. They aim to employ inclusive methods for collecting, curating, visualizing, and governing both local spaces and data.

The significance of these initiatives extends to the realm of urban justice—where the creation of inclusive technologies and spatial configurations, as well as methods for data collection, curation, visualization, and governance, can be claimed to prefigure facets of more equitable urban development processes. It is frequently suggested that such initiatives hold the potential to overcome some of the limitations and adverse effects of large technical systems and top-down smart city concepts through localized, resource-sensitive urbanism (eg. Ylipulli and Hämäläinen, 2023). Authors, activists and policy-makers call for a "right to the digital city", for more local agency and sovereignty, for communities to become the protagonists in the story of urbanism in the digital age (eg. Currie et al., 2022, Vadiati, 2022). This research discusses the extent to which such calls and high hopes for grassroots efforts are answered around the globe. It seeks to analyze their intended and observed contributions from a perspective of pragmatic planning, aligning the idealism of academic discourse and (social) media representations with the realities of workaday and purposive city-making.

Data was collected in desk research and social media monitoring, an online survey, and interviews within the network of Code for All communities in Germany, Japan, and the United States. The results represent a range of pathways by which the initiatives seek to wield impact on their cities and communities. The presentation departs from a discussion and visualization of generalized pathways and draws upon illustrative examples from digital city-making cases in the United States, Germany, and Japan. The findings highlight the significance of context and culture-dependent interpretations of space, technology, and agency within city-making processes.

The research thus provides a critical examination of how grassroots digital initiatives co-create their cities at the nexus between urban justice, sustainability, and digital technologies. It contributes to the discourse on urban planning in the digital age, offering empirical evidence of the transformative potential of appropriated digital technologies and data commons. The notion is reaffirmed that data is always situated within a real-world context and must be interpreted with the help of local knowledge, rather than purporting a remote and objective truth (cf. Taylor et al., 2015). The research also aligns with ongoing discussions on the critical role of collaborative governance in the digital transformation age (cf. Dečman and Maulana, 2023), particularly emphasizing how grassroots initiatives can reshape, complement, or counter traditional planning paradigms.

***Keywords** : digital transformation, grassroots urbanism, citizen engagement, city-making, data activism*

Digital Permeation Of Land-Use Planning And Regulation Practices: The Issue Of Standardization

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Spatial planning is widely recognized as a pivotal policy tool for managing urban land use and translating strategic goals into binding codes that regulate the urban form and types of land use. This institutional framework, crucial for realizing shared urban futures, involves a dynamic process shaped by political considerations, practical judgment, and discretionary power among planners (Rydin et al., 2022). The diversity of place-based practices across Europe, however, remains poorly understood, posing challenges to this aspect of planning science, which has been historically dominated by a discourse on the American Zoning (Hirt, 2014).

This contribution addresses the evolving landscape of land-use planning and regulation practices, acknowledging their transformation due to digitalization. The impact of digital tools and technologies on planning practices is indeed profound (ESPON DIGIPLAN, 2021). Understanding digital change requires a focus on what happens in practice – what planners do. This is challenging because technology and people are closely intertwined: It is out of the actions of planners, i.e., the myriad of choices in daily practice, that digitalization unfolds (Schinagl, 2022). Despite the significant role of human agency, it is crucial to recognize that current digitalization trends are predominantly technology-driven.

We critically examine relationships between digitalization, standardization, land-use planning and regulation practices. Specifically, our focus is on the regulation of urban form and function responsible for defining the morphology and use of urban fabric. Regulations often involve map-based components, frequently linked to the cadaster, which assign each zone a regulatory type with specific provisions, such as restrictions on building height, volume, and minimal setbacks. As planning administrations increasingly make plan data, cadastral data, and information on the planning process available on digital and open platforms, there is a significant effort to standardize not only data formats but also content (Hersperger et al., 2022). For example, municipal autonomy allows in many countries that local governments use their own land-use and zoning classifications. For assembling digital plan data in geoportals for lager regions, common categories are necessary. This raises questions since choices about data and technology standardization have many implications related to the quality of planning, efficiency, and finances. Furthermore, these decisions are often driven by international tech companies rather than governmental actors.

By focusing on standardization, we aim to uncover digitalization impacts on the core values planning, such as equity, transparency, and efficiency. Through the lens of form and function, focused on various digital tools and technologies, we aim to shed light on the challenges and opportunities presented by the ongoing digital transformation, and offer insights into potential courses of action for planning scholars and practitioners as we move towards a digitally permeated future of spatial planning and regulation.

***Keywords** : Digitalization, algorithm and data, urban form, standarized zoning classes, planning practice*

Mapping Climate Impacts Physical And Social Vulnerability To Support Adaptation Planning Prioritization: A Spatial Analysis Across Three Cities On Different Continents (London, Boston, Sydney)

Denis Maragno (University Iuav Of Venice), **Davide Longato** (Univeristy Iuav Of Venice)

When examining the impacts of climate change, it is evident that its effects on health are not uniform, varying significantly between and within cities and regions. In cities, certain demographic groups emerge as most vulnerable to the health effects of climate change. These include the elderly, people with chronic diseases, those with mobility impairments, socioeconomically disadvantaged populations, and those residing in geographically isolated areas. These groups are more exposed to climate-related health risks due to increased physiological susceptibility or additional consequences of living in less resilient environments.

This study presents a spatially explicit assessment of the climate risk profile of three cities on three continents: London, UK; Boston, US; and Sydney, Australia. All these three cities, even if in different parts of the world and with different magnitudes, are experiencing an increase in the impacts associated with extreme climate events that are projected to be more frequent shortly because of climate change. In particular, two main climate-related impacts are considered in the risk assessment: thermal stress aggravated by urban heat island (UHI) effects and river (and coastal) flooding.

This work has a twofold objective. The first objective is to develop and test a replicable method to assess and compare the spatial vulnerability (physical and social) from climate hazards across these three cities (but potentially replicable to other cities). The results of this first task are organized into spatial information layers designed to classify each neighbourhood vulnerability value (physical and social) of study cities for the two climate impacts considered. These spatial neighbourhood indicators are composed of several indicators considering the physical city's susceptibility to the two climate impacts for the spatial vulnerability, while the potentially exposed inhabitants and their adaptive capacity profile according to their socio-economic status compose the social vulnerability indicator.

The assessments were done by using the same typologies of data for all three cities to assess both the susceptibility to climate impacts (i.e., satellite data for mapping susceptibility to UHI effects and official flood risk maps for mapping susceptibility to being flooded) and the exposed population together with their vulnerability profile (e.g., official census data with selected socio-demographic variables standard to the three cities).

The second objective is to apply the risk assessments to support the spatial prioritization of city-led adaptation efforts in the three cities. The rationale of this prioritization exercise is to identify the city areas with the highest share of exposed population that would benefit from adaptation interventions and the highest share of disadvantaged population groups, thus the ones that are the more in need of (public-led) adaptation strategies and actions since they often are the most impacted and have the lowest capacity to react to/recover from climate-related impacts.

The results will be presented and discussed in the light of their potential use as a planning support tool that can guide policy- and decision-makers in both targeting with priority the areas more in need of interventions and developing adaptation strategies and actions that are better tailored to the socio-economic profile of the inhabitants.

Refining Urban Accessibility Measurement Through Street View Imagery: A Pedestrian-Centric Approach

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In the evolving landscape of urban planning, the emphasis on pedestrian-centric accessibility has become increasingly paramount, distinguishing itself from traditional transportation-focused planning models. This transition acknowledges the critical challenges urban spaces face, including traffic congestion and public health issues, further highlighted by the global pandemic and a growing demand for healthier living environments. Despite this recognition, existing accessibility measurement methods, heavily reliant on Geographical Information System (GIS) data, fall short of capturing the pedestrian experience. Additionally, the current urban planning process focuses primarily on a map-based vehicular road network, overlooking the pedestrian's navigational and decision-making processes based on visual features in the walkable urban street network. This discrepancy reveals a significant gap in urban planning methodologies—a lack of approaches that genuinely reflect the pedestrian perspective, leveraging visual elements that influence pedestrian behavior. Addressing this gap, our research explores the application of deep learning image analysis models to pedestrian accessibility measurement, aiming to develop a comprehensive method that starts from the pedestrian's walking experience and integrates visual data to enhance urban accessibility assessments. This paper aims to bridge this gap by employing deep learning image analysis techniques, specifically the YOLO v8 model, for pedestrian accessibility measurement (PAM). This image detection approach, already widely used in automotive contexts, is now repurposed to analyze pedestrian environments. By leveraging street view imagery data, this study aims to develop a comprehensive PAM model that begins with the pedestrian's walking experience, integrating visual data to enhance urban accessibility assessments. The methodology involves collecting street view imagery via the Google Street View Application Programming Interface (API) and QGIS plugins and parameterizing visual features identified along routes to urban amenities within walkable networks. The resulting PAM model synthesizes spatial and visual features of urban spaces, incorporating both the locations of amenities and the attributes of the walkable street network, alongside visually perceptual features of walkable street segments. Implementing this imagery-based accessibility prediction model in urban spaces, our approach not only captures visual data as a crucial input for urban environment assessment but also moves from traditional vehicle-centered, GIS-constrained analysis to advanced accessibility measurement methods utilizing deep learning techniques. Our research pioneers an advanced, digitally integrated accessibility measurement approach, combining spatial and visual data to enhance the role of visual inputs in the urban planning process. This signifies a step forward in making urban spaces more accessible and pedestrian-friendly through innovative data integration and analysis.

Keywords *: Street view imagery, Pedestrian Acessibility Measurement (PAM), Object detection, YOLOv8, Spatial-visual analysis*

Citywalk Preference: An Expanded Measurement For Informing Data-Driven Urban Planning Based On Social Media Analytics

Haoyang He , **Lexun Wang** , **Jiayu Xu** , **Yuyang Liu**

Citywalk, a recent trend in social media, is transforming people's behavior of exploring cities, with popular walking tours furthermore influencing street image and place-making efforts.

Despite many social media indicators found in existing researches to describe urban perception, assess street vitality and measure walkability, the relationship between Citywalk indicators and built environment characters remains undisclosed, along with high-potential route selection, which could serve as another reference point for both travelers and city planners. As a response, this study aims to evaluate the correlation between route preference and existing built environment, and furthermore discover new methodologies to utilize these public involvement data for informing better urban planning practices.

In this research, a walking tour evaluation system is proposed based on space analysis of built environment indicators and data of Citywalk from Xiaohongshu, a popular social media app in China. In addition, traditional urban factors and route preference factors are combined to reconstruct an urban perception model and furthermore recommend route selections for urban renewal projects.

Considering the abundance of Citywalk data on Xiaohongshu, this experiment selects Shanghai Hengfu historical area as a representative walking tour destination example. In the initial step of establishing the relationship between route preference and urban environment, indicators including road network, transportation, park and tourist attraction, commercial facilities e.g. along each road are calculated with the Citywalk data through a regression method. Subsequently, statistic diagrams and route selection maps are generated to illustrate how all of these factors influence the urban perception model, and identify potential streets which can be optimized for urban renewal.

As anticipated, the analysis of Citywalk data reveals correlations with vitality-related built environment indicators such as landscape and commercial indexes, as well as other street view indicators like greenery and walkways. Additionally, vitality data is incorporated into another analysis to enhance the understanding and credibility of route selection, with the results showing a high correlation with route preference, which demonstrates the intersecting influence of these factors on shaping street image and facilitating place-making. In short, this innovative evaluation system not only makes a step forward for data-driven urban renewal practices in Shanghai; with the widespread of Citywalk phenomenon and the increasing accessibility of open social media data sources, it also can hold promise providing valuable guidance for urban planners in cities all over the world.

Keywords *: Citywalk, social media data, spatial analysis, route selection*

Social Media And Justice

How Can Social Networking Sites Empower The Grassroots In Urban Planning?

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Conflicts and power struggles in urban planning have increasingly shifted to digital platforms. Social networking sites, as emerging socio-technical systems, have greatly influenced power relations in planning practices in recent years (Lin, 2022). Public authorities and urban planners utilize them as digital tools to steer and transform urban planning processes and outcomes (Williamson and Ruming, 2020). They are also used by elites and professionals to challenge governments' decisions and show the potential to be an alternative pathway to more inclusive planning (Deng et al., 2015). However, there is little research on whether and how social media empowers the grassroots in planning practices. There is also a lack of understanding of how power can be exercised through this digital platform. This study bridges this gap by examining whether and how social networking sites empower the grassroots to challenge the planning authority in planning practice. As a case study, it takes grassroots environmental activism - the Big Banyan Tree controversy in Guangzhou, China. This research develops a new methodology that combines social network analysis and discourse analysis to reveal the influence of social media on citizen empowerment in urban planning. First, we collected extensive digital data from a leading social media platform in China (Weibo). Second, we apply social network analysis (SNA) to model the information flows and interactions between different actors in the case study. We use community detection to measure several virtual communities that are formed through the social media platform. We also identify the relations between different communities and their impacts on power relations in planning practice. Through SNA and community detection, we are able to measure "networked power" generated by social networking sites (Castells, 2011, p 774). Third, we analyze how planning issues are framed and discussed in the networked public sphere of the virtual community. We find that the grassroots strategically uses "discursive legitimacy" (Purdy, 2012, p 410) as a power source to challenge governments' decisions. The results indicate that social media can assist the grassroots in reshaping power relations with local governments and empower citizens who cannot participate in planning practices through traditional participatory methods. In the absence of explicit elites, grassroots participants can still challenge planning decisions through network power and discourse legitimacy, even though such challenges hint at new power inequalities. The study shows that social media, as a new networked public sphere, provided dissidents with the ability to articulate and organize public discourse. This also allows the mass media (e.g., newspapers) and NGOs to participate in the network and influence planning controversies as well. In addition, it appears that local authorities in China deal with controversies on social media with greater caution rather than simply resorting to online surveillance tactics to suppress discourse.

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Keywords *: Social Media, Social Network Analysis, Power Relations, Discourse, Planning Controversy*

Social Media Facilitated Neighborliness In Single-Person Households Among Youths

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Neighborhoods are communities that can best provide social safety nets, preventing 'dying alone' and gently resolving conflicts like noise between floors. As the COVID-19 pandemic hit the world in late 2019, minimizing human contact and isolating everyone in their homes, neighbors emerged as a real source of support. With around 55.5% of businesses working from home, many young people are spending more time in the neighborhoods, which is another reason to pay attention to young people's neighborhoods and communities. However, neighborhood relationships are working very differently than expected. 'Civilinatention', which Goffman(1959) describes as a situation where people are aware of each other's presence but do not pay direct attention, is a frequent occurrence in neighborhood encounters. In a world where neighbors are becoming less valuable, 'local relationship building through social media' is an unexpected movement.

In Korea, online platforms that connect users based on geography, such as '1km,' 'Bly,' 'Weepy,' and 'Carrot' have emerged, and services such as 'Munto' and 'Somoim' have been added to interest-based networking systems to connect neighborhood. The increase in the number of respondents who said 'I wish I had friends in my neighborhood' from 80.9% in 2019 to 82.3% in 2022 also supports this growing demand in Korea. Young adults, who are highly highly tech-savvy and are accustomed to producing and consuming culture in virtual spaces, use social media to form relationships and engage together.

Among the community-based platforms, 'Carrot' is a platform that allows users to share neighborhood-related information and organize various activities, as well as trading second-hand goods, with a neighborhood. The high usage rate and rapid growth of Carrot can be understood as a result of targeting the latent desire to communicate and meet locally. Therefore, this study took 'Carrot' as the central platform.

This study focuses on the formation of local relationships among single-person households and young adult using social media. Accordingly, we selected Gwanak-gu, Seoul, Korea's No. 1 youth city, as the spatial scope. We trace the process of community formation through text mining based on in-depth interviews and derive various meanings embedded in the answers through word network analysis. The research questions are, first, to compare the phenomenon of local encounters in the neighborhood and online-mediated relationships, second, to identify the reasons for using social media to form local communities, and third, explore the effectiveness or benefits of online-mediated relationships.

The study found that for young adults living alone, neighbors were perceived as unpredictable and unknown, which heightened anxiety, and neighbors had the potential to threaten safety. On the other hand, 'social media-mediated neighbors' are differentiated by the fact that they can secure their private space, but also by the fact that individuals who try to meet are given various system for 'choice', can meet 'instantly' and fulfill needs in 'exchange value'. In the process of meeting, some people experience frustration due to the difficulty of continuous and intimate relationships. However, by trying various encounters and experiences in the neighborhood, the scope of perspective is expanded and attachment to their region is strengthened. The strangers in the neighborhood become 'people like me' after meeting, and they experience the diversity of humanity. Forming relationships through social media is an act of 'living in the moment' and 'settling in temporarily', a stepping stone to forming intimate relationships and settling down in a neighborhood where they have no ties.

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Keywords : *social media, Local Communities, text mining, neighbor*

The Role Of Social Media In Urban Management And Heritage Preservation

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With the rapid emergence and widespread adoption of Information and Communication Technologies (ICTs), social media has garnered significant attention as a tool in the realm of urban management. This paper delves into the critical role social media plays in fostering public participation in the preservation of urban heritage amidst the backdrop of escalating urbanization. Despite the extensive body of literature exploring the positive impacts of social media on urban management and heritage preservation, scant consideration has been given to its potential adverse effects, which could potentially heighten the vulnerability of heritage sites. Thus, this study aims to fill this gap by scrutinizing the negative impact of social media on urban management planning. Specifically, it seeks to investigate whether the utilization of social media in heritage preservation acts as a hindrance or catalyst. Through a comprehensive analysis, this paper sheds light on the nuanced dynamics at play and offers insights essential for informed decision-making in urban heritage preservation efforts.

To achieve this objective, the paper is structured into three main parts. The first part offers an overview of the current state of social media utilization in heritage preservation, emphasizing its role as a novel platform for facilitating public engagement. This part extensively explores the positive impacts of social media in this context. The second part of the paper delves into the potential adverse effects of social media on heritage preservation. To deepen our understanding of whether social media contributes to the increased vulnerability of heritage sites, we employ a methodology involving the analysis of data sourced from social media platforms, which includes contexts, geo-referenced images, and geolocations. Lastly, the third part presents strategies and recommendations for leveraging social media effectively as a tool for safeguarding urban heritage. The aim is to provide valuable insights for enhancing heritage preservation efforts within the realm of urban management.

In conclusion, this paper endeavors to illustrate that social media serves as a valuable catalyst for urban heritage preservation and advocates for its broader adoption as a tool to foster public engagement in heritage preservation efforts.

Keywords : *social media, heritage preservation, public participation*

Hybrid Spaces And Planning: Exploring Just City Debates In The Digital Era

Carolina Pacchi (Politecnico Di Milano)

The paper, stemming from an ongoing research, aims at exploring how models of urban justice, which in the Twentieth century have been essentially based on the equal distribution in space of services and accessibility opportunities, can be imagined and redesigned in the contemporary era, in which inhabited spaces tend to be complex mixes between digital and physical spaces , hybrid spaces or hybridscapes. Hybridscapes are formed by spaces located cross such spheres, and by the spatial and social implications they have. They concern different areas of urban and daily life, and the understanding of themes of urban justice and citizenship has still to be fully explored in such spaces.

Cities and urban regions have been centre-stage in debates about inequalities and social justice during the Twentieth century (Secchi, 2013; Fainstein), and they still are, due to the extreme concentration and polarisation they impose to social and economic phenomena. Meanwhile, the type of space(s) people inhabit has been changing with ever-growing speed. The diffusion of ICTs in urban lives and spaces contributes to creating hybridscapes, which can be understood only recurring to a perspective situated across different disciplines.

This makes such hybridscapes crucial, but very difficult to understand, deconstruct and analyse as complex and multi-layered socio-technical systems, as far as their implications in terms of social interaction, dynamics of inclusion and exclusion and forms of differentiation and inequality are concerned (Kitchin, Cardullo, Di Feliciantonio 2019; McKinnon, Burns, Fast 2023).

The understanding of themes of urban justice and citizenship, as well as the insurgent dimension of struggles for justice (Isin and Ruppert 2015) have still to be fully explored in such spheres. At the same time, while the smart city rhetoric is assuming a prominent position in urban debates, it ultimately concerns only a specific form of socio-technical arrangement, linked to government and control dimensions.

While many of the economic and social mechanisms contributing to the creation and reproduction of social and spatial inequalities are still at play today, even in an exacerbated form, the digitalisation of many spheres of urban life for citizens has implied further lines of fracture and further growing inequalities (McKinnon, Burns and Fast 2023). Thus, if we look at such spheres of contemporary urban life, issues concerning justice, equal access and full deployment of citizenship rights can be seen as highly problematic: not only it becomes impossible to deal with already existing inequalities with the spatial tools experimented in the past, but hybridscapes imply new forms of inequality that have to be newly named, identified, and tackled with a new vocabulary and with novel theoretical, analytical and policy tools.

The paper aims to reflect upon the possible paths to more just cities in the digital age, and on what concepts of justice, fairness, equality, and citizenship rights may mean in hybrid urban landscapes. The paper thus argues that new research aimed to identify new lines of inequality and possible paths to more just and fair urban environments is thus becoming a pressing need, considering the increasingly hybrid nature of inhabited spaces, and the difficulties related to their under-explored nature and to the inapplicability of model of equal (spatial) distribution experimented in urban planning and policies in the past.

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Networks And Digitalisation

Digital Analysis And Modeling Of Network Structures For Residential Historic Areas In China

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The residential historic areas in China are important architectural heritage, enriching the urban spatial structure with traditional patterns. The cultural elements within these areas serve as significant carriers of traditional memory. Currently, with the popularization of human-centric design, it is necessary to systematically understand the overall spatial structure of historic areas and bi-directionally link the spatial units' characteristics with the general pattern. Hence, each micro unit is linked with the consequent spatial structures, supporting design strategy-making during the planning phase. However, the street networks in historic areas are often disrupted due to the disorder addition of buildings throughout the long history, and the plots are also divided multiple times due to the changes in property rights. This historical process has resulted in an exceptionally complex structure composed of various spatial patterns. In addition, Chinese historic areas are dynamic physical carriers that constantly change and develop with the government's protection plans and residents' independent updates. One single renovation can potentially influence the structure of the entire block, resulting in a large amount of repetitive analysis.

Therefore, this study introduces the approaches of urban morphology to analyze the complex network structure of historic areas and then proposes a methodology to construct an interactive digital model that can perform real-time analysis. Regarding the morphological interpretation, we abstract the spatial structures in historic areas by setting hierarchical spatial connectivity patterns, considering the external and internal street networks of the target block, the property rights in various plots, and as detailed as the houses and courtyards within each plot. Subsequently, we represent the morphological patterns by network structure diagrams that are composed of "points" and "lines" by applying graph theory models in the field of discrete geometry. The morphological features of each "point" are analyzed using multiple quantitative indicators. In this way, we can provide a systematic way to describe the position of elements in the overall structure and the complex relationships between them, which is the basis for constructing digital models.

We develop an automatic workflow in the digital model that can adjust and reanalyze the network structure of any block in real-time. Our model can read the DXF map of any historic area, and perform real-time analysis of the entire block and each spatial element. According to the analysis results, the model can automatically cluster similar spatial elements, so the planning and design strategies can be referenced from similar cases. Users can reset the weight of each network structure data to retrieve cases with different clustering criteria. Moreover, users can adjust the structure of the block at any time within the interface. Our model allows users to adjust the road network and the plot division, and define the access structure of buildings and courtyards. The model offers updated analysis results after any user adjustments, thereby providing real-time feedback during the dynamic and gradual change of historic areas.

This digital model has been packaged as an application called 'Historic Area Analysis' and utilized in the practical protection planning of historic areas. It supports designers in finding better planning solutions by allowing them to see the evolution of spatial elements' morphological characteristics during the gradual change of historic areas. Our methodology develops a systematic way for representing the complex network structure in historic areas and offers an interactive application for planning practices, hence it improves planning efficiency by reducing the ambiguity of manual judgment during the planning process. In this way, we can improve the planning process from 'the prediction based on human experience' to 'the precise evaluation based on data analysis'.

Keywords : *Residential Historic Areas ; Urban morphology ; Network Structures ; Digital analysis ; Planning strategies*

Unveiling The Network Structure Of Tourism Systems: Territorial Information Structures Supporting Strategic Tourism Planning

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Despite its potential benefits, understanding and optimizing the tourism value chain at the territorial scale poses a challenge in conceptualizing and adopting policies aimed at sustainable territorial development.

Tourism is a complex phenomenon characterized by diverse entities such as socioeconomic and public/private institutions, transportation, accommodation, and attractions. While multiple domains are involved in, the lack of integration with territorial strategic planning underscores the necessity of adopting holistic approaches to address issues and opportunities in territorial development.

This calls for new frontiers to describe the territorial-scale dynamics of the tourism phenomenon aiming at developing resilient policies and strategies that promote sustainable development and the well-being of local communities. Recent advancements in the study of non-linear processes and open systems have improved knowledge of complex adaptive systems and their evolution.

By embracing the principles of complex systems theory, we advocate for a more adaptive and integrated planning approach that recognizes the dynamic nature of territorial systems. Furthermore, our proposed taxonomy provides a systematic framework for structuring analysis and informing decision-making processes in the realm of tourism planning.

By conceptualizing territorial systems as dynamic and interconnected entities, we can better grasp the intricate interplay of factors shaping regional development. This paradigm shift calls for a re-evaluation of existing planning methodologies and the adoption of more adaptive and responsive strategies. At the core of this inquiry lies the analysis of the network structure of territorial tourism systems, leveraging open-source data to uncover hidden patterns and relationships.

The analitical framework is represented by an input-output model based on a simple datasets organized around three data cathegories (Tourism attractos, Tourism facilities, Territorial reachability). The analytical function describilng the relations among those variables is a graph based community analysis. The output is represented by a spatial representation of data communities (i.e. clusters) allowing to identify and compare Tourism Systems. The data analytical complexity is balanced between input data availability and accouracy, computational costs, and reliable outputs. This empirical approach provides a solid foundation for formulating evidence-based policies and interventions tailored to local contexts. A significant contribution of this study is the conceptualization of specialized tourism systems, which acknowledge the unique characteristics and dynamics of tourism within specific territorial contexts. Building on localized knowledge and experiences, we propose a classification framework that doesn't consider administrative boundaries, offering a transferable methodology for analyzing and managing tourism systems.

This framework lays the groundwork for a more nuanced understanding of tourism's role in territorial development and facilitates comparative studies across diverse contexts. The findings of our research signify a paradigm shift in a specific component of territorial strategic planning, offering a fresh perspective on the complexities of tourism development.

In conclusion, this paper, on the methodological perspective, emphasizes the need for a comprehensive and adaptive approach to tourism development. Concerning the socio-technical dimension of tourism system spatial analysis and the development of digital models for understanding and assessing complex territorial phenomena. The approch was mainly oriented to acchieve explainable results suitable to answare specific strategic planning questions concerning tourism develpment more than implementing the more complex AI analytical tools. By redefining tourism systems as complex and interconnected territorial entities, we paved the way for more effective and sustainable planning practices focussing on the performanceof tourism development.

Keywords : spatial planning, tourism sustainable development , Geo-spatial data driven planning

Compact Network For Sustainable Metropolitan Seoul: A Case Study Of Pangyo Techno-Valley

Jinhee Park (University Of Seoul), **Hee-Chung Lee** (University Of Seoul)

'Time' is now at the center of urban planning (Moreno, 2021). This is known as Chrono-urbanism. Since modernity, 'space' used to be a critical element in achieving a quality of life, especially through suburban developments by celebrating transportation technology. The advanced transportation system caused long-range daily commuting, leading to metropolitan-oriented infrastructure networks. However, recent global incidents such as climate change and the COVID-19 pandemic raised questions about the quality of life based on spending significant time on a long journey. Notably, exemplified as a 15-minute city, the concept of n-minute city has come to the forefront to fulfill everyday requirements of 'work, live and play' within walking or cycling distance. Metropolitan Seoul has been heavily developed to attract about 50% of the current population in around 10% of the whole area. Infrastructures such as roads, subways, or trains have been extensively developed and traffic time is spent largely on everyday activities, more than an average of about one hour. The average one hour of commuting time is known as 'Zahavi's law' in the transport literature, which has been stable for centuries from the ancient cities (Bretagnolle, 2009). Furthermore, the Marchetti constant demonstrates that one hour can be fulfilled with other activities, even when travel time is less than one hour (Marchetti, 1994). As such, the concept of residual time can be defined as the time after spending travel time from one hour of the Marchetti constant and utilized to understand the patterns of other activities in addition to travel time. This is contrasted with the concept of excess commuting time that connotes a negative consequence against the preferences of choice (Hamilton, 1982; Giuliano, 1991). Therefore, it is hypothesized that residual time is prone to be used for using other facilities near work or home. Networks between 'work, live, and play' can be thus structured by using both travel time and residual time. As an example of restructuring a metropolitan network given the Marchetti constant, the research examines the Pangyo Techno-Valley. It is a newly designated area located outside Seoul to attract R&D centers of government and global companies. It is expected to become a large business district upon completion, accommodating 150,000 inhabitants. Using the movement data obtained from a private telecom company that consists of three types of places as 'Home, Work and ETC', it will analyze the centrality of the new area where it could be a new business hub to alleviate the traffic to central Seoul by undertaking network analysis. Additionally, an analysis of travel time will determine if it aligns with Zahavi's law as effective in lessening commuting time. In addition, the journey between work and home and the route to ETC from work or home will be analyzed to investigate how people use residual time for everyday activities. The analysis comparing weekdays and weekends will be conducted to understand how leisure time is spent. This will distinguish types of activities that some of them can be achieved in the residual time while others are not. This will contribute to our understanding of how a new center could fulfill the principles of an n-minute city, emphasizing reduced travel time and the integration of 'Live-Work-Play'. The research eventually will be useful in discussing how to improve or innovate infrastructure networks to ease the current ill effect of ecological footprints, for instance, to address issues like the environmental impact of long car journeys. In practice, efficiently distributing public facilities and amenities based on proximity to home or work, as well as considering locations for weekdays and weekends according to activity types, will be beneficial.

Simulation-Based Planning Support System For Optimal Allocation Of Public Facilities: An Empirical Analysis Of Elderly Care Facilities In Shanghai

Can Wang (Soochow University), **Shan Song**

In the realm of urban public facility planning, the facility location problem is a critical and extensively studied area for decades. The development of various models has significantly advanced the decision-making process in this arena, with location-allocation (LA) models emerging as a particularly influential tool. Traditional LA models predominantly utilize distance-based methodologies, such as p-center and p-median, to derive optimal solutions aimed at minimizing either the average or the most unfavorable distance between public facilities and their potential users. However, these models are often critiqued for their oversimplified assumptions: they typically consider only the distance from a user's residence to the facility and assume that this singular factor dictates facility choice in an all-or-nothing manner. In contrast, facility choice in the real world is generally influenced by multiple preference attributes and is more accurately characterized as a probabilistic spatial behavior, where unobservable attributes contribute to random variations in choice. Addressing these limitations, this study introduces an innovative approach in the LA modeling area by integrating user preference analysis and probability-based Monte Carlo simulations of facility choice behavior. Utilizing discrete choice models and random utility theory, the proposed model assumes that individuals will choose the facility that offers them the greatest perceived utility. This model diverges from traditional LA methods by employing a genetic algorithm to optimize utility-based indicators rather than merely focusing on minimizing distance-based metrics. The practical application of this model is demonstrated through its use in planning five new elderly care facilities in Shanghai, China. A stated preference survey, conducted with 293 respondents, explores the multifaceted considerations of the elderly in choosing care facilities. Multinomial logit models are established using this dataset to reveal the relative importance of various attributes of care facilities, including proximity to the elderly's residence and hospitals, accessibility to metro stations, air quality, monthly costs, and service levels. Estimated results of these preference parameters greatly deepen our understanding of the complex decision-making process of the elderly choosing care facilities, far exceeding the simplistic approach of allocating them to the nearest facility. For a given layout of elderly care facilities, the proposed LA model offers a more comprehensive simulation of the intricate choice behaviors, considering all the aforementioned attributes and their relative importance as discerned from the preference analysis. For the optimization of layout iterations, the proposed model keeps maximizing the mean utility across all simulated elderly people using genetic algorithm. The outcomes demonstrate that the solutions generated by the proposed LA model are significantly superior to traditional LA models. Furthermore, a user-friendly platform for simulation and optimization with a geographic user interface has been developed, in the purpose of bridging the gap between theoretical modeling and practical application and supporting the decision-making process in public facility planning.

Keywords *: location-allocation models, discrete choice models, public facility plan, spatial behavior simulation*

Digitalizing Red Tape: The Path To Inclusive Planning And Urban Citizenship For India's Interstate Migrants

Shoshana Goldstein (Trinity College)

For planners, the integration of India's interstate migrants in cities is crucial, as migrant livelihood strategies often involve maintaining connections to rural places while working in urban peripheries to diversify incomes (Kantor, 2018). This paper explores how the digitalization of urban governance and documentation systems affects poor migrants in India's cities, particularly their access to public assistance and the Public Distribution System (PDS).

Utilizing in-person interviews and digital ethnographies across migrant households at or below poverty in Delhi (2020-2023), the study sheds light on the planning implications of migrant reliance on rural-based identification documents. Historically, India's reliance on paper documentation has marginalized its poorest, often excluding them from essential services (Abbas, 2016; Gupta, 2012). The shift towards digital documentation, including the "decommissioning of paper documents" (Datta 2022), offers new possibilities for urban planning to be more inclusive and effective. NGOs, working to bridge gaps for migrants, view digitalization as a potential means to standardize records and diminish bureaucratic arbitrariness and discrimination in document authentication. This perspective gained further momentum after the crisis of the March 2020 pandemic lockdowns, when millions of interstate migrants found themselves stranded in cities, unable to return home and access public assistance in their home states. This crisis highlighted the longstanding failures of local governments to recognize migrant populations in cities. It bolstered arguments in favor of programs, such as India's Aadhar and universal ration card schemes, that might disentangle migrants from relying too heavily on the recognition of local administrative gatekeepers (Goldstein, 2022). However, this research finds that digitalization, while meant to improve transparency and the efficacy of planning processes, often perpetuates the flaws of paper-based systems and introduces new challenges in verification and authentication. This has complicated the migrant pathway towards achieving, if not full urban citizenship, then even nominal recognition as urban resident. The findings underscore the importance of carefully planned and executed digitalization strategies in urban governance for serving the hardest-to-reach and often invisible populations in cities of the Global South.

Keywords : Digital planning, Migration, Indian Cities, Digitalization, Citizenship

The Platformization Of The Territory: The Taobao-Driven Morphological Evolution Of The Greater Bay Area Of China.

Jinyi Hu (City University Of Hong Kong), **Jintian Xu** (City University Of Hong Kong), **Weike Li** (City University Of Hong Kong), **Gianni Talamini** (City University Of Hong Kong)

In a post-Fordist era, the restructuring of production systems is producing new patterns of urbanisation, often supported by the ubiquitous and pervasive expansion of digital infrastructures. In the context of China, the largest Chinese e-commerce platform, Taobao (also known as Alibaba), supports the diffuse industrialisation of remote agricultural ensembles, progressively turning into so-called Taobao Villages. Such—often clan-lead—organisations specialise in a single manufactory production, which is sold and delivered on Taobao. The largest agglomerations of Taobao Villages are found in the Yangtze Delta and the Guangdong-Hong Kong-Macao Greater Bay Area of China (GBA, broadly coincident with the Pearl River Delta). The growth of such agglomerations shows a diffuse pattern and horizontal territorial expansion, contributing to the urbanisation of the two regions. Despite the growing body of studies investigating the impacts of online platforms on rural regions, there is still a paucity of research on the territorial production of such platform urbanism. This study focuses on the GBA to investigate the morphological transformations of the territory from 2014 to 2022. This research contributes to revealing an emerging platform-supported and horizontal-connected habitat of the territorial realm that could potentially be an alternative platform-supported form of urbanisation in the context of fast-developing rural regions. Eventually, the platformization of the trading sector challenges the conventional urban-rural binary division and current spatial planning and design instruments to adapt responsively to the current platform-based planetary urbanisation.

Keywords : Platform urbanism, planetary urbanisation, China, Alibaba, platformization

Understanding Environmental Data Flow In The Uk: A Multi-Stakeholder Network Analysis

Nourhan Heysham (University Of Manchester), **Richard Kingston** (University Of Manchester)

Evidence based policy making has been central to planning policy over the past decades (Rae and Wong, 2021) but we know that access to data and tools to support such approaches is problematic (Kingston and Vlastaras, 2020). In a paradigm of abundant yet largely siloed data, it is imperative to understand how data is used, and the networks and flow of various data types across stakeholder groups. Doing so would provide a tangible step towards identifying gaps, breaking those siloes and bridging data use for different stakeholder communities.

The £8M NERC-funded (Natural Environment Research Council) Digital Solutions Programme (DSP) has set out to develop a hub for nation-wide environmental data, delivering user-centric tools to an extensive range of users across the UK. To achieve this, multiple factors needed to be explored to inform the design of a next-generation digital hub, with user needs and data networks at the heart of the process. The tools we are developing aim to support decision making for multiple user types and roles for teams in local and central government, QUANGOS as well as private and third sector organisations. To design non-prejudiced tools, DSP developed a multi-phased stakeholder engagement plan over the course of two years (and ongoing). The plan aims at 1. mapping user needs to translate to design requirements, and 2. inform a deeper understanding of environmental data user networks to bring gaps in data use in the UK.

This paper addresses the second objective of the user research strategy (mapping data networks). The utilised methodology comprised tracing the transfer and transformation of environmental data as it flows from source, to different stages of evolution and use, until it finally informs a decision support output. The methodology follows the theoretical basis of Network Theory (Coleman, 1988, 1990; Burt, 2015), contextualised to environmental data use in the UK context. The dataset generated in this research was a result of a sample of 100 users we spoke to at 12 user workshops in major cities in the UKs four nations. The team synthesised the workshops data into a data network, representing users who produce (or transform) data as the "source", users who consume data as the "target", while the data being produced (or transformed) as the "bond/tie". The result is an interactive visualisation of a Data Ecosystem Map. This visualisation is filtered and analysed according to sector, data type and other parameters to gain insights into existing strong connections in data use, as well as gaps that need to be addressed within stakeholder communities who would ideally benefit from mutual use or transformation of the same data.

The work is part of a greater vision for the Digital Solutions Hub, and it supports the overarching outcome of the Hub to understand user needs and model these into User Requirements (Paul et al., 2020). This feeds into the design scenarios for tools utilising environmental data, based on user needs. This is part of a larger iterative agile design process, with further user testing and engagement throughout the upcoming stages and years of the programme.

Ai - Morphology

Uncovering The Dislocated Structure Behind Peri-Urban Areas In Traditional Cities.

Melissa Barrientos (University College London, Ucl), **Elsa Arcaute** (University College London, Ucl), **Stephen Marshall** (University College London, Ucl)

There is a persistent sense that modern urban development lacks some of the intricate functional complexity of traditional urbanism (Marshall, 2009). Cities are complex systems that are constantly changing and adapting (Batty, 2009). While new urbanisations tend to adapt and develop new elements and functionalities over time, becoming more complex than initially, many recent urban expansions remain differentiated for longer, contrasting with the traditional city. Such condition can be especially perceived in sprawled and peripheral environments, but not exclusively, as it has also been observed in contexts with higher densities and central locations. However, the approach to this problem has traditionally been focused on issues of density or alleged spatial segregation, while potential structural discrepancies receive scant attention.

This study proposes the concept of 'peri-urban dislocation' as a distinctive urban phenomenon different from urban sprawl, associated with the latent structural variation behind the peripheral development of traditional cities. Innovative methods used in complexity science, such as percolation analysis as a clustering technique to explore the hierarchical structure of urban systems (Arcaute et al., 2015; Fluschnik et al., 2016; Cao et al., 2020; Marin et al., 2023) and Shannon's entropy as a way to measure diversity within urban areas (Shannon, 1948; Zachary and Dobson, 2021; Marin et al., 2022), are proposed to investigate this phenomenon. Valdivia, a city in Southern Chile, was examined as a case study. The results graphically articulated and quantified a dislocation of the peri-urban development in the town at the structural level as a response to changes in urban planning directed at patterns of mass-produced organisation. This work offers new perspectives on the debate over urban growth, urban sprawl, and suburbanisation processes while looking for the potential impacts of a structural variation on traditional urban systems.

***Keywords** : Peri-urban dislocation, Urban complexity, Urban sprawl, Structural discontinuities, Percolation analysis*

A Rapid Response Algorithm: Parametric Design For Temporary Housing Areas

Merve Deniz Tak (Istanbul University)

Cities are rapidly changing, unpredictable, and nonlinear systems influenced by and affecting others (Bertalanffy, 1968). Although it was initially stated that cities have a hierarchical and linear structure, it has been observed that linear solutions cannot meet the fast-changing actual conditions and that cities exhibit characteristics of a complex system. For instance, COVID-19 revealed that cities, expected to develop linearly, face new challenges and needs during crises. Moreover, it is not only the catastrophes that are responsible for this; major projects capable of changing the direction of the city create non-linear, sudden changes in the systems and establish new heterarchic relationships. Based on this, recognizing cities as complex systems has prompted efforts to find solutions for their unique needs. It has been acknowledged that adaptive and fast solutions are required to capture the non-linearity of complexity, and it has been revealed that top-down decisions are not the solution to these problems. In today's context, various approaches and tools have been developed to support decision-making at different stages of the planning process as a solution to this. In recent years, computational design has become popular, providing designers with multiple alternatives with rules and allowing them to manage the process, not just create the final product.

The motivation of the study is to propose a tool for accelerating post-earthquake interventions as effectively as possible using parametric design, particularly in the context of Turkish cities, where earthquakes have been devastating in recent years. In the aftermath of the 2023 Hatay earthquake, earthquake awareness has increased across the country, and the search for solutions for earthquake-threatened Istanbul has intensified.

Here, it is essential to provide temporary housing in good condition to affected individuals until they return to the normal disaster cycle. Studies focus mainly on the site selection of these temporary shelters and their design after site selection remains in the background. Yet, ensuring a prompt return to normalcy for the victims, providing sufficient accommodation for as many people as possible, is crucial. Therefore, the study aims to create a rapid and adaptive planning support tool for the sudden stress that the city will be exposed to within the scope of the design of temporary housing areas. In the case of a defined temporary housing area in Istanbul, a parametric design algorithm will be developed with defined standards. The algorithm enables the creation of a design process with alternatives much more rapidly than human power alone, aiming to accommodate the maximum number of people while shortening the design phase and enabling rapid implementation.

The standards for the parameters of design will be examined using the guidelines provided by the SPHERE Project, the United Nations High Commissioner for Refugees, the Disaster and Emergency Management Authority (AFAD) of Turkey, and the Chamber of City Planners of Turkey. These sources define standards for site selection, such as elevation and slope concerning the watershed, as well as standards for design, including road width, container and tent dimensions, minimum area requirements for amenities, and walking distances. After determining parameters, the design algorithm will be created utilizing the visualized coding program Rhino/Grasshopper. With this algorithm, land use alternatives will be created by determining the boundaries of any place to be selected during a crisis, which will help to see different possibilities. In addition, due to the nature of parametric design, participation can be implemented in the process easily by discussing parameters, or deciding which alternative will be applied.

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***Keywords** : Temporary housing, parameteric design, post-disaster*

Deep Learning-Driven Morphological Dataset And Analysis Methods Of Chinese University Campuses

Yujiao Yujiao (Southeast University), **Xiao Wang** , **Peng Tang**

With the expansion of higher education in this century, more universities and campuses have been established in Chinese cities, especially in suburban and nascent urban areas. These new campuses have been proliferating and congregating, accompanied by specialized functions and intricate road networks, occupying larger footprints than their initial forms. Occupying larger footprints than small towns, these modern campuses are often secluded from the public isolated from surrounding urban areas, evolving into a distinct subsystem within the broader urban network. Consequently, they have worsened the preexisting urban fabric and ecological landscape.

In order to improve this situation, a more comprehensive cognition about morphology of university campus is needed. At the master planning level, contemporary campus design involves various aspects such as campus circulation, built environment, spatial compactness, contextual responsiveness, and increasingly, landscape ecological patterning. The Architectural Design Sourcebook summarizes exemplary campus designs and standards, serving as a pivotal reference for campus planning in China. Furthermore, several studies have proposed strategies for campus urbanization based on practical experiences or comparative analyses of various campuses. Nevertheless, there is a lack of specific classification criteria and a comprehensive morphological cognition framework for these newly urbanized campuses in China. This gap is further complicated by the challenge of integrating abstract modalities with concrete metrics in urban morphological descriptions. However, the advanced deep learning models, capable of integrating diverse types of information, presents new possibilities for enhancing morphological analyzing and understanding. In this context, this study proposes a method for the description and cognition of new urbanized campus form with urbanization features in China, using a hybrid data and multimodal learning approach. We comprehensively gather data on 2756 medium to large-scale higher education campuses in China from open-source mapping platforms, such as OpenStreetMap and Tianditu. The amalgamation of graphical, imagery, and quantitative data is constructed and processed for four aspects: context, roads, buildings, and green spaces. Also, we address the challenge of incomplete data on campus by using image processing techniques to classify and extract data from high-resolution map tiles, converting them into vector graphics aligned with geographic information. Then, we propose a set of form dimensions for campus analysis. by adapting morphological cognition methods from urban design scales and considering campus-specific characteristics. Furthermore, we employ deep learning techniques to integrate quantifiable metrics with challenging-to-quantify graphical feature data derived from multimodal sources. Utilizing the unsupervised Self-organized Model (SOM), we differentiate data of each dimension and retrieve similarities of campuses. Our research offers insights into the understanding of the morphology of current university campuses in China and provides decision-making support for the development of future campuses.

Qualitative And Quantitative Analyses Of Middle-Class Mass Housing

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This paper presents qualitative and quantitative analyses of middle-class mass housing (MCMH) built in Europe between 50th – 70th. We developed a methodology for documenting MCMH case studies, based on a rigorously-designed template, to create a comparative evaluation of urban and sustainable aspects that are part of the most relevant MCMH neighborhoods in Europe, aiming to identify the urban and architectural characteristics in dialogue with the concepts that define MCMH. As a result, it was possible to map more than 110 MCMH neighbourhoods spread over several cities in 30 European countries.

The analysis of the data added to the templates was inserted into mapping analysis systems, the GIS (Geographical Information System), to demonstrate different perspectives on the built environment. Within this framework, a fascinating research project has been developed that is currently progressing with the exploratory research capabilities of new analytical tools, such as the integration of all case studies in GIS to achieve an original analysis based on different issues, including the distribution of uses (building typologies, open areas, green areas, parking etc.), and various statistics for all case studies.

To evaluate the qualitative data, we developed a unique methodology that analysed similar aspects, diverse words, or groups of terms or notions. The analysis revealed certain common traits, such as particular repetitive characteristics which appear in many MCMH neighbourhoods and those that appear only in specific ones: walkable neighborhoods, less walkable neighbourhoods, neighborhoods connected to central areas either on foot or by car or other public transport, etc.

The result findings also reveal that specific usages of open spaces are present in many MCMH neighbourhoods, public, semi-public, and private; the modest sizes of open areas in general; the fact that many MCMH neighbourhoods have recreational and sports facilities, and rivers nearby; many have playgrounds for children. Also, we discovered how "green" aspects play a critical role in many MCMH neighbourhoods. An analysis of 'quality of living' and other 'qualitative issues' revealed a "sense of identity" in many neighbourhood templates. This often occurs in tandem with additional factorial data, such as the existence of wide, open green spaces, different-sized apartments, or specific designs of open spaces, and so on. Furthermore, we analysed neighbourhood diversity and readability, where both topics were amply discussed in relation to MCMH neighbourhoods.

By disseminating the results of our digital tools for new analyses on mass housing for the middle class in Europe, it was possible to explore the analysis of the case studies through the statistical correlation of quality parameters with spatial geometric parameters, allowing us to understand the relationship between buildings, performance, and quality of space.

From Types To Regions: A Gis Tool For Spatial Analysis Based On The Classic Framework Of Morphological Regions

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The practice of urban planning is intrinsically related to the sphere of designing and producing spaces. A ubiquitous topic for urban planners is the duality between the form and history of cities, which has been a subject approached within several frameworks, for example, in urban history and planning practice (Kostof, 2004; Mumford, 1961; Nel·lo and Mele, 2016); in urban geography (Schwanen and van Kempen, 2019); and more emphatically in studies regarding urban morphology (Conzen, 1960; Oliveira, 2016; Whitehand, 2009). A consistent interpretation of these interdisciplinary approaches towards the city is the recognition that urban space is, in fact, a mosaic of urban patterns (Hardy, 2014), sometimes spontaneously constructed and, in other moments, concocted as ideal models that could be surgically inserted in the natural territory. These urban patterns represent the historical perspective of the city, or its long-term occupation, and is the spatial-temporal checkerboard upon which urban designers operate. Understanding the physical elements that are part of the urban space, and their configuration can provide an informative basis for the development of evidence-based design codes and ensure efficient planning strategies and urban policies that support positive environmental and social transformations. Measuring, analyzing, and assessing the spatial arrangements in urban space is the subject area of urban morphological studies, which is the framework of analysis presented in this work (Kropf, 2017)(Kropf, 2017; Oliveira, 2016). In classic urban morphology, namely the historico-geographical approach, we revisit the concept of Morphological Regions, which is based on the typomorphological classification of urban patterns, delimited by their degree of internal morphological similarity (Barret, 1996; Gu, 2018; Oliveira and Arat, 2023; Oliveira and Yaygin, 2020; Wang and Gu, 2020; Whitehand, 2009; Whitehand et al., 2011). However, from a methodological point of view, the delimitation of these patterns remains labor-intensive, grounded on qualitative visual analysis and the personal expertise of the analyst. The subjectivity of this approach hinders the identification of the classic morphological regions in a scalable, reproducible, and systematic way. Therefore, this paper aims to test a GIS classification algorithm based on identifying urban typomorphologies according to quantitative and objective parameters. The development of this tool for spatial analysis was divided into three phases as presented in the paper. In the first step, we addressed the underlying premises of the classic framework regarding the concept of Morphological Regions, attempting to produce an objective interpretation of such premises. Next, we introduce a systematic literature review on morphological measures, aiming at producing a rich characterization of urban space from minimal data input of four elements of urban form, namely: street network, blocks, plots, and building footprints. We test these measures empirically in São Paulo, in order to derive homogeneous regions of urban tissue types. We attempt to contribute to constructing a more robust method of urban form classification stemming from the revision of a classic concept in urban morphology. Our approach supports the development of a systematic and quantitative approach, applicable to large-scale comparative analysis of contemporary urban forms, which often elude previous historical typologies (Berghauser Pont et al., 2019; Berghauser Pont and Haupt, 2005; Fleischmann et al., 2021; Gil et al., 2012; Serra et al., 2017; Venerandi et al., 2021). The relevance of the concept and its informative character to urban planning practice, urban design, and urban heritage conservation highlights the development of a planning tool that supports the understanding of the complexity of the urban form as to guide the implementation of innovative and efficient design and planning practices.

***Keywords** : typomorphologies, urban planning and heritage, GIS*

Using A "Pattern Language" Approach As A Gis Measurement Framework To Understand The Internal Order Of Self-Emergent Built Environments – The Case Of The Bedouin Villages In The Negev/Naqab, Israel.

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This paper discusses the internal order of self-emergent built environments. It offers a mapping method that is based on the "pattern language" (Alexander et al. 1977), as well as insights from contemporary research (for example: Davis, H. 1991; Nguyen, N. 2015; Talen, E. 2009). The method was developed and validated in a wide-ranging case study of self-emergent, 'informal' built environment: the 'unrecognized' Bedouin villages in the Negev/Naqab (southern Israel).

The findings, based on several hundred semi-structured interviews and tours with local communities, as well as Aero-photo & GIS analysis, show that, although Bedouin villages are usually seen as chaotic, they are in fact surprisingly coherent and are based on a shared socio-spatial code: 'Traditional Bedouin Code'. The code includes a small number of basic patterns, which are derived from the climatic conditions and the communities' history and culture. The code is expressed as a systemic built typology that is deployed in countless socio-spatial variations that are adjusted to changing external conditions (physical, social, geopolitical). In this sense, the order revealed in the self-emergent system is adaptive, dynamic, and resilient.

Recently, we've developed a GIS measurement framework that enables us to present the level of coherency of the settlements with relation to the abstract code. It also enables an examination of the degree of coherence of spatial expression in relation to the abstract source code.

The combination of hands-on field research with state-of-the-art GIS methods reveals the 'order of the un-ordered' in this specific case study and may be used in other contexts.

Keywords *: Keywords: informal settlements, complexity, settlement morphology, socio-spatial codes, measurement Framework for Cultural Patterns*

Spatial Network Characteristics Of Shrinking Areas In Shanghai Metropolitan Area : An Urban-Rural Population Flow Network Analysis

Ge Wan (Tongji University), **Jianzhong Huang** (Tongji University)

In China's long-term planning practice, the mainstream development concept with expansion has led to the neglect of the shrinkage phenomenon. However, many studies have shown different degrees of shrinkage phenomena in urban agglomerations and metropolitan areas in China. For China, the logic of urbanization dominated by traditional growth mode may no longer be applicable. China's urban development has ushered in a post-growth era.

At present, most Chinese scholars pay attention to the urban shrinkage caused by long-term dependence on resource-based industries in northeast China and neglect the economically developed regions. The identification of shrinking cities is mainly based on population statistics. However, a consensus has yet to be reached on the measurement standards due to the differences in the development background and urban statistical caliber of cities in different countries. Therefore, the shrinkage phenomenon may be more objectively reflected based on the capacity of production factor agglomeration. At the same time, Martinez-Fernandez et al. (2012) proposed that from the perspective of the global urban and spatial network, shrinking cities may also be represented by the gradual weakening or even interruption of the connection with the global spatial network. However, there are few relevant studies on this theoretical speculation. Compared with urban networks, there are fewer studies on the characteristics of township networks. Therefore, this study explores the characteristics of shrinking towns in economically developed region from the perspective of spatial network and the agglomeration capacity of the population.

This study takes all towns in the Shanghai metropolitan area as the research object. This area is developed in China, where various economic activities are frequently connected between the inner cities. Firstly, the demographic data is used to calculate the population change of each town in the past five years. At the same time, the population change of China's average level is compared to identify shrinking towns due to population reduction. Secondly, using massive mobile-phone signaling data, based on weighted degree centrality and traffic index, we construct urban-rural and rural-rural mobile networks in the Shanghai metropolitan area and extract spatial network structure characteristics. Then, combined with the identified shrinking towns in the first step, the study explores their spatial connections with different cities and towns. It evaluates the characteristic types of shrinking areas in the population flow network by comparing node spatial positions and connections and the grouping of roles. The research results show that some small towns in Taizhou, Nantong, Jiaxing, Wuxi, and other cities in the Shanghai metropolitan area show a concentrated or extended partial shrinkage phenomenon. In the rural-urban population mobility network, these shrinking towns have weak population agglomeration capacity, low nodal and connectivity, and an apparent "cave-in" phenomenon in the spatial network, which also indicates that the lack of agglomeration capacity in shrinking areas will hinder the smooth flow of various development factors within the region, which will have a negative effect on China's regional coordination and urban-rural integration policies. The main formation factors of shrinking areas are the siphoning effect of the central city and the implementation of ecological protection policies, according to which the corresponding planning strategies are proposed in the study.

This study explores the characteristics of shrinking areas in the metropolitan area from a new perspective of spatial networks. It provides new references for promoting China's urban-rural integration and implementing management policies for shrinking areas.

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Track 17: Risks

RISKS - Planning for adaptive capacity: disasters, uncertainty, long-term problems, preparedness and responsiveness

Chairs:

- Lionel Prigent, Université de Bretagne occidentale

- Ward Rauws, University of Groningen

- Daniel Zwangsleitner, TU München

- Rumeysa Ceylan, Istanbul Teknik Üniversitesi

Keywords: crises, long-term transformations, urban and territorial planning, uncertainty, public policy evaluation, pandemic, flooding, water management

A crisis or an accumulation of crises? Which crisis(es)? For a long time now, the word has seemed empty, tired of being used to justify a widening gap between promises of development on the one hand and the stark reality that nothing is going according to plan. There is always a trigger for crises, a primary cause deemed paramount that causes events to fall (Walter Benjamin). It is a war that triggers an oil crisis, a speculative bubble that bursts, a virus that spreads, a storm that breaches a dyke and causes flooding... a shock that can be localised or global, with significant consequences in a circumscribed area or worldwide. However, this explanation of the root cause overlooks the regular waves of transformation that herald the rise of perils. The more perceptible signals of climate disruption and resource depletion are all warnings. The crisis, intended to be brutal and sharp, is then stretched out into a slow slump that feeds the comments of declinist experts and essayists.

Are we still in crisis? Or are we in the midst of a long and profound transformation that affects every aspect of our ordinary lives: our social ties, our relationship to the body and gender, and our historical, economic and geopolitical reading? So much for the social fact; our relationship to the planet, to territories, to ecosystems, to biodiversity and to life itself, for what concerns our relationship to the Earth.

This task invites contributions on the topic of Risk, namely on planning for adaptive capacity. For instance, proposals can deal with topics like the conditions and limits of planning, uncertainty in collective decisions and radical uncertainty, emergent crises like the recent pandemic, environmental disasters like flooding, etc.

Propositions are welcomed that shed light on theoretical principles, methodological approaches and empirical work. They can address, for instance, questions like: Given that we now face long-term transformations, how can we organise and pool our capacities to mitigate the consequences of our daily lives and adapt our practices? How can we even

retain the ability to define common objectives instead of being tossed about like corks on the water? How can we express and prioritise, organise and adapt our systems (economic, institutional or social) to cope with the disaster, the evil that is coming (Pierre-Henri Castel), without abandoning the conditions of fulfilment, solidarity, freedom and transparency that forged our present. How can we express the problems that are already there or will be there in the future, perceptible in the long term and the context of diplomatic, economic and health uncertainties and threats? How can we finally take action on the ground? How can we define planning that will be useful in times of storm, i.e. capable of identifying our capacity to adapt? What diagnoses can we make, and what lessons can we learn? What tools can we use to overcome the uncertainties? Finally, is there a dimension required to carry out this planning?

Short-Term Gains And Long-Term Losses: Climate Adaptation Trajectories Facing Land Accounting Institutions

Edwin Buitelaar (Utrecht University), **Peter Pelzer** (Utrecht University)

Over fifty percent of the Netherlands is prone to floods. And with rising temperatures and sea levels, this is likely to increase. And what is more, the country's economic and demographic gravity point lies largely in these flood-prone areas. On top of that, over thirty percent of new housing development is taking place in areas that are not suitable for development in the long-run. Different climate adaptation trajectories require different locations and designs for locations than the ones that are in the pipeline, and that are still being approved (Haasnoot et. al., 2020). How is that possible? In this paper, we focus on the origin and the working of the institution of the 'land account' (grondexploitatie), as it is one of the institutional land-market impediments (Needham, Segeren & Buitelaar, 2011) to transitions in the light of climate adaptation. Land accounts are not neutral calculative devices (Miller, 2001): they have an instrumental, economic conception of land behind them, and focus on the short-term business interest. Long-term benefits of avoiding climate risks are not or insufficiently taken into account. We claim that the biophysical rationale of dealing with land and the economic rationale should be aligned. Not just for the sake of the former, also for the latter in the long run. To illustrate this claim, we present the first insights from a case study into development locations with varying biophysical conditions assessed through land accounts with two different settings: the institutionalized short-term approach and an alternative long-term approach.

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Keywords : climate adaptation, Institutional barriers, land development, accounting

Bridging The Gap Between Resilience Research And Resilience Planning In Conflict Contexts.: Application Of A Federated Urban Resilience Model Toward Rapid Recovery And Sustainable Development.

Maria Moleiro Dale (Hafencity University Hamburg), **Ramon Vivanco** (Hafencity University Hamburg), **Joerg Rainer Noennig** (Hafencity University Hamburg), **Jan Barski** (Hafencity University Hamburg)

In view of the proliferation of crisis situations across the globe (e.g. climate-related or war-related crises) resilience assessment proves to be a valid approach to measure the imbalance of an urban system and from there, to devise the necessary measures to re-establish balance beyond subsistence. Despite ample work being done on resilience research, there is still a significant gap, not only in the adoption of a common concept or a discourse shared by many authors, but also in regard to how resilience assessment can be effectively integrated into operational planning measures. This already pressing necessity is intensified in the case of contexts undergoing conflict, where additional factors come into play and the need for rapid recovery overlaps with the usually already sought-after goal of achieving sustainable development. In this sense, the goal of this paper is twofold: first, it discusses the potential causes behind the gap between resilience research and resilience planning. Second, it argues how the integration of a federated urban resilience model into digital and spatial platforms can potentially contribute to bridge this gap and to address both, rapid recovery (in the short-term) and sustainable growth (in the longer term) in conflict contexts. The knowledge collected and shared in this paper is the preliminary result of an ongoing project with the case of Ukrainian cities as the research focus; within the framework of a cooperation between a research institution (HafenCity University Hamburg) and the German Corporation for International Cooperation (GIZ GmbH). The findings from the first phase of the project highlight specific aspects which are expected to be addressed during the following phase of the ongoing project. The overall contribution of this work should lead to a better understanding of how planning approaches integrating resilience-related strategies can both address rapid recovery measures and achieve longer-term consolidated urban growth, in a replicable manner, out of the specific case of Ukraine and on to other multiple contexts struggling to grow sustainably in the midst of crisis.

Keywords *: Digital tools, urban resilience, Ukraine, conflict, recovery*

Territorialising Resilience Through Planning. Some Preliminary Insights

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Coming back to the centre of the European Union (EU) policy discourses during the COVID-19 pandemic, resilience has re-emerged as a widespread concept in the European lexicon to deal with rapid and slow on-setting events that increase the vulnerability of cities and their populations. In the context of emergent global crises, such as geopolitical shocks and energy instability, the fragility of supply chains in specific economic sectors, the growing of inequalities, and the overarching challenge of climate change and biodiversity collapse - one of the key policy messages we constantly hear is the need for systemic transition and long-term transformations heading to resilience and beyond GPD.Despite this increased interest in enhancing resilience in scientific research and policy discussion, there remains to be a shared understanding of what it means. The first round of understanding the resilience concept at the EU scale follows the 2011 economic crisis. It interprets resilience in a "bounce back" perspective, framing the capacity of European regions to return to pre-shock growth levels. However, a more complex understating of resilience is now emerging, asking European regions to withstand and adapt to the interplaying environmental, social and economic crises that Europe faces and "bounce forward" to the transition towards renewed sustainable systems. Following this knowledge, territorial resilience can displace current policy paradigms and induce a lasting shift in institutional innovation, cultural norms and community values, namely supporting planning for adaptive capacity. On this path, the 2020 Strategic Foresight Report puts forward resilience as a "new compass for EU policies", clarifying that achieving resilience is becoming an increasingly important part of European policy, besides competitiveness and territorial cohesion. At the same time, some recent works have highlighted that the costs of this transition will be unevenly spread and will likely leave left-behind regions further behind, potentially resulting in severe social/political resistance to climate policies.In this scenario, there is still a mismatch between the conceptual definition of territorial resilience and how to practically operationalise it within territorial governance praxis to face some forward-looking trends affecting the EU's capacity to manage climate change and other environmental challenges, technological transformations, pressure on democracy, as well as shifts in demography.Starting from this broad framework, the contribution aims to present the first results of the ongoing project ESPON TERRES "Territorialising Resilience: Transforming Europe for an Age of Crisis", which focuses on the largely unexplored nexus between the conceptual understanding of resilience and the role that the concept can assume in allowing European regions to strengthen absorptive, adaptive and transformational governance capacities in the context of long-term multi-crisis trajectories. More specifically, the contribution concentrates on avoiding framing resilience as an "empty signifier" but as a transformative framework to stimulate the capacities of territories to cope with and prepare for permanent current and future crises. In a broader sense, it is about how resilience can provide a valuable lens for guiding the EU Policy Framework and Agenda, supporting the radical shifts in planning cultures, rationalities, and norms, including a prospective reprioritisation of socioecological values and institutional capacities.

Keywords : *territorial resilience, adaptive capacity, crises, urban and regional planning, EU policy*

Moving Forward In Uncertainty: A Serious Game For Evaluating Interventions In Collaborative And Adaptive Thinking In Sustainable Mobility

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The transition towards a sustainable transport system is based on implementing socio-technical innovations. This implementation requires that public and private actors collaborate, making choices under uncertainty. However, actors struggle with finding appropriate responses towards uncertainty, and tend to rely on traditional project management strategies, thereby ignoring the unpredictable and unknowable nature of innovations and transitions (Akse et al., 2023).

In the literature, several strategies for dealing with different types of uncertainty have been proposed (Dewulf & Biesbroek, 2018), ranging from improving information exchange between actors and joint fact-finding to stimulating trusting relations. The question is how to stimulate actors in the transport domain to use these strategies. Different methodologies have been developed in other domains to stimulate collaboration and move forward despite uncertainty, ranging from psychological interventions to analytical approaches for constructing adaptive policies. There is a large challenge though to connect these methodologies with actual decision-making processes and test their effectiveness in the transport domain.

Therefore, this paper describes the development, play, and outcomes of a serious game that tests interventions that stimulate adaptive and collaborative thinking between actors by means of a behavioral experiment. To test the interventions, we built a non-digital serious game that simulates a decision-making process in a transport context. Serious games offer great opportunities to test and play with interventions in a controlled environment (Vervoort et al., 2022). The practical aim of the game is to draft and negotiate a sustainable mobility plan for a city region. The game is played by three actors: A government, a traditional public transport company and a new start-up. All players negotiate in multiple rounds about the innovations that will be part of the final plan, and their respective share of the investment costs.

The multi-layered intervention focuses on changing relevant conditions for actors (Rauws, 2017), priming them towards different decision-making behaviors. The scientific set-up is a between-subjects-design, where a control group is compared with an intervention group. The game is played by transport and mobility professionals, after being tested on three groups of students in the planning and transport domain. The intervention consists of three elements: priming a different uncertainty mindset of promotion-focus, by altering the role description and letting players do a group building exercise. A second part of the intervention focuses on acknowledging and embracing uncertainty during the game, by giving players an adaptive planning tool map. A third part of the intervention emphasizes synergies and design thinking between different types of innovations, by adding a bonus list of effects to the innovation cards. Research data will be gathered both on a content and process level.

This serious game enables to understand and experiment with a new type of intervention for improved uncertainty management practices. Priming actors in a controlled setting can be used for building larger training programs in changing actors' mindset, competencies, and adaptive capacity in dealing with uncertainty.

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Adapt-Agility? Exploring Temporal Dynamics In Context-Responsive Planning

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Climate change, housing affordability, refugee and (im)migration, radicalisation...crises abound. These also illustrate how communities are not only compelled to adapt but do so with an emerging quality of agility. The background to this is a reality through which it is becoming untenable to treat crises as single processes or events but instead layered settings of many critical and urgent challenges that range from broader polycrises (European Commission et al., 2023; Henig and Knight, 2023; Janzwood and Homer-Dixon, 2022) to city-centric compound urban crises (Westman et al., 2022). This contribution explores the implications of this for public administrations, communities, and the planners at the frontlines of designing and planning the impending or needed change.

This contribution invites discussion on the opportunities and difficulties in articulating and situating agility as a possible and perhaps an emerging quality of adaptive planning. By beginning with an explorative premise that context-responsive and adaptive planning is shaped by different conditions and gradations thereof, the idea of agility as a dynamic capability is sketched out by drawing on experiences from organizational, management, and (urban) planning scholarship. These question how planners' capabilities (do not) relate to or reflect temporal dynamics and sensitivities. Is or could a better sense of Temporal Orgware (Chang, 2022; 2023) be an outcome of how these dynamics feed forward into new and agile trends? What about considerations for unhelpful feedback dynamics that undermine much needed agility through design, planning, or discretionary (inter)actions?

Identifying Uncertainties In Policy Processes: Analyzing Practices Of City Logistics Policy Makers

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The literature on planning with complexity emphasizes the importance of adaptivity for effective policy making. The many uncertainties planners and policy makers face when operating in complex systems requires a capacity to respond to and incorporate unforeseen developments in the design and implementation of spatial policies and plans (Rauws, 2017). Scholars have proposed various frameworks for enhancing adaptive capacity in policy making, including Safe-to-Fail planning (Ahern, 2011), managing uncertainties in metropolitan plan-making (Abbott, 2012), Dynamic Adaptive Policy making (Walker et al. 2013).

However, this literature devotes little attention to an essential step prior to adopting such frameworks, namely to how policy makers can identify potentially relevant uncertainties. This contribution addresses this knowledge gap by exploring the practices of policy makers in identifying uncertainties in the field of city logistics. It analyses which types of uncertainties receive most attention and which strategies policy makers use to map them. Drawing on these insights, suggestions are made for a more proactive take on uncertainties in policy processes.

City logistics serves as an suitable context for this study for three reasons. First, city logistics systems can be seen as complex systems (Janjevic et al, 2019). City logistics includes an enormous web of "very different transport operations and logistics activities and requirements" (CIVITAS, 2015). Moreover, a large number of stakeholders is involved, including logistics operators, shippers, planning agencies, transport industry, receivers, typically with highly levels of independency in their actions. Second, city logistics systems are sensitive to external influences (Dablanc, 2007), such as economic changes, new business models and technological innovations, including e-mobility, self-driving delivery vehicles, warehouse & last mile delivery platforms, as well as events that change demand (e.g. Covid-19) or disturb distribution chains (e.g. blockade Suez Canal). Finally, in the European context local policy makers are not in the position to work with 'command and control' policies as they only recently showed renewed interest in logistics operations in their cities, often have limited knowledge of logistics operations and lack access to data on logistics flows (CIVITAS, 2015). Thus, it is a sector in which uncertainties are very much at the core of the policy process.

Based on a survey and in-depth interviews with logistics policies makers in 14 European cities, this study indicates that policy makers are mostly concerned with uncertainties that are bounded to the city-level. Little attention is given to potentially relevant contextual changes, while the sector is very much influenced by global processes. Scrutinizing how policies makers identify relevant uncertainties for their policies, four types of methods are found; forecasting, foresight, testing and consultation.

An Autoethnographic Study About Ambiguities As A Resource To Highlight Uncertainties In Planning Practice

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A starting point for this study is the dilemma that no matter how much planning practitioners strive to tame wicked problems involving high uncertainty, conflicting interests and a multitude of actors, towards a 'better' condition, there is always something that is ignored, missed or forgotten (e.g. Hillier & Grunder 2005; Law, 2014).

This study explores the value of everyday ambiguities as a resource for phronetic planning, i.e. the Aristotelian ability to make situated ethical judgments of what is considered better or worse in actual situations characterised of high uncertainty. The intent is to offer a situated gaze of ambiguities from our own experiences as planning practitioners from the perspective of a civil servant and a consultant both working for a well organized and innovative municipality in the capital region of Stockholm, Sweden. From this outset, an autoethnographical methodology and post structural theory of the subject is used to explore the ambiguities that we as authors have experienced in actual planning situations. The autoethnographical empirical material offers from "within" perspectives of a planning practice involved in building attractiveness of a place to combat the effects of regional segregation using cultural prestigious initiatives and citizen dialogue as tools. The study shows that we as practitioners experienced ambiguities, that where ignored and not dealt with. However, in connection to a nationally recognized local conflict, arguments were expressed in media and public discourse by young activists that were similar to the ambiguities that we had experienced in various planning situations. The conclusion is that ambiguities have a potential to intercept and make visible the ever recurring uncertainties embedded in planning practice. In the light of this, practical approaches are proposed for how ambiguities can be used as a resource for phronesis in planning practice. Future research is proposed towards phronesis as collective process between colleagues, organizations and more than human actors and the role of planning researchers and practitioners to contribute to such an ethical practice.

The study builds on classical contributions about situated judgements and self-reflection in uncertain planning situations, offered by Healey (1992), Forester (1999), Schön (1982) and Flyvbjerg (2004), with recent contributions from Fridlund (2017), Wiberg (2018), Lindblad & Metzger (2020), Albrechts (2020), Frögård (2021),and Throgmorton (2021). To offer a situated 'inside' perspective of everyday planning practice is however still an underutilized methodological approach, but of high relevance, considering the need to go beyond inertias slowing a much-needed sustainable transformation (Isaksson & Hagbert 2020; Angeles et al, 2021), while engaging reflexively and not losing sight of possible problematic outcomes of what is put in practice.

Neighborhood Renewal For Post-Pandemic Era: Covid-19 Infection Analysis Study Of Central Area Of Shanghai, China

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Since the outbreak of COVID-19 pandemic in 2019, the global public health response became a focal point of research. Specifically, old communities were widely perceived by the public and frequently reported in the media as being disproportionately impacted by the pandemic, due to factors such as aging populations, poverty, and high population mobility. International studies indicated that vulnerable communities, including slums(Das et al., 2021), racially diverse neighborhoods(Shi et al., 2022), and poor communities(K. C. et al., 2020), faced a higher risk of COVID-19 infection. However, these studies rarely focused on the factors influencing COVID-19 in old communities in China, and lack of research examining the combined effects of the built environment and socioeconomic on infection rates. This study aimed to demonstrate that old communities in China were indeed more severely affected by the pandemic and to empirically identify the characteristics and determinants of COVID-19 incidence in these areas. The assumption of the study was that the old communities had a higher infection rate compared to the new communities. If yes, the influencing factors were detected and suggestions for urban renewal would be provided.

The study focused on residential communities in the central area of Shanghai, China, with the research period spanning from March 1 to May 31, 2022. The number of cases published by the Shanghai Health Commission was collected and matched to the corresponding residential communities. Firstly, data spatial visualization analysis was employed to divide the communities into ten-year intervals based on their construction years. The study found that older communities exhibited a higher incidence rate, with more highly infected communities. Subsequently, to further investigate the significant factors influencing the infection rate, principal component analysis and Pearson correlation coefficient were utilized to process the data, and multiple linear regression and geographical weighted regression models were constructed at the postal code scale. Machine learning methods were introduced to explore the nonlinear relationship between the incidence rate and the influencing factors.

Research revealed that factors at the level of demographic characteristics, including the educational level of residents and occupational heterogeneity, besides the number of medical services and leisure facilities in the built environment of the community, played a role in influencing the infection rate. Additionally, factors at the socioeconomic level, such as consumption capacity and construction year, also impacted the infection rate. To further analyze this issue, descriptive analysis was employed to compare and analyze typical communities at the micro scale in the study area. The results indicated that increasing open space and improving the residential environment were beneficial in reducing the incidence rate.

Enhancing community epidemic prevention capabilities was a pivotal research focus, considering the critical need to safeguard the well-being of residents in older communities. This study underscored the heightened vulnerability of these communities and aimed to develop tailored prevention and control strategies. It also offered practical suggestions for community renewal, aiming to facilitate the renovation and improvement of these older neighborhoods. By approaching the issue from a multifaceted perspective, the research provided valuable insights for enhancing the resilience of these vulnerable communities in the face of future epidemics.

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Planning Drainage And Storage Blocks To Reduce Urban Waterlogging Risk: A Case Study Of The 'July 20, 2021' Heavy Rainstorm In Zhengzhou City, China

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In recent years, urbanization has accelerated, and abnormal changes in climate have increasingly threatened and affected cities with disasters. Intense rainstorms have caused urban flooding in highly urbanized areas, resulting in property damage and threats to life. Therefore, the development of flood-resilient infrastructure systems is crucial. However, achieving this goal may be challenging in high-density urban areas due to constraints on land resources. Current studies on flood resilience are limited to assessing infrastructure systems and do not consider dynamic, resilient scenarios based on Blue-Green solutions. This study proposes a framework based on local human wisdom that can withstand, absorb and recover from floods in a timely manner to improve flood resilience in the urban design process. In this study, we analyze the hydrological characteristics of Zhengzhou City and constructs a rainfall and flood security pattern using GIS and hydrological models. Corresponding Blue-Green solutions are determined for different topographic situations based on the above conditions. These solutions include the Trench Ring + Dry Pond mode, Connected Ponds + Sponging Infrastructure mode, and Blue-Green Network + Elevated Groups Mode. Finally, a rainfall and flood mitigation program is established at the macro scale, and its effectiveness is evaluated based on the Storm Water Management Model (SWMM). The results indicate that the Blue-Green program produced 40,000 cubic meters of stormwater storage, resulting in significant economic benefits for the community. The savings are more than three times that of the traditional solutions. Furthermore, from a spatial perspective, the Blue-Green looped network solution improves flood resilience and reconnects previously fragmented lakeshore spaces, while increasing the water storage capacity of abandoned land. This approach can enhance the flood resilience of inland cities, particularly in response to heavy rainfall and riverine flooding.

Keywords *: Urban design, Storm Water Management Model (SWMM), topographic conditions, Urban waterlogging resilience, Zhengzhou City*

Resilient Communities?! Insights From The Post-Disaster Reconstruction Processes In Two Different Urban Neighbourhoods After The July 2021 Flood Event

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The floods in Western Europe in July 2021 have once again shown that different neighbourhoods recover from disaster in various ways and at different speeds. The social context in which such a disaster occurs is directly linked to patterns of morbidity, mortality, displacement, loss and recovery (Tierney, 2007). Thus, post-disaster reconstruction is not only about replacing damaged buildings and infrastructure, as politicians and planners have pursued for a long time (Aldrich and Meyer, 2014; Pfister, 2020). Reconstruction policy and planning must be holistic (Jha et al., 2010). Their focus must also include rebuilding neighbourhood communities, ensuring equity, access to resources, equal opportunities for the most disadvantaged members of these neighbourhoods, and reducing the vulnerability of neighbourhood communities to hazards (Lewis, 1999).

The study uses two case studies (i.e., two affected neighbourhoods in the city of Hagen, Germany) to examine how two urban neighbourhoods, which differ significantly in their social structure, recover from the July 2021 flood event. As part of the case study research, the study employed qualitative and quantitative methods, including interviews and storytelling circles with affected neighbourhood members, helpers, and employees of the city administration, as well as a standardised survey of neighbourhood members.

Based on the two case studies, this presentation traces the recovery and reconstruction processes after the 2021 flood disaster and outlines the role of neighbourhood communities in the reconstruction process. The study pays particular attention to the access to resources as well as the connection or interaction of larger formal reconstruction structures and local resources of neighbourhood communities in the reconstruction process. In addition, the study shows which community initiatives have been initiated in the recovery processes to increase long-term adaptive capacity.

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Keywords : community resilience, flood disaster, post-disaster reconstruction, recovery, vulnerability

Flood Risk Management In The Face Of Climate Change: Strategic Spatial Planning For Integrating River Basin Management And Residual Risk

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With climate change, extreme precipitation events have become more frequent and intense. Taiwan's mountainous terrain and steep rivers present challenges in water resources management, leading to frequent flood disasters. Flood management requires both structural and non-structural measures, as flood control through engineering measures proves inadequate for mitigating future flood volumes. Therefore, spatial planning emerges as a crucial tool in mitigating flood risks (Hartmann, Slavíková and Wilkinson, 2022).

In the integration of spatial planning and flood risk management, flood maps are used through flood hazard analysis to regulate land development in flood-prone areas (Wang et al., 2022). However, besides topographical factors, human-induced land use and cover changes also contribute to flooding (Seher and Löschner, 2018). As a result, development upstream can lead to downstream flooding. Moreover, flood defenses do not entirely eliminate flood risk. Studies on the Levee Effect have demonstrated that levee construction not only accelerates floodplain development but also reduces residents' risk perception, resulting in an increase rather than a reduction in flood risk (Ding et al., 2023). Therefore, spatial flood risk management should encompass considerations of flood source areas within river basin management and residual flood risk in the event of levee failure. Implementing flood risk reduction measures aims to strike a balance between land development and flood risk management.

The purpose of this research is to integrate river basin management and residual risks from spatial planning for flood mitigation and to formulate strategic spatial planning in response to climate change. Initially, we use the SOBEK hydrodynamic modeling to conduct a Flood Source-to-Impact Analysis to identify the flood source area and affected area, and to simulate the inundation area in the event of levee failure under climate change scenarios. Subsequently, the CA-Markov Model is employed to simulate future land use changes. We perform an overlay analysis with flood source areas and residual risk areas to identify locations requiring development and exposure to flooding. Finally, four scenarios (no intervention, land use policy in high-risk areas, Nature-based Solutions, and a combination of land use policy and NbS in high-risk areas) are set up to evaluate the impact of different spatial planning strategies for flood mitigation (Huang et al., 2021).

This research aims to address the limitations of solely considering flood-prone areas in flood risk assessment. It explores the spatial correlation between flood source and affected areas within river basin management, as well as the residual risk of levee failure. Additionally, scenario analysis of various spatial planning strategies is undertaken to evaluate the impact of implementing land use policies and integrating Nature-based Solutions for flood mitigation in flood risk areas. We integrate the management of flood source areas and residual risk areas into spatial planning, assign responsibilities for stormwater runoff, and steer development away from residual flood risk areas. We aim to build strategic spatial planning for flood resilience in the face of climate change.

Keywords *: Flood Risk Management, Spatial Planning, Flood Mitigation, Flood Source Area, Levee Failure*

Analysis Of The Characteristics Of Residents' Behavioral Changes And Influencing Factors Of Relocation Intention Under Community Silent Management During The Epidemic

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Since the COVID-19, many cities in China, such as Shenzhen, Changchun and Shanghai, have adopted the community silent management (CSM). CSM refers to a special social management in which residents within the controlled area do not go to public places unless necessary. This is a prevention and control measure aimed at blocking the spread of the epidemic, quickly cutting off the transmission chain, stopping unnecessary movements among residents, and reducing the intensity of communication among citizens to control the spread of the epidemic. CSM has had a profound impact on the lives and psychology of residents. On the one hand, CSM effectively controls the spread of viruses and ensures the health and safety of residents; On the other hand, CSM has also brought many inconveniences and troubles to residents, such as unsmooth material supply and uncertain time for lifting lockdowns. These impacts may lead to changes in the behavior and psychology of residents, such as an increase or decrease in neighborhood mutual assistance behavior, an increase or decrease in family economic income, and expectations or concerns about future life. Moreover, these changes may affect residents' willingness and decision-making on whether to continue living in the current community.

The aim of this study is to explore the characteristics of changes in physical and mental behavior of residents under community silent management, as well as the influencing factors of changes in residents' willingness to move in this situation. This study takes Shanghai as a survey case and collects 448 valid samples through a questionnaire. Descriptive statistics and binomial logit equation models are used for analysis to answer the following three questions: first, what are the characteristics of changes in residents' behavior under CSM; second, how strong is the willingness of residents to move under CSM; and third, what is the relationship between willingness to move and personal attributes, epidemic characteristics, and community characteristics.

The research results show that people who have lived in the community for a short time, who are not registered in registered residence, and low-income people are greatly affected by the epidemic and silent management, and their economic income decreases significantly. Over 60% of the samples showed negative and pessimistic emotions during the epidemic. But this management model has to some extent promoted communication among community residents. From the perspective of factors influencing the willingness to move, firstly, the living area and mentality of residents are important factors affecting the replacement of housing. Rental groups are more likely to change houses. People with poor isolation mentality and non local registered residence tend to change houses. Thus the epidemic has exposed a significant impact of community infrastructure construction on residents' willingness and life to move. It is necessary to strengthen community infrastructure planning and construction, improve the management of the rental market, integrate healthy communities for planning system construction, enhance urban vitality while enhancing community resilience, and achieve the goal of livable and harmonious urban development.

Becoming And Remaining A Pioneer Of Climate Change Adaptation At Local Level In Germany – A Case Study On Dresden From A Strategic Spatial Planning Perspective

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Recent empirical findings indicate that a majority of German citizens is concerned about climate change and its consequences (Mau et al. 2023). However, empirical findings also show that the activity level of German cities with regard to climate change adaptation is surprisingly heterogeneous (Otto et al. 2021). A small number of „very active cities" is followed by many „active cities", „less active cities" and still many „waiting cities". Five factors are mainly used in the analysis of differences in city activity levels: Leadership, institutions, decision making and implemented measures as well as usable scientific knowledge. Issues of funding and public support are also mentioned.

Our contribution focuses on the case of Dresden city which counts as a very active city and, hence, is acknowledged as a (relative) pioneer of climate change adaptation at local level in Germany. Four factors are especially important to explain the pioneer position of Dresden (Hutter et al. 2024): (1) leadership of local officials as early adopters, mainly in the office of environmental protection; (2) integrated decision making, for instance, through formal as well as informal environmental and city planning; (3) availability of usable scientific knowledge, for instance, based on collaborative research; and (4) growing public support against the background of collective experiences with flooding and heat waves in Dresden.

The congress contribution discusses some implications of this case study on Dresden with regard to the adaptation tracking literature (Ford & King 2015) and strategic spatial planning (Healey 2009). For instance, we refer to relations between political leadership and new institutional arrangements. Furthermore, the notion of „framing selectively" (Healey 2009, pp. 449-452) is considered, which we understand as especially important for local policy and practice.

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Saturation As Urban Crisis. Understanding Anthropocene From Two Flooded Cities Of The Global South

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The proposal is based on a comparative analysis of two qualitative PhD research undertaken at the same time in two cities of the Global South often affected by flooding: Dakar (Senegal) and San José (Costa Rica). We use the notion of 'saturation' as a comparative operator to analyse the process by which these two cities regularly or permanently flood themselves, as well as the specific temporality of urban planning aiming to mitigate this phenomenon (Robinson, 2022). By showing how urban floods constitute here a long-term process of 'saturation', of practices, techniques and matter, we link two type of disasters often analysed separately in disaster studies and planning. The first one is the slow disaster (Knowles, 2020), that we propose to relate to the notions of neglected and small disaster. The second one is the crisis often associated with the notion of breakdown and urgency (eg. Sierra et al., 2020). In the context of the Anthropocene, we argue that the differences between these two types of disaster blur, calling for new analytical tools.

The proposal will first present the relevance of 'saturation' to think about the notion of crisis in the Anthropocene, its spatiality and temporalities at the urban scale. On the one hand, the notion of saturation emphasises the process rather than the event: to say that a system, substance or environment is 'saturated' is to point toward the historical and material depth of its state. The process of saturation leads to a tipping point (which evolves in time) at which a gentle return to 'normal' is difficult when not impossible. In this respect, the temporalities involved in the saturation process reflect both the history of the 'forcing' factors that changed environments (i.e the emergence of the metropolitan city in each case), and the particular state in which it finds itself at the saturation point: characterised by great (permanent) instability, or by a changeover to another state. This particular state is the second aspect of the concept that interests us. At the point of saturation, the properties of agents, social forms and relationships are transformed depending of the intensity of the pressure, the relationships between actors (inhabitants, practitioners...), and their history. We will see that, in the case of urban environment, these transformations are far from mechanic processes but include different interactions implying weather, geo-urban landscapes, and ways of leaving and governing these landscapes.

We will present two results of our comparison. First, we will see how saturation allow us in our different cases to think urban crisis not as a moment or an event, but as a material thickness that transforms watersheds (Clark et al. 2020). In the case of Dakar this process led to the transformation of the niayes of the Cap Verde peninsula from a wetland to an urban wetland. In San José the process refers to piping watercourses and soil sealing. In these processes, we will show how water have interacted with, and through, urban milieus, revealing common features and feedbacks that shape urban spaces and times in our two different cities. Second, our results will touch on the capacity of actors to cope with these crises, highlighting issues of power and inequalities in urban Anthropocene. We will insist on the way that saturation has to do with the historical sedimentation of institutions and actors in these two cities, and how it forces them to govern disasters beyond their capacities (Chahim, 2020). The conclusion will develop the potential of a situated comparative method to approach urban crisis and disasters in the Anthropocene.

Conditional Factors For Boundary Spanning By Spatial Designers In Climate Adaptation Planning

Annet Kempenaar (University Of Groningen), **Margo van den Brink** (Univeristy Of Groningen), **Terry van Dijk** (University Of Groningen), **Naim Laeni** (Thammasat University)

Climate change and its expected impacts call for urgent and transformative changes in society and in the way we organize and design the land we live on. This implies innovative, integrated, and adaptive responses that address multiple challenges, reframe issues and produce co-benefits. Achieving such responses requires new collaborations, new ways of working across parties, and, as such, bridging differences between sectors, disciplines and actor groups. In this context, spatial designers, such as landscape architects and urban designers, increasingly take up the role of orchestrating complex collaborative design processes (De Jonge, 2009; Kempenaar & Van den Brink, 2018). They become boundary spanners who "are especially sensitive to and skilled in bridging interests, professions, and organisations" (Webb, 1991, p. 231). Employing their skills and expertise, spatial designers contribute to overcoming sectoral, disciplinary, governmental, cultural, geographical, and temporal boundaries (Van den Brink et al. 2019).

However, the opportunities and options to span and transform boundaries are enabled and constraint by contextual conditions (Van Meerkerk & Edelenbos, 2018). This paper investigates the environmental, organizational and program conditions for boundary spanning by designers in three international climate adaptation programs: Water as Leverage for Resilient Cities Asia; Rebuild by Design in New York/New Jersey; and Sigmaplan in Belgium. The research revealed both general contextual conditions, as well as conditions more specifically related to spatial designers.

Despite large cultural, institutional and physical differences, a striking environmental condition found in all cases was the felt urgency after, or real risk of a disaster, and because of this the need to change. On a more abstract level, complexity related factors, such as interdependency and interrelationship between issues, emerged from the interviews as environmental conditions. This resonates with the link between a high level of uncertainty, diversity, and interdependencies, and the need for boundary spanning described in literature (e.g. Van Meerkerk and Edelenbos, 2018).

In all cases, the program was related to, or derived from formal goals and agreements, making this an important cross case contextual condition. Organisational support and commitment was a second organizational condition encountered in the cases, which we observed to be a condition that can change over time, for example when new officials are elected.

The activities organized by the program-organisation to support the project, and the interplay between the program and project level were regarded as important program conditions to enable and foster boundary spanning. Having design, planning and implementation in one program also emerged as a condition on program level favouring the boundary spanning throughout and between these stages. A key program condition that enables or limits boundary spanning emerging from our study is the role and position of the spatial designer (or other boundary spanners). Finally, the boundary spanning potential of spatial designers can be enlarged by structuring the program with principles stemming from the (spatial) design-realm (e.g. a design competition, coevolution of research and solution-finding, multiple iterations).

Keywords : climate change adaptation, urban planning and design, landscape architecture, boundary spanning

Options For Planning And Resourcing Assisted Relocations For Climate Adaptation

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The impacts of climate change have increased the risks for many settlements to the point where policymakers and planners are having to consider more proactive adaptation options (Intergovernmental Panel on Climate Change, 2022). Assisting the relocation of people and structures (also known as managed retreat, planned retreat, or relocation and repurposing) is the strategic and pre-emptive withdrawal of settlements and infrastructure from hazardous zones (Yarina and Wescoat, 2023). The objective of this paper is to promote discussions about how to ensure the implementation and resourcing of effective, efficient, and appropriate adaptation through assisted relocations. This study reviews how resources can be mobilised from the private and public sectors, or the two in partnership, to motivate effective transitions, for example, through planning and policy innovation. Both sectors struggle with the long term and uncertain impacts of climate change and the ramifications of how to determine where the boundaries of residual risk lay, leaving both sectors looking at each other for solutions and resources. Local and regional governments, which are often responsible for planning and land use, are usually the most resource constrained, but they remain in a unique position with regards to climate adaptation responsibility (Dedekorkut-Howes et al., 2020). Local governments can be exemplary borrowers and act in collective interest given their role as planning authorities, forums for democratic debate and responsible government, and collectors of taxes and provider of services (Edwards et al., 2019). However, the research points to the limited capacity in the public sector to administer innovative resourcing schemes. The private sector, when provided the right incentives, can provide significant scale, flexibility, and dynamism to enable managed retreat, although there are also significant barriers to action at the likely scale required. As the frequency, extent, and magnitude of climate-related risks combine and compound, policymakers and planners will be left with fewer options for at-risk areas.

Analyse, Act, Adapt, Ad Infinitem: Towards A Legal Framework For Climate Adaptation Decision-Making Under Deep Uncertainty

Alexander Stanley (Hafencity Universität Hamburg)

Climate futures are deeply uncertain. We know on the basis of robust evidence that the climate is changing, but the ultimate trajectory of Earth's future climate is substantially contingent on our actions in the present. Even if we could perfectly predict the course of climate change, there would be irreducible inherent variability due to the nature of Earth's chaotic climate system (Stainforth 2023). This variability contains 'unanticipatable' surprises, or 'Black Swans' (Flyvbjerg 2020). How can we derive any confidence in the reliability of our best laid plans and preserve adaptive capacity under such circumstances? How can we avoid 'being tossed about like corks on the water'?

Decision-making under deep uncertainty (DMDU) approaches offer a promising theoretical and pragmatic methodological way forward (Marchau et al. 2019). Various DMDU methods exist, but all involve a common series of steps: 1. Frame decisions and define common objectives through participatory methods; 2. Conduct exploratory analysis; 3. Act on the analysis and make decisions now or contingent on future events; 4. Monitor and evaluate the decisions; 5. Reiterate the analysis and adapt in light of new information. DMDU's potential in climate decision-making has been widely recognised, yet it remains underutilised in practice (Siders and Pierce 2021). This suggests that DMDU lacks an enabling legal framework. Here I seek to bridge that gap and ask: what is a plausible legal basis for the use of DMDU in climate adaptation decision-making? In laying the legal groundwork for broader use of DMDU, this paper argues that DMDU's participatory, iterative methods integrate fundamental justice considerations, including the fulfilment, solidarity, freedom and transparency that shaped our present, yet enables the kind of adaptive decision-making we need in the face of deeply uncertain climate futures.

***Keywords** : Law, climate adaptation governance, deep uncertainty, decision support tool*

The Importance Of Ethical Pluralism For Planning Sustainability Transformations

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Addressing the multiple, complex and interwoven global crises associated with increasing inequalities, climate change and biodiversity loss, draw attention to the need for transforming the ways we understand and approach sustainability and planning. This calls for critical reflection on the limitations inherent to traditional universalizing assumptions about society, education and sustainability (Watson 2006). Western anthropocentric positions have mostly explicitly or implicitly defined the space of legitimate arguments and possibilities for solutions, overlooking alternative approaches to address sustainability challenges at different scales. Ignoring diversity leads to injustices and reduces the potential of achieving sustainability goals. Hence, there is need to recognise and navigate multiple equally legitimate values and ethical perspectives underpinning diverse ways to inhabit landscapes and relate to people, non-humans and future generations (Cortés-Capano et al 2022). Here, we discuss the importance of ethical pluralism to contribute to planning for sustainability transformations, highlighting some of its main opportunities and challenges. Ethical pluralism allows to recognise not only the existence of incommensurable plural values, but also that moral conflicts should embrace intra and inter-cultural criticism. It requires a recognitive commitment to the disagreement that emerges from deep difference, acknowledging the legitimacy of agonism and dissent, as opposed to monistic and relativistic approaches (Schlosberg, 1999). A narrow focus on consensus-seeking processes, without allowing for legitimate disagreement, might conceal power imbalances among stakeholders and favour single framing of problems and planning solutions (Matulis and Moyer, 2017). Instead, we highlight opportunities for planning educational and pedagogical practices to support sustainability transformations by: i) promoting spaces to deliberate on the importance of recognition and environmental justice including non-humans (Martin et al., 2020) and, ii) moving beyond theoretical debates to focus on ethical diversity and different as a common source of possible solutions (Scholberg, 1999). We conclude by discussing how grounding ethical pluralism in environmental justice and environmental pragmatism may contribute to navigating the ethical landscape and to support future generations of planners in enhancing sustainability transformations.

Keywords : *Pluralism, sustainability transformations, Environmental Justice, Pragmatism*

Living With Risks: Communities' Awareness And Preparedness In The Campi Flegrei Area (Italy)

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Campi Flegrei (Phlegraean Fields) is one of the most critical areas in the metropolitan city of Naples, in Southern Italy, due to its multi-hazard features, high population density and an important historical, archaeological, and natural heritage (Charlton et al., 2020). It is the largest volcanic caldera (with a diameter of about 12 km) in Europe, partly emerged and partly submerged. Moreover, this area has been historically characterized by the phenomenon of bradyseism, a slow rising and lowering movement of the ground (Gottsmann et al., 2019).

While the last volcanic eruption occurred in 1537, the area has experienced several crises due to the bradyseism in recent years: 1970-72, 1982-84, 2005-ongoing. During bradyseismic crises, the lifting of the ground results in numerous shallow earthquakes of short duration and low intensity (maximum magnitude 4.2 ML) perceived by the local population. The frequent earthquakes aroused a strong concern of citizens and the attention of the involved authorities. Nevertheless, the very few prevention actions so far implemented have not been based on a comprehensive vision of territorial development, leading sometimes to further problems, while communication on risks is still lacking.

Hence, starting from the Seventies, the evolution of the territorial and emergency planning will be briefly examined, to show how the involved authorities at different governmental levels have been struggling until now to pursue a coherent and integrated approach aimed at reducing risk and enhancing resilience. Also, the lack of territorial planning and the actions undertaken after the previous bradyseismic crises have contributed to increase local risk levels and no effective actions have been undertaken to improve communities' awareness and preparedness.

In detail, the multi-hazard environment and the peak episodes of bradyseism occurred in the Campi Flegrei area will be briefly described and compared with the resulting emergency response and planning, showing how they have often followed instead of anticipating phenomena. Also, the spatial planning tools at different levels will be presented, focusing on their effective contribution to reduce exposure and vulnerability in the area. The last section will be devoted to investigating if and at what extent the preparedness of local communities has changed, following the last, and still ongoing, bradyseismic crisis intensified in 2022. The investigation will be based on the comparison between the results of a previous survey carried out by Ricci et al. (2013) and a new survey carried out by the Authors through on-line questionnaires on a sample of about 500 inhabitants of the Campi Flegrei area.

The comparison of results will provide some insights to understand how much risk perception and awareness, as well as the knowledge of Disaster Risk Management (DRM) system, changed after 10 years following the intensification of bradyseismic events. Finally, a comparative timeline of bradyseism-DRM cycle-population response will be discussed to identify the shortcomings and results achieved so far in DRM.

Narratives On Social Vulnerability In Regional Climate Adaptation Planning In Europe

Mette Juhl Jessen (University Of Copenhagen), **Christian Fertner** (University Of Copenhagen)

In an era where human-induced climate change precipitates not only environmental but also social crises, the complexity of adapting societies is great, and a call for just transition pronounced. Amidst these challenges, there is an increasing focus on the development of frameworks, indexes, and indicators aimed at assessing social vulnerability and marginalized groups within the context of climate change and climate change adaptation. However, there is a notable gap in understanding the day-to-day practical application of these tools and frameworks. This study aims to bridge this gap through a qualitative meta-study of vulnerability narratives in the context of regional climate adaptation planning, examining 12 European cases.

The study is grounded in the empirical analysis of regional climate adaptation plans and strategies, combined with the narratives and perceptions of stakeholders involved in both formulating and implementing these plans. The central objective is to uncover the conceptions and narratives of social vulnerability as understood by regional stakeholders in climate adaptation planning across diverse European regions.

Adopting an exploratory grounded theory approach, we engage with stakeholders from 12 European regions participating in the EU Horizons project Regions4Climate. Our methodology encompasses a written survey, a screening of regional climate plans, and qualitative semi-structured interviews. This empirical data is analyzed in the context of contemporary climate risk frameworks' definitions of vulnerability (Navarro et al., 2022) and core concepts of social justice in climate adaptation (Lager et al., 2023).

Our findings reveal a diverse range of stakeholder perspectives on social vulnerability, mirroring the evolving definitions posited by the IPCC (2022). Notably, our data highlights the challenges and opportunities within recognitional justice (visibility and recognition in planning) and procedural justice (participation in planning processes). The study also identifies various factors that hold both positive and negative potential for enhancing social vulnerability considerations in regional planning.

This research contributes to the discourse on planning considerations on social vulnerability as a component of risk, influenced by adaptive capacity and sensitivity. The study brings forth a current conception of social vulnerability among regional stakeholders and the operationalization of the concept in day-to-day planning. As such, the study contributes an informative baseline for future cross sectoral initiatives and research and contributes to the discussion on how to support social justice in regional climate adaptation.

Theorising Compounded Uncertainty In Planning From The South: A Proposed Framework For Contextualised Contingency Planning

Mrudhula Koshy (Norwegian University Of Science And Technology), **Rolee Aranya** (Norwegian University Of Science And Technology, Trondheim, Norway), **Hilde Refstie** (Norwegian University Of Science And Technology, Trondheim, Norway)

This article reviews contingency planning, risk-based planning, post-structuralist strategic planning, resilience-based planning, complexity-oriented planning, and adaptive planning as some of the dominant approaches to planning under uncertainty and summarises the overarching critiques against each planning approach. The authors argue that all these prominent planning approaches under uncertainty were theorised based on empirical observations from Global North contexts with high resources, an environment of consensus, more significant equity among populations and robust governance mechanisms.

As per synoptic and instrumental planning, existing and proposed physical plans sought to accommodate certainty as a desirable key aspect in regulatory outcomes and the development of urban areas and built environments (Hiller, 2013). Later planning traditions, however, began to question this linear, static, and non-flexible approach since, in reality, planning processes were often non-linear, organic, and chaotic, influenced by various facets of uncertainties in their entire duration (Christensen, 1985). The general acceptance among planners regarding the inherent wickedness of planning problems (Rittel & Weber, 1973) led to the recognition that planning would benefit from adopting multi-faceted perspectives on uncertainties. This prompted several planning scholars to shift their notions of planning solely as a rational process and to explicitly consider the dimensions of collaboration, communication, transparency, and consensus building as a possible way to deal with uncertainties (Innes, 1998). More recently, a reinvigoration of the wicked problems debates due to increasing acknowledgement of sustainability challenges, with a complexity turn in planning can be witnessed, where uncertainty is viewed as an inherent part of the environment and not as an externality (Rauws, 2017).

This article argues that no one theory is sufficient on its own accord, and directly applying them individually to Global South developmental contexts would entail a limited understanding of compounded uncertainties that typically manifest in such contexts (Koshy et al., 2022). Through insights on planning, decision-making and governance in the aftermath of the floods in Wayanad, a peri-urban hill district in Kerala, a coastal province in the south of India that was affected by unprecedented floods due to heavy monsoon rainfall in 2018 and 2019, the authors explicate contextualised contingency planning (CCP) as a planning approach under uncertainty. CCP is an interactional, value-laden, participatory, community-oriented, and partnership-based planning, decision-making and governance approach. It is positioned at the confluence of complexity-oriented and post-structuralist strategic planning, and has potential to take into account historical marginalisation, chronic vulnerabilities and contextual specificities of Global South contexts.

Transforming Urban Planning: Prioritizing Social Vulnerability By Developing Transformative Capacities For Resilient And Equitable Urban Futures

Varsami (Ersi) Zafeiriou (Dresden Leibniz Graduate School (Dlgs), Leibniz Institute Of Ecological Urban And Regional Development (Ioer), Technical University Of Dresden (Tud))

No city is safe from climate risks. However realistic this statement might be, it may be considered an oversimplification - no city in the world is safe due to a plethora of urban risks, which are disproportionally distributed among the dwellers of urban communities. When it comes to natural hazards and disasters, urban resilience has become the answer to what the urban futures should stand on to cope, adapt, or, even, thrive in the face of risks-a kind of mantra for planning and urban development.

Neumann in a provocative position paper challenged resilience's appeal in planning by posing a question, "[..] should we continue to muddle through with incremental, marginal improvements that do not cope sufficiently with the immensity of the tasks confronting humanity? Or should we transform?" (emphasis added). Similarly, Connolly believes that if resilience is to overcome the obstacles of elusive links between ideas and actions, as well as entrenched institutional structures, the way is through focusing on social vulnerability.

However, the concept of the "resilience tale" has faced various criticism for neglecting the importance of justice and politics (Ziervogel et al., 2017) and failing to address power imbalances and structural inequality (Harris et al., 2017), the fact that it places too much emphasis on overall performance and overlooks the individuals or groups who may not benefit from such measures (Fainstein, 2018) and many more that reflect on shortcomings of traditional approaches to comprehend vulnerability (Nightingale et al., 2022) and inequalities, thus reinforcing the need for a paradigm shift in urban planning toward resilient futures.

This research explores the deficiencies in urban planning in achieving equitable and resilient futures by prioritizing the advancement of transformative capacities in both planning practice and policymaking by putting social vulnerability at the heart of the approach. As the conceptual part of a doctoral thesis that aims to introduce this paradigm shift, social vulnerability is first reconceptualized in urban planning, through a critical analysis of the main schools of thought and their associations with current approaches to building urban resilience. By conducting an integrative review and "filtering" the relevant shortcomings of resilience thinking in urban planning through the lens of transformative capacities' potentials, the components/drivers of transformative change are extracted. In an attempt to operationalize them, they are integrated into a conceptual framework crystallized in potential tools and measures, to present an alternative route to planning a long-term equitable urban future.

***Keywords** : social vulnerability, urban resilience, natural hazards, transformative capacities, urban resilient futures*

Climate Change And Informality: How Public Policies Address Informal Settlements In Natural Risks Areas

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Across the world, risk events have been increasing in frequency and severity in recent years, aggravated by climate change. This is one of the most significant and well-known transformations carried out by humans which has put Planet Earth in a very fragile situation (Young and Steffen, 2009), contributing to increased environmental, socio-economic and political tensions (Leichenko, 2011; Wilbanks and Kates, 2013).Spatial planning incorporated risks since the 1960s. Despite this, the last few years have witnessed a growing debate around the effects of climate change, especially when referring to extreme events, which aggravate the problem in risk areas. In Portugal, risks have been implicitly considered since the 1990 plans, namely through the design of National Ecological Reserve (REN).Informal settlements in Europe go back to the years of recovery after the Second World War, and in Portugal, this phenomenon was experienced between 1950 and 1960, simultaneously when the industrial development and the cities started growing. At this moment, informal settlements in risk areas remain to be, formalized, as they are, considered, unsusceptible to legalization. Early findings in our study show that public policies in Portugal have evolved to address ecological problems in informal settlements through measures such as the establishment of ecological reserves, demolitions in sensitive areas, and the allocation of funds for infrastructure development. These initiatives reflect a growing recognition of the need to consider ecological concerns in the management of informal settlements. Solving this situation may involve fostering a culture of experimentation, building long-term relations and creating short chains of communication to bridge the gap between different stakeholders and institutions involved in addressing informal settlements, as in the past (Silva and Farrall, 2016b, 2016a). In addition, it might require a culture of diluting the dichotomy between formal and informal settlements.

Keywords : Risk areas, informal settlements, climate change, Portugal

Planning For Small Disasters? Landslides As Underestimated Disruptions In The Czech Planning System

Pavel Raška (J. E. Purkyně University In Ústí Nad Labem)

Spatial planning is intrinsically concerned with processes full of uncertainties, but still it is expected to provide normative advice to steer the socio-ecologically responsible development. In their practice, planners must tackle variety of societal expectations and rationalisations of land use that will be fulfilled – among others - under the changing environmental conditions and disturbances, such as natural hazards. How these hazards and resulting disasters will be considered in spatial plans is dependent of their perceived significance (threat appraisal) and the perceived feasibility, legitimacy, and efficiency (coping appraisal) of planning measures (Raška 2019). In this poster, we focus on landslides, which are often considered small disasters (cf. Voss and Wagner 2010) as they individually result in spatially and socioeconomically limited impacts and are therefore neglected or underestimated in planning. Yet, their aggregation during extreme hydrometeorological or other triggering events may represent a major challenge for both urban and rural societies. To illustrate the current approach and challenges posed by landslides for spatial planning, we analyse the Czech planning legislation, instruments, and measures. We use the comparative perspective on various natural hazards, mainly landslides, riverine floods, and flash floods, to show the disproportionally low degree of integration of landslide risk reduction into spatial plans. The identified gaps can be concentrated in three strands of criticism. First, the spatiotemporally fragmented occurrence of landslide leads to the underestimation of landslide risk by the public and disincentivises legislators from more rigid procedures for landslide-sensitive planning. Second, the very nature of landslide susceptibility and hazard assessments do not provide sufficient spatially discrete models that would are required by planners when drafting spatial plans. As a result (third), landslide risk reduction is largely left upon the homeowners and land users themselves, yet the absent landslide risk assessments discincentivise them from implementing the appropriate construction or land use measures. Our work thus complements the previous multinational assessments (Mateos et al. 2020) and provides context-specific calls for improvement of spatial planning approaches and instruments.
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Urban Resilience In Eu Cities: Insights From Ukrainian Citizens With An Understanding Of War Risks

Nataliia Yehorchenkova (Slovak University Of Technology In Bratislava), **Oleksii Yehorchenkov** (Slovak University Of Technology In Bratislava)

This paper explores urban resilience by examining insights from Ukrainian citizens with firsthand experience in understanding the risks associated with war. The aim is to provide practical lessons and tangible examples that can significantly impact the adaptability and preparedness of urban environments. The unique perspective provided by individuals who have lived through the challenges of conflict enriches the discourse on urban resilience in EU cities, offering tangible examples and lessons that can significantly impact the preparedness and adaptability of urban environments.

It begins by shedding light on the stark realities faced by citizens of Ukraine as a consequence of war. These challenges, unanticipated and unprecedented, stem from the lack of preparedness in Ukrainian cities, where the prevailing sentiment was a disbelief in the possibility of war. This introductory narrative sets the stage for a comprehensive exploration of resilience problems encountered in the aftermath of conflict, with a particular focus on the energy system, inclusivity of cities, and the crucial aspect of bomb shelters.

One of the primary areas of concern highlighted in the paper is the resilience challenges within the energy system. The authors will provide real examples of the disruptions faced by citizens, emphasizing the vulnerabilities that emerged due to the unanticipated strains on energy infrastructure. The exploration of this aspect underscores the need for EU cities to reevaluate their own energy resilience strategies, identifying potential weaknesses and proactively fortifying their systems against unforeseen disruptions.

Inclusivity, a cornerstone of resilient urban planning, is another critical dimension examined in the paper. Through real-life examples, the authors elucidate the challenges faced by Ukrainian cities in ensuring inclusivity during times of conflict. The paper emphasizes the importance of fostering social cohesion and equitable access to resources, urging EU cities to integrate inclusive practices into their urban planning frameworks. By learning from the experiences of Ukrainian citizens, EU cities can work towards creating urban environments that are not only resilient but also socially cohesive and supportive.

The third focal point of the paper revolves around the often-overlooked aspect of bomb shelters. Drawing on the experiences of Ukrainian citizens, the authors highlight the significance of robust and accessible shelter systems in urban areas. The paper underscores the need for EU cities to assess their own shelter infrastructure, considering the potential threats and vulnerabilities unique to their contexts. Insights gleaned from the Ukrainian experience can guide EU cities in enhancing their preparedness for emergencies, ensuring that their populations have safe and accessible havens during times of crisis.

The insights provided in this paper serve as a practical guide for EU cities seeking to fortify their urban resilience against real risks. By examining the tangible challenges faced by Ukrainian citizens, the paper prompts a re-evaluation of existing urban planning paradigms. It underscores the imperative of proactive preparedness, dispelling the notion that conflict is an implausible scenario. The experiences shared in this paper not only contribute to the academic discourse on urban resilience but also offer pragmatic lessons that can inform policies and practices, ultimately fostering cities that are not only resilient but also compassionate, inclusive, and well-equipped to face the uncertainties of the future.

Managing Coastal Risks In The Mediterranean Through Participatory Processes. Preliminary Insights From The Metropolitan City Of Bari (Southern Italy)

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The Mediterranean Basin faces huge challenges, mainly due to high anthropogenic pressures and its climatic borderline balance. It is defined as one of the most critical erosion hotspots in Europe, heavily affecting the main economic industries along the coast (beach tourism, agriculture and fishing activities). Moreover, climate change exacerbates the impacts of other phenomena such as floods and storms.

Traditionally, to deal with such complexity and to reduce the vulnerability of the Mediterranean coastal areas, "hard" engineering-based approaches have been used to counteract the risk of erosion and flood (e.g. through the construction of groins and breakwaters). However, such measures have led to ineffective and, most of the time, undesirable effects.

As a matter of fact, the necessity to change perspective to manage coastal risks has been recognized by the international debate and new solutions have been identified as alternative or complement solutions (e.g. Nature-based Solutions). Moreover, a more comprehensive and systemic approach, compared to sectoral perspectives, has been designed, namely Integrated Coastal Zone Management (ICZM). A key aspect of the ICZM Protocol refers to the need to define necessary measures to ensure an appropriate involvement of the various stakeholders, in all the phases of formulation and implementation of coastal strategies, plans and programmes or projects.

For the effectiveness of the ICZM process, participatory actions involving local communities and stakeholders as well as techniques and analysis tools providing information necessary for the follow-up of projects and for decision-making, need to be provided. This would allow an improvement of communications and consultation, facilitating collaboration and consensus-building, enhancing stakeholders' and local communities' perceptions of the adopted solutions and, thus, their knowledge and understanding.

Within this frame, this work tries to answer the following key-question:

Are policy-makers and stakeholders acknowledging and considering the newly proposed methods for coastal risk management as potential alternatives or supplements?

To answer the key-question, a case-study in the Mediterranean basin has been selected: the Italian Metropolitan City of Bari in Puglia Region (Southern Italy). As the only Metropolitan City in Southern Italy facing the Adriatic Sea, it has been identified for two main reasons: (i) the governance system at the metropolitan scale as the most efficacious level for the implementation of solutions for coastal risk management; (ii) the complexity of the City due to its physical, environmental, socio-economic and institutional characteristics.

To examine the case study, we created a participatory system dynamics model. This paper focuses on the initial outcomes of the research stage, which involved four steps: (i) Conduct stakeholder analysis to identify the primary actors to engage in the process; (ii) Conduct semi-structured individual interviews using mental model maps to understand each actor's perception of coastal risks; (iii) Conduct desk work to scrutinize each individual model and establish the collective preliminary model; (iv) Formulate the group model during a workshop where all actors deliberate on the variables and causal connections of coastal risks for the Metropolitan City of Bari as identified in the individual interviews.

The initial findings indicate that stakeholders do not perceive climate change as the primary cause of risks and pressures on their coastal areas. This perception may be influenced by the absence of detailed predictive scenarios. Furthermore, actors view Nature-based Solutions positively in an abstract sense, but they may not be applicable in highly anthropized contexts with significant socio-economic conflicts. To overcome the approach of resolving specific conflicts in the short and medium term, a comprehensive framework is necessary. This framework should combine methods, data sources, and theories to address the partial perception of stakeholders.

Keywords : Coastal areas, Risk management, Participatory system dynamics modelling, Italy

Methods On Evaluating The Suitability For The Development Of Resilient Hydrogen Grids On A Regional Level – Cost Raster Analysis Of The Sauerland Region In Germany

Dominik Coquette (Westnetz Gmbh)

Climate change and the necessary transformation away from fossil fuels are considered to be one of the main challenges facing current society. Energy systems are affected in multiple ways. The required fuel switch necessitates the integration of carbon-free energy carriers, while energy infrastructure is also directly impacted by local climate change effects such as extreme precipitation events.

Hydrogen is a promising energy carrier that can decarbonise the sectors mobility, industry, and heating. It is considered a key component in future carbon-free energy systems (Muselli et al., 2023), leading to an increasing demand for a secure and efficient hydrogen supply infrastructure. Hydrogen pipelines are considered one of the most efficient options when taking service life, operational cost, and transport capacity into account. However, the upfront investment for pipeline construction is significant. Therefore, selecting an ideal route that fulfils environmental, social, and governmental needs, while being economically viable is crucial for hydrogen pipeline development.

Suitability and pipeline planning are typically carried out using Geospatial Information Systems (GIS) and methods such as Cost Raster (CR) analysis. This involves dividing the study area into multiple raster cells each with a value representing the suitability for the research topic. Previous research has shown limited application of these methods on smaller spatial scales. Additionally, there has been a lack of consideration for potential climate change hazards in the planning of energy infrastructure specifically pipeline infrastructure (Hamid-Mosaku et al., 2020).

The aim of this study is to establish a methodology that enables researchers and practitioners to develop sustainable hydrogen pipeline grids at local and regional levels. In recent years, the frequency of climate change effects has increased, leading to a rise in the number of pipeline failures (Qin et al., 2022, p. 9). To incorporate this into the study, potential hazards resulting from climate change effects were included in the CR analysis. Initially, effects that cause pipeline failure, such as erosion and flooding events, were identified through a comprehensive review of literature on climate-induced pipeline failure (Cruz and Krausmann, 2013, p. 44). Subsequently, spatial attributes that contribute to these effects were identified and integrated into the GIS model.

Furthermore, a linear infrastructure framework was developed and integrated into the CR analysis. Linear infrastructure has a significant influence on pipeline suitability, particularly at a local level. By bundling various kinds of infrastructure in similar routes, synergies can be achieved through reduced environmental interference and easier rights-of-way acquisition. However, construction costs may increase and safety buffers may be compromised. To display the impact of infrastructure types such as roads, pipelines, or railways on pipeline suitability, an heuristic was developed that adjusts previously determined suitability values by lowering, increasing, or substituting them.

The developed methodology was applied to a study area in the German Sauerland region, which comprises 12 cities. The region has a complex topography with multiple elevations, lakes, and rivers. Due to its energy-intensive industrial sector, there has been an increasing demand for hydrogen energy, making it suitable for modelling a sustainable and resilient pipeline grid.

***Keywords** : GIS Analysis, Hydrogen Energy, Energy Infrastructure, Resilient planning*

Local Level Coastal Climate Adaptation: An Evaluation Of Queensland Coastal Hazard Adaptation Strategies

Aysin Dedekorkut-Howes (Griffith University)

Approximately 85 percent of Australians live in the coastal region. Coupled with rapid population growth and increasing development pressure, climate change impacts such as rising sea levels and the increasing intensity of storms and cyclones pose growing risks to Australia's lifestyle, environment, and economy. Prior research provided a comparative analysis of adaptation to sea-level rise and coastal flooding in all Australian states and territories (Dedekorkut-Howes et al. 2021); however, no such assessment at the local level exists.

Queensland is one of the most vulnerable states to the coastal climate change impacts in Australia with the highest number of residential and light industrial buildings and the greatest value of existing road infrastructure at risk from a sea level rise (DCCEE 2011). More than 80 percent of Queenslanders live on the coast. The level of vulnerability and risk is well-known; however, action to date has been limited by all levels of government (Howes and Dedekorkut-Howes 2016). In 2016 Queensland state government launched the QCoast2100 program which funds Queensland coastal local governments to prepare Coastal Hazard Adaptation Strategies (CHAS) (Torabi et al. 2022). Of the 31 coastal local governments participating in the first phase of the program 26 of them released a draft or final strategy to date and the remainder are in the final stages of the process.

This project aims to examine local level coastal climate adaptation through the example of Queensland's QCoast2100 program. The research focuses on strategies for managing the consequences of sea-level rise in Australian coastal settlements and aims to answer the following questions: "What are local governments in Queensland doing to adapt to coastal flooding and sea-level rise? Are current initiatives sufficient to manage the risks? How can they be improved?" These questions are answered through an evaluation of the CHAS documents completed to date in terms of their comprehensiveness, implementability transparency, stakeholder engagement, and inclusion of best practice coastal adaptation strategies and practices.

A Framework To Identify And Prioritize Key Performance Indicators: Assessment Of The Effectiveness Of Inclusive Climate Actions For Nature-Based Solutions

Virginia Pellerey (Politecnico Di Torino), **Sara Torabi Moghadam**

Nature-based Solutions (NbS) are recognized as important mitigation and adaptation strategies against climate change. However, citizens and ecosystems benefit differently from the wider functions that NbS can provide. To better account for NbS dilemmas and trade-offs, theory and practice have embraced Inclusive Climate Actions (ICAs) that simultaneously tackle climate change and urban inequalities. While the possible (in)justice repercussions of climate actions have extensively been discussed theoretically and presented empirically, an in-depth assessment of the environmental, economic, and social implications of ICAs for NbS is still lacking.

With the intent of addressing this gap, this research develops a novel framework to identify Key Performance Indicators (KPIs) for evaluating the effectiveness of ICAs for NbS. The developed framework consists of three phases: identification, refinement, and prioritization, and combines quantitative, qualitative, and participatory methodologies. Applying the proposed framework, a set of 13 KPIs consisting of 2 economic, 5 environmental, and 6 social indicators was identified. Furthermore, these results can be integrated by engaging with local stakeholders to select, if necessary, supporting indicators which are specific to the local challenges and the local NbS. With this, the framework achieves two important goals: it succeeds at (i) restricting the number of KPIs to assess, thus making the measurement and monitoring phases more feasible, and (ii) defining a general core that can be further integrated to account for specific types of NbS, unique projects, or distinct goals. Overall, the framework helps European cities to implement ICAs that result in a more just delivery and design of NbS by incorporating fairness and distributing NbS impacts as equitably as possible.

To demonstrate the validity and applicability of the presented framework, the identified KPIs are used to monitor the effectiveness of NbS implemented in two districts of the city of Turin, Italy. As the KPIs cover different environmental, social and economic dimensions, the assessment combines quantitative, spatial, and qualitative methodologies to account for the diversity of impacts of the NbS. Furthermore, results of the assessment are visualised spatially through the use of GIS tools. This baselined assessment and visualization allows researchers and urban practitioners to (i) evaluate the results achieved by implemented NbS and learn from these results for future planning and implementation, and (ii) to understand and discuss the synergies and trade-offs between all the different impacts of ICAs.

This study is one of the results conducted under the auspices of the DUT European project GREEN-INC, growing effective and equitable nature-based solutions through inclusive climate actions. Results of this initial step of the project will serve for the empirical assessment of the effectiveness of ICAs in five European cities, and also for the design and planning of future scenarios to be implemented in five Urban Living Labs. The relevance of the proposed research lies in the development of a new tool supporting spatial planning for sustainable development, with specific focus on climate adaptation and mitigation and social impacts of climate actions. Furthermore, the assessment and evaluation of efficiency of ICAs can highlight the importance of local transformations and transitions towards more inclusive scenarios, where the balance between people and environment is restored.

Keywords : *Nature-based Solutions, Inclusive Climate Actions, Key Performance Indicators, Participatory Approach*

Research On Spatial Optimization Strategies Of Rural Settlements In The Loess Plateau From The Perspective Of Disaster Prevention And Reduction—A Case Study Of Gaoxigou Village,China

Ruonan Jia , **Zuobin Wu**

The Loess Plateau is one of the areas with the most severe soil erosion and the most fragile ecological environment in the world. In recent years, as the precipitation line continues to move northward and rainfall continues to increase, the originally fragile rural settlement space has been intensified by extreme weather challenges, and various natural disasters have occurred frequently.Therefore, exploring the spatial optimization strategy of rural settlements from the perspective of disaster prevention and reduction in this region is of great significance to ensure the safety of residents and achieve the sustainable development of rural settlements.Current research on the spatial optimization of rural settlements in China mostly focuses on the intensive use of land, and lacks research on optimization strategies in this areas based on the perspective of disaster prevention and reduction.Based on the natural disaster risk assessment results of Gaoxigou Village, this paper analyzes the coupling relationship between different levels of risk areas and various types of current village spaces, and proposes spatial optimization strategies from residential space, ecological space and road space.First of all, the construction of residential space should reasonably avoid areas with medium and high risks of disasters such as landslides and collapses to ensure the safety of residents. At the same time, dispersed residences should be centralized and placed to improve the intensive use of land.In addition, by adjusting the ecological landscape space to medium-risk and high-risk areas, and carrying out ecological restoration of land patches that hinder gully hydrology and valley greening, public spaces that "Integration of disaster and recreation" can be formed in some areas.Finally, it is proposed that the road space, which is an important emergency rescue lifeline in the area, should avoid high-risk areas. It is also recommended to adopt a circular series road system structure that conforms to the terrain to improve the emergency support capacity of road traffic during disasters.

Research On Assessment Model Of Disaster Prevention Capability Of Urban Residential Area

Qiburi Qiburi (Inner Mongolia University Of Technology), **Jiaqi Lin** , **He Lei**

The residential area is a physical space frequently used by the permanent residents of a city, and is a spatial unit that is the focus of urban disaster prevention and mitigation. The disaster prevention capability assessment in residential area is the basis for formulating disaster prevention goals, selecting disaster prevention strategies, and implementing planning countermeasures. The existing research and practice on assessing the disaster prevention capability of residential areas from different perspectives shows the characteristics of disunity of disaster prevention ideas, different disaster prevention goals, diversification of assessment indicators, complexity of assessment methods and, local absence of four elements of "idea-object-Index-method", which are not applicable to the research and practice of urban planning. Starting from the idea of urban comprehensive disaster prevention, urban disaster prevention planning theory is systematically constructed in this paper. A theoretical formula for disaster-bearing body vulnerability is established, which is coordinated with the planning elements of residential areas to construct 6 assessment indicators that affect the disaster prevention capabilities of residential areas. The Delphi method is used to determine the weight of the elements and establish an assessment model; the standard assessment guide method is adopted to assess the disaster prevention capability in residential areas. The research conclusions can guide the assessment of disaster prevention capability and the formulation of disaster prevention countermeasures in urban residential areas in China.

"We're Starting From Scratch, Literally From The Ashes": Rethinking Post-Disaster Recovery. Phenomenological Insights From Greenville And The Dixie Fire, 2021

Baptiste Salmon (University Of Versailles, University Of Paris-Saclay), **Charlotte da Cunha** (University Of Versailles, University Of Paris-Saclay), **Yorghos Remvikos** (University Of Versailles, University Of Paris-Saclay)

In August 2021, the Dixie Fire went through Greenville (USA), burning 75% of the town. Two years on, the town has yet to be rebuilt. Litigation between survivors and the company responsible for starting the fire (PG&E) is ongoing, and many people are waiting for their settlement to rebuild. The Federal Emergency Management Agency (FEMA) has funded local organizations for the "recovery" of the town, with the goal of ensuring "safe, secure, sanitary, and stable housing" for survivors. While housing and infrastructure are indeed an important aspect, this rather limited approach fails to capture the great complexity, challenges, and richness of recovery.

Drawing on 24 in-person semi-structured interviews with survivors and local stakeholders conducted in May 2023 – mostly in Greenville, but also in neighboring towns – we discuss recovery from a phenomenological standpoint, based on participants' lived and rooted-experience. Participants often used rebuilding rather than recovery, although some used the two words interchangeably.

We found that recovery is more than a virtuous goal or a mere positive process, but an evolving system that involves complex power relations and coexisting – sometimes competing – narratives. In our interviews, we identified four interesting phenomenological dimensions of recovery, whether at the individual, community, or county level: (1) Losses – recovering from losses, recovery as a loss); (2) Power dynamics and tensions – recovering from tensions, while creating new tensions; (3) Past – recovering from the past, while losing the past; (4) Future – creating (uncertain) path(s). Although non-exhaustive, these four dimensions illustrate the range of transformations that post-disaster recovery can generate; recovery is, indeed, a "wicked problem" in itself.

Keywords : risk, disaster, recovery, wildfire, phenomenology

Investigating Critical Health Infrastructure In Catastrophe Geography

Deniz Kimyon (Dr.)

Imagine waking up amidst the ruins, barely escaping from the wreckage of your home with severe injuries. The ordeal doesn't end there because, at that critical moment, there is no functioning hospital to provide you with the care you desperately need. The powerful earthquakes on February 6, 2023, in the southeastern region of Turkey, affecting a vast area, including northern Syria, led to the collapse, extensive damage, and inoperability of the city's healthcare facilities. This study delves into the pressing issue of urban hospitals that emerged in the aftermath of this earthquake, particularly focusing on Hatay, one of the cities that suffered the most and is currently grappling with a healthcare crisis.

This research focuses on the intersections of capitalist urbanism, critical infrastructure, disaster landscapes, environmental hazards, hospital infrastructures during crises, and emergency services. The aim to unveil the fragility of hospital infrastructures through a critical evaluation of healthcare policies and the impact of capitalist disaster urbanization. Within this context, this study spatially analyzes the state of healthcare services, the vulnerabilities of hospitals during both emergency and recovery phases. This also encompasses healthcare challenges in temporary shelter areas and the broader health issues in the region. Moreover, this study scrutinizes the spatial dynamics of new hospital investment projects under the recovery program, highlighting that hastily executed spatial interventions can lead to new deficiencies. In this scope, it explores how disaster capitalism plays a role in shaping the urban built environment of hospital infrastructure, often implemented by exceptional rules, being constructed in the urban peripheries. This paper, along with the observations conducted through fieldwork in Hatay from February to October 2023, examines the organization of healthcare services within the context of a disaster-stricken area. The findings reveal the deficits and limitations of the current approach to healthcare infrastructure recovery.

Keywords : hospital geography, healthcare in crisis, disaster capitalism, critical infrastructure, earthquake

Response To Natural Disasters In Situations Of Resource Constraint: Case Study In Miyagi Prefecture, Japan

Helen Mulligan (Cambridge Architectural Research Limited), **Tatsuya Nishino** (Kanazawa University)

This paper presents a study of Iwate prefecture and the city of Sendai, Japan, set in the international context of resource-constrained cities worldwide. Such cities are very commonly encountered throughout the world; typically, they display symptoms of economic crisis in conjunction with demographic decline (Pallagst et al 2017).

The study region was severely affected by the devastating earthquake and subsequent tsunami that hit the north-eastern part of Honshu island on 11 March 2011. The paper presents data from field observation along with semi-structured interviews with key stakeholders including local government representatives and community leaders. Economic and demographic statistics on the regional and national levels, tracking their development over the period before and after the earthquake, are also presented.

With respect to natural disasters - in addition to global climate change - cities face a complex set of choices about how best to pursue environmental sustainability and resilience in parallel with other goals. Resource-constrained cities in particular must often work with a highly challenging situation, with a decline in location taxation receipts limiting their options.

The paper suggests that the resilience of such cities may be boosted by techniques such as participatory mapping, to strengthen community ties and reinforce place-based pride in recovering communities (Pineda et al 2024). In the face of natural catastrophe, resource-constrained cities may find additional opportunities to pursue mitigation and adaptation measure to improve their resilience. Re-planning of energy infrastructure, for example, may give new impetus towards for renewable energy sources such as hydroelectric plants, wind and solar farms.

This forms part of an ongoing programme of study, with the objective of producing tools to support policy making at the municipal level. This aims to help cities to plan for mitigation of natural disasters and climate related crises, to respond appropriately when they occur, and to recover from them with vigour.

Resilience Building Of Tourism Villages Confronting Covid-19 In China's Metropolitan Hinterland: Evidence From Shanghai Metropolitan Area

ye sun (Tongji University, Shanghai, China), **chen chen** (Tongji University, Shanghai, China)

In the midst of globalization and rapid urbanization, the majority of villages worldwide are encountering the test of transformation and rejuvenation. China's "rural revitalization" strategy has allowed rural tourism to blossom, but it has been greatly impacted by COVID-19. Therefore, how to enhance the ability to cope with and bounce back from the impact of public health events is a topic worthy of in-depth research and reflection. In the aftermath of the COVID-19 outbreak, rural areas—particularly those where economic activities and livelihoods are deeply intertwined with the market, such as metropolitan hinterland villages—face greater challenges than well-managed and well-resourced urban centers. During the pandemic, these rural economies have experienced significant disruptions and negative impacts. Additionally, due to the tourism industry's inherent sensitivity and fragility, its capacity to withstand such public health crises is relatively weak, leading to disproportionate damage compared to other sectors. Therefore, our research is centered on rural areas in the outskirts of Shanghai's metropolis, with Guzhu Village, a tourism-oriented village that has overcome the epidemic and possesses the resilience to recover, serving as our primary case study. Firstly, through a literature review, we summarized the stage characteristics and attribute relationships within the social ecological system (SES). We also identified the resilient subjects and resilient objects within the SES during the evolution resilience stage. This allowed us to establish a theoretical framework for systems resilience in rural social ecology, catalyzed by COVID-19. Secondly, our research team has conducted four field surveys in Guzhu Village since 2019, and as of 2023, we have successfully collected 376 valid questionnaires containing multi-faceted information regarding tourists and villagers. Furthermore, we conducted semi-structured interviews with 26 relevant personnel using the triangulation method to gain insights into the challenges and opportunities facing the rural tourism industry during the pandemic from diverse perspectives. This approach allowed us to gain a deeper understanding of the process and mechanisms involved in constructing the theoretical framework. Our preliminary research findings are as follows: (1) The fragility of the rural tourism industry: The fragility of rural tourism makes it difficult to withstand the impact of public health risks, leading to a steep decline in economic income and causing the rural social and ecological system to enter a stage of collapse and release. The rapid transition to the restructuring stage of the countryside and the establishment of a new stable system state have been facilitated by the coordination and cooperation of managers and participants. (2) Managers improve system resilience: Under the premise of the development of village collective rural tourism, the comprehensive multi-governance system of rural managers forms an institutional guarantee and becomes the driving force for systemic change. The new rural collective economy provides economic support for rational planning and ecological sustainability, enhancing the system's adaptability. (3) Participants maintain system stability: In the rural context, villagers are participants, and the derived family business model serves as the economic foundation of the farmhouse tourism industry and the basis for building the resilience of the social ecological system. The "family-like" customer-customer relationship they have created transforms social capital into economic capital, making the system more adaptable. Our research delves into the construction process and operational mechanism of the resilience of the social-ecological system of tourism villages in the hinterland of metropolitan areas in the face of public health event impact. We offer a theoretical framework for enhancing rural resilience on a global scale, aiming to contribute to the revitalization and recovery of rural tourism during or after crisis events. Additionally, we provide empirical methods for the transformation, upgrade, and sustainable development of rural industries.

Keywords *: resilience, tourism village, COVID-19, Shanghai Metropolitan Area*

Risk Assessment Of Infectious Disease Transmission In Urban Community Public Spacerisk Assessment Of Infectious Disease Transmission In Urban Community Public Space

Jiaqi Lin (Inner Mongolia University Of Technology), **Buri Qi** (Inner Mongolia University Of Technology)

As one of the greatest threats to human life and property, infectious diseases are the focus of prevention and control in the field of public health.

With the outbreak of the novel coronavirus in 2020,social circles have paid more and more attention to the prevention and control of infectious diseases, and scholars have begun to reflect on the relationship between residential space and health in daily life. How to ensure the safety and health of residents, and how to prevent and control infectious diseases has become an important issue. Community outdoor space is the most exposed space for people's daily activities, which has a deep impact on the health of community residents. In the case of ensuring the normal activities of residents, through the assessment of the risk of infectious disease transmission in the public space of urban communities, the countermeasures and suggestions for preventing and reducing the risk of infectious disease transmission are put forward.

Through literature analysis, this study sorts out and summarizes the influencing factors of common and recent emerging infectious diseases, and analyzes the transmission characteristics of infectious diseases in public space in combination with the characteristics of public space. The PSPL research method is used to conduct a detailed investigation of the residents' behavior activities in the community public space, sort out the characteristics of the crowd behavior activities, and screen out the focus space of the crowd activities. The environmental evaluation index elements related to community space are selected from the healthy city evaluation index system, and the risk assessment of the environmental elements of community public space is carried out by using the microclimate simulation method to obtain the comprehensive risk assessment results of the environmental elements of public space. Secondly, the relationship between residents' behavior activities, spatial environment and the risk of infectious disease transmission is established, and the focus space of crowd behavior activities is superimposed with the risk factors assessment results of community public space, so as to construct the risk assessment method of infectious disease transmission in urban community public space.

Combined with the transmission route of infectious diseases, the risk assessment of infectious disease transmission in urban community public space is carried out. The conclusion of the study is helpful to identify the risk points of epidemic transmission in urban community public space, and then guide the behavior of the population, so as to reduce the risk of transmission in the high incidence period of epidemic, and strive to balance the contradiction between the use demand of urban residents for public space and the avoidance of infection risk as much as possible, so as to maximize the efficiency of urban public space under the premise of controllable risk. At the same time, it explores the transmission routes and influencing factors of infectious diseases in cities, provides data support and quantitative research methods for the construction of healthy cities and the prevention and control of epidemic risks, and improves the health and resilience of urban communities.

Keywords *: Infectious Diseases, Transmission Risk, Community Public Space*

Study On Spatial And Temporal Change Patterns Of Covid-19 Risk Zones And Governance Measures In China From A Multi-Scale Perspective

JING HAN (Southeast University), **Mengyao Zhang** (Southeast University)

The scope of COVID-19 impact, spatial scale, and pattern of spread are different from any previous epidemic shocks. China has experienced a rapid outbreak of COVID-19, multiple episodic outbreaks, severe spread, and a smooth decline. To control the spread of COVID-19, China has classified different regions into risk levels based on the number of COVID-19 infections in the population since 2020. Among them, high-risk areas are those with 10 or more confirmed cases or two or more aggregated outbreaks within 14 consecutive days, and are delineated based on residential districts (villages); medium-risk areas are those with fewer than 10 confirmed cases or one aggregated outbreak within 14 consecutive days. The risk level can accurately show where COVID-19 cases are active and can reflect the frequency and intensity of outbreaks. In this study, the addresses and coordinates of 195,030 COVID-19 medium- and high-risk areas in China from December 2020 to September 2022 were sorted out, and the temporal and spatial change characteristics of COVID-19 risk areas were analysed at four scales: national, urban, and district, by using methods such as kernel density analysis, Jenks best natural break method, and spatial autocorrelation analysis. It is found that there are spatial change characteristics of COVID-19 risk areas, such as neighbourhood diffusion, corridor diffusion, hierarchical migration, etc., and that at the national level, the spatial change characteristics of "inland-coastal-border", "point At the national level, it shows the diffusion characteristics of "inland-coastal-border" and "point-line-point-face"; at the city level, it shows the pattern of diffusion from the centre to the periphery; and at the district level, it shows the distribution characteristics of many scattered points in a small area. On this basis, based on the spatial agglomeration pattern and differentiation of COVID-19 risk areas at different scales, spatial planning and governance measures to cope with the risk of COVID-19 are proposed in terms of multi-level public service facilities planning, resilient city planning, and construction of community living circles, to provide references for the formulation of measures for the prevention and control of epidemics.

Keywords : COVID-19 risk zone, Temporal and spatial changes, Multiscale, Spatial governance

Plastic Or Elastic? Manufacture And Renegotiation Of Space After The Pandemic

valeria fedeli (Politecnico Di Milano, Dastu)

The paper presents the first findings of the national research project "Plastic or elastic? Exploring the spatialities of post-Covid 19" focuses on the impressive spatial "scramble" generated after 2020 by the COVID-19 pandemic, looking at this latter as one of a long series of crises challenging the established spatial organization of the contemporary world. Grounded in urban studies and spatial planning, it focuses specifically on the "re-negotiation of space" generated by the pandemic and its potential for the transition. COVID-19 has worked as an accelerator disrupting several entrenched socio-economic mechanisms and dynamics. The project moves from the hypothesis that as well as significant changes have been generated in the production-organization-fruition of space. These processes of "re-negotiation of space" could also significantly impact the production of the "urban", undermining its role in connection to key and consolidated economic functions of the XX-century city.

The project questions whether these changes have the potential for a permanent restructuring of spatial practices and imaginaries, providing the ground for more just and sustainable spatial fixes. Moreover, it aims to investigate if recovery policies promoted by public actors will be able to support a less space-blind, more space-sensitive transition. Finally, it aims to contribute to planning theory and practices by investigating if and how spatial planning can find a new role and perspective in dealing with the post-pandemic perspective. Building upon the so-called "Spatial turn" of social sciences, it will explore the potential of "transition theory" in developing a nonlinear, multilevel, coevolutionary understanding of the role of space in transitions as well as in providing a critical contribution to the governance of transition.

The paper will focus in particular on the renegotiation of space produced in the sphere of productive activities and logistics, which are explored on the base of a dialogue with experts, stakeholders and innovators. It will in particular reflect on how these findings can contribute to feeding a transition arena able to generate future visioning exercises relevant to contribute to a more just and sustainable transition. Within a policy-design perspective of a post-pandemic world, there is an urgent necessity to understand if the contingent acceleration COVID-19 has impressed on contemporary socio-spatial organisation has the potential for feeding a permanent restructuring of spatial practices and imaginaries, building the ground for the production of more just and sustainable spatial fixes. If so, public policies should not lose their "momentum" and develop a new approach to managing transition, with a new space-aware sensitive approach.

***Keywords** : Spatial and institutional transition, Design entrepreneurship, Niche innovation, Organic urban development*

Introducing Resilience To Urban Planning - Approaches To Implement Resilience In Planning Processes And Instruments

Lennart Bruss (Rptu Kaiserslautern-Landau), **Detlef Kurth** (Rptu Kaiserslautern-Landau)

Throughout its history the European City has been repeatedly exposed to crises and far-reaching transformations. These range from unforeseeable exogenous shocks to endogenously caused and anthropogenically potentiated crises such as nature catastrophes, major fires or wars (BBSR 2018, p. 9). To this day, European cities as well as rural areas still face a variety of challenges, like climate change, the impacts of the COVID-19 pandemic, and the Russian war against Ukraine, which are all affecting spatial development.

Resilience, according to Meerow, can be understood as "the ability of an urban system [...] to maintain or rapidly return to desired functions in the face of a disturbance, to adapt to change, and to quickly transform systems that limit current or future adaptive capacity" (Meerow et al. 2015, p. 39). Resilience is therefore associated with a triad of dimensions: adaptation, robustness and transformation. This understanding of urban resilience is also defined by the UN Habitat (UN Habitat n.d.).

In response to the numerous disruptive events of recent years, the German government has provided the "Memorandum on Urban Resilience" to prepare for crisis events and protect urban structures (BMI 2021). City models like Leipzig Charter have to be extended by the objectives of resilient cities, to strengthen adaptable, robust and transformable urban spaces (BBSR 2021). Approaches of resilience always should be combined with transformation processes, in the context of the European city model – like the "building back better approach" (Kammerbauer 2018).

Resilience has received particular attention in the context of integrated urban development in Germany, especially considering the severe consequences of the Ahr Valley flooding in July 2021. Heavy rainfall caused one of the worst flood disasters in Germany in recent decades. In the Ahr Valley area, 135 people died and more than 9,000 buildings were destroyed (bpb 2023).

In the future, planners will increasingly be judged by how they develop resilient urban structures. This involves adapting to changing conditions, learning from crises, integrating experiences into structures, and allowing flexible changes (Jakubowski 2013, p. 374). The question also arises of how to deal with destroyed spaces in the aftermath of disasters or wars. Issues such as reconstruction, resettlement or conversion of destroyed buildings require intensive debates, an adaptation of planning instruments and the legal framework. It is important to integrate short-term measures into mid-term planning strategies.

The aim of the submitted contribution is to demonstrate the importance of resilience as a factor for sustainable urban development in future planning procedures and instruments in Germany against the backdrop of natural disasters. This includes addressing the current situation by transforming the available formal and informal planning instruments, and, actively and systemically integrating resilience measures into planning criteria before a disaster occurs. For this it is necessary to address more risk management, vulnerability analysis and preventive planning approaches.

The following questions will be addressed:

How can measures of resilience be integrated more specifically into formal and informal planning instruments, particularly with regard to natural disasters, in order to strengthen the resilience of communities and cities?

To what extent are resilience strategies already influencing urban development today, and what lessons can be learned from measures that have already been implemented?

These questions will be explored through an analysis of the current state-of-planning procedures and instruments, as well as the case study of the Ahr Valley flooding disaster. Based on the results, innovative methods for implementing resilience in planning procedures and instruments will be presented. The study is part of the ReTra research college – Resilient Transformation Spaces, funded by the German federal state of Rhineland-Palatinate (RPTU 2023).

Keywords : *resilience, adaptability, robustness, transformation, planning instruments*

Study On The Spatiotemporal Evolution Of Innovation Network And Its Impact On Economic Resilience: A Case Study Of The Yangtze River Delta Region In China

JIE Ren (Tongji University)

The issue of urban economic resilience has received increasing attention from urban and regional researchers in the aftermath of the global financial crisis. Existing research primarily focuses on the contribution factors of economic resilience from an attribute perspective. However, further research is needed to investigate the influencing factors of economic resilience from a relationship perspective. Regional innovation networks play a crucial role in promoting the diffusion of innovation factors and the sharing and integration of innovation resources in regional development. Therefore, we hypothesize that the scale of cooperation and structural characteristics of different regions in innovation networks will affect their ability to utilize regional innovation resources and their level of economic resilience, which consequently will lead to their varying abilities to withstand technological and economic disruptions and forge novel developmental paths. This study focuses on the Yangtze River Delta (YRD) region, which is considered the most economically developed and innovative area in China. An innovation network was constructed based on co-patent data from 41 cities in the YRD region between 2000 and 2020. Economic resilience was analyzed by examining changes in employment rates and GDP growth rates. The study first examines the spatiotemporal evolutionary trends of cities' innovation cooperation scale, structural characteristics in innovation networks and economic resilience. Then, to test the hypotheses, an econometric regression model was used to examine the impact of cities' innovation cooperation scale and structural characteristics on economic resilience. It is found that: (1) During the study period, the scale of cooperation and structural richness of the innovation network in the YRD region increased. Cities all experienced significant increases in the intensity of cooperation and connectivity within the regional innovation network. (2) The economic resilience of cities in the YRD region varies significantly. Shanghai and some cities in Zhejiang Province have relatively low economic resilience, while most cities in Anhui and Jiangsu Provinces demonstrate relatively high levels of economic resilience. (3) There is a positive and significant association between economic resilience and the scale of inter-city innovation connection, as well as the connectivity in the network. This effect is particularly significant for the economic resilience of the secondary industry. When planning regional innovation systems, it is important to consider the impact of the degree of embeddedness of cities in regional innovation networks and fully utilize their positive externalities to enhance the economic resilience of cities.

Keyword *: Innovation network, Regional economic resilience, Spatiotemporal evolution, Yangtze River Delta region*

Inevitability Of Strengthen The Development Of Public Transport In Large Cities From The Perspective Of Security Resilience

Jiang Wang

In recent years, extreme weather, geological disasters, infectious diseases and other emergencies have put forward higher requirements for the normal operation of cities, and large cities with high population density and high construction intensity are facing the dual pressure of disaster emergency support and economic production security. As the carrier of most traffic activities, the public transportation system has the characteristics of closed space, high crowd density and high mobility of personnel, and is easy to become a high-risk area and a disaster-stricken area in sudden disasters. The public transportation system is an important part of the comprehensive urban system, which is not only the basic commuting guarantee for the normal operation of the city, but also has the risk of disasters due to the high concentration of people. Taking the "6.20 Incident" in Zhengzhou as an example, due to the poor performance of construction quality of transportation facilities, along with blunders in driving command and dispatch, Metro Line 5 was besieged and became a seriously affected area. However, both the expectation of returning to normal mobility from an individual perspective and the expectation of returning to city efficient operation from an economic perspective depend on the public transport system as the blood vessel of the city. In large cities, the population density is high, the population source is complex, the commuting demand is large, and at the same time, it has a relatively complete public transportation construction foundation and a strong intelligent control equipment layout capacity, which has full necessity, feasibility and importance in the further development of public transportation. This paper analyzes the development trend of individual transportation and public transportation, from the characteristics of the two, the travel characteristics of large cities, the impact of sudden disasters on public travel, and the value orientation of policy strategies. This paper proposes that the carrying capacity of public transportation is an inevitable choice in the face of travel demand, the safety and controllability of public transportation is the basic guarantee for the resumption of work and production after sudden disasters, and the value-oriented nature of public transportation (establishing confidence in disaster-controllable reconstruction, showing people's livelihood care for public welfare, and continuing the concept of environment-friendly relief) is an important guarantee for the normal life of cities in the context of disaster response. At the same time, combined with the existing public transportation system and the attempt of new public transport products, the possible directions for the strengthening and development of public transport in the future are proposed: system improvement and environmental optimization, personalized service for small and medium-sized transport volumes, and marketization of operation and management.

Keywords : security and resilience, public transport, individual transport, travel needs

826

Transformative Capacity Of Cities In The Context Of A Changing Region: A Case Study Of A Medium-Sized City In The Rhenish Mining Area, Germany

Christiane Schubert (Rwth Aachen University)

In the course of regional and global dynamics such as the energy transition, climate change or demographic change, cities are coming under increasing pressure. For it is precisely in cities as "places of transformation" where paradigm shifts manifest themselves spatially. This also highlights the significance of local transformation. Only if cities muster the strength for transformations, these can also succeed regionally or globally.

Cities in the Rhenish lignite mining region in North Rhine-Westphalia have an additional special starting position. Like a burning glass, the proactive, state-led structural change of the long-time mining region intensifies the transformation pressure for its municipalities. As a result, this research project assumes that the formulation and negotiation of new regional development goals entails the need to adapt planning processes and practices at different planning levels. In this way, proactive regional change can also promote local transformation processes. Innovative forms of regional governance are needed to translate the long-term regional change to the local level. But what challenges do local authorities have to face in order to meet regional requirements and enable local transformations? Which existing planning routines do they have to question, and which institutional barriers do they have to overcome to take advantage of this "window of opportunity"?

All these questions will be answered based on a qualitative analysis of empirical data gathered through interviews and participatory observations as part of a case study, as well as on supplementary document research and related research literature. The single case study details experiences of employees of the urban planning department in a medium-sized city in the Rhenish Mining Area.

Planners need to understand both the triggers and the complexity of the mechanisms and directions of change in order to consciously manage local development paths. This article highlights transformative challenges and opportunities of a city characterized by its close interdependence with the regional structural change. It discusses to what extent the proactive, state-led transformation of the Rhenish Mining Area can mobilize endogenous development potentials of cities, which are navigating between strategic positioning and providing everyday work.

Keywords *: regional interdependencies, transformative capacities of cities, regional and urban governance, municipalities as transition drivers*

Model-Based Adaptive Planning For Mobility, Infrastructure And Land Use

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Planning problems are ill-defined, controversial, dynamic and uncertain (Rauws and De Roo, 2016; Rittel and Webber, 1973). For such complexity, traditional planning practice, as a rational mechanistic approach with clear cause-and-effect relationships, is not appropriate and therefore, new planning paradigms are needed. Adaptive planning is one of the most promising and rapidly growing paradigms in this context. Adaptive planning aims to create the conditions that enable adaptation to the dynamic environment by following socially preferred trajectories (Rauws and De Roo, 2016). To this end, adaptive planning enhances the system's ability to support a range of possible future configurations dependent upon uncertain future conditions.

In the long-term policy analysis literature, adaptive planning is often informed by model-based planning support tools (Kwakkel et al., 2015). Here, computational models are used to explore the implications of a wide range of future scenarios and to develop and evaluate adaptive plans (i.e., plans that can dynamically respond to indicators of change over time). Adaptive plans commit to short-term robust interventions and establish guidance for future interventions (Haasnoot et al., 2013). Due to changing conditions, they are intended to be developed iteratively over time, by updating the plan according to how the future unfolds. However, specific methods and tools to prepare plans that are adaptable to changing conditions for urban systems are still lacking (Machiels et al., 2023).

This paper shows the potential benefits of model-based adaptive planning for mobility, infrastructure and land use. It demonstrates how computational models, coupled with appropriate analytical tools can be used to develop adaptive plans. For the purpose of this study, we use the transport infrastructure planning in the Canton of Zurich, Switzerland as a study case. We generate a wide range of potential urban development scenarios by 2050 and a set of potential interventions in the system such as expansions in the road and railway network and other zoning and regulatory interventions. We use a Land Use Transport Interaction (LUTI) model to simulate the interactions between mobility, infrastructure and land use. We evaluate conflicting planning goals such as reducing carbon emissions and increasing spatial accessibility. The model is then coupled with analytical tools to investigate relevant system dynamics such as the main factors driving the achievement of specific planning goals and the scenarios that could be relevant for planning (e.g., vulnerabilities and opportunities). We also identify interventions that are robust (i.e., work well over most of the scenarios) and contingent (i.e., work well for specific scenarios) and interventions that can potentially lock the system into undesirable paths in the future. Finally, optimization routines are used to search for the adaptive plans that best achieve planning goals.

Through the example, we reflect on the limitations of using models to represent such complex systems but also on the potential of model-based planning support tools to develop adaptive plans and build adaptive capacity. Such planning support tools, used in an iterative and participatory setting, could help improve the understanding of the system, reveal stakeholders' values during trade-off evaluations and promote dialogue and consensus-building.

Keywords *: Adaptive Planning, Future Uncertainty, Infrastructure Planning, Land Use Transport Interactions, Planning Support*

Olympic Games Infrastructures As Catalysts For Urban Transformation: The Case Of Faliron Waterfront Area In Athens

DIMITRA SENGOUNI (Cy Cergy Paris Université, France / Panteion University, Greece)

Large scale 'pulse' events such as the Organization of the Olympic Games require huge infrastructure investment in order to comply with the requirements and fulfill the necessary conditions for a successful support of the event. Large infrastructure investment in specific urban sites or hotspots could act as a catalyst for urban transformation which are accompanied by short- and long-term impacts on the development dynamics and on the risks that could be generated by these interventions. The Athens 2004 Olympic Games provide an instrumental case study in this respect.

The aim of this paper is to thoroughly examine and analyze the dynamics of transformation of the waterfront area of Athens in Faliron as a consequence of the execution of a large part of the Olympic athletics in 2004 there. Faliron is an area with specific characteristics. It is the closest to the Athens city center seafront area which connects Syntagma square with the see. This relatively abandoned area before the Olympic Games had always been part of the Athens Metropolitan Area Masterplan. However, it was not earlier than the preparation of the Olympic Games and the choice as a site for the execution of some athletics that the pace of transformation was accelerated. Hence, the construction of new premises for the Olympics could be considered as a catalyst that gave a decisive push that unlashed the dynamics of transformation in the area. This paper follows the gradual transformation of Faliron seafront area in Athens placing specific attention to the role of the Olympic Games infrastructures. Improving infrastructures and accessibility provided a new focus of attention to a variety of stakeholders either citizens, private sector, non for profit organizations, local government and civil society.

Based on interviews with different groups of stakeholders this paper aims to synthesize the complex interaction and contradictions between them as well as their different views on prospects and aspirations of stakeholders on the gains and risks from the functioning of different types and scale of activities within the evolving new node in the metropolitan fabric of Athens.

Results are relevant to the dynamics of transformations in metropolitan areas and the ways the mega-events could bring a decisive influence on urban transformations and how the space is produced through the contradictions, synergies and aspirations of different stakeholders in the metropolitan areas.

Towards Hazard-Resilient Cities:comparative Research On Policy Framework And Local Practices In Five Cities

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This study explores the journey toward hazard-resilient cities by an integrated analysis of policy and local practices. We use the case comparison method to study five cities in different regions of the world: Cape Town (South Africa), San Juan City (USA), Manchester (UK), Changsha (China), and Wenchuan (China). This article takes the recent resilience strategies and related policies of these case cities as data, and constructs a resilience policy evaluation framework that involves 7 dimensions, including risk assessment and path construction. The policy texts are classified and compared in detail, and a seminar is also used to reveal informal pathways that may not have been recorded. Our policy analysis reveals the characteristics of resilience policies in various cities. Cape Town's strategy stands out in terms of water resilience with a comprehensive framework and evaluation system. San Juan City has outlined multiple recovery plans in its overall resilience strategy due to its long-term multi-disaster response background. Manchester's resilience strategy focuses on the human and organizational aspects of Disaster Risk Reduction. Changsha and Wenchuan, on the other hand, focus on specific disaster response measures. Local practices have to some extent supplemented the resilience path. Cape Town emphasizes home drilling, grey water reuse, and groundwater development. Manchester emphasizes the integration of governance framework and the attention to local culture. San Juan City pays attention to government efforts, community participation, and financial assistance. Changsha emphasizes cooperation and participation between communities and residents. The military civilian participation and rapid coordination in Wenchuan are worth learning from. In summary, both top-down policy formulation and bottom-up local practices play a crucial role in building resilient cities; Local practices do complement the policies; From the perspective of the city itself, it is crucial to develop more comprehensive and effective resilience policies, integrate local practices and innovations, and coordinate conflicting points in urban construction for various types of cities. This research offers insights into developing hazard-resilient cities. Policymakers and planners can use these findings to prepare cities for future challenges, fostering urban resilience.

Keywords *: Hazard-resilient cities, Policy review, Comparative analysis, Disaster Risk Reduction*

Heat Vulnerability - A Remote Sensing Analysis Of Düren City

Jennifer Oriwol (Tu Dortmund)

Due to ongoing climate change, the surface temperature in the period 2011 to 2020 increased by 1.1° C compared to the reference period 1850-1900 (IPCC 2023: 42). Looking at the land mass alone, the value is even higher (ibid). Weather extremes such as heat waves, have also increased with a high degree of certainty in Europe (ibid.). The main reason for this has been proven to be of an anthropogenic origin (ibid.: 48). This leads to an increase in climate-related risks for the vulnerable population, which will be exacerbated by social developments such as urbanization and demographic changes such as the ageing population. In view of this, it is now necessary to plan on how urban planning will deal with the risk of heatwaves and global warming in the future. Therefore, people who are vulnerable to heat due to their circumstances must be given special consideration. The creation of heat action plans can serve this goal. There are already heat action plans in France, Italy and England, for example. In Germany, a decision was made against a national heat action plan due to the federal structure. There are currently two federal states and six cities that have drawn up a heat action plan (Bundesministerium für Gesundheit 2024). Ideally, heat action plans are preceded by analyses that identify the hot spots and cold spots in cities and develop solutions on this knowledge. This research explores a methodology that can provide a basis for decision-making and action. This leads to the research question of where places of higher heat vulnerability can be identified in the study area and how spatial planning can contribute to improving the situation on site with the help of adaptation measures.

The research is based on a case study in Düren, a medium-sized city with a population of about 95,000 located in the far West of Germany. Looking at the age structure, 26.8% of the city's population is considered vulnerable (under 6 and over 65 years old) in the year of 2020. The prognosis for the year 2041 is a growth to 32.1%. This means a third of Düren's population would be classified as vulnerable to heat due to their age, without considering other factors such as physical activity or chronic illnesses.

As part of the case study, a spatial vulnerability analysis was developed. This research used Landsat-8 satellite images to estimate the surface temperature. As this was not an analysis of a specific day, but rather a general observation, eight dates were considered on a mean value basis. For this purpose, the temperature gradient was analyzed and then intersected with data on the vulnerable population structure by age. Based on this, places where these groups are concentrated were examined more closely. The aim is to show that adding the social component can provide additional information for planning measures. In the final step, suggestions were made for organizational and planning actions. The presentation will show how the methodology was used to identify hot spots and what spatial patterns emerged in Düren. Building on this, examples will be used to show where lower temperatures are currently already present due to the structures. This is followed by a look at how the results differ compared to a modeled results and the analysis can be used to develop heat action plans at a local level.

***Keywords** : heat vulnerability , climate adaptation, remote sensing*

Urban Heat & Vulnerable Groups: Risk Adaptation Policies & Local Knowledge In Vienna

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Recent developments clearly show an increase of extreme weather events because of climate change (IPCC 2018; Blöschl et al. 2019). Due to population density and complex and interdependent infrastructures, especially urban areas are highly vulnerable to weather-related impacts (Markolf et al. 2019). In Vienna, the "impacts of climate change can already be felt [...]: between 1961 and 1990, there were on average 9.6 heat days per year at over 30 C. By 2010, this had risen to an average of 15.2 heat days per year." (Brandenburg et al. 2018, 3) The challenge to anticipate and adapt to climate change related external shocks and long-term stresses like urban heat stress emphasises the need for sustainable urban risk management and planning in large cities like Vienna.

Urban heat has different impacts on different social groups. Vulnerability varies according to social, economic, demographic and cultural characteristics of the residents in different urban areas. Marginalised social groups, such as people from lower socio-economic backgrounds, migrants, residents with disabilities (such as chronic or mental illness), the elderly or children, are considered to be particularly vulnerable to the effects of urban heat (Cutter et al 2003; Hansen et al. 2013). Even though social justice and equity have become more prominent in the management of climate change adaptation and mitigation in cities like Vienna in the last decade (Schlosberg 2012; Patterson et al. 2018), there are still barriers that hinder the development of equitable responses to urban heat. The socially diverse, and geographically dispersed needs and vulnerabilities of potentially affected groups do not appear as a well-structured input at any stage of the policy-making process. The limited participation of non-governmental stakeholders and the lack of representation of marginalized groups constrain the effectiveness of adaptation policies (Douglas et al. 2018; Alves et al. 2020; Battisti et al. 2020). Therefore, policy-makers (political and administrative actors) often lack locally specific, systematic knowledge (e.g. district-specific vulnerabilities, and needs of the affected population).

The Austrian ACRP project UrbanHeatEquality aims to fill this gap and to provide an important research-based foundation for the development of a climate-just approach to urban heat-wave risks and climate adaptation policies – for and through the example of Vienna. We argue that in addition to systematic expert knowledge and knowledge of the policy process, the integration of local knowledge of vulnerable groups is important for a better understanding and management of risks. Therefore, based on 30 qualitative in-depth interviews with heat-vulnerable people in Vienna, this contribution focuses on and discusses the following questions:

How do members of vulnerable groups in Vienna react to urban heat?

In which ways urban spaces and infrastructures are used by members of vulnerable groups in Vienna during urban heat waves?

What benefits can local knowledge provide for sustainable urban risk management and heat-related adaptation policies, climate change adaptation and mitigation measures to achieve a climate-just city?

***Keywords** : Urban Heat, Vulnerability, climate change adaptation*

A Study On The Path Of Enhancing The Social-Ecological System Resilience In Shrinking Small Towns In China

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In 2022, China experienced its first population decline in decades, leading to an increasingly common phenomenon of urban and rural shrinkage. Small towns, under the dual pressures of the suction effect from larger cities and rural revitalization policies, face elevated development risks. This paper comprehensively analyzes the social-ecological risks confronting shrinking small towns in China. It proposes pathways to enhance the resilience of the social-ecological system of shrinking small towns through the territorial spatial planning. These pathways include differentially enhancing buffering capacity both inside and outside urban development boundaries, strengthening self-organization in spatial planning governance at various levels, and improving learning capabilities through dynamic assessment and adjustment. The aim is to proactively mitigate the array of risks faced by shrinking small towns amidst the prevailing trend of shrinkage, improve residents' quality of life, and offer insights for China's high-quality urbanization development and governance.

Keywords : social-ecological risks, social-ecological resilience, Territorial spatial planning, shrinking cities and towns

Risk Management For Urban Heritage: The Case Of Izmir

Bilge Nur Bektaş , Serdar M. A. Nizamoğlu

Izmir Historical Port City, which is on the UNESCO World Heritage Tentative List, faces various threats such as earthquakes, fires, floods, landslides and climate change. The UNESCO World Heritage Convention defines ensuring the conservation status of the property as one of the prerequisites for inscription. The earthquake disasters occurred on 30 October 2020 in Samos Island, later on 6 February 2023 in Turkey and Syria reminded again that the threats faced by cultural heritage in Izmir should be managed accurately.

Due to these reasons and necessities, within the scope of the Historic Port City of Izmir Site Management Plan (2022-2027), this study for risk management in the site is conducted. The study targets to develop a site-specific methodology for urban heritage, taking into account the varying urban characteristics of the cultural heritage site.

The study focuses on the management area, which is a living heritage site that includes diverse values. Management area covers 372.40 hectares and composed of urban, archeologic, historic, and natural sites under conservation. To conduct this study in detailed, the site management plan and nomination file studies were re-evaluated to determine a focus study area which is more vulnerable. Thus, the Historic Kemeraltı Bazaar, covering 13.1 hectares of urban and archeological conservation sites and including 403 registered cultural assets, is chosen.

Resultingly, an accurate methodology for the site with the participation of relevant stakeholders in risk management, together with the implementation stages which prioritized for years (short, medium and long terms) is determined. At that point, the stakeholders are the main institutions responsible for conservation and management of the site.

The paper is composed of four main parts. The first part establishes the scope and context of the study, which include stakeholder participation strategy, geological features and cultural values. This part draws the general view of the heritage site and justifies need for integrated risk management. The second part explains integrated risk analyses including identification and evaluation. In this regard, past disasters, emergency response equipment, state of conservation related to values and attributes are revealed. Guideline by Stovel (1998), resource manuals of UNESCO et. al. (2010; 2013) are embraced as main text and further literature review is conducted. Accordingly, a site-specific "Vulnerability Analysis" method suitable for integrated risk analysis for cultural heritage site is developed. The vulnerability analysis is conducted in the focus study area based on previous and present data. Risk assessments are made based on risk scenarios and analyses for short, middle and long terms.

The third part is based on risk treatment, including risk elimination, adaptation and mitigation strategies. In this part, pre-disaster risk prevention and reduction, disaster intervention and post-disaster recovery strategies are determined compatible with cultural values of the site. The fourth part is monitoring and revision processes with short, medium, and long-term indicators. It also determines participation and cooperation, duties and responsibilities of the relevant stakeholders.

The overall aim of this paper is to present an example in risk management for urban heritage site, developing a model to open new discussions in the fields on conservation and risk management, and shed light on further studies.

Keywords : Risk management, cultural heritage, Historical Port City of Izmir

The Necessity Of New Interconnections Of Multiple Ecosystems In The North East Italian Region Between Natural Hazards And A Desired New Urban Ecology.

Matteo D'Ambros (Univertisy Of Trieste), **Paola Cigalotto**

100,000 inhabitants live in the area of the Lower Friulian Plain (Italy), extending between an articulated system of artificial and natural infrastructure, overlooking the northernmost point of the Adriatic Sea and a vast lagoon. During the summer season, the 130 kilometers of coastline are inhabited by more than 3 million tourists. At various scales, the hydrographic system experiences increasing anthropogenic pressures and is hierarchically structured. This situation may not allow the efficient functioning of the territory consistently. As a result, the territory is exposed to persistent risks from unforeseen climatic events, leading to significant imbalances such as storm surges, floods and droughts. Artificial water management networks, on the other hand, do not compensate for the difficulties in land functioning. This article begins a discussion on research efforts, examining tools, projects, and potential solutions to increase the resilience and adaptability of artificial territories, in the face of transformation in both coastal and inland urban areas.

Forced Resettlement After Flooding And Getting Flooded Again. Lessons Learnt From Resettlement Schemes In Metro Manila

Wolfgang Scholz (Tu Dortmund University), **Hannes Lauer** (University Of Stuttgart), **Mathias Kaiser** (Tu Dortmund University)

Metro Manila in the Philippines is one of the most fast-growing, hazard-prone agglomerations in Southeast Asia. The Philippines are listed among the 10 countries most at risk of extreme natural events [Hilft 2020] and faces a variety of hazards with typhoons and floods. Climate change is amplifying the existing hazard risks, while socio-economic development with fast urbanization into the hinterland is also exacerbating the situation critically due to deforestation, loss of agricultural land and retention areas for rivers [IPCC 2014, UNISDR 2015]. More than 580,000 informal settler families or roughly three million individuals in Metro Manila [NEDA 2017], who settle in extremely exposed areas of flood plains, on steep slopes, along rivers and the coastline, are planned to be relocated to safer areas in newly planned housing sites at the periphery. The IPCC named retreat as one major adaptation mechanisms of urban areas exposed to hazards (IPCC 2014). Retreat is the planned, managed, and permanent movement (retreating) of people and/or infrastructure away from hazard-prone areas to reduce hazard exposure and the hazard risk. In theory, retreat only becomes a justifiable strategy when the other adaptation options are not practicable anymore e.g. nearby relocation. The reality in Metro Manila looks different, where off-city retreat is an often-applied strategy in the form of large-scale resettlement projects. Large-scale resettlement programs by the National Housing Authority, become recommended practices since for in-city relocation no affordable space is left. This will lead to a massive relocation of people, potentially shifting the social fabric of the cities in the light of disaster reduction management.

However, the risk-reducing effects of managed retreat are counterbalanced by the negative impacts of eviction and displacement. Only very rare examples of successful resettlement projects exist, while most relocated people are impoverished due to loss of jobs and social networks and thus will be disconnected from livelihood sources as our fieldwork revealed. Furthermore, the residents have to pay now a rent for housing to the authorities.

This contribution presents findings of managed retreat from the research project titled "Linking Disaster Risk Governance and Land Use Planning: The Case of Informal Settlers in Hazard Prone Areas in the Philippines" (LIRLAP), funded by the German Ministry of Research and Education in partnership with the School of Urban and Regional Planning of the University of the Philippines (https://lirlap.raumplanung.tu-dortmund.de/).

We present here one resettlement case studies of Kasiglahan at the periphery of Metro Manila. The residents of about 3000 housing units suffered for decades from the lack of technical and social infrastructure and services and missing income generating options. A household survey in 2022 by Hannes Lauer, University of Stuttgart, revealed the missing income generating opportunities of the resettled residents and their struggle to survive at the remote location. Covid-19 lockdown measures increased the economic hardships. During the last typhoon Ulysses in 2020, Kasiglahan got severely flooded and the once safe relocation site of Kasiglahan is flood prone again. Studies on flood simulations by Mathias Kaiser revealed that increasing building activity upstream for new relocation sites and deforestation in combination with a reduced riverbed increases the danger of floods. Kasiglahan is located at the confluence of two main rivers and parts of the settlement are only a few meters higher than the normal water level. Surrounding flood protection walls were broken by the flow of water. A recent joint student's research headed by Dr. Wolfgang Scholz in February and March 2024 developed concepts to enhance the livelihood of the residents in Kasiglahan, ideas for nature-based solutions for future flood prevention and reflect a participatory planning process.

Keywords : Floods, risks, resettlement, Manila

How Far Do Decision-Makers See? A Spatiotemporal Investigation Of Flood Risk Governance In A French Alps City

Aida D. Arik (Ige - Institut Des Geosciences De L'environnement), **David Chionne** , **Antoine Brochet** , **Yvan Renou** , **Juliette Blanchet** , **Isabelle Ruin** , **Jean-Dominique Creutin**

Grenoble, France is a flat city surrounded by three steep Alpine massifs built at the confluence of two major rivers. A period of devastating floods between 1600 and 1859 marks the history of the city and its development. Flood protection infrastructure has changed the hydrology of the rivers such that the City of Grenoble has not experienced a major flood since. This security from major floods has allowed the city to grow and is now part of the metropolis area of the Grenoble-Alpes. However, flood and other natural hazard risks exist and continue to concern flood risk managers and elected officials, especially with the increasing uncertainty of climate change impacts. We investigated the spatiotemporal aspects of flood governance in the region to understand whether the institutional structures fit the spatial and time scales needed to continue to manage evolving flood risks in recognition of the dynamism of the hydro-social system (Holling, 1973; Berkes, 2009; Hommes, Hoogesteger and Boelens, 2022).

To understand the spatial suitability of governance, we interviewed 65 specialists with highly variable spatial jurisdictional responsibility who are members of CoMAPI, an advisory committee on flood risk management. The formation of COMAPI itself exemplifies the "long view" of decision-makers to provide an institutional structure to integrate the management of natural environments and flood protection infrastructure through a collaborative, democratically organized group. We identified different perspectives using Q-methodology paired with semi-structured interviews. We found many participants affirming a global, watershed-level management point of view; however, we also found a contingency of participants raising concerns about an absence of oversight and management at the stream level. To understand the temporal perspective, we focused on the interviews of seven study participants who hold managerial positions to investigate how they look outside their everyday operations to learn from Grenoble's history of flooding and incorporate climate change knowledge. We found that these decision-makers were aware of the flood history of Grenoble and more recent events along the periphery. They were also well aware of climate change impacts and uncertainties, recognizing the need to better incorporate this knowledge into flood risk management. However, the difficulty of keeping the public vigilant of risk and the lack of control over urban development tend to limit how these temporal aspects connect to the current evolution of flood risk management.

This paper builds on an interdisciplinary body of work that examines institutional evolution (Brochet and Renou, 2021) and the climate studies of extreme precipitation (Blanc, Blanchet and Creutin, 2021).

Keywords : flood risk management, q-methodology, adaptive governance

Track 18: Actor Constellations

ACTOR CONSTELLATIONS - Public, private and third-sector actors in planning processes

Chairs:

- Martine Drozdz, Ecole des Ponts ParisTech

- Stefanie Dühr, University of South Australia

- Sila Ceren Varis Husar, Slovenská technická univerzita v Bratislave

Keywords: planning agencies, consultants, public participation, power relations, urban politics, local democracy, planning knowledges

Public sector planning agencies are today operating in a shared power world. Declining capacities (and with it often declining in-house expertise) in the public sector have contributed to the rise of private sector consultants playing an increasingly significant role in plan-making and development assessment processes. At the same time, community groups and associations have become more concerned with changes to their urban environments, sometimes resulting in opposition movements that may significantly delay the implementation of urban development projects.

In this track, we are interested in the relationship between these different groups of planning actors and how their interactions are shaping planning decisions and urban development outcomes. We invite conceptual and empirical contributions that shed light on the sometimes conflicting and sometimes cooperative relationships between these actors. Contributions that deal with the current practices around how information and knowledge are produced and used by different actors in planning processes are welcome. In this track, we are keen to discuss the implications of the changing landscape of planning actors on the approach to managing urban planning processes and on the distribution of power between different actors in determining urban development outcomes.

Actor Constellations: Politics, The Private Sector And 'Third Party' Actors

Are Private Investors Always Evil For Sustainable Urban Change? The Role Of Financial Actors In Transforming Under-Utilised Sites

Federica Scaffidi (Leibniz University Of Hannover)

This research challenges the conventional perception of financial actors as hindrances to urban change by investigating their potential positive impact on under-utilized sites, particularly industrial areas. Traditionally viewed as driven solely by profit motives, private investors are often cast as antagonists in urban development narratives (McGreal et Al., 2000; Brill, 2022). However, this study posits a nuanced perspective, questioning whether private investors are always detrimental to urban change. The research contends that, contrary to prevailing notions, private investors can play a crucial role in transforming neglected sites, offering a pathway to carbon neutrality through rehabilitation and urban renewal initiatives.

Focusing on international cases of industrial site transformations, namely Aparaaditehas in Tartu, Estonia; Baumwollspinnerei in Leipzig, Germany; and Valle Salado de Añana in Spain, this study employs both qualitative and quantitative research methodologies. Exploratory surveys, data analysis, and case comparisons form the basis for understanding the intricate dynamics among public administrations, private investors, and local communities (Scaffidi, 2019; Tricarico et Al., 2020).

The findings challenge the stereotype of private investors as solely profit-driven entities. Instead, they shed light on how these financial actors can contribute positively to urban spaces. The research reveals instances where financial investors have facilitated the regeneration of under-utilized sites, fostering job creation, socio-cultural activities, and mitigating the environmental impact associated with demolition—particularly in terms of reducing grey energy costs.

By delving into the complex relationships among public administrations, private investors, and communities, this study highlights the multifaceted roles played by financial actors in sustainable urban change. The results not only contribute valuable insights to the existing body of knowledge but also open avenues for future research. This includes theoretical considerations and practical implications for redefining the role of financial actors in fostering sustainable urban development. This research encourages a more nuanced and optimistic perspective, challenging the notion that private investors are universally detrimental to urban change and emphasizing their potential as catalysts for positive transformation.

Keywords *: private investors, actors' role, sustainable urban change, transformation, under-utilised sites*

The Rise Of The Entrepreneurial Housing Association: The Case Of Denmark

Kristian Olesen (Aalborg University), **Matthew Howells**

The liberalization of housing policies has led to changing roles for housing associations and other social housing providers in many European countries. From being essentially philanthropic and oftentimes non-profit organizations, housing associations are becoming hybrid organizations or 'social enterprises' that combine the traditional philanthropic agendas with a more business-like and professional organizational setup (Czischke et al., 2012). Housing associations have increasingly developed an entrepreneurial mindset and expanded their traditional areas of operation. In Denmark housing associations have increasingly become important urban actors in the transformation of disadvantaged housing areas, assuming the role of what we call 'strategic urban developers'. As such the rise of the entrepreneurial housing association is an example of the significance of new actor constellations in urban planning processes.

From the 1990s, with the rise of neoliberal politics in Denmark, housing associations were increasingly conceived as relics of the welfare state and the Danish Government introduced policy measures to reduce their housing stock. However, more recently, the Danish Government has recognised the importance of housing associations as strategic actors in urban transformation projects of disadvantaged housing areas, and housing associations themselves have started to adopt the identity of strategic urban developers.

In this paper we analyse the rise of the entrepreneurial housing association in Denmark. Here, we understand housing associations' entrepreneurial role in line with Harvey's (1989) conceptualisation of urban entrepreneurialism and Gruis' (2008) notion of housing associations' prospector role. In this paper we analyse Himmerland Housing Association's efforts in transforming the neighbourhood of Aalborg East from a stigmatized disadvantaged neighbourhood into an attractive neighbourhood for a broader spectrum of the population in Aalborg. First, we analyse the specific physical interventions in the neighbourhood introduced to achieve a more balanced social mix, transform the physical infrastructures, and introduce new urban functions. Second, we analyse how the organisational setup and the identity of the housing association developed during the transformation process, and how the housing association increasingly assumed responsibility and creditability in the process through their collaboration with the local municipality, private investors, and other actors.

In conclusion we argue that the efforts of Himmerland Housing Association in transforming Aalborg East, on the one hand, showcases the important role that housing associations can play in building sustainable communities. Himmerland Housing Association has for example won several European and Danish prizes for their efforts. On the other hand, the increasingly entrepreneurial roles of housing associations also lead to critical questions about to what extent housing associations themselves have been neoliberalised. We therefore argue that housing associations, as third sector entities situated between state and market, can play important roles as strategic urban developers in the future, both within and beyond existing social housing areas (Olesen & Howells, 2023). Their future relevance will, among other things, depend on whether they are able to strike the balance between innovating and adopting an entrepreneurial mindset without leaving their philanthropic ideology behind.

***Keywords** : housing associations, neoliberalism, entrepreneurialism, social mixing*

The Right Shade Of Green: Can Urban Climate Transitions Build Bridges Across Political Lines?

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Urban climate action, as a systemic transition with wide-reaching intersectoral implications, requires concerted effort by a wide variety of stakeholder groups - each of which comes with its own set of motivators, apprehensions, and modes of engagement.

Traditionally, the motivation to initiate climate-aligned processes came from pressures underpinned by the looming existential risks associated with anthropogenic climate change and its subsequent effect on environmental disasters. With climate change now squarely within the global spotlight, an emerging economic opportunity associated with green transitions has also grown to become evident. Simply put, a combination of these two motivators (risk-avoidance and opportunity-pursuance) can be said to have inspired large-scale climate action across the political spectrum.

Acknowledging this, many cities around the world have shown their commitment to climate neutrality through various pledges, and by joining actor networks to achieve them. However, amidst the backdrop of an increasingly right-wing political landscape around the world, it is key to investigate more deeply the tensions and opportunities arising from the perceived alignment of climate action with left-wing or liberal priorities of the "cosmopolitan elite" (Lockwood, 2018). Doing so will enable continued commitment for cities to act as drivers for climate change mitigation, and adaptation to its associated risks as well. It may even unearth overlaps between language used to promote sustainable lifestyles and rhetoric of "Right Wing Ecology" as captured by Jonathan Olsen (1999).

In a case study that reflects this dynamic, we look at the experience of the city of Görlitz, Germany. As part of the TRUST project (https://www.ioer.de/en/projects/trust) managed by the Leibniz Institute for Ecological Research (IOER), the city is currently on the pathway to climate neutrality under the umbrella of a Transitions Management approach. Transitions Management is a participatory decision-making process to enable systemic change, which in this case is occurring against the local backdrop of a shifting socio-economic and demographic context. Görlitz is currently under a municipal government wherein the right-wing Alternative für Deutschland (AfD) - a party that Germany's own Federal Office for the Protection of the Constitution (BfV) has declared to be an extremist organisation - enjoys a definitive majority. This has presented a unique opportunity to better understand the incentive structures, opportunities, hurdles, and fluctuating negotiations between diverse actor groups within the sphere of collective urban climate action. Our research in Görlitz will provide a reference case to ground theory in practice, and for other cities to draw best practices from. Building on foundational work by Lubarda and Forchtner (2023), results could help develop counter-narratives to far-right climate scepticism and foster collaborative visions for equitable, inclusive, and systemic urban transformation. As underlined by Sharma (2012), the pertinence of these narratives extend beyond Europe to developing nations in the Global South too. In a year when over 64 countries head into an election cycle while global temperatures continue breaking records, this discussion is now more relevant than ever.

***Keywords** : urban climate governance, Inclusive Climate Actions, Net Zero Emissions, participatory planning, sustainability transitions, Transitions Management*

Popular Urbanization And Planning Practices In Buenos Aires

FRANCESCA FERLICCA (Sciences Po)

This presentation aims to theorize how and under what conditions diverse actors and their practiceS interact with regulatory frameworks within the planning system to enable and sustain a mode of popular urbanization in contemporary Buenos Aires. Therefore, the research focuses the analysis on two spatial configurations of popular urbanization in Buenos Aires, particularly Villa 20 and the Guernica land takeover, and on two corresponding positions assumed by policy-makers and urban planners, departing from their relationships with local actors from a governmentality perspective at different focal points of encounter and disagreement. By adopting a relational and sociomaterial approach to the study of planning practices, the research provides a cross-sectional reading across different actors and their rationalities at play, observing their participation in regulatory frameworks. Through an ethnography of planning practices, the thesis provides a novel methodology to bring into view the processes, practices, alliances and agencies that are often invisible to policy-makers. The presentation illustrates that popular urbanization and planning must be considered as urban assemblages that have numerous and surprising forms of interconnection. First, it recognizes the presence of conflicting, competing and overlapping rationalities at play in the popular urbanization of Buenos Aires. Second, the presentation offers a new perspective on the strategies and tactics employed by planners in their attempts to intervene in popular urbanization in Buenos Aires. Third, it proposes practice-centered recommendations for institutional change and social justice, considering both the technical and political aspects of planning and interrogating the agency of materiality in urban processes. For policy-makers and urban planners, a better understanding of the sociotechnical configurations of popular urbanization can guide their actions to reorganize them towards the coproduction of urban governance.

Keywords : co-production, planning practices and instruments, popular urbanisation

In Search For The Implementation Gap In Planning. An Analysis Of The Emergence Of Exemption Rules In National Legislation In Flanders (Belgium)

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Since the 1990s, national (regional in a federal state), provincial, and local governments in Flanders have been developing strategic documents with long-term ambitions to preserve open space. For the implementation of these ambitions, several land use plans approved by the three governmental levels allocated zones to agriculture, nature, and forest. Simultaneously, however, the Flemish government has systematically extended exemption rules for every residential dwelling situated in these non-residential zones (i.e. non-conforming dwellings). It is a symptom of what Albrechts (2006) calls the gap between strategic ambitions and the daily planning practice. Where one might expect that this implementation gap emerges quite unintendedly, we argue that it is the result of deliberate decisions that have gradually articulated the private interests of landowners into planning legislation.

This contribution delves into the origins of the implementation gap in Flemish planning policy, focusing on the legislative periods of 1995-1999 and 1999-2004. Since then, every non-conforming dwelling can be renovated, extended, or even completely rebuilt (Sebreghts, 2001). Following Torfing's (2007) approach to analysing governance networks, we have unravelled the complex network of actors involved in these subsequent legislative decisions. This was done through an analysis of press documents, policy documents, and interviews with mayors, ministers, cabinet members, government officials, and interest group representatives from these periods. Each of these actors was assigned a role (Biesanz and Biesanz, 1973), after which we examined how these roles interacted with each other in the decision-making processes (Scharpf, 1997).

During the 1995-1999 legislative period, a Christian Democrat-led government approved the strategic Spatial Structure Plan for Flanders. During this process, however, the private interests of landowners were already articulated behind the scenes. Prompted by images of illegal dwellings being demolished in the media, landowners began to voice their concerns to their mayors, who acted as brokers in defending their interests in interactions with members of the government and parliament. Some of these mayors were dual mandate holders as they were also members of parliament. In addition, the Farmers' Union, as an interest group, wanted to increase the value of vacant farmsteads as potential residential property. They too had insiders in parliament and the cabinets of ministers. As a result, changes in planning legislation allowed for non-conforming dwellings to be completely rebuilt, albeit as a temporary measure pending a change of the land use plans.

Next, during the 1999-2004 legislative period, the issue of non-conformity became much more prominent in the public debate. After a new government led by the Liberal Party took office, it dawned on the landowners that without a planning initiative, non-conforming dwellings could no longer be substantially converted. Hence, they mobilised themselves as a new interest group. This time, the brokers joined forces, as mayors began to raise the issue through cabinet visits and media appearances. The issue reached its peak during the 2000 local elections when the idea was spread that all non-conforming dwellings would be demolished by the government, as it had been done with the illegal ones. Under this pressure, the Liberal Party leader finally made a breakthrough, announcing in the media a proposal to change the temporary measure into a permanent right for non-conforming dwellings to be renovated, extended, or rebuilt.

The main conclusion of this analysis is that the articulation of landowners' private interests into planning legislation is very much an incremental process. Each relaxation in favour of landowners paved the way for further concessions. The process continues, even until the moment when both landowners and policymakers lose sight of the original strategic goal of preserving open space. Understanding these processes is therefore crucial for addressing the implementation gap in planning policy.

Keywords : *implementation gap, non-conformity, actor-role interactions*

Actor Constellations: Partnerships, Contracts, And Forms Of Cooperation

Framing Power Struggles In Territorial Governance Innovations.: The Case Of Community-Led Local Development (Clld) Policy In Lisbon.

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In the 2014–2020 community programming cycle, the European Commission (EC) set in motion the multi-fund, place-based, people-centred policy initiative Community-Led Local Development (CLLD). An evolution of the LEADER programme – launched in the 1990s exclusively for rural areas and extended to coastal settings in 2007 – CLLD added urban territories and communities to LEADER's former policy scope. In theory, both policy instruments have, over the years, aimed at promoting the empowerment, capacity-building, and participation of local communities as key agents of local territorial development (EC, 2020). Local Action Groups (LAGs) – territorial polities composed by a myriad of public and private actors – were established to represent these communities (Servillo, 2019). These polities design and implement an integrated Local Development Strategy (LDS): a spatial imaginary for an ad hoc territory of intervention defined specifically for this purpose and time frame, and not coincident with statutory boundaries. LAG territories embody, therefore, soft spaces of planning (Allmendinger and Haughton, 2009).

In practice, the role and impact of LAGs, as territorial development agents, is still under research. Conceived to be a temporary spatial-temporal fix (Harvey, 2000), and a state rescaling mechanism, capable of channelling EU investment to pressing local issues – by means of their proximity to the local actors, innovative character, and multi-level governance skills – the impact of LAGs actions and their inner workings is facing growing critical scrutiny.

Against the backdrop of ongoing Europeanisation processes, a soft turn in planning theory and practice (Cavaco et al., 2023), and territorial and governance rescaling processes, we focus on an urban Lisbon LAG, specifically tailored for the CLLD 2014-2020, to examine the merits of such critique.

In particular, we outline a research design to support a critical inquiry into if, and how, this LAG constitutes, or not, an example of state rescaling, performative imaginary, spatial-temporal fix, and multilevel governance. Furthermore, in a cross-cutting perspective we examine how power (im)balances are managed throughout. In particular we review the distortions and challenges CLLD policy faces when up against the domestic implementation policy framework and how that impacts its potential to introduce innovative governance solutions.

Data collection-wise we completed: (i) a desk review of existing policy and grey literature relating to the general LAG agency in Portugal and other member states during this timeframe; (ii) semi structured interviews with Lisbon LAG executive directors and beneficiaries as well as interviews with all levels of governance involved in the implementation process; (iii) online survey with associated entities composing this specific LAG.

Preliminary findings show that the rescaling of power and responsibilities was very limited, especially in comparison to both European Commission and LAG expectations, thus raising a set of relevant questions in terms of the CLLD instrument's actual impact in Portugal. We finish by contextualising these findings against the backdrop of the wider European and international debate on CLLDs and community development approaches, as a benchmark for future policy design.

Keywords *: Community-Led Local Development (CLLD), Europeanisation, Local Action Group (LAG), polity, territorial governance*

Innovations In Semi-Formal Tools And Multi-Actor Cooperation For Urban Design Governance: The Practice Of City Chief Designer System In China

Shufen Hu (Tongji University)

The traditional urban development model in China involves the independent development of individual plots, and the fragmented development approach has led to issues such as resource wastage, infringement on public interests, and environmental pollution. The current development trajectory of Chinese cities has shifted from a period of rapid growth to a phase of high-quality development focusing on stock space. In recent years, there has been a trend towards developing multiple plots as a cohesive whole. While this approach has the potential to safeguard public interests and enhance the quality of urban construction, it also introduces complex coordination challenges due to the involvement of multiple stakeholders. In response to the increasingly complex landscape of urban development, urban design is gaining prominence as a planning and control mechanism. Meanwhile, the field of urban design is undergoing a significant shift to governance.

Urban design governance is the process of state-sanctioned intervention in the means and processes of designing the built environment in order to shape both processes and outcomes in a defined public interest, advocating for the establishment of a system of actions and decisions composed of diverse entities. In China, a new form of urban design governance has emerged in key areas of development in some mega-cities—the City Chief Designer system. This involves local governments hiring experts and their planning and design teams as City Chief Designer for specific regions. These chief designers, entrusted by the government, leverage their professional expertise to provide technical coordination, professional consultation, and technical reviews during the urban design and implementation process. This ensures that public interests are safeguarded and that the designs are effectively implemented.

The City Chief Designer system serves as a semi-formal governance tool, bridging the gap between the hard-power governance of government authority and the soft-power governance of non-governmental organizations. It supplements the urban design governance system and is a locally initiated, bottom-up institutional innovation. Currently, there is no unified understanding at the national level, and while it is garnering attention, there is still a lack of in-depth exploration. There is considerable room for discussion on the system's effectiveness and the collaborative governance relationships among various stakeholders.

Historical institutionalism provides a clear analytical framework that comprehensively captures the panorama of institutional change and reveals patterns in institutional reform. In this study, adopting a historical institutionalism perspective, divides the development of China's City Chief Designer system into four stages: the period without a Chief Designer, the implicit development period, the establishment of the mechanism period, and the optimization and adjustment period. Using Williamson's three-tier framework in economic governance research, it summarizes the stage characteristics and overall features of institutional evolution, as well as the practical role of the system in driving the effectiveness of urban design operations. Additionally, through a case study of Shanghai Xuhui West Bund Media Port, it investigates the interactive relationships among diverse participants, including government management, Chief Designers, and property owners. The study dissects the role of the City Chief Designer system as a semi-formal design governance tool, analyzes power shifts and institutional reforms, and discusses the future development of the system, aiming to provide insights for optimizing the governance system of future urban design.

Keywords *: Historical institutionalism, Urban design governance, Semi-Formal Tools, Multi-actor cooperation, City Chief Designer system*

Paving The Way For Physical Transformation: How Design Entrepreneurship Instigated A Co-Evolution Of Institutional And Spatial Change In Rotterdam

Yun Sun (University Of Groningen)

In response to external crises, city-making experiments like Rotterdam's Luchtsingel emerged, where designers played a key initiating role. Buitelaar et al. (2012) introduced 'organic urban development' to characterize this spontaneous, innovative approach that emerged from public investment pressures and dissatisfaction with traditional planning methods after 2008 credit crisis (Mens et al., 2021). It sparked a rising co-alliance among non-traditional actors for small-scale, less planned, process-oriented urban experiments (Buitelaar et al., 2017), inducing a coevolution of structural, institutional, and spatial changes. Although it is challenging to pinpoint the institutionalization degree of this organic urban development, the observable scaling up of initiatives physically represents an informal institutionalization of this new planning regime (Buitelaar et al., 2017). However, a research gap remains in understanding the mechanisms behind the coevolution of spatial and institutional transition in organic urban development.

The research explores the mechanisms that drive institutional and spatial co-evolution in organic urban development, focusing on the role of design entrepreneurship. The study investigates the physical and institutional transition trajectory of an innovative city-making initiative. It highlights niche-level dynamics (Lopolito et al., 2011), examines how targeted design decisions facilitate innovation, setting stage for broader institutional transitions (Geels & Schot, 2007). The study also employs an agency perspective to decode mechanisms of design entrepreneurship (Mens et al., 2021), emphasizing the roles, motivations, and strategies of key actors.

This study aims to explore how the Test-site Rotterdam project instigated a shift in urban planning from a purely plan- and government-led approach to an organic, process-oriented approach. To enhance our understanding of the institutional and spatial co-evolutions in organic urban development, we integrate process-oriented and agency-oriented perspectives to examine both the nonlinear development trajectory from an exogenous dimension and the agency mechanism behind entrepreneurial design actions from an endogenous viewpoint. We introduce a three-dimensional analytical framework, integrating transition processes, niche innovation, and design entrepreneurship. Grounded in the multi-level perspective (Geels, 2002), the study unravels development process of the Rotterdam Central District (NL) by interpreting the dynamic interplay between landscape, regime, and niche-level factors. Building on the design-level perspective model (Young, 2008) and the niche-innovation status model (Lopolito et al., 2011), we propose a hybrid niche-design model to identify and analyze strategic niche innovation, examining how different actions, either physical or institutional, contribute to niche maturation and potentially catalyze regime changes. To uncover the granular mechanism within niche-innovation actions, we introduce the design entrepreneurship concept for studying the roles, intentions, and tactics of actors.

The Test-site Rotterdam project is selected as the empirical case study due to its significant urban redevelopment following the 2008 credit crisis, representing a divergence from traditional urban planning methods. The study builds on extensive desk research and in-depth interviews with the initiators of the new developments, stakeholders, and engaged citizens, to develop a granular understanding of the institutional and spatial transitions in 'organic urban development' and the role of design entrepreneurship herein.

***Keywords** : Spatial and institutional transition, Design entrepreneurship, Niche innovation, Organic urban development*

The Exploration Of Bundling Transport Projects That Are Geographically Separated Through Public-Private Partnerships

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Bundling perspectives in Public-Private Partnerships (PPPs) analysis are growing. PPPs are commonly analyzed as bundling of infrastructure project stages. Furthermore, the international literature offers various perspectives to analyze bundling projects in PPPs, e.g., sub-super structure (González-Medrano and Martín, 2021), supply chain (Dolla and Laishram, 2020), multisector (Jiao and Yu, 2020), and bundling multiple infrastructures in nearby areas (Lenferink, Tillema and Arts, 2013). This paper takes a different approach. It explores bundling projects that are geographically separated. In this sense, the differentiation of geography is characterized by location, scale, and function aspects, which will also be different in the economy, physical configuration, and governance nuance. A key example is the new policy notion of the Indonesian Government to bundle toll road projects through PPP, which are geographically separated in Java Island as a profitable region and Sumatera Island as a disadvantaged region. The paper aims to clarify the perceived benefits and challenges of this bundling project type using contractual and relational governance perspectives (Hou et al., 2023).

We use a qualitative research method of stakeholder interview data from National Government, Provincial Government, Local Government, and Private Sector to explore Indonesia's bundled toll road projects. Our findings demonstrate that bundling geographically separated projects through PPPs has benefits and challenges that differ from the other bundling types in the contractual and relational governance perspective. Strategically, the physical connectivity between profitable and disadvantaged regions will influence the governance relation between each region, and it is expected to reduce regional economic asymmetry. Consequently, the benefits and challenges are not only perceived by the National Government and Private Sector as contracted stakeholders, but also by Provincial and Local governments. The Local Government can not sufficiently respond to the increasing induced traffic demand. This issue arises because of diverse political interests, non-directive relations between each government level, and the inadequate Local Government's capability to develop local infrastructure and empower their territorial resources for economic development.

In this bundling type, contractual and relational governance perspectives complement each other. Similar to the other bundling types, from a contractual perspective, this scheme allows risk transfer from the public to the private sector. Nevertheless, slightly different from the other bundling types, the asymmetry information in planning stage and contract arrangement in this type generates higher cost overruns and more unpredictable risks, primarily because of additional construction requests from local government. It requires flexibility to ensure business sustainability, which appears from a relational perspective by a coordination mechanism to adjust non-fare box revenue allowance, tariff, and concession periods. Ultimately, this flexibility generates higher user charges, which becomes a perceived challenge for provincial and local governments. Limited tender participants also happened in this bundling type due to the enormous investment requirement. However, the private sectors were involved in this project because of the relational logic that allows them to innovate the maintenance and operation system to achieve efficiency.

The benefits and challenges of bundling transport projects that are geographically separated through PPPs are perceived by all government levels and private sector. In order to optimize this type of bundling, further research is required to discover a suitable collaboration scheme between stakeholders.

Shaping The Discourse In Urban Decision-Making Processes. Outcomes Of The Participatory Budgeting Experiments In Wałbrzych, Poland

Lukasz Damurski (Wrocław University Of Science And Technology)

Citizens' initiatives in urban policy address issues which are not sufficiently covered by the public authorities. They also reveal the real needs of citizens, they foster political activity and support decision-making processes. Some of such initiatives remain informal whereas others become formalized within various participatory programs, such as participatory budgeting (PB). PB is a tool for involving citizens in urban policy-making introduced for the first time in 1989 in Porto Alegre (Brasil). Since 2010's it has played a growing role in urban municipalities worldwide.

PB applications submitted by various actors, including informal associations of residents, usually are preceded with a thorough discussion in small groups. Such brainstorming sessions may bring important ideas for urban development. However, their effectiveness strongly depends on the quality of discourse. Therefore the main research question of this paper is: how moderated citizens' discussion on urban development priorities can contribute to policy-making processes? What discourse characteristics determine the effectiveness of such discussions?

In this study selected results of the DEMOTEC research project, funded by the European Commission in the years 2021-2024 within the Horizon 2020 programme (grant number 962553) are explored. A PB experiment conducted in Wałbrzych (Poland) in December 2022 was framed by a focus group interviews (FGI), involving 132 citizens divided into 15 focus groups, participating in 30 sessions. Some groups were involved throughout the whole decision-making process while others joined the experiment at particular stages. The sessions were moderated by professional facilitators and provided various types of data, including audio recordings, PB project prototypes, observation notes and coded discourse quality.

The main findings of the experiment demonstrate that there is a visible relationship between the duration of involvement of particular groups in the decision-making process and the quality of discourse in their discussions. Moreover, the longer a group participates in the PB process, the more effective it is in proposing particular policy solutions. Eventually the results promote the long-lasting involvement of groups of citizens as a good way of building operative participatory urban governance.

Dealing With Complex Actors' Constellations In City Centers – What Can Business Improvement Districts (Bids) Achieve?

Martina Stepper (University Of Kaiserslautern-Landau)

City centers are of outstanding importance for the city – because of their centrality, their supply function, as meeting points and places of exchange, but also because of their importance for the image of the city. They are under constant pressure to develop and renovate, which has been increased by the Covid-19 pandemic. To maintain them as central and attractive locations, various strategies and concepts are being developed and support programs are launched.

The public and private stakeholders, who are particularly numerous in the city centers and at the same time very diverse, are decisive for city center development: political representatives, city administrations, residents, property owners, business people, and others with an interest in the city center. The stakeholders in the city center pursue very different interests and conflicts are inevitable. Business people want busy public spaces and therefore support regular events, while residents need quiet times. In addition, there are not always clear responsibilities for the city center and opportunities to influence integrated and resilient city center development are limited due to limited financial and human resources.

One way to prevent these conflicts is for the municipality to set up a city or center management. However, the quality of this in turn depends on the financial resources, political support and the person responsible and its commitment and networking.

Private stakeholders in city centers and inner-city districts are active to varying degrees, depending on the composition of the shopping streets in terms of use and ownership. They range from committed local initiatives to a passive, silent mass. Active local initiatives can make a difference, they ensure improvements to public spaces in terms of cleanliness, quality of stay and revitalization, the image of streets and districts, etc. However, they repeatedly come up against the problem of free riding. While a few people get involved, most property owners, residents and business people contribute little or nothing.

To counteract this, Business Improvement Districts (BIDs) have been established in some German municipalities based on North American models. They are being implemented particularly successfully in Hamburg – the city currently has 13 BIDs (Sep. 2023), and a total of around 40 BIDs have been established in the city since 2005 (Handelskammer Hamburg, 2023). The federal state of Rhineland-Palatinate recently launched a funding program with the aim of promoting the establishment and implementation of BIDs, and Koblenz is now the first BID in Rhineland-Palatinate.

The aim of the article is to provide an overview of successful German BIDs, but also to point out their (implementation) problems. The overall aim is to discuss whether BIDs are an effective instrument for better organization and coordination of inner-city actors and a fairer distribution of tasks, resulting in a better quality of stay in the centers. To this end, existing BIDs in Germany will be evaluated.

Keywords *: Business Improvement Districts, inner cities*

Navigating The Gray-Zone In Urban Regeneration: Variegated Forms Of Entrepreneurial Citizenship In Istanbul'S Left-Behind Areas

Ebru Kurt Özman (University Of Amsterdam)

This research delves into the complex interplay of urban regeneration in Istanbul, zooming in on the Fikirtepe and Derbent neighborhoods, to unveil the entrepreneurial citizenship within the context of state-driven entrepreneurialism. Central to our study is the 'Gray-zone'—the ambiguous area where spatial governance, entrepreneurial state, market-driven strategies and citizens' actions converge. By examining the dynamics within this Gray-zone, we aim to clarify the diverse expressions of entrepreneurial citizenship in urban renewal efforts and assess their impact on fostering or hindering collaborative and inclusive urban governance.

Set within Istanbul's ever-changing urban planning landscape, where an entrepreneurial approach is reshaping the interaction among government bodies, private entities, and community organizations, the regeneration endeavors in Fikirtepe and Derbent serve as pivotal examples. These examples help us understand how communities adapt and respond within a governance framework that leans towards entrepreneurship. The cases reveal the dual nature of neoliberal policies and entrepreneurial urbanism, where innovative methods driven by market-oriented policies coexist with significant challenges to the inclusivity and democratic fabric of urban planning processes.

By conducting a comparative study of the Fikirtepe and Derbent projects, our research adds to the broader discourse on the roles and relationships of various urban development actors. It sheds light on the emergence of entrepreneurial citizenship and its significant influence on communities that are often marginalised, while also emphasizing the critical role of policy and institutional changes in shaping urban development trajectories.

The research advocates for a balanced strategy that brings together the diverse interests and capacities of all involved parties, arguing that the integration of regenerative processes and community-led entrepreneurial initiatives is essential. Such an approach promises not only inclusive processes but also fosters equitable and sustainable urban environments. Ultimately, this inquiry into the Gray-zone and the variegated forms of entrepreneurial citizenship aims to contribute to the crafting of more inclusive urban governance systems, where the co-production of space is informed by a plurality of voices and interests.

Keywords *: Entrepreneurial Citizenship, State Entrepreneurialism, Urban Regeneration, Community Politics, Istanbul*

Actor Constellations In Urban And Rural Transformation Processes

Social Leadership. When Is It Too Much Or Too Little? The Intricate Relationship Between Local Actors In Urban Renewal Projects

Federica Scaffidi (Leibniz University Of Hannover)

In recent years, much attention has been given to urban development policies and the creative regeneration of marginalised sites (Tricarico et Al., 2020). Many scholars have analysed this phenomenon to understand the impacts of social enterprises, public administrations and communities on sustainable regeneration and urban development (Scaffidi, 2019; Dodd, 2020; Clark & Wise, 2018). Nevertheless, there is still a theoretical gap in contemporary literature that discusses the leadership role of social entrepreneurs and the intricate constellation of local actors' actions in promoting this change.

This research delves into the nuanced role of social leadership in the context of urban transformation, spurred by the analysis of the transformation of ExFadda. It was a former wine factory in Italy, initiated under the regional social innovation policy of the Apulia Region in 2005, aimed to foster youth entrepreneurship and repurpose disused assets. However, this case ultimately failed as the social enterprise closed after a certain period, with the leader establishing a new social enterprise. This study critically examines the implications of social leadership in the third sector and questions the efficacy of urban and regional development policies in fostering sustainable urban change with social innovation.

The research scrutinises the intricate dynamics of social entrepreneurship and investigates the interactions between various stakeholders, including the local community and public administrative entities. The closure of ExFadda prompts a deeper exploration of the complex relationship between public and private actors in urban renewal, raising questions about when the role of a leader becomes either excessive or insufficient to drive transformative change.

Drawing from international experiences, including Valle Salado de Añana (Spain), Periferica of Mazara del Vallo (Italy), Dolomiti Hub in Fonzaso (Italy), Verkatehdas in Hämeenlinna (Finland), and Ex Rotaprint in Berlin (Germany), this study provides insights into how these cases were implemented. Qualitative research methods have been carried out with semi-structured interviews, exploratory surveys, data analysis and comparison. The results highlight the crucial role of local actors and their interactions in shaping urban development.

The findings contribute to the existing body of knowledge by offering insights into the complexities of social leadership in urban transformation and how it intersects with broader urban and regional development policies. Furthermore, the research opens avenues for future exploration of theories and practices related to urban development with a focus on social innovation. Understanding the delicate balance of social leadership is essential for fostering sustainable urban renewal and ensuring the success of initiatives to repurpose disused assets for community benefit.

Health Equity In Chinese Residential Areas: A Perspective From The Built Environment Exposure

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"Health Equity" stands as a pressing and pivotal issue under the aspiration for "Healthy Cities" construction. In the domain of urban planning, research has predominantly focused on individual concepts of "health" and "equity," with limited exploration into the existing studies on "health equity" at the residential district scale. Consequently, this study, adopting a perspective rooted in built environment exposure, delves into the issue of health equity among residents residing in various property rights-based residential areas in China. By establishing two pathways through which the built environment impacts physical health and employing diverse data sources, this research utilizes Gini coefficients, Lorenz curves, and entropy methods to conduct comparative analyses of the equity in the distribution of "health resources" and the level of "environmental elements influencing health behavior" among residential areas with different property rights. Using 986 residential areas in Futian District, Shenzhen, as an empirical study, the findings reveal: 1. Variances in the built environment across residential areas with different property rights potentially affect residents' health, thus prompting health inequity; 2. Disparities exist in the provision of health resources among residential areas with different property rights, notably higher green space provision in commercial housing areas compared to other property types, while differences in health resource supply among other property types are relatively smaller; 3. Differences are observed among residential areas with different property rights in the level of environmental elements influencing health behavior, with urban villages exhibiting the optimal impact on health behavior, followed by commercial housing, affordable housing, and company dormitories. This study contributes to understanding the issue of health equity among residential areas with different property rights in China, aspiring to offer insights for planning healthier residential areas.

Keywords : Health Equity, Built Environment Exposure, neighbourhood scale

Exploring The Urban Transformative Capacity Of Vulnerable Neighbourhoods: Towards A Just Energy Transition

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Achieving urban energy transitions fairly and inclusively is a major societal challenge that has become extremely urgent in the face of the ongoing climate and energy crisis. Despite an increasing emphasis on energy justice, implementing just energy transition strategies remains challenging, in particular in vulnerable urban neighbourhoods. Socio-demographically, such neighbourhoods are inhabited by residents who are underprivileged in multiple ways (socioeconomic status and class, cultural and ethnic background, ability, etc.). Morphologically, these neighbourhoods often have a large share of social housing as opposed to private housing, and an energy-intensive, outdated housing stock that requires urgent retrofitting. Residents' engagement with neighbourhood transformation processes may seem low, especially when retrofitting projects are purely technical or top-down operations occurring over residents' heads. From a political and policy perspective, such neighbourhoods are often low on the agenda and might be confronted with public budget cuts, while institutional actors could potentially have a large impact. Vulnerable neighbourhoods then present a paradox, where they combine spatial and institutional opportunities for energy transformations but are at the same time confronted with substantial thresholds for collective action, visioning, and behaviour change.

These social, economic, political, and institutional challenges limit the transformative capacity (Wolfram, 2016) of vulnerable neighbourhoods. Urban transformative capacity here refers to forms of agency, processes and relational dimensions that support sustainable urban transformation.

Grounded in the 'paradox of vulnerable neighbourhoods', this paper aims to delineate a framework to define, analyse, and strengthen the urban transformative capacity of vulnerable neighbourhoods. This research delves into the complexities and opportunities associated with this capacity across different neighbourhoods in the Netherlands, Belgium, Portugal, and Estonia. It aims to integrate social and behavioural dimensions of transformative capacity with governance and institutional perspectives in these neighbourhoods. It will specifically focus on four key components:

Collective visioning processes to project alternative futures, based on communities' needs
Collective agency and behavioural change through community participation and empowerment
Co-evolution between public and community stakeholders to impact local governance structures
Co-evolution of social and technical innovation to overcome systemic lock-ins

Keywords : urban transformative capacity, collective action, energy justice

How Does The Planning Culture Affect The Role Of Actors In The Regeneration Process? An Example From Poland

Przemysław Ciesiółka

Cities around the world are undergoing a never-ending transformation that is also changing the model of urban governance, as reflected in the shift from government to governance (e.g. Da Cruz et al., 2019). Today, local governance is understood as a flexible decision-making model that relies on loose horizontal linkages between different actors (Elander & Blanc, 2019). Policies carried out in this way are based on a learning process that is open to other participants and creates a climate of cooperation to achieve common goals. Post-socialist countries, including Poland, are currently following a similar path in the process of urban regeneration (Stryjakiewicz, Jaroszewska, 2022). In the third decade of the 21st century, new challenges exist to revising existing urban policies, usually designed according to the growth paradigm, which treats cities as "growth machines". The concept of planning culture provides a better understanding of the decisions made in this regard (cf. Knieling & Othengrafen, 2015, Pallagst et al., 2021). Therefore, in my study, I try to answer how the values and beliefs of local actors of change (defined by those working in public, private, and third sectors) influence decision-making in selecting specific planning tools for regeneration. These tools include general urban guidelines, economic policies, and particular strategies including master plans, substitute industries, land banks, institutional innovation, and experiments. The research is conducted in a shrinking medium-sized city, Leszno (in the Wielkopolska region), where local authorities, with extensive national support, implemented model solutions for regeneration. Based on in-depth interviews with local actors of change, I seek to define Polish planning culture concerning urban regeneration. The results also relate to evaluating stakeholder relationships and their impact on decision-making.

Keywords : urban governance, planning culture, medium-sized city, regeneration

Advancing The Market Through Authoritarian Means? The Evolution Of Urban Renewal Instruments In Saint Petersburg And São Paulo And Their Influence On The Local Distribution Of Power.

Mathilde Moaty (Latts), **Olga Suslova**

After the post-authoritarian transition of the late 1980s-1990s, Saint Petersburg and São Paulo have been a testing ground for urban planning instruments of urban renewal. Inspired by some Western models, these instruments exhibit signs of planning exeptionnality, falling outside of the scope of the existing urban planning framework. These urban renewal initiatives are promoted as adressing the problems of a decaying housing stock and a lack of affordable quality housing, as well as urbanity. However, instead of resolving these issues, these instruments further deepen socio-spatial inequalities and breed conflict among residents, dividing them in two camps: pro- and anti-renewal. The ones opposing urban renewal formed protest groupes and mobilized specific expertise in the realm of urban planning, be it legal, historical or architectural, in order to halt the implementation of the projects. The supporters among residents, on the contrary, failed to orginize effectively and remained fragmented. In this presentation, we focus on the evolution of two urban renewal instruments, conceived as public-private partnerships. In Saint Petersburg, it is the Development of the Build-Up Territories (DBT), launched in 2008. In São Paulo, it is the Urban Intervention Project (UIP), introduced in 2014. Even though the particular state-capital nexus in Russia and Brazil suggests little competition among private actors, both programs were based on a public tender, announced by the municipality. More recently, however, Saint Petersburg and São Paulo adopted new mechanisms, already present at the federal level, that made it possible for the private actors to suggest redevelopment projects directly to the municipality, without winning a public tender. In Saint Petersburg, it is the Integrated Urban Development (IUD) tool, introduced in 2022, and in São Paulo, the Manifistation of Private Interest (MPI), appeared in 2016.

How does this institutional change influence the power constellations of actors, including the municipalities, private investors and developers, and community groups? In what ways do authoritarian practices permeate the seemingly market-oriented approaches to urban renewal? We aim to answer these questions with the focus on a comparative study of two major cities in the Global East and the Global South, Saint Petersburg and São Paulo. Using "comparative monographs" (Pinson 2023) as a methodology, we base our research on juxtaposing materials, collected during our respective PhD fieldworks, with focus in Narvskaya Zastava (Saint Petersburg) and Vila Leopoldina (São Paulo) neighbourhoods.

Keywords *: power relations, Contentious urban planning, urban consultants, housing crisis, urban production*

Actor Constellations: Public Engagement, Knowledge And Democratisation

Human Agency And Regional Development: Planning, Knowledge Practices And Innovation In Slovak Regions

Sila Ceren Varis Husar (Slovak University Of Technology)

Innovation goes beyond mere technological advancements; it originates in environments where ideas are proposed and knowledge is acquired through practical experience (Malecki, 2013). The fundamental element in this learning trajectory is the human agency, closely intertwined with the contributors engaged in the innovation processes. To elaborate further, the retention and exchange of knowledge within and among human agents constitute the essential facilitators of innovation, concurrently development. Slovakia has been undergoing continual changes driven by globalization, technological progress, and socio-economic shifts. The significance of human agency emerges as crucial in the realm of urban and regional development and planning trajectories. This research adopts a comprehensive approach, examining the complex relationship among individuals, institutions, and the broader socio-spatial context, and their collective impact on regional development. As part of the broader research project, REGINNO which focuses on the regional innovation capacity in Slovakia, this inquiry specifically explores how knowledge is generated, disseminated, and applied by diverse actors engaged in regional planning processes. The roles played by various stakeholders, including governmental bodies, local communities, academic institutions, NGOs, and private enterprises, in shaping the landscape of planning, knowledge, and innovation.

Previously, Varış Husar et al. (2023) explored the roles of current economic agents and tools, including actors and agencies, in developing integrated investment proposals in Slovak self-governing regions while underlining the soft factors influencing regional competitiveness. It is crucial to take a step further to qualitatively examine other aspects influencing regional development. This contribution unravels the local insights from the series of interviews allowing for in-depth exploration of the motivations, challenges, and aspirations of key actors involved in regional development. Through dialogues, interviewees have the opportunity to communicate their insights, observations, and concerns regarding the current state of development practices in Slovakia.

Preliminary results reveal the substantial impact of socio-cultural codes on regional development. Understanding these dynamics is critical for effective resource allocation and planning. Weak governance structures and little communication delay competent resource distribution and returns. Additionally, the findings stress the necessity of region-specific knowledge and R&D efforts. These insights aim to offer recommendations and strategies for policymakers by recognizing the unique challenges and opportunities in each region. The findings hold the potential to inform policymakers, planners, and researchers on enhancing knowledge practices to promote innovative, open, and people-centric regional development in Slovakia.

Keywords *: human agency, regional development, planning agencies, planning in CEE, Slovakia*

Citizen Science In Spatial Planning, Fostering Democratic Engagement In The Post-Ideological Age

Kejt Dhrami (Co-Plan Institute For Habitat Development), **Alessandro Delli Ponti** (University Of Ferrara, Department Of Architecture)

Citizen science is the practice of public participation and collaboration in scientific research through a wide range of activities, from data collection and analysis, to co-production of knowledge and research design. As such, it is commendable for the empowerment of individuals from all walks of life to participate in the creation of scientific knowledge, regardless of their research capacities (Madison et al. 2019). Nonetheless, mere participation does not automatically ensure the production of knowledge, presenting an epistemological challenge within the realm of citizen science. This is even more pronounced in social and humanitarian sciences, and specifically in the domains of spatial planning and urban design.

Is participation enough to foster knowledge production? Which kind of knowledge can we expect to generate from (enhanced) participatory planning processes?

This paper explores the role of citizen science as an emerging tool for democratic engagement in spatial planning and urban design, with a focus on the Western Balkans. The region is recognizably facing some common challenges, such as limited democratic transparency, data scarcity, a disconnect between quadruple helix actors, i.e. government, CSO-s, and academia, and underdeveloped research infrastructure. Moreover, as we are transiting towards a post-ideological age, it becomes increasingly important to navigate complex, diverse societal needs and values in a rapidly evolving/connected global landscape, free from the constraints of rigid ideological frameworks.

The study addresses this context, firstly through an overview of the current landscape of citizen science initiatives in the Western Balkan countries, identifying key projects and their (expected) impact. Subsequently, two case studies from Albania are examined in detail. The first involves participatory mapping initiatives in various cities, focusing on urban pollution, greenery, and noise levels. This case illustrates how citizen involvement in data collection can lead to more accurate and locally-relevant urban environmental assessments. The second case study explores ecosystem service assessments in a protected area, demonstrating how citizen science can contribute to sustainable environmental management and climate-resilient strategies, not only through co-creation and participatory mapping, but through effective knowledge transfer.

Beyond these case studies, the paper explores the role of citizen science in spatial decision-making in EU and WB, through a comparative lens, showcasing how co-design methodologies can be effectively integrated into adaptive planning processes. It examines the type of knowledge produced in participatory, co-design processes, emphasizing its unique, localized understanding compared to conventional scientific outputs. In this context, data-driven and community-driven strategies in spatial planning are contrasted, highlighting the advantages and potential controversies of each.

Lastly, the paper addresses the quality and quantity of citizen-generated science necessary for effective planning instruments (Planillo, 2021). This involves balancing citizen contributions, ensuring effective validation, and integrating these contributions into broader planning frameworks. The focus is on maximizing the impact of citizen science for tangible benefits in urban planning, as exemplified by some case studies in European cities.

The paper argues that citizen science is not merely a method for data collection but a transformative approach that can bridge the gap between scientific production and societal needs. This approach is particularly relevant in the Western Balkans, where traditional models of spatial planning and territorial governance face significant challenges and are ever-transiting.

Keywords *: citizen science, Western Balkans, Adaptive Spatial Planning, Co-production/co-design, participatory mapping*

Citizen Science In Spatial Planning, Fostering Democratic Engagement In The Post-Ideological Age

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Mapping Socially Innovative Actors And Their Relation With Institutions. Critical Insights From Italy.

Elena Ostanel (Università Iuav Di Venezia), **Giusy Pappalardo** , Nadia Caruso

Within the wide constellation of actors operating in the contemporary planning arena, citizen-led groups are gaining ground in promoting so-called socially innovative initiatives (Moulaert et al, 2013): voluntary, non-statutory practices implemented to respond to the need for services or goods that used to be provided by the State or local agencies.

Socially innovative groups can be organized and structured in various forms and, in the case of Italy, many of them have recently been institutionalized as "third sector organizations" under the current national normative framework.

The rising presence of such organizations within urban planning arena opens the question of what power dynamics their presence does contribute to nurture or inhibit, as well questions related with exclusive paths, or organizations' representativeness and legitimacy when taking over public institutions' responsibilities.

Some may also ask if is there a correlation between the increasing rely on social innovation, and the ascending role of private consultants that are replacing the work of public servants, within a problematic shift toward the so-called processes of "consultocracy" (Craig and Brooks, 2006).

As a matter of fact, while many have praised the multiple benefits of socially innovative practices (Galego et al., 2022), there is a growing concern over the evidence that such practices are also used by public authorities to justify their disengagement from public action (Fougère & Meriläinen, 2021), and many agree on the fact that socially innovative groups alone can unrealistically find progressive and long-lasting solutions for a whole range of deep-rooted problems (Savini and Bertolini, 2019).

In this changing scenario, we still miss a comprehensive and critical understanding on the relationship of socially innovative groups with institutions and their impact on urban planning. What are the different forms of the relationship between such groups and public institutions, and what effects they produce in different spatial and social contexts?

Within such framework, this contribution tries to challenge an 'over romantic' understanding of the relation between social innovation (SI) practices and local institutions, analysing the SI-institutions nexus in 3 diverse Italian regional contexts, from north to south (Piedmont, Veneto, and Sicily).

The contribution tries to identify different or recurring typos of SI-institutions relations in such contexts (such as forms of collaboration, conflict, agonism, trading zones, etc.), and to compare them, exploring their relations with contextual patterns.

The authors will present the preliminary results of an analysis of the spatial dimension of SI-institutions relationship, based on a map produced through on desk-research of several funded SI-projects in the regions, as well as relying on authors' direct engagement in planning processes characterised by the presence of socially innovative practices, and interviews with key-actors.

Social innovative initiatives are selected according to the definition of SI in terms of: i) initiatives led by citizens (grouped in different ways) ii) aimed at responding to the negative effects of urban change or to the need for adequate services or public goods that used to be provided by the State or its local agencies iii) experiment spaces of autonomy and/or forms of interaction with local institutions.

Results give insights on the 3 analysed Italian regional contexts, offering an understanding of the evolving character of the SI-Institutions relations and their impact on planning processes, through an interactive GIS mapping platform collecting open data.

This contribution is funded through the research project "RESISTING – Reconnecting Social innovation with InSTitutions in urban plannING" conducted in Italy as a Research Project of National Interest within the framework of the National Recovery and Resilience Plan (PRIN NRRP 2022; P2022YZTB7).

Keywords : planning processes, co-production, social innovation, local government

Facilitating Planning Decisions Through Co-Production. Circulation Of Knowledge And Democratisation

Agnès Deboulet (Umr Lavue, Université Paris 8), **Pedro Gomes** (Espi2r Research Unit, Espi Paris)

Planning practices supposed neutrality has been called into question for several decades now, including by advocates of public participation as a form of greater inclusivity and consensus building. Participatory discourses and methods have since become mainstream in many countries. However, increasing privatization of urban processes and the professionalization of civic participation have greatly depoliticized the latter.

Against this backdrop, and as large urban regeneration projects continue to target working class and precarious neighbourhoods in metropolises throughout the globe, new actor configurations have been emerging and setting up "invented spaces" of insurgent participation (Miraftab, 2009). Sometimes reinvigorating pre-existing trends, facilitators and third-party actors have proliferated in conflictual local or national projects. Such is the case in France (but also in the UK, see Deboulet and Abram, 2017), where State pledges for participatory urban renewal as part of a national policy launched in 2004 have not translated in actually existing projects. These are marked by compulsory demolition of many buildings and social mix policies displacing deprived households to make room for new homeowners. Amidst open discontent against the means and ends of this policy, grassroots movements have devised collaborative arrangements with higher education institutions and the research sector; the authors participate in such collectives. In these constellations, "universities" act alongside residents, bypassing official participatory mandates, most often subcontracted to private consultancies of planners, architects and sociologists. Rather than democratizing urbanism, the specialisation of participatory actors (Nonjon, 2012) has added even more complexity to decision making and increased the opacity of planning processes.

Besides France, our proposal also borrows on research exploring the role of independent facilitators in Brazilian cities. There as in many other metropolises of the Global South, precarious neighbourhoods have become so prevalent that their recognition has become part of public debate among contradicting agendas: demolition vs recognition and urban restructuring is an oscillating reality (Clerc, 2018). But self-organized favelados and squatters in ocupações have also strongly started to claim the right to the city, including through links to international networks. Prolonging a long tradition of extensão (universities' community engagement practices), numbers of students in Brazil (and elsewhere...) have been trained to work « with » the communities to promote their well-being through designing a few devices (public toilets, common spaces, or even reblocking).

What do these two set of situations have in common ? Drawing on a four-year comparative research program, we argue that facilitators are pushing for change in actor constellations, as they question privatization by insisting on social demand's – and its actors' – independence from public actors, project owners and developers. At an international level, integrating competing claims requires intermediation between diverse knowledge communities (Perry, Castan Brodo, Patel, Sitas, forth.) We will emphasize the meaning and conditions of this need for neutral actors and autonomy from two different perspectives. Firstly, the university as a pedagogic entity that is involved with "affected" communities. Secondly, the university as research body that is promoting new forms of cooperation within "citizen science" programs, analysing the co-production in place or to be installed, developing and reporting on its process and obstacles.

***Keywords** : co-production, facilitators, participation, knowledge co-production, Urban Renewal, France, Brazil*

Actor Constellations: Natural Resource Management, Major Infrastructures, And Cultural Heritage

An Action Research Approach To Empowering District-Level Authorities For Rainwater Harvesting

Ender Peker (Middle East Technical University), **Akgün İlhan** (Bogazici University)

This paper investigates the challenges faced by district-level local authorities in Turkey concerning climate change adaptation, with a specific focus on rainwater harvesting initiatives. Limited staffing with adequate training for climate action and constrained access to knowledge and tools for climate change adaptation pose significant barriers for these authorities. The primary objective of this study is to comprehensively understand the challenges experienced in rainwater harvesting within Kadıköy Municipality, Istanbul, arising from these resource limitations.

Utilizing a participatory action research methodology, the study aims to unravel the challenges faced while fostering collaboration among various actor groups through learning and knowledge-sharing mechanisms. Through in-depth interviews, workshops, and group meetings with representatives from water management and urban planning actors, the research first examines the current practices of rainwater harvesting, exploring how information and knowledge are produced and utilized by different directorates under a local authority. Subsequently, the research facilitates the co-definition of needs to overcome challenges arising from limited resources within each directorate.

This is followed by a capacity-building exercise tailored to address the needs identified in research findings. The research findings indicate that the production of knowledge for implementation is significantly catalyzed through experience-based capacity development programs in three ways. Firstly, different levels of authorities learn from each other through collaborative actions. Secondly, various directorates within one district municipality experience collective knowledge generation through collaboration. Thirdly, academic research facilitates systematic knowledge production among different actor groups, including public, private, and third-sector actors in planning processes.

__Keywords__ : Rainwater harvesting, Urban planning , Capacity development , Climate change, Participatory action research

Social Grassroots Organization Coordinated And Multi-Actor Driven Regeneration Model Exploration Of Residential Historic Areas– Renfengli As An Exemple, Yangzhou, China

TINGTING WAN (Southeast University)

Residential historic areas, which gather local historic information and carry the functions of daily life, are important carriers for cultural inheritance and sustainable development of the heritage community. In China today, the small-scale progressive regeneration of the residential historic areas is already a consensus. However, due to the serious environmental decay, complex property rights, large investment and long effectiveness cycle in the old districts, the effective way to promote the regeneration is still on exploring.

Renfengli is a typical traditional fishbone-type residential historic area in Yangzhou, Jiangsu province. Its regeneration practices, which coordinated by the social grassroots organization – Sub-District Office and driven by multiple actors, is an innovative exploration of the regeneration model in Chinese context. Taking Renfengli as an example, the objective of the paper is to explore, the role of multi-actors in regeneration process, their practices, conflicts and interactions, to establish a multi-level and dynamic "incomer" type of the district, and to reveal the characteristics and dynamic evolution of the interactive development of the historical area and the incomers' regeneration practices.

Based on the field observations, in-depth interviews, analysis of space changes and demographic characteristics, and the quantitative analysis of statistics on the social-economic development of the neighborhood (from 2013 to the present), the study finds that: the Sub-District Office, as the grass-rooted organization, plays an important role as "intermediator" in coordinating the overall regeneration plan of the district, in helping to transfer property rights, in coordinating multiple actors' practices and in balancing the distribution of benefits of the neighborhood development; The "incomers" in this case, mainly made up of Chinese "cultural consumer class", who are also the main actor in cultural inheritance, could be the sustainable driving force for the spontaneous regeneration of the district. The research also aims to build a "people-oriented" regeneration model, in which the scenescape construction of historic area could be partly driven by the needs and mode of life of the "incomers".

Keywords : actors, historic district, heritage community, incomer , sustainable development

Planning Outside The Box: Equitable Transit Oriented Development And The Purple Line Corridor Coalition

Gerrit-Jan Knaap (University Of Maryland), **Nicholas Finio** (University Of Maryland), **Dominque Gebru** (University Of Maryland), **Katy June-Friesen** (University Of Maryland)

Whereas the comprehensive plan adopted and periodically revised by local governments remains perhaps the dominant approach to planning for community development in the United States, a growing body of scholarship and practice suggests that traditional forms of planning are giving way to new, less formal planning approaches. Hopkins (2001) provides a conceptual framework in which the participants in the planning process, the form and scope of the planning approach, and the horizon and periodicity of the plan should reflect the parameters of what is being planned. Vey and Storring (2022) prescribe a hyper local approach to planning and community development often lead by nonprofit community development and other nongovernmental organizations. And a growing body of literature in the philanthropy world describes a collective impact approach to planning and community development that includes a variety of government and nongovernmental coalitions (Bryson et al 2015).

Similar changes in planning processes and institutions are underway in Europe. Faludi (2018) proclaims a need to reconsider the concept of territoriality and subsidiarity and proposes a "medieval" view of Europe and European planning. Such a view eschews formal planning processes based on political boundaries in favor or more flexible plans and planning processes. Similarly, in an assessment of Europe's territorial future, Luer and Bohme (2016) concur that the role of national governments and a hierarchical system of planning within those national governments is likely to decline.

In this paper we describe and analyze the Purple Line Corridor Coalition (PLCC), a coalition of public, private, and not for profit organizations formed in 2013 to promote equitable transit oriented development in the northern suburbs of Washington, DC. Its mission is balancing the benefits of the planned Purple Line light rail project against the potential for gentrification and displacement. Specifically, we review the history and performance of the PLCC, identify its strengths and weaknesses, and offer lessons for other coalitions in transit corridors and other contexts. Our analysis is based on structured interviews with coalition members and others about its activities and accomplishments to date. These accomplishments include the drafting of a Purple Line Community Development Agreement signed by two county executives, the President of the University of Maryland, and many others; the creation of active workgroups engaged in small business and affordable housing preservation, workforce development, and creative placemaking. Toward these ends the PLCC has raised nearly ten million dollars from public and private sources.

Our preliminary results suggest that the success of the PLCC reflects many critical aspects identified in previous literature, including its strength of leadership, commonality of goals, trust and comradery, shared governance, and more. Particularly important, according to the interview respondents, was the credibility, analytical capacity, and leadership provided by planning faculty and planning students at the University of Maryland. We conclude with comments on the role of university research centers as participants in community development activities and recommendations for the PLCC and other organizations seeking to promote equitable development by planning outside the box.

***Keywords** : community coalitions, transit oriented development, social equity*

Grand Projects In The Lisbon Metropolitan Area Shaping Dynamics Of The Tagus Estuary: Priorities And Perceptions Of A Non-Specialist Public

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Over the course of urbanization, waterfronts shaped cities but also faced diverse pressures, adapting to evolving functions that mirrored the changing needs and aspirations of societies. The metropolitan areas adjacent to these important assets consequently emerged as crucial global centers; the engines of society. Naturally, these areas now face complex challenges like traffic congestion, housing shortages or socio-economic disparities, which collectively strain urban systems, requiring comprehensive planning solutions. Yet, water bodies remain their central elements, evermore urging for innovative and sustainable, care approaches.

Given its historical significance, the Tagus Estuary – around which the metropolitan area of Lisbon developed – is a good example of a region profoundly changed by urbanization and economic shifts. Nowadays, changing demographics, environmental paradigms and urban design philosophies continue to challenge the dynamics of this territory, also threatened by the consequences of climate change, like the sea-level rise, which add a new layer of complexity to spatial planning. In that context, the research project "CidadeTejo" (transl. "TagusCity") aims to develop an integrated planning vision for the area that, including 11 municipalities with their distinct strategic goals, has the estuary as its focal and binding feature. That requires examining planning tools but also regional/national trends and strategies, while considering population needs and priorities together with threats and opportunities arising from the metropolis' fragile estuarine location.

Pressuring this two-bank urban system, a set of grand urban interventions are under consideration, planned or underway. They are 16 pivotal projects which the research team identified as having "structuring" roles for Lisbon's future development and that will impact the estuary and its surrounding environment. Some consist of waterfront redevelopments in former port or industrial zones which deindustrialization turned into polluted and neglected areas. These brownfields, located in central sites within already dense urban fabrics, emerge as prime redevelopment opportunities to tackle deep needs, with the potential to not only become economic engines but also focal points for recreation, tourism and community engagement. Other projects consist of large transport infrastructure like the new Lisbon airport, river crossings, soft-mobility corridors and light, underground and high-speed railways. These will improve links between the existing and/or projected urban fabrics.

Given their complexity and impact on urban systems, these projects present unique characteristics that span from, for example, distinctive governance structures and financial models to exceptional regulatory and permitting frameworks that facilitate their implementation. They are often subject to public debates thus requiring great community engagement. This is a critical factor to ensure their smooth, swift and successful realization, allowing project enhancements and avoiding deadlocks and drawbacks emerging from civic and political opposition.

Thus, to better understand public opinion and perception about these projects, as well as address broader concerns and formulate a strategic vision, the research team developed an interactive, hands-on activity to engage with non-specialized public in two science fairs, simultaneously collecting data through a questionnaire (n=122). Questions focused on the priority given by participants to the implementation of the planned projects and on their positive and negative impacts, as well as on other matters that they feel like lacking intervention.

In the opinion of respondents, housing, mobility and environment revealed as the main acting priorities, by this order. This is also true for partial results of all age groups, except that from 18 to 30 years old, where environment and mobility shifted ranks. Projects associated with real estate developments, river crossings and public transportation were the most valued by the respondents. In particular, frequency, expansion, integration and reliability of public transport were ranked as the issues considered to need more improvement, with green spaces closing the top5.

Beyond Market Value(S): Harnessing Transactional And Principle-Based Development Values In Urban Regeneration.

Emma Street (Associate Professor In Urban Policy And Governance), **Victor Nicholls**

In recent years, spatial planning has become increasingly orientated towards enabling and facilitating the activities of private markets and actors. In the United Kingdom, 'market-dependent planning' (Tasan-Kok, 2021; Tasan-Kok et al, 202) makes itself felt in different ways, including the widespread use of market-based pricing mechanisms to attribute (and trade off) the value(s) associated with urban development. In this paper we show that while transactional values like commercial returns can dominate urban planning and development, principle-based values such as professional ethics play a vital role in delivering high-quality schemes. Drawing on a case study one of the UK's largest town centre regeneration schemes, our research found that diverse value sets were held by both public and private actors who used tools such as masterplanning to uphold project values (including at times of financial stress). The paper identifies ways in which positive interdependencies between transactional and principle-based value-sets can be harnessed to deliver high-quality urban (re)development.

Pros And Cons Of Depoliticising Planning (Sps Consultocracy)

Negotiating Sustainable Urban Planning Outcomes: An Analysis Of Public-Private Power Structures In Local Planning Processes In South Australia

Stefanie Dühr (University Of South Australia)

For many years, sustainable development has been a guiding principle in Australian planning law and policy. Built environment outcomes are, however, continuing along deeply unsustainable paths of sprawling and low-density urban development with associated environmental and socio-economic impacts. Australia's strongly market-oriented economy and a discretionary planning system with weak regulatory requirements for sustainable urban development have been criticised for perpetuating poor sustainability outcomes (Dühr et al. 2023). In this context, much depends on how public planning authorities in Australia define urban sustainability, and how rigorously they defend such requirements in negotiations with private investors.

This paper asks how private and public planning actors shape sustainability outcomes during negotiations on development proposals, and what role in particular consultants play in influencing the ambitions for urban sustainable development of private-sector led development projects. Drawing on previous conceptualisations of power in planning processes (Avelino and Wittmayer 2016, Juntti et al 2009) and on the influence of consultants in planning processes of democratic nations (Parker et al. 2019, Linovski 2019), an analytical framework is developed for the analysis of power relations between public and private actors in local planning processes.

The analysis focuses on negotiations on private development applications in the Adelaide metropolitan region in South Australia. The findings show considerable asymmetries in favour of private developers and their consultants in relation to expertise on sustainable development. In particular, the use of sustainability consultants allows private developers to claim expert knowledge and to set the agenda on what types and quality of sustainability outcomes should be envisaged. Overall, the formal and informal strategies of private developers seem aimed at maintaining low sustainability standards and limiting public engagement, with public planning authorities often left powerless to negotiate better outcomes due to limited capacity and expertise.

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Consultocracy Around The "Caracas En Bici" Project: The Merits And Dismerits Of The Depoliticization Of Mobility Planning In The Venezuelan Context

Andrea Victoria Hernandez Bueno (Aalborg University), **Hanna Mattila** (Aalborg University)

In this paper, we discuss consultocracy in the context of Venezuela in Latin America. Our paper is based on a case study on "Caracas en bici" project focusing on cycling mobilities in Caracas. With "consultocracy", we refer to processes where consultants use power to shape public decisions instead of elected politicians, thereby depoliticizing public decision-making (Craig and Brooks, 2006). Consultocracy has been argued to increasingly characterize public decision-making in the context of Global North, but the model of consultocracy has been 'imported' also to the Latin America, for instance, to develop urban planning projects (Silvestre and Jajamovich, 2021). While the European discussion on consultocracy typically views consultocracy in a negative light, even as a threat for democracy (Vogelpohl, 2018), in Latin America there are historical reasons for emphasising the positive aspects of the services of consultants. Without the role of consultants the rapid urbanisation during the industrialization and oil boom, and the consequent development of modern planning institution would not have been possible in the second third of the 20th in cities such as Caracas (Almandoz, 2006). It can be thus expected that there are differences in the ways in which consultocracy works today in the Global North and Global South. This paper thus aims to investigate the pros and cons of consultocracy in the Venezuelan context through the case of "Caracas en bici".

"Caracas en bici" was a project that started in 2012 with an urban design competition launched by the Metropolitan Municipality of Caracas (a governance structure that no longer exists). Its purpose was to implement the metropolitan mobility visions on everyday mobility by 2020 (Davila, Bolívar and Criollo, 2017). "Caracas en bici" never materialized as such, however, even though there were smaller pilot projects for testing the design ideas and implementation patterns of the project in selected municipalities of the metropolitan area. Even though the project was not implemented in a manner that it was intended to, it opened a space for a number of small urban design and planning companies as well as NGO groups to lobby their mobility solutions and market their plans to political decision-makers and public administration. In other words, it created a playground for consultancy companies that compete of projects, power and influence under conditions where political power has been unstable, and administration is weak and inefficient.

We studied the heritage of the "Caracas en bici" project by interviewing various kinds of actors involved in soft mobilities planning in Caracas during and after the competition. Whereas the research on consultocracy in Global North typically emphasises the depoliticising effects of the excessive use of consultants' services, in the context of Venezuela, the power of consultants appeared in a different light, as the accountability of politicians is questionable due to corruption (Almandoz, 2017). In addition, the shifts of power appeared to be often so sudden that administration has difficulties in carrying out any long-term projects such as the development of transportation infrastructure. Under these conditions, depoliticization appears to be even a prerequisite of getting things done. However, the interviews also reveal that even though consultants appeared as seemingly politically neutral professionals who bring about stability in the politically turbulent environment, the interviewees generally held that this arrangement does not appear as legitimate in the long run and cannot replace stable governments and public administration in achieving long-term goals such as the goals related to well-functioning mobility network. In addition, the problem was that the small companies and NGOs were not able to find their common interests to be able to compete against the bigger players in the field.

***Keywords** : Global South, Latin America , consultocracy, depoliticization, active mobilities*

Conquering New Markets? Private Consultancy And Urban Policies In French Medium-Sized Cities

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This paper looks at the development of private expertise and consultancy in urban planning in smaller cities. It is based on a doctoral research that examined the urban policies carried out in four French medium-sized cities (Soissons, Forbach, Blois and Narbonne) since the 1980s, using document analysis, interviews and observation methods.

The aim of this communication proposal is to question the rise of consultocracy in smaller cities, and, in doing so, to unveil the multiple forms that the entrepreneurialisation and circulation of urban policies can take in non-metropolitan urban contexts. Critical urban studies have documented such processes in larger cities of the North (Harvey, 1989 ; McCann, Ward et Cochrane, 2011), but this literature has been renewed and enriched by work focusing on different urban contexts, such as cities of the South (Robinson, 2011), shrinking cities (Kinder, 2017) or smaller cities (McCann, 2004). In this paper, I would like to contribute to these debates, by presenting some results of my research which allow to distinguish three phases in the rise of private experts' participation to French medium-sized cities' urban policies. The aim of this analysis is to underline the specificities of these privatisation processes and to question their consequences for policy mobilities and planning practices.

From the 1980s to the end of the 1990s, entrepreneurial policies and large-scale urban regeneration projects did not develop homogeneously in French medium-sized cities. During this phase, state and semi-public expertise is a predominant resource used to conduct urban policies that mix managerial orientations with a growing interest in local economic development and the capture of private investments. From 2000 to the mid-2010s, the involvement of private consultants increased, as urban regeneration projects became more central in medium-sized cities' urban policies. During that period, the intervention of independent local consultancies is very common, while international firms are almost absent. Public and semi-public expertise is still mobilised, but the restructuring of State services and agencies plays a key role in local governments' turn to the private sector. Since the mid-2010s, the involvement of consultants in the urban policies of medium-sized cities has intensified and the profile of firms operating in these cities has diversified. This third phase is strongly related to the development of national public policies that encourage the recourse to private expertise in smaller cities through special grants.

Various changes in the territorial intervention of the State are therefore playing an active role in integrating medium-sized cities into a global consultancy market from which they were originally set aside. As it has been documented in other urban contexts, the privatization of the expertise on planning accelerates the circulation and convergence of urban policy models. This paper would lastly question the effects of these processes in medium-sized cities, and present the frequent limits and failures associated with the implementation of dominant urban models in these cities.

Keywords *: medium-sized cities, urban policies, urban political economy, consultants, Circulation of urban models*

Who Holds The Pen? The Persuasive Power Of Urban Planning Visualisations In The Age Of Consultocracy

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The increasing importance of the visual in contemporary societies shapes social practices in myriad ways (Rose 2007, 4-6) and urban planning is not an exception. Visualisations have an essential role in production of planning knowledge and communicating future visions of urban development. However, cartographic representations, videos and audio-visual narratives, computer-generated images and other digital renderings don't only convey information of the future plans to diverse stakeholders, but also have persuasive power and should be understood as performative interventions into practices of urban change (Melhuis et al., 2022, pp. 58).

Visualisations can be used to direct the focus of public discussion, frame planning issues in particular ways, invoke emotions, seduce audiences and provoke collective action (Dühr, 2015, pp. 193; Raento et al., 2020). They have persuasive power which is often suggestive and subliminal rather than argumentative and explicit. Together with language and numbers, visualisations are used to tell stories about the future (Raento et al., 2022; Sandercock, 2003) and to mold our perceptions of reality.

Thus, analysing the practices of visualisation in urban planning help to understand how and by whom the planning issues are framed, and agendas shaped. In the age of consultocracy, this is topical as these processes are often hidden from the public view and increasingly administered and negotiated by assemblages of public and private sector experts operating in the liminal space between private markets and the formal planning system (Raco, Street & Freire-Trigo, 2016). It has been claimed that planning knowledge is increasingly mediated and organized by private practices motivated by profitability, and concerns have been raised about the accountability and democratic legitimacy of planning (Raco et al., 2016; Ylönen & Kuusela, 2019).

In this paper we focus on the entanglements of the two phenomena, consultocracy and increasing role of visualizations in urban planning and development, aiming to unpack their implications for contemporary planning practice. There is a need to ask, who has the capacities, skills, and agency to tactically use visualisations. Is the power to modify visualisations a site of agency itself, and what kind of agencies do visual practices offer? The practices and tools of visualisation are largely in the hands of experts. Accordingly, is the growing importance of visualisations consolidating the power of consultocracy, or are visualisations open to interpretations and use of diverse actors in different arenas – regardless of who has produced them.

We point to the need for studying the expert-driven practices of using visualisations in the micro-level of policy formation. We demonstrate our argument through practice stories from the Finnish urban planning field. The analysis is focused on visual materials as well as interviews with planning practitioners and other stakeholders.

The study contributes to the emerging literature examining the politics and performative capacities of visualisations in relation to consultocracy in the field of urban planning and development.

Keywords : *visualisations, persuasive power, consultocracy, urban planning*

Social Innovation As A Game Changer For Urban Transformation And Its Multi-Stakeholder Constellations?

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This paper reflects the experiences of multi-stakeholder constellations from the implementation of the "Innovationswerkstatt" (IW) in Austria as a real laboratory approach that is likewise spreading in many countries today to support and supposedly accelerate a politically agreed but still negligently implemented sustainability transformation. As a new type of transdisciplinary research infrastructure the IW focuses for the first time in Austria explicitly on supporting social innovations in urban development and thus provides an opportunity to reflect on the central themes and issues of consultocracy raised in Aesop Track 18 at the level of local planning environments and its increasing opportunities and pitfalls of alignment with research and innovation policies. In line with this year's congress theme, we ask: Is social innovation a game changer for urban transformation and its multi-stakeholder constellations? And can this be mediated and strengthened through consultocracy approaches?

In view of the long-term presence of social innovation in planning science, as pragmatic approaches of social learning since the 1970s to the embedding in more recent approaches of transformative research in the context of sustainability (Moulaert et al., 2017, Nyseth et al., 2019, Christmann et al., 2020, Mieg et al., 2022), the persistent challenge of a socio-political change of actors of urban transformation is already evident from a theoretical perspective. However, empirical observations on experimental developments and the relevance of the changing research and innovation landscape have so far been much less elaborated.

As part of the national funding instrument "Innovationslabor" the IW is framed by the national Research, Technology and Innovation (RTI) guidelines for the funding of research and innovation projects (which in turn are directly shaped by European RTI policies) and its increasing thematic inclination towards transformative research and sustainable development. The IW has been operated by the future.lab at TU Wien since spring 2022 on behalf of the Austrian Climate and Energy Fund with a planned funding period of four years and is closely linked to the new mission "Klimanneutrale Stadt" (climate neutral city), which has been recently rolled out by the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (again in line with EU policies). The IW is designated to support innovation networks and projects for the sustainability transformation of large cities as well as medium-sized and small towns by networking and co-design activities, consolidation of knowledge co-production through approaches of open scientific work, transparency within the plurality of perspectives on current concepts of social innovation in spatial planning, etc. (future.lab TU Wien, 2024).

At the halfway point of the funding period, the empirical findings of the IW already offer in-depth insights into the status-quo of social innovation within spatial planning and the thoroughly heterogeneous constellations of actors and interests. In this respect, the paper provides a reflection on the promising and ambivalent role of actors in experimental developments in urban planning. Of interest is not only how and under what conditions the services of IW are designed for the multi-actor setting of spatial planning, but also which interactions with and between the actors appear promising (and which do not) and which mechanisms of resource redistribution and associated power constellations are at work. In addition, the lively debate in the research and innovation landscape on the question of the impacts of social innovations in spatial planning will be addressed as well, to which the IW makes a proactive and self-critical contribution with its emphasis on complex learning environments in urban planning and urban development.

Keywords *: sustainability transformation, social innovation, real world laboratory, social learning, urban planning*

Hybrid Role Of Planning Consultants (Sps Consultocracy)

Planning Consultants' Expertise In Times Of Changing Planning Actor Constellations

Jenny Lindblad (Kth), **Jonathan Metzger** , **Maria Håkansson** , **Devika Prakash**

In response to the changing landscape of planning actors, planning literatures are exploring the implications that the extended presence of consultants have on planning processes. From relying on assumptions about "the primacy of public planners and/or definitions of a public interest" (Raco, 2018: 124), recent attention to planning consultants complicates presumptions about their expanded presence as singlehandedly implying a privatization of urban planning (Inch et al., 2023; Sturzaker and Hickman, 2023).

In this paper, we take cue on these works by adding complexity and nuance to the role that planning consultants are playing in planning processes. Through an understanding of expertise as emergent, performed and thus in constant flux (Björkman and Harris, 2018), we ask: how are planning consultants conceiving of their expertise, and how do they situate their expertise in relation to other planning actors?

Several types of consultants participate in planning processes. In this paper, we focus on planning consultants who work at major technical consultancy firms. They work for both public and private clients – sometimes simultaneously. Often, they have worked for municipalities prior to joining consultancy firms, and retain a presence in everyday planning procedures as public sector budget cuts and reduced in-house staff have had municipalities hire consultants long-term in their planning departments. These consultants thus carry important responsibilities in forwarding planning processes, acting both as municipal representatives and for private clients in developer led neighborhood plans.

The consultants draw on different skills when taking on roles in the different constellations they participate. Not merely concerned with advancing the clients' interest, they portray their expertise as a capability to keep in view the range of variously colliding and overlapping interests brought into planning processes. Whereas public and private actors hold stubbornly on to their own interests, the consultants were skilled in weighting across these interests and keeping broader planning objectives and a public good in mind, or so they argued. The emphasis on such skills and motivations was crafted to the backdrop of developers advancing private economic interests, and municipalities having maximized economic revenue guide planning choices (Zakhour and Metzger, 2018). The expertise that planning consultants perform, and the relative invisibility of consultants' responsibilities in spite of their prominent role in planning processes, raise questions about how planning consultants impact the character of privatisations of urban planning processes.

The paper is based on empirical work including ten workshops with consultancy planners, municipal planners and developers. In the workshops, participants mapped the actors that they encounter across planning processes and discussed the power dynamics between them. This material allows us to inquire how planning consultants perceive of their expertise contributions, in the light of what public and private actors consider of tensions with consultants' presences in planning processes.

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Stuck In The Middle: Planning Consultants As Intermediary-Actors. The Case Of English Neighbourhood Planning

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Planning theory has scrutinised the role and consequences of various forms of citizen engagement in urban governance and spatial planning for decades. Since the 1990s, a progressive and discernible shift in managing urban issues and spatial planning has occurred in numerous jurisdictions. Governmental entities have embraced ostensibly collaborative governance and new planning tools designed to capture and manage the socially innovative capacities of civil society (Bragaglia, 2021). Consequently, planning practice has evolved into a realm where many political, technical, and lay actors are actively engaged, albeit with asymmetrical power relations and varying capacities. These new tools partially redefine the 'rules of the game' amongst public authorities, the development industry, and civil society and have required intermediary actors as part of the creation of knowledge markets for the private sector in planning (Raco and Savini, 2019).

Indeed, to manage and support the active involvement of lay actors, some planning activity has also witnessed an increasing professionalisation of participation and a surge in consultants (Wargent, et al., 2020; Barry and Legacy, 2022). However, the role of planning consultants as 'intermediary-actors' is still understudied in the planning discourse. Additionally, even more limited attention has been given to niche participation consultancy. Most literature on consultants predominantly focuses on the role of consultants active between developers and local authorities. We thus address this research gap by examining the role of consultants involved in a reconfigured set of relationships that includes civil society. It is, therefore, a triangulated process in which we observe and investigate the power emerging from state-society-market relationships and associated 'action on others' (Burchell et al., 1991) that planning consultants, as intermediary-actors, exert in influencing policy agendas in the realm of collaborative governance and planning.

The contribution delves into the role of private planning consultants as intermediary-actors and their implications for planning theory and practice. It focuses explicitly on niche consultants engaged in servicing neighbourhood-scale community plan-making in England in the framework of neighbourhood plans (post-2011 Localism Act), emphasising their agency and contributing to the comprehension of consultancy roles and co-production dynamics in planning. The aim of the contribution is thus to elucidate the agency that planning consultants, as intermediary-actors, hold in collaborative governance and planning within and beyond neighbourhood planning.

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Keywords : *Intermediary-actors, planning, consultants, agency, neighbourhoods*

Transnational Consultants, Project Management And Urban Development In Pune, India

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The paper elaborates on the working of transnational management firms in Urban Local Bodies (ULBs) through the case of Pune, in western India. Three of the Big Four consulting firms (E&Y, PWC, KPMG) are deeply entrenched in the planning and implementation apparatus of the city as Project Management Units (PMUs) in various national urban development schemes. Transnational management consultants, as the agents of neoliberal ideologies, have increased their presence tremendously in many sectors of urban development practice in India since the initiation of economic liberalisation reforms in the 1990s. Their involvement at every level of the governance architecture in India showcases the extent of entrenchment in policy formulation and implementation. The roles and responsibilities carried out by these large consultancy firms are now firmly and deeply embedded in the international circulation of the knowledge of cities. This paper analyses the processes through which these consultants have restructured and moulded Pune's local governance landscape and capacities. More specifically, it illuminates the various roles played by these PMUs and their functioning over the years within the city's institutional armature. The permanence of management consultants within the city administration and the resultant erosion of state capacity has reshaped the nature of both urban governance, and the state itself, which is increasingly moving towards regulatory capitalism and profit-seeking.
Keywords: urban planning, neoliberalism, consultocracy, project management, urban development

The Outsourcing Of Participatory Processes To Private Consultancies: Opportunities And Threats

Elisa Caruso (University Of Florence)

The absence of experts within the administrations and the need to avoid overburdening the offices with additional work has led to the outsourcing of the preparation of urban plans and the organisation of related participatory processes to avoid overloading offices with additional work.
The outsourcing of these competencies has led to an increase in specialised profiles and the commercialization of the expert facilitator role. However, this has resulted in neglecting the innovative and creative capacity of the work and yielding to the standardisation of tools. Additionally, the facilitator has prioritised the function of the participation broker over that of building solid relationships between actors.
The contribution presents research results on how participatory processes, entrusted to external consultancy firms, may have influenced the standardisation of models and homogenization of participatory instruments. It also examines how these processes may have led to the disempowerment of citizens by promoting the "rhetoric of participation" (Fischer, 2006) and to a distribution of decision-making power between private stakeholders and public actors. The text concludes that citizens become the subjects of consultation.
The survey focuses on the case study of the Region of Tuscany (Italy), the first region in Italy to adopt a specific law and to introduce mandatory participation in urban planning. The research is conducted at two levels of investigation: i) comparative evaluative analysis through the participation assessment data of the participation authority of the Region of Tuscany (Gelli, 2018); ii) field research with direct observation and interviews with facilitators of the most active consultancy companies in the region.
The first issue pertains to the standardisation of processes and methods used by consulting companies. The second issue relates to the lack of inclusivity in the activated processes and the gender gap identified in the evaluation of the participatory processes funded by the Region of Tuscany. The third issue that arises is the low generativity of the activated practices and their limited impact on public policies in the medium term.
This research initiates a discussion on the effectiveness of top-down participation conducted by external facilitators and introduces multi-level reflection. Although external consultancies may be necessary for administrations, it is important to consider how to rebalance power dynamics between public, private, and community actors. It is also crucial to avoid turning professional facilitators into mediators of urban processes.

The contribution aims to comprehend the paths of participation in the creation of urban plans as collaborative spaces among communities, institutions, and stakeholders rather than as consultative spaces.

The research proposes giving the university and action research (Whyte, 1991) a central role in experimenting with a collaborative approach among actors focused on collective learning. The aim is to propose an approach that, through relational proximity, initiates a new era of collaborative planning (Healey, 1998) that redistributes power fairly among the actors involved and co-constructs visions of a possible future.

The experimentation of this relational proximity approach thus provides the basis for testing an innovative urban planning process aimed at cooperation between public, private, and community actors.

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Consultocracy And Its Legitimization (Sps Consultocracy

Contemporary Uk Planning And The Concept Of 'Consultocracy'

Zan Gunn (Sapl Newcastle University), **Ben Clifford** (University College London), **Daniel Slade** (Royal Town Planning Institute)

Drawing on recent research data, we explore the extent to which the contemporary UK planning system might be understood through the concept of 'consultocracy' (Howlett et al, 2018), Matti and Kuusela, 2019, Wargent et al, 2019). We reflect on how lobbyists have shaped planning reform debates and funding arrangements in the UK to create the conditions for 'consultocracy' to occur. We then investigate what is currently happening in the UK systemically and procedurally, finding a diverse range of hybrid public-private arrangements for planning service provision. We conclude that this raises important questions around the service being provided, who benefits from these arrangements, their governance and the democratic accountability of such partnerships.

The Privatisation Of Checks And Balances In Planning

John Sturzaker (University Of Hertfordshire), **Hannah Hickman** (University Of The West Of England), **Orly Linovski** (University Of Manitoba)

An increasing volume of scholarship has explored the implications and outcomes of the privatisation of planning processes, tasks, and services. Very significant cuts to public sector planning bodies in pursuit of "austerity" have stripped capacity and resources, at the same time as planning has become more complex, with an ever-increasing body of technical information now commonly part of the submission for planning consent. Public sector planners are also in many contexts under pressure to make decisions more quickly or face punitive measures. The combination of reduced state capacity, project complexity and an increase in regulatory requirements, means that planners employed by the state to make decisions – or recommend decisions to elected politicians – may not have the skills, time or capacity to scrutinise information, make fully informed decisions/recommendations and ensure that factors such as the "public interest" or climate change are adequately considered. Drawing on in-depth interviews and focus groups with planners in different geographic and institutional contexts, we find that this has resulted in the "checks and balances" which seek to ensure appropriate decisions are made having – in effect – been privatised. We explore this shift in reliance on private-sector firms and consider what level of oversight exists of actors in the private sector to ensure they are adhering to the standards demanded by their profession or employer, and the implications of this for planning outcomes and the planning profession more broadly.

Can The Legal Procedure Remain The Only Systemic Guarantor Of Democratic Decision-Making In Polish Urban Planning?

Magdalena Belof (Wroclaw Universty Of Science And Technology), **Piotr Kryczka** (University Of Wroclaw)

The mass marketisation of planning services in Poland gained momentum after the political transformation in 1989 when the legal provisions governing the planning profession were established. Initially, the Chamber of Polish Town Planners had some control over the broadly understood "free planning market"; however, the Chamber was formally abolished in 2015 which in practice meant that almost anyone could practice as a planner. Since then, practically the only safeguards for planning reliability and democratic processes are regulations on planning procedures.

Resulting from a planning reform enacted between 2021 and 2023, the current Polish legal framework encompasses six distinct types of local zoning plans, each endowed with equal legal standing but diverging significantly in administrative and legal procedural intricacies. An absolute novelty is the introduction of plans initiated and financed by their potential (private and/or corporate) beneficiaries, which was not legally permitted until 2023.

This study aims to examine the intricacies inherent in the planning procedures legally designated to the six types of local zoning plans sanctioned by Polish planning law, with a special focus on identifying who, where and at what stage makes planning decisions. We will consider four perspectives: the external urban planner (consultant), the potential beneficiary (investor), the local authorities, and the local community. The term 'planning procedure' here denotes a series of formal and legal activities that span from the decision to initiate the plan to its final legislative adoption. This analysis seeks to pinpoint 'soft spots' in planning procedures, namely the stages where the democratic decision-making process can be endangered, potentially leading to illegal appropriation or/and utilisation of public goods.

The study will employ a national-level legal analysis method that uses a standardised comparative matrix. Additionally, a learning-by-comparison methodology will be employed, with a focus on a learning-from-expert approach. This approach, drawing from extensive expert knowledge, both theoretical and practical, will unable better understanding of consequences of existing planning procedures from a cognitive, technical, moral, and practical perspective.

We anticipate that the study will draw attention to the labile boundaries between the public and private sectors in planning, prompting a discourse on the quality of planning procedures in Poland, particularly in the context of outsourcing public tasks in this sphere. This is significant, as out of the 2,477 municipalities in Poland, only a dozen have internal planning services responsible for the entire decision-making process and its spatial implications. Other municipalities rely on external contracts, potentially jeopardising accountability for the reliable and democratic management of space that is the shared common good.

Keywords : *outsourced planning, planners, planning system, land use planning, municipal governance*

The Trickle-Down Effect Of Audit Culture On Urban Planning: Accountability, Transparency, And Legitimacy

Julio Paulos (Eth Zürich)

Outsourcing, as part of a wider manifestation of project management and its associated logics, has become a common practice in the public sector (Grizjen 2010; Mike and Federico 2019). An often-forgotten aspect of this machinery is the economic process of evaluating, known as auditing. While audits by external firms are commonplace, their impact on planning can arguably be classed as being mundane or marginal. Yet, as this paper argues, audit is part of a larger culture in which accountability, transparency, and legitimacy merge into a common understanding in which governments are held accountable not only for meeting efficiency standards, but also universals of good practice. Audit cultures, to borrow from the concept of the anthropologist Marylin Strathern (2003), are pervasive in the workplace, in our government and public institutions, as well as in urban planning.

This paper examines the extent to which practices of accountability are widespread, the political and cultural conditions under which accountability flourishes, and the consequences of its application. The outcome is an understanding of the principles of economic efficiency and ethical imperatives (Ruppert 2006; Woolgar and Neyland 2013). The convergence of these moral and financial priorities provides an excellent starting point for debating cultures of consultation, management, and accountability. Empirically, the paper looks at how the idea of optimisation and efficiency is hidden but made effective in the planning agenda of Lisbon's municipality, where pressing issues such as affordable housing or accessible public space are addressed under the banner of the public good, but ultimately respond to a logic of project management carried out with the help of consultants and meeting the demands of economic efficiency.

Keywords *: accountability, audit, management*

Multi-Stakeholders Practice Between Consultocracy And University Planning Processes Support

Sara Altamore (Università Sapienza Di Roma), **Daniela De Leo** (Federico Ii University Of Napoli)

This special session 'URBAN PLANNING AND LOCAL DEMOCRACY IN THE AGE OF CONSULTOCRACY' suggested us a different perspective for our recent reflection about why multistakeholder practices doesn't work (De Leo and Altamore, 2023a). Indeed, if "Consultocracy" (Craig and Brooks 2006; Wargen et al., 2020) replaces public debate and participation with technical processes executed by non-elected and external consultants, maybe it could also explain the reduction in techno-political capacities and fragmented planning practices marked by temporal and cognitive discontinuity we already underlined (De Leo and Altamore, 2023b).

Moreover, even in the context of the New Generation EU funds, frequently local government remains under-staffed with public sector budget cuts and government functions outsourced thus urban and regional planning (especially in non-metropolitan areas) reduces in ambitions turned into:

small processes controlled by consultancy expertise and knowledge,

perverse forms of "public-announcementism" or the public announcement after public announcement for getting funds from announcement experts.

In this framework, the paper presents an on ongoing research practice in which we are trying to avoid the "Consultocracy" approach in the territorial planning process for the 19 small and medium size municipalities. The aim is quite ambitious because we are addressing critical issues such as the rationalization of renewable energy production and the promotion of an integrated tourism system in a fragile and high-quality landscape.

First and foremost, our role as university members in this planning practice serves as a cornerstone for repositioning planning as a public function (Dewey, 1927). Moreover, the ongoing research and planning practice illuminates the challenges inherent in such a process, particularly by enlightening:

the reluctance of local governments to share responsibilities and power in the realm of territorial planning, seen as a potential ground for influencing voter preferences,

the struggles due to inadequate financial resources to support practical work and the implementation processes.

Indeed, especially for small and medium-sized cities facing depopulation, the already limited authority of their representatives intensifies the low attitude to share responsibility among decision-makes. Nonetheless, the need of a more collaborative efforts between universities and territories emerged: it is crucial that the university engagement occurs within processes that are well-structurally and economically sustainable. Otherwise, there is a risk of entering into precarious agreements that substitute the private sector solely for the purpose of reducing public expenditure, thereby perpetuating the fragmentation of planning practices.

Thus, the contribution concludes by posing additional questions about the potentialities and risks mentioned above related to the university's role, thereby contributing to the ongoing debate on "consultocracy."

Acting as a public actor supporting local governments, the university could/should play a crucial role in:

facilitating multi-stakeholder processes to build knowledge and redistribute responsibilities, power, and knowledge,

translating challenges and potentials into coherent demands aligned with the local context,

fostering learning and disseminating knowledge.

***Keywords** : Urban planning, University, consultocracy, multi-stakeholder practices*

Plpr

Public Spaces And Urban Cultures

New Technologies And Planning

Excellence In Teaching`

Planning Theory

European Planning Studies

Progress In Planning

Council Meeting (Reserved)

President And Council Meeting (Reserved)

Planning Education As Game Changer

Regional Design

ACSP-AESOP

Gustavo Lopes Dos Santos , Eva Kassens-Noor , Stefano Divita , Alexia Gignon , Mark Wilson , Alexandre Faure , Alexia Gignon , Marie Delaplace , Mike Raco , John Lauermann

GPEAN, Global Planning Education Network: Planning Education As A Game Changer At A Global Level

Zeynep Enlil , Paulo Silva , Ahsan Habib , Deden Rukmana , Ayşin Dedekorkut Howes , Jean-Michel Roux , Deniz Erdem Okumuş , Daniel İnkoom , Bruce Stiftel

ACSP-AESOP

Emotional Cities: Planning & Design To Foster Mental Health And Well-Being In Our Cities And Citizens

Zenia Kotval (Michigan State University), **Paulo Morgado , Zeenat Kotval-K , Dar Meshi , Daniele Santuchi , Carlos Lima , Bruno Miranda , Marta Conceição**

Special Session: ACSP-AESOP Joint Pre-Organized Session
Organizers: Paulo Morgado, University of Lisbon and Zenia Kotval, Michigan State University
Cities are places of prosperity, development, progress, creativity, and innovation. They offer opportunities and conditions for people to foster healthy, successful and fulfilling lives. Although less commented, cities can also be places for societal stressors with a severe impact on people's mental health and well-being. Poorly designed cities can negatively impact people's mental health. Indeed, cities are associated with higher risks of depression and anxiety than rural areas. As the world is becoming more urbanized and cities of the future need to be people-centered, robust evidence-based knowledge on the underlying biological and psychological processes, by which Urban Planning & Design influence brain circuits and human behaviour, will be critical for policy making on built environment and urban health matters. Emotions are key drivers of our decisions; similarly, our choices are the conduit for our well-being and health. In this conference we'll discuss how each one of us, scientists, decision-makers, politicians, urban planners and physicians, can help to shape healthier and thriving cities.
Presenters:
Zeenat Kotval-K, Michigan State University
A Spatial Analysis of Urban Environments and Health Outcomes: The Case Study of Lansing, Michigan
Dar Meshi, Associate Professor, Michigan State University
Functional brain imaging predicts the density of photographs taken in an urban environment
Daniele Santucci, Climateflux GmbH - RWTH Aachen University
Unfolding the Dynamics of Urban Ecosystems through Integrative Data Collection.
Carlos Lima Azevedo, Technical University of Denmark
Individual activity, mobility and emotional patterns: a natural experiment
Bruno Miranda and Marta Conceição, Lisbon School of Medicine -University of Lisbon.
How neuroscience can help urban planning, and the other way around

Keywords *: Emotions, Built environment, neuro sensing*

Sustainable Land-Use And Mobility Policies And Practices In Urban Regions.

Dominic Stead (Aalto University), **Giancarlo Cotella** , **Jonathan Metzger** , **Raine Mantysalo** , **Elisabetta Vitale** , **Maria Hakanson** , **Nuno Marques da Costa**

Cities Beyond Growth Now Tomorrow Will Be Too Late

Federico Savini (University Of Amsterdam), **Izabela Mironowicz** (Gdańsk Uniiversity Of Technology), **Andrea Frank** (University Of Birmingham, Chair Of The Aesop Core Curriculum Working), **Peter Schmitt** (Stockholm University), **Sila Ceren Varis Husar** , **Zeynep Şirin Enlil** (Yildiz Technical University)

Co-Designing Publics

Aseem Inam

Time/Less. Sensing, Designing, Planning

Robin A. Chang (Rwth Aachen University), **Fabio Bayro Kaiser** , **Stefano Cozzolino**

French Cuisine

Brown Bag seminars

Wars And Peace: What Universities Can Do?

Tommaso Vitale (Doyen Ecole Urbaine De Sciences Po)

The Last Plan For The Regional City

Nicolas Bauquet (Directeur Général Institut Paris Région)

Sebastien Chambe (Directeur Général Adjoint Délégué À L'urbanisme Et Aux Mobilités · Métropole De Lyon)

Bruno Cousin (Sciences Po, Centre For European Studies And Comparative Politics & Urban School)

The French And British Planning Studies

Xavier Desjardins (Sorbonne Université)

Olivier Sykes (The French And British Planning Studies Group)

Research To Policies?

Hélène Peskine (Puca)

Frédéric Gilli (Institut Cdc Pour La Recherche)

Isabelle Laudier (Sciences Po Urban School)

The Role of the Government in Urban Planning : meet the students of the Urban School master GLM

Champaka Rajagopal (Urban School, Sciencespo, Paris)

Johan Nicolás Diaz (Former Policy Analyst, Paris-Saclay Deep-Tech Cluster)

Kaoutar Hajami (Sustainability Consultant, Egis Groupe)

Sumedha Bose (Lead Marketing, Communications And Partnership-Building At Builders Patch, Usa - Paris)

Garbage And Perish?

Dennis Boquet (Ensa Strasbourg)

Sophie Didier (Laburba)

Olivier Sykes (The French And British Planning Studies Group)

Paris Olympics

Alain Bourdin (Coubertin Research Programme)

Helene Dang Vu (Université Gustave Eiffel)

Joël Idt (Coubertin Research Programme)

Jules Meunier (Coubertin Research Programme)

Raphael Languillon (University Of Geneva)

How Do We Evaluate A New Neighbourhood?

Agnès Bastin (Isige Mines Paris-Psl)

Benjamin Cadranel (Citydev)

Bertrand Vallet (Sciences Po Urban School)

Reinventing Land In Paris

Patricia Pelloux (Apur)

Stephane Lecler (Ville De Paris)

Sukriti Issar (Sciences Po, Centre For Research On Social Inequalities & Urban School)

Housing Renovation

Anne-Claire Mialot (Anru)

Ilaria Milazzo (Sciences Po Urban School)

Virginie Toussaint (Direction Des Affaires Européennes)

Density And Mobility

Charlotte Halpern (Sciences Po, Centre For European Studies And Comparative Politics & Urban School)

Eric Charmes (Entpe Lyon)

Tjark Gall (The World Bank)

Living Soil? The Containement Of Urban France

Brigitte Bariol (Fnau)

Xavier Timbeau (Institut De La Transition Foncière)

Jean Guiony (Sciences Po, Ofce)

Combating Housing Discrimination In France And The United States

Maryame Amarouche (Université Jean Moulin Lyon 3)

Ion Maleas (Ensa - Marseille)

Magda Maaoui (Columbia University)

Nicholas Marantz (Uc Irvine)

Paavo Monkkonen (Ucla / Sciences Po)

(In)Finite Earth: Accelerating Circular Transition Of Urban Environments Through Construction Practices

Planning For Urban Mining: Using Urban Planning And Development Parameters To Optimize Spatiotemporal Dynamics Of Construction Materials Flows In Cities

Arta Bytyqi (Uclouvain/Kuleuven)

Rapid urbanization in recent decades has transformed cities into hotspots of accumulated anthropogenic material stocks. Given the scarcity of raw materials, ensuring city development within planetary boundaries requires the immediate implementation of circular material flows. Consequently, cities are increasingly viewed as potential mines for secondary resources, and recent research has introduced methods to model existing material stocks and forecast future dynamics. Most studies base calculations for future material demands on socioeconomic indicators that predict economic and population growth. Considering such predictions are foundational for planning city development, incorporating planning parameters could enable a more detailed understanding of future building material stocks by adding a spatiotemporal aspect to it. Therefore, this study analyzes the relationship between parameters used in planning city development—namely, planning documents, development regulations, and construction codes—and parameters used in bottom-up building stock modeling using the archetyping methodology.

The study examines the existing planning hierarchy and identifies where in the planning processes the spatiotemporal dimension impacting construction material flows is addressed. Furthermore, it analyzes the impact of specific planning parameters (such as land use, building function, density, parcel utilization index, floor area ratio or floor space index, and minimum space requirements) on modeling the dynamics of material stocks and highlights opportunities for optimizing material flows in space and time. Belgium serves as a case study for this analysis.

Understanding how specific planning parameters used for urban development in cities influence material stocks and flows enables their application as effective tools in promoting circular flows of building materials. Additionally, it facilitates the use of these tools for accurately modeling future material demands, supporting the spatiotemporal optimization of available materials and demands, with a particular emphasis on reuse as one of the most sustainable circular strategies.

Keywords *: urban metabolism, circular material flows, urban planning, urban mining*

Urban Mining Of Mineral Building Materials In The Ruhr Area: A Spatial Analysis

Constantin Diete (Drees & Sommer Se / Tu Dortmund), **Nguyen Xuan Thinh** (Tu Dortmund), **Jana Pauline Jegen** (Tu Dortmund)

The escalating global population, coupled with burgeoning urbanization and economic growth, forecasts a significant surge in resource consumption, notably non-metallic minerals vital for construction. Particularly, sand, a vital resource for the concrete and cement sector, faces extensive exploitation worldwide. Despite construction and demolition waste accounting for over half of Germany's total waste output, the utilization of secondary materials in building construction remains low. However, integrating secondary resources from anthropogenic deposits into concrete production is essential for reducing carbon emissions, promoting national resource autonomy, and minimizing habitat disruption to safeguard ecological systems. Given the substantial impact of transportation on the economic and ecological benefits of resource-conserving concrete (R-concrete), optimizing transportation routes in terms of distance and volume is paramount for enhancing the efficiency of the recycling process. Thus, the research presented delves into the critical task of effectively managing the recycling of mineral demolition waste for R-concrete production, focusing on spatial considerations within an urban and regional planning framework.

This research examines the efficient management of mineral demolition waste recycling, specifically for R-concrete production, from an urban and regional planning perspective. Through interviews with industry experts and site surveys, insights were gathered to develop a concept for a recycling hub. Subsequently, a location-allocation analysis using Geographic Information Systems (GIS) identified a suitable area within the Ruhr region, considering factors such as demand from former building activity and supply from population density.

As a result, the establishment of an R-Concrete Hub, consolidating stakeholders such as a cement plant, a mineral demolition waste processing facility, and a concrete mixing plant is being proposed. Bringing together these core stakeholders is expected to drop transportations tours in distance and number significantly and therefore reducing monetary and ecological costs of R-concrete to a minimum. Additional integration of stakeholders from the construction industry and public sectors is further expected to enhance the public awareness for sustainable concrete and construction materials. The Ruhr area, known for its high population density and industrial heritage, as well as multicentricity emerges as an ideal location for such a hub. By leveraging existing sealed areas and recognizing sufficient distance to settlement zones, potential environmental impacts are mitigated within the spatial analysis.

Among potential locations, the city harbor of Essen stands out due to its excellent connectivity. As the city is actively involved in a master planning process for this region currently, it presents a critical juncture to further refine and implement the concept of the R-Concrete Hub, potentially breathing new life into the practice of Urban Mining.

In conclusion, this research provides insights into spatially optimizing mineral demolition waste recycling for sustainable R-concrete production in the Ruhr area. The proposed R-Concrete Hub concept offers a pathway towards a more resource-efficient construction industry, aligning with broader discussions on Urban Mining's environmental and societal benefits. Nevertheless, the dearth of available data for accurately estimating the current extent of anthropogenic stock underscores the necessity of establishing a material inventory. This inventory is essential for optimizing waste reuse and ensuring precision in site planning endeavors.

Sustainable Urban Metabolism: A Comprehensive Analysis Of Circular Economy Implementation In The Construction Industry Of The Ruhr Area

Pauline Jegen (Tu Dortmund)

The conventional construction industry is a significant contributor to environmental impacts on both the built and natural environment. The integration of circular economy concepts influences production and consumption patterns within the construction sector, promoting improvements across the environmental, economic and social dimensions of sustainability. Circular construction practices, rooted in an interdisciplinary approach that emphasises the central role of urban planning, are proving to be instrumental in shaping sustainable urban spaces.

Particularly in regions undergoing urban transformation, the consideration of circular building practices aligned with urban metabolism becomes imperative. The Ruhr region in Germany is an example of such a region, experiencing a shift from reliance on mining and steel to services, technology and knowledge-based sectors. Characterised by a complex network of urban centres, industries and infrastructures, the Ruhr area requires adaptation to the dynamic needs of industry and society. Circular economy (CE) applications are proving to be instrumental in this transformation process.

CE implementations involve the recycling of construction and demolition waste to use recycled aggregates for civil engineering or RC concrete for building construction. However, the importance of CE approaches goes beyond the recycling urban resources. They are also crucial for designing new infrastructure with sustainability in mind from the outset. Strategies such as extending the life of buildings through adaptive reuse, smart manufacturing and incorporating design for disassembly into new construction have proven effective in reducing the environmental impact of the construction industry. These approaches not only minimise waste, but also establish a sustainable model for material consumption in spatial planning.

In light of these considerations, this study carefully examines the potential for promoting circularity and sustainability in the construction sector in the Ruhr area through comprehensive material flow analyses. It presents an in-depth examination of construction and demolition management practices in the region, elucidating current the current supply chains qualitative and critically assessing statistical data, technical specifications and legal standards. The study aims to quantify the material flows, taking into account factors such as energy consumption and CO_2 emissions. Having identified those measures it is possible to analyse which circular approaches are already implemented and which need to be focused on more.

The results show that the current construction supply chain in the Ruhr Area is still conventional, resulting in the use of many natural resources. However, the findings also indicate that a significant amount of material recycling is taking place in the Ruhr Area. CE practices such as reuse and rethinking are still underrepresented. Implementing these practices would improve the use of natural resources and lead to lower CO_2 emissions and energy consumption. This underlines the importance of further research into the implementation of a holistic circular economy in urban planning. The implementation of the urban metabolism can be further refined and aligned with circular principles.

Keywords *: urban metabolism, circular economy, urban mining, circular city*

The Future Of Planning: What Are We Facing And How Do We Prepare?

The City Of The Day After Tomorrow (Stadt Von Übermorgen)

Marion Klemme (Federal Institute For Research On Building, Urban Affiars And Spatial Development)

The project "Thinking about the city of the day after tomorrow" was run by the German Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR). The aim of the recent project was to help focus on the future in a complex environment by identifying relevant trends of the city of übermorgen ('the day after tomorrow') and highlighting the various impacts these trends have in different types of cities and spaces. The German federal government's interest in the 'City of übermorgen – Future workshops and workshop materials' project revolves around aiding (municipal) players in talking about the future, supporting independent future workshops, providing guidance and defining scope for action early on.

On the basis of a structured research, a trend collection with more than 150 individual trends emerged, each of which was evaluated on the basis of the criteria of horizon, geographic reach and effectiveness. All trends were described with regard to opportunities and risks, drivers and blockades.In order to make working with the trends manageable, the individual trends were condensed into fifteen „trend molecules". The trend molecules are for example "man-machine life", "live longer, be more active", "hyper-diversity" etc. In regional workshops the project explored possible effects of the trend molecules on concrete areas in the different cities - like smaller cities with university milieu, long-term shrinking larger cities, regional metropolis etc. In the workshops, participants explored possible future options for a pre-defined set of spatial elements of each particular sub-area. The elements were ranging from retail stores to hospitals to urban services.

A method kit helping municipal players use formats, methods and specific workshop materials to ask relevant future-oriented questions was developed. It is aiming to consider long-term developments and explore political priorities as a means of examining next-generation issues. The method kit was tested and constantly further developed in cooperation with cities and municipalities of varying size and geographic location in Germany. As part of the project seven local future workshops were conducted. The COVID-19 pandemic meant the workshops were predominantly conducted digitally. During the kit-preparation process, emphasis was placed on ensuring applicability both in face-to-face and digital workshops.

In addition to the developed "trend molecules" and an extensive "method kit", the project has also resulted in a procedural and, above all, content-based analysis. Thesis-like the most pressing (future-related) matters within German municipalities are summarised as a conclusion, stemming from the local future workshops and accompanying conversations.

A range of different methods were tested and evaluated in the local future workshops. The findings have been recorded in the form of observations and incorporated into the method-kit content: The trend molecules proved to be a good way of making the complex trend landscape accessible. Constructive, experienced moderation addressing the idea of 'the day after tomorrow' is crucial to a successful future workshop. Access via fictitious personas facilitates the shift in perspective (departure from one's own role) and the conversation about the future.The workshop materials need to set a clear time frame for the future workshops, create a reliable framework for visionary thinking, and simultaneously act as a navigation aid to provide guidance in the future.

Thinking about the city of „übermorgen" is about dealing with uncertainty. It is important to be open for trial and error without questioning the whole approach. The main question behind all discussions is „How do we want to live?". Future-oriented discourse in workshops is driven by the diverse participants; the more varied the perspectives, the easier it is for the discourse to extend beyond todays agenda.

***Keywords** : planning transformation, urban futures, tool box, trends , future planning*

Planning With Foresight

Petra Hurtado (American Planning Association)

Planners help their communities navigate change and prepare for an uncertain future. Planners shape the future of communities, but to be able to shape the future, planners need to be able to imagine it. However, the accelerated pace of change and increased uncertainty about the future make it ever more difficult to prepare for what's on the horizon and to imagine what the future might look like. Tech innovations, societal shifts, climate change, economic restructuring, political shifts, and related emerging trends and disruptors make it ever more difficult to effectively plan for a future where the only true certainty is more change.

At APA, we have identified several shortcomings in planning that result in linear, static, reactive, and discriminatory plans. However, planning should be forward-looking, inclusive and diverse in perspectives, agile and resilient at the same time, and proactive instead of reactive.

Creating resilient and equitable plans requires knowledge about potential drivers of change and a nimble process that allows planners to pivot while the future is approaching. Strategic foresight is an approach that can resolve this issue. Strategic foresight aims at making sense of the future, understanding external drivers of change, preparing for what's to come, and being able to pivot while the future is approaching.

Planners can use strategic foresight to help their communities navigate change and uncertainty. It can make plans more resilient and agile. And it can foster a more inclusive community engagement and allow for equitable outcomes. Today's planning processes start with present challenges based on data from the past. Foresight starts with the future and reverse-engineers what needs to happen today to achieve the most desirable outcome in the future. Foresight combines the processes of forecasting and backcasting (understanding how to prepare for what's to come). Horizon scanning and understanding external drivers of change can reveal potential roadblocks the community might encounter along the way toward its envisioned future. The key is to create a plan not just for what the future in 10 or 20 years will look like, but for how to achieve the community vision and goals while pivoting and adapting along the way.

As part of APA's foresight program, we publish an annual Trend Report for Planners that outlines emerging trends and potential drivers of change that are relevant to planning. It is important for planners to integrate foresight into their work to make their communities more equitable and resilient. This Trend Report serves as a tool for planners when using foresight in their work. Practicing foresight provides an opportunity for planners to create more resilient communities by better preparing for potential disruptions, by developing equitable solutions before a challenge arises, and by finding inclusive mechanisms to change directions when needed without leaving anyone behind.

In this interactive presentation session, attendees will learn about APA's foresight approach that aims at helping planners navigate change and learn how they can use this approach to prepare their communities for an uncertain future. In addition, emerging trends and potential drivers of change that will have an impact on the future of the planning profession as well as the communities planners make plans for will be presented. These are highlights from APA's 2024 Trend Report for Planners that was published in January 2024. Let's use the future to create great communities for all!

Navigating Tomorrow: Aesop Young Academics Network's Take On The Future Of Planning

Sila Ceren Varis Husar (Slovak University Of Technology), **Milan Husar** (Slovak University Of Technology)

Tomorrow's challenges are inherently complex, ranging from rapid urbanization and climate change to social inequality and technological innovations. Planning processes must prioritize equity and inclusivity in the built environment. The pressing environmental challenges demand a paradigm shift in planning. The digital age presents exceptional opportunities for planning and the planners, data-driven decision-making, re-constructed planning processes as seen in for instance smart cities. Interconnecting the world through global collaboration and thinking beyond borders are vital for navigating tomorrow. Our standpoint is that the future of planning lies in the hands of the next generation of scholars.

Embarking on the journey of envisioning tomorrow's urban/rural areas and planning approaches/methodologies, the collective discussions of AESOP Young Academics Network have traversed a rich embroidery of ideas, priorities, and proposals. The discourse has been both dynamic and comprehensive scrutinizing the various faces of future planning challenges from delving into the key priorities for young planning scholars to deal with the future challenges (Varış Husar et al., 2023) to rethinking the spatial futures of Europe through the lens of the new generation of planners (Varış Husar et al., 2024).

We build upon the previous discussions which center on addressing critical questions that shape the trajectory of young planners careers and planning in broader sense. We explore the critical challenges that either currently or are anticipated to dominate the careers of young planners. We delve into the essential capacities that today's and tomorrow's young planning professionals need to possess in order to effectively respond to these challenges. We examine the necessary actions and responsibilities that different stakeholders should undertake to confront current and future challenges effectively. We scrutinize whether they actively contribute to and are integral to the ongoing changes in both research and practice, emphasizing their potential as transformative agents within the field. These questions, thoroughly explored in previous work, collectively guide our understanding and commitment to shaping the future of planning.

Key messages from our discussion are to advocate for an interdisciplinary approach, emphasize the significance of equity, sustainability, and resilience, and to acknowledge the transformative potential of technology and global borderless collaboration. This synthesis serves as a compass guiding us toward a future where planning scholars play a pivotal role in crafting cities that seamlessly balance progress, inclusivity, and sustainability. This contribution aims to take a step further the discussions in the ever-evolving landscape of urban planning and future, and the voice of young planners.

Keywords *: Future planning, Young Planners, Uncertainties, Challenges, YA Network*

The Future Of Planning: Four Scenarios As Starting Points For Strategic Development

Thorsten Wiechmann (Tu Dortmund)

We don't know what the future will look like. Nevertheless, in view of current megatrends such as digitalization, demographic change and climate change, it is worth asking what the future of spatial planning could look like in 2050.

In the 21st century, politics as a whole is in the process of changing fundamentally. To date, there has been little debate about whether and to what extent spatial planning should be realigned in response to new realities. For example, what do new technologies and social developments mean for participatory planning procedures? Will rational and participatory approaches to balancing interests and reaching agreement still be needed in the future, or will they be needed more than ever? Current trends also offer opportunities for the planning of the future.

This paper presents four scenarios for the future of planning that have been developed by a working group of the Academy for Territorial Development in the Leibniz Association (ARL). The focus is directed towards supra-local planning and its long-term perspectives. It is about thinking about the spatial planning of the day after tomorrow and about the political value of integrative approaches to sustainable spatial development.

Scenario techniques are planning and analysis methods that outline possible developments. The scenarios created are intended to help recognize risks, identify opportunities and - in terms of preparedness - better prepare for a fundamentally uncertain future. They are used in very different areas to make better decisions under uncertainty (see Steinmüller 2012, Abou Jaoude et al. 2022).

The ARL working group used a scenario process consisting of six steps in total. At the beginning, the focus was on recognizable trends in spatial developments of the future. These were recorded, grouped and structured on the basis of existing future studies (Hurtado et al. 2022, BBSR 2020). Subsequently, the focus was on the potential reactions of spatial planning.

The purpose of the scenarios presented here is to create a basis of understanding for a discourse on the future within the discipline. Based on our current knowledge, they are intended to provide indications as to which developments and the associated opportunities and risks spatial planning could face. This provides planners with a basis to better prepare for different futures and to (more easily) make strategic decisions under uncertainty in the present.

The scenarios presented here in short form represent four possible, internally consistent planning futures. However, due to the different characteristics of the key factors in each case, they are mutually exclusive. Each of the four scenarios contains specific opportunities, but also risks for spatial planning. These need to be addressed. In the logic of backcasting, the question is what needs to be done in order to exploit the respective opportunities and reduce the respective risks. In other words: what measures should be taken to move from a possible to a desirable future?

***Keywords** : Spatial planning, Planning future, Scenarios, Megatrends*

(Un)Care And Austerity. Learning From New Urban Care Commoning Practices And Policies part I

Urban Commons And The Welfare Mix: Preliminary Notes On A Risky Turn And The Power Of Space.

Verena Lenna (Vub)

As pointed out by Italian jurist Stefano Rodotà, commons inherently represent an essential resource for human emancipation and, therefore, a crucial layer of any welfare architecture. However, in the case of urban commons, the relationship with welfare systems is increasingly problematic.
Emerged as alternatives and critiques to the extractivist and speculative dynamics of the neoliberal turn of capitalism, centred on care and the shared governance of resources, many urban commons continue to enjoy an autonomous operational space. On the other hand, many others are increasingly supported by local administrations in ways that are not so different from those concerning the third sector. The very definition of the third sector easily allows including urban commons as well.
In the past, the increasing collaboration of the third sector with the state and market actors led scholars to define the welfare mix or third way or état social actif and to point out some critical aspects: such as a contractual and managerial approach, exclusivity, de-responsibilization, increased tolerance of extractivist logics with no impact on their reproducing mechanisms.
Bearing in mind the risks associated with the welfare mix season, based on my current research project on community welfare infrastructures in the Brussels Capital Region as a specific type of urban commons, I will problematize the contribution of urban commons to the existing welfare infrastructure, in between the risk of losing their political agency and the opportunity of transforming the current administrative paradigm. My working hypothesis is that during a slippery moment such as the present one, and more in general, it is precisely the spatial nature and origin of many urban commoning initiatives that offer the conditions for preserving the political nature and agenda of urban commons, no matter their marginality and no matter the direction of existing transformative processes.

***Keywords** : urban commons , welfare mix, space*

Infrastructures Of Care Under Austerity Urbanism: The Case Of A "Social Self-Managed Town" Hall In Bologna

Maria Grazia Montesano (Pacte, University Of Grenoble), **Teresa Carlone** (Department Of Sociology And Business Law, University Of Bologna)

The spatial and urban implications of the notion of care are drawing increasing attention in the academic debate (Fitz and Krasny, 2019; Milligan, 2001). This paper would like to discuss the emergence and the ambivalent effect of an alternative "infrastructure of care" within municipal public assets management in European cities through the case study of Bologna. The literature on austerity urbanism highlights the mechanisms of privatization of public assets, especially related to care services and social assistance to people, and its major effects on socially disadvantaged and vulnerable groups (Stuckler et al., 2017). At the local level, austerity have boosted policies of valorization and optimization of public assets, mainly buildings and land, in several European countries. Indeed, if austerity has exacerbated the issue of uncaring institutions weakening the public infrastructure through mechanisms of alienation and sale of public properties, it has at the same time experimented new mechanisms for optimising public heritage. At the cities level, this has produced new forms of contractualization between public administrations and citizens with ambivalent effects (Carlone et al., 2022). In this context, cities witnessed the spreading of self-organized and bottom-up care services mainly run by social movements using a community-based-approach resulting in forms of mutualism for the provision of public services (Mura, 2021). Where these practices take place and how are they shaped? How do these geographies of care come alive? What is the relationship with local governments and how their governance relates? We will assess those questions by exploring the case of the "self-managed social municipality" Làbas in Bologna, established in an historical public building and cohabitating with traditional municipal services. Làbas offers a wide range of bottom-up care services, such as a "popular health center", afterschool activities for children, a daytime space for the homeless people, neighborhood lunch and it is also an open public space to freely hang out. A participatory observation started in October 2023 is allowing us to get important insights on how the notion of care is conceived and how it takes place within this space. The Làbas case represents an interesting case study from this perspective, enabling further exploration whether these experiences can establish an alternative "care system", partly integrated and partly substitute to the public one. It also highlights the contradictions this dynamic generates at the urban and social levels within the context of austerity urbanism. Our paper will firstly present the case study within the context of valorization and optimization policies in Bologna in the last ten years. We will show how Làbas is part of a complex geography of public assets which inertwines austerity and care. We will then enter into the space and present the history of the building and how it has been progressively activated by different uses since the arrival of the collective in 2017. Finally, we will analyze the activities of the collective and the tensions and ambivalences that these "alternative care infrastructures" open up in the public and political debate.

Keywords *: care infrastructures, public assets, austerity urbanism, community-based services, spaces of care*

Who Cares For The Unfinished City? Exploring Sociópolis In The Here And Now.

Matilde Igual Capdevila (Akademie Der Bildenden Künste Wien)

Fifteen years after the onset of the financial crisis, unfinished housing estates remain an unavoidable reminder of its consequences in periurban landscapes in Spain and elsewhere. The new landscapes of ruination and decay appeared in the aftermath of the real-estate bubble burst have been routinely considered as icons of the failures of an urban regime characterised by neoliberal urbanisation and housing financialisation. Simultaneously, however, the unruly and messy nature of vacant lots, uncomplete structures and terrain vagues that characterizes the unfinished city is often celebrated for its informal aesthetics and for the potential for self-organisation that arises from it.

Yet, urban unfinished realities do not merely symbolize or empower, they also reveal a crisis of care. Partially built housing, failing infrastructures and deficient public facilities directly affect its inhabitants' everyday lives, rendering their livelihood more precarious through tenure insecurity, difficulties in accessing healthcare and education services, spatial isolation, etc. The infrastructures that sustain life are missing. If unfinished urban spaces are spaces of possibility open to urban commoning practices, they also remain spaces in which the institutions that support the business of building-as-usual have not managed to generate a caring city that provides liveable conditions to its inhabitants and particularly answers to the needs of those who are more vulnerable. Both celebrated and abandoned, uncared for and uncaring for (Gabauer et al. 2021), the unfinished city illustrates well the contradictions that debates around care need to face.

This paper focuses on Sociópolis, an ambitious project for a model city for the future located in the outskirts of València. Initiated in 2003 by a group of emergent international architects, construction works began in 2007 but soon after, as a result of the 2008 financial crash, the burst of the Spanish real estate bubble and subsequent so-called austerity measures the development was halted. Today, Sociópolis presents an unfinished urban reality. While over a thousand people inhabit the neighbourhood, it lacks most services and is isolated from the city by infrastructures.

This paper proposes a case-specific study that localises care practices among the urban unfinished and seeks to answer the question 'Who cares for the unfinished city?' This political question (Tronto 2015) draws attention on those who enact care in Sociópolis. The analysis is grounded in the notion of critical care (Fitz and Krasny 2019) and raises questions on spatial appropriations, hands-on interventions and explores the ongoing, actually-existing, practices of commoning that reinvent relations among humans, nature and land (Gibson-Graham 2007).

Following the proposition that 'stories of everyday care amidst the epic decline and neglect of Earth need to be told' (Puig de la Bellacasa 2017), this paper critically examines activities carried out on site by activists, urban farmers, community workers, artists, teachers, etc. including cleaning and maintenance but also struggles against evictions, soil reparation farming, and memory keeping of the land. The diversity of the examples illustrate the ambiguities and contradictions around urban commons and care, but also serves as a grounded reminder of their potential in the here and now.

Social Reproduction Of Resistance In The City: Practices Of Care In The Urban Commons. Dialogues On The Cases Of Rome And Naples

STEFANIA RAGOZINO (National Research Council Of Italy, University Of Naples), **Chiara Belingardi** (University Of Florence - Lapei)

As stated by Nancy Fraser (2022), capitalism is constantly subtracting individual and social energies and resources from everyday life, and in particular from reproductive activities and care. As Gago and Cavallero (2020) highlighted, capitalism extracts resources through debt relationships, by inducing people to borrow money to satisfy their basic needs, and in this way force them to accept any kind of work and working conditions. These conditions became more relevant during the financial crisis of 2008, which inaugurated a new season of different and overlapped types of crises that have dramatically intensified hierarchies, phenomena of oppression and marginalisation, as well as inequality, which have strong impacts on urban everyday life.

The paper is framed within the scientific debates about feminism and urban commons with a specific focus on social reproduction of resistance in the city (Peake et al. 2021). We agree with Silvia Federici (2023: 38) when she writes «Some have suggested that the city represents humanity's most coherent and successful attempt to shape space in our image. If this is true, then the face of the city today is that of a woman; because it is women who, in an increasingly dead and atomized urban space, are reviving sociality and urban creativity». Resulting from the active observation of the everyday life activities, relationships, and needs, the paper aim to reflect on different care practices, called as 'affective', which are representative of wider resistance movements acted within urban contexts and aimed at liberating spaces from risks of privatization and phenomena of urban degeneration.

For a long time 'caring' was considered an individual, private activity. Thanks to feminist scholars and debates, it became evident that it is also a political and social issue at the base of the reproduction of life. Therefore, it needs to be grasped as a public shared responsibility, to be supported by infrastructure and common actions, which can result in urban commons. By putting in common personal basic needs and practices to overcome the crisis, these kinds of activities demonstrate how 'personal' can become 'political' (Angel, 2021): a political action that contests the structural basis of injustice by creating a collective identity within domestic and urban contexts as well as consolidating processes of self-valorisation and self-determination.

The paper explores how feminist practices and thoughts influence relationships among urban commons and grassroots movement for the right to the city, by describing and comparing communing experiences in Rome and Naples. Lucha y Siesta and Berta Caceres in Rome, and Lido Pola – Bene Comune together with Villa Medusa Casa del Popolo in Naples will be the starting points to describe care relationships, both material (how they respond and distribute the tasks among activists – Katsikana, 2021) and immaterial (how they take care of each other and other people - Boler, 2014). The final remarks will address the topic of vulnerability and interdependence, as a new way to read the social and political relationships and as the starting point a new urban life.

***Keywords** : urban commons, feminisms, social reproduction, care practices, Naples, Italy, Rome, Italy*

(Un)Care And Austerity. Learning From New Urban Care Commoning Practices And Policies part II

Urban (Un)Care And The Sociology Of The Body In Unsettled Times - Qualifying The Body As A Scale Of Spatial Analysis

Sabine Knierbein (Tu Wien)

The disruptive and uneven features of war, the pandemic and its prevention measures have deeply impacted the quality of social relations and the ways in which societies treat care. However, austerity regimes have left their structural trace on social relations quite before these recent moments of acceleration, crises and emergency - this is what is broadly referred to as the unsettled urban condition. As the care crisis also signals an urban crisis, this paper is interested in the multifaceted nature of crises rhetoric, narrative and phenomena. Simultaneously, the unalienated caring relations based on material and spatial moments of mutual encounter offer a way out of the very same crises. This paper draws transfers from an already published volume of Care and the City. Encounters with Urban Studies (Gabauer et. al. 2021) and introduces analytical dimensions that relate care to the sociocology of the body and to aspects of conceiving of care as a premise for reorganizing the polity and communal life.

To use both care and the body as a conceptual lenses, and to render the 'crises of the body' as an empirical focus means to recognize and engage with an important scholarly work and activism which has developed since the 1970s. It includes feminist struggles around the recognition of reproductive labor, the epistemological implications of new standpoints based on care and domestic work, and conceptualizations of care as a mode of ethical action qualitatively different from discourses on rights and justice.In the subsequent two decades, the feminist care tradition has been embraced by a variety of disciplines. From education and social work to business, economics, and accounting, care—or the lack thereof—has been mobilized as a conceptual framework for studying a broad range of phenomena, from migration and citizenship policies to commercial surrogacy. The feminist care tradition has also been referred to as a hopeful anchor point in rethinking the relation between planning, urban design, architecture and capitalism in favor of practices that would in an ethical and inclusive way engage with the deteriorating ecological conditions, while acknowledging various forms of labor and creating conditions for the co-existence of different economies. Scholars have furthermore been committed to diagnosing the nature of the care crisis, showing in detail how and why social carelessness has come to structure and take hold of so many dimensions of life. Thereby they have articulated the care of others, society, and the environment as a valid alternative to the destructive force of (urban) financialized capitalism. This book relates care and uncare to embodied politics of attention and abandonment, and highlights crucial connections between the care crises and the crises of the body, while marking their spatial and urban dimensions.

Keywords *: care, uncare, embodied space, unsettled urban condition*

Can Care Help Imagine Place Futures? Exploring The Potential Of Care As A Conceptual Framework For Place-Making

Rebecca Staats (University Of Gothenburg)

The future of places - as locales of everyday life through which people experience and make meaning of their world – is complex and uncertain. Not only do the needs of diverse stakeholder groups demand to be met, but a changing social and environmental climate destabilises long term planning goals. Indeed, there is increasing recognition that places are not domains of endless growth, but rather their condition oscillates over time. To address these challenges, this paper explores how the concept of care can act as a conceptual framework for understanding complex places and imagining their possible futures.

Care is burgeoning as a major concept within the humanities and social sciences. Developed originally from feminist scholarship within traditional care contexts, care is increasingly being mobilised as a concept for thinking and analysing in contexts including science-technology studies (eg. Puig de la Bellacasa, 2017), heritage studies (eg. Veldpaus and Szemző, 2021) and planning (eg. Davoudi, 2023). Within these contexts the uses of care are diverse, ranging from speculative thinking to identifying sets of care-taking practices. However, the care concept requires greater theorisation and testing of its utility within a planning context. This paper seeks to address this through exploring the utility of care as an analytical tool in place making projects.

Imagining possible futures for a place rests on a thorough understanding of what that place currently is – including its physical, social, historical context and current challenges. Care has potential to structure the analysis needed to yield this understanding. This paper draws from scholarly literature on care to propose four characteristics of the care concept useful to building an understanding of complex places and their potential futures. The characteristics of care explored in this paper are: (1) recipients of care; (2) care relations; (3) care contexts and (4) care practices.

To examine (1) the recipient(s) of care, the paper follows from critical care scholarship to interrogate for what is care given? Recipients of care include people, material things, the physical environment and future visions. What receives care is underlaid by what is valued; an identification of values is therefore a necessary component of the analysis. (2) An analysis of care relations follows from Tronto (2017) in understanding that care is relational. Examining relations of care highlights the different actors involved in places and their futures: this includes planners and civil society, but also their wider environment. Although this paper follows Huijbens (2023) in foregrounding human agency and therefore does not delve into the more-than-human turn, it nonetheless recognises that the material environment plays an important role in structuring and motivating care relations. A focus on (3) care contexts recognizes that acts of care are inherently situated and context-specific. Finally, a focus on (4) care practices recognises that there are different ways to care. In particular, it departs from a critical care perspective (such as articulated by Puig de la Bellacasa 2017) to highlight that care is not always "good" or "good for all" but rather examines the myriad effects of caring practices.

The utility of this framework is briefly explored through a case study of future making strategies in Northumberland National Park, England, centred around the Northumberland National Park Authority management plan. The final part of the paper reflects on the utility of the care concept in understanding and imagining possible futures for Northumberland National Park. This paper draws on research undertaken as part of a PhD project at the University of Gothenburg, Sweden.

***Keywords** : care, place, Conceptual Framework, place-making , futures*

Urban Care: A Perspective For A New Critical Paradigm Of Urban Regeneration?

Caterina Di Lucchio (Politecnico Di Torino)

In 1997 Amin and Graham reported that "a veritable deluge of newspaper and magazine reports now addresses urban crises and 'regeneration' processes," whose descriptions oscillate between gloomy predictions of "urban doom and optimistic portrayals of an urban renaissance" (p. 411), with the explicit intention of confusing. The 'trickle-down' theory, which states that rapid economic growth benefits society as a whole, has been debunked. The 1980s saw the emergence of 'divided cities' and 'cities of conflict' characterised by 'islands of renewal' surrounded by 'seas of decay' (Carmon, 1999). More than two decades later, these insights remain relevant as governments continue to seek a 'rebirth' of cities (Furbey, 1999), with neoliberal urban policies intertwined with this agenda. This process involves cities in the creation of discursive practises, the translation of images and symbols, and the shaping of representations of urban reality that influence public policy and private action (Porter, 2009). The term 'regeneration' is not explicitly theorised and encompasses various urban processes and it originates from biomedicine and compares the city to a sick body. It suggests that the bearers of urban suffering must be treated as a public health problem. The language reflects a natural cycle in which organs regenerate and the whole structure benefits (Vicari Haddock, 2009). However, the distinction between normality and pathology is unclear and is reflected in the criteria used to label contexts as 'diseased' and the limited research on the impact.

In the context of renewed attention to the relationship between health and the urban environment, urban regeneration infrastructures have become focal points for community development in the midst of the pandemic. Mutual networks have organised solidarity actions that have fostered unexpected connections without predetermined goals: real Communities of Care have emerged that go beyond the boundaries of private homes and public spaces. These infrastructures are not exclusively owned by individuals or the public but are given meaning through their purposeful use (The Care Collective, 2020). This concept stems from Harvey's (2013) definition of commons, characterised by a mutable social relationship between a particular, self-defined social group and the aspects of their social and/or physical environment that are considered crucial to their lives and livelihoods.

In light of these considerations, the question arises as to whether the conceptualisation of urban care can contribute to redefining the paradigm of action of urban regeneration processes in order to resolve the many controversies associated with the topic. "Actually existing urban regeneration" (Lovering, 2007, p. 359) standardizes interventions and urban change. The descriptive nature of most literature on urban regeneration necessitates complementing with a socio-theoretical approach. "Urban regeneration as we know it is a partisan act [and] an ethical issue, because the form of urban regeneration conveys messages about which values are supported and which are marginalised" (ibid., p. 363). Could the definition of urban care, understood "as a transformative ethos [..] a living technology with vital material effects on the human and non-human world" (de la Bellacasa, 2011, p. 100), serve as a new critical framework for urban regeneration?

Decommodification Of Housing And Commoning Care: Potential Of Collective Property In Mitigating The Care Gap

Deniz Ay (University Of Bern), **Jessica Verheij**

Housing cooperatives are a successful mechanism for providing affordable housing in cities facing acute housing shortages. Based on common property and collective governance, the vast majority of non-profit housing cooperatives facilitate the processes of decommodifying urban land and commoning housing (Balmer & Gerber, 2017). In many countries, governments support housing cooperatives by making public land and direct financial backing available as an affordable housing policy (Ferreri & Vidal, 2022; Barenstein et al., 2022). At the project level, municipal authorities can also facilitate the production of indoor and outdoor common spaces for care functions (Tummers & Macgregor 2019). These spaces serve for collective uses of the residents and public authorities ensure their provision through special land use plans as a project-based planning instrument. Collectivization of property and housing governance creates windows of opportunity for renegotiating care work more democratically within a group of residents rather than household-level gendered division of labour. In this paper, we explore the potential of commoning housing through a cooperative model for enabling a community of residents that collectivizes not only the management of housing as shelter but also the maintenance of everyday life, i.e., the process of social reproduction. We interpret housing commons as going beyond a collection of private units "in saturated space" (Huron, 2015), constituting a community of users that maintain housing while also providing access to spaces for social reproduction, more specifically, care. Using a critical institutionalist approach (Cleaver & De Koning, 2015), we ask how the planning interventions together with public and private interests shape the spatial organization of childcare through public, market-based, and community-based provision mechanisms in the context of housing cooperatives. Empirically speaking, we take two young housing cooperatives in Bern, Switzerland (Heubergas and Warmbächli) and conduct a comparative analysis of the dependencies between commodified and decommodified care and the implications of these dependencies for maintaining housing as a commons. Our preliminary results indicate that the decommodification of land is necessary but not sufficient for collectivizing care work and commoning care beyond the gendered unpaid labour. These findings also demonstrate the limits to commoning housing in situations where care remains a commodity provisioned in commercial space enabled by cooperative housing projects.

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Keywords *: housing coopeatives, care gap, decommodification, New institutionalism, urban commons*

Exploring Alternatives To Tourism And Alternative Tourism Part I

Is Tourism Plastic Or Elastic? A Literature Overview On Hints Of Innovation Related To The Tourism Industry In The Frame Of Transitional Studies.

Flavia Giallorenzo (University Of Florence), **Camilla Perrone** (University Of Florence)

The tourism sector has been involved in important mutations in terms of actors and technologies in the last 20 years. Low-cost flying companies, Online Travel Agencies (OTAs) and short-term rental (STR) platforms have given a massive impulse to mass tourism, multiplying the journeys, reducing the number of days for a trip, and lowering the costs. Furthermore, the rhetoric of local experiences has increased the fascination for specific places that, more than others, suffer from externalities of an over-exposition to flows of people. This long-term transition encountered the stroke of COVID-19. If and how the pandemic's emergence, with its social, political, and economic implications, changed the tourism sector is the principal question on which the contribution is based.

The paper is part of an Italian national interest research project (PRIN). The University of Florence takes part in it, collaborating with Politecnico di Milano as principal investigator and Università Roma 3 Sapienza. The contribution positions the topic of mass tourism in the theoretical framework of transition studies to investigate if and how the COVID-19 pandemic stroke gave an impulse for creating niches of innovation, that are spaces, physical or digital, in which radical innovative practices flourish. These are not close but relate to wider environments or landscapes. The actors that enabled or constrained impulses to innovation and how the scales, local and global, responded to the shock are also objects of the research.

The main questions of the research concern if and how the COVID-19 pandemic changed the tourism industry and the approach to travelling, and specifically, which forms of innovation in facing externalities of mass tourism. Which processes of socio-spatial negotiation are occurring between public and private actors at different levels? What kind of role COVID-19 has had in the governance approach (in economic, social, cultural and spatial issues) of those tourism highly dependent European cities at the local level?

Understanding if the tourism sector is plastic, adapting its paradigms to a changed environment, or elastic, returning to consolidated dynamics and paradigms similar to the ones adopted before the shock, can reveal the inner features of the sector and, therefore, it can help policymakers in preventing or allowing social, economic and urban externalities in the future. The aim is not to predict the paths that actors will take and anticipate their behaviour, especially if we analyse the social interaction in the light of the Actor-Network Theory, in which changes in one element of the network can imply changes in other elements of the network. More than aspiring to prediction, the research aims at understanding the mechanisms of the infrastructures and the market in periods of crisis to inform local and national public powers, whose aims is to reduce negative social impacts (urban inequalities, social gaps, gentrification, cultural and heritage exploitation...), investigating niches of innovation through a muti-scalar and multi-level approach. The presentation of the methodology of the research is also part of the contribution, which aspires to highlight hints of innovation, current or in nuce, in tourism dynamics.

Keywords : *overtourism, COVID-19 pandemic, urban spaces, tourism externalities, governance*

Olympic And Paralympic Games: Positioning Of Tourism Stakeholders In Paris Region

Alexia Gignon (Lab'urba)

This summer, Paris and Paris Region will be hosting the Olympic and Paralympic Games. We focus on the host regions of Ile-de-France. Events will be held in Seine-et-Marne, Hauts-de-Seine - at the Arena de Nanterre or the Stade de Colombes - Yvelines and Seine-Saint-Denis.

As part of this mega-event, the tourism stakeholders in these host cities are seeking to respond to local issues. The Office de Tourisme et des Congrès de Paris (OTCP) estimates that 43% of visitors will be from the Paris region. Excursionists and local visitors will therefore be very much in evidence during the event. The actors will therefore be seeking to attract these visitors and encourage them to stay and visit their local area. But they will also be trying to convey a positive image of their region to encourage them to return after the event. However, the Olympic Games are associated with the eviction of tourists: the scale of the event and the anticipated congestion can discourage leisure visitors and professionals from coming to the host city during this period (Matheson, 2006, Preuss, 2011).

Seine-Saint-Denis is a suburb with an industrial past and little-known tourist attractions. The area boasts a wide range of heritage sites, from the Basilica of Saint-Denis to the street art avenue on the banks of the Saint-Denis canal. The department has focused on promoting the area to its own residents and those of the Ile-de-France region, with the emphasis on local tourism. Priority is given to the encounter between visitor and visited, and this form of tourism is characterised as being "off the beaten track" (Gravari-Barbas, Delaplace, 2015).

The Hauts-de-Seine, with several competition venues close to Paris, is a host region that is considering its ability to attract and retain visitors. Visitor itineraries are being set up in preparation for the Olympic Games, with the aim of getting visitors off the beaten track.

Seine-et-Marne, a department in the suburbs of Paris, will be hosting Olympic events at the Vaires-Torcy water sports centre, a legacy of the 2012 Games bid. Although this is a very popular tourist destination (notably Disneyland Paris and Fontainebleau), the water sports stadium and its surroundings are not a tourist attraction. The stakeholders are looking to broaden the audience for this legacy site.

In Yvelines, events will be held at the Vélodrome de Saint-Quentin-en-Yvelines, a legacy of the failed 2012 bid (Lopez, 2022). This international facility organises competitions and congresses. Other events are planned in the department, on the hill at Élancourt, where local residents have been actively involved in the development of the site.

Our analysis will be based on semi-structured interviews with tourism stakeholders in Paris region and on observation of meetings conducted as part of a CIFRE thesis at the City of Paris' Partnerships and Tourism Department.

What is the position of the tourism industry in the run-up to this event? How are they responding to the tourism challenges posed by the Olympic Games? And what are the relationships between these actors in Paris Region?

Keywords : *Olympic Games, Tourism, Stakeholders, tourist actors, Mega-events*

Analyzing The Impacts Of Digitalization On Tourism Sector: A Meta-Analytic Study

Hilal Erkuş (Akdeniz University), **Merve Orakçı** (Akdeniz University)

Recently, the fast boom in digitalization has increasingly affected the tourism area and possible outcomes have been discussed within the literature (Buhalis, 1998; Buhalis and O'Connor, 2005; 'Connor, 1999; Sheldon, 1997). This article compares and analyzes the present literature on digitalization in tourism sectors by using a meta-analytic method (Gretzel and Kenndey-Eden, 2012, Hedges and Olkin, 2014). To do this, firstly, the overall outcomes of digitalization in tourism have been tested. The high-quality outcomes of virtual technology and online systems on tour planning, reservation methods, and vacation spot control have been emphasized in the literature. Additionally, the effect of social media on the recognition of locations amongst tourists, converting traveler expectations, calling for non-public tour offerings and the position of virtual advertising and marketing in growing the aggressive gain of traveler companies are included.

Secondly, the outcomes of digitalization for sustainable tourism are elaborated in detail. The literature has pointed out the high-quality outcomes of virtual technology on environmental awareness, useful resource control and sustainability of traveler locations, and sustainability problems turning into extra recognized via online access. However, digitalization brings with it a few problems in the tourism area. Issues along with safety concerns, records privacy problems, and the virtual divide are some of the subjects often mentioned in the literature. This comparative evaluation can offer steerage to tourism managers, researchers, and policymakers on how digitalization may be used extra correctly in tourism regions.

Keywords *: Digitalisation, Tourism Direction, meta-analysis*

'Identity And Value. The Sustainable Tourism Regeneration Of The Rural Heritage.'

Sara D'Addario (University Of Ferrara)

'Rural heritage' represents some of the principal European attractivities. Its abandonment or degradation provokes a 'loss' that can be considered environmental, economical and social.

Any intervention to re-establish a successful balance between man and nature must be pondered under an interdisciplinary approach, to give a new cycle of life to the heritage in accord with its identity. The suggestion is to refund this 'equilibrium' in sustainable tourism focused on a knowledge and educational drive through an innovative dynamic methodology based on the measurement and implementation of selected existing models.

Economic evolutions during the last centuries CAUSED the transformation of historical rural heritages with a consequent depopulation in many rural areas, amplified in the Italian cases by damages like earthquakes and/or the necessity to answer to the 'climate change' against an uncontrolled anthropization, conscious of the environmental problematics that are increasing during the last years.

The research project suggests a multidisciplinary recovery model of the European rural heritages through a sustainable tourism regeneration to start a new life cycle, accessible and monitored.

Many studies treat territorial processes of reactivation of rural architectural and natural heritages but the result of the literature review revealed a gap in the existing studies about:

measurability of the sustainable redevelopment pursued

monitoring and measurability during the life cycle of the sustainability reached

The multidisciplinary approach of the research project to regenerate a rural heritage from the recognition of its identity suggests to fill the gap through the use of tools identified in the holistic approach of the environmental energetical protocols belonging to the LEED Green Building Council family, particularly the Italian GBC Historic Building with its characteristic historical value area for architectural heritages and the United States GBC Sustainable Site Initiative for sustainable sites, adapting them to the selected case studies through the development of pilot credits or new areas connected respectively to the social and historical values and reach the prove of the sustainable quality and success of the heritage site regeneration or reactivation suggested.

First of all an heritage needs to be recognized in its environmental, economic and historical cultural values. The tripartition that constitutes the semantic of the word 'sustainability' is at the base of the research project structure, through the definition of three corresponding multidisciplinary macro areas that attend the thesis from the analysis of the state of art, until the application on the European case studies to 'test' and verify the scientific model, through selected and combined keywords.

The innovative and flexible approach suggests a territorial rural regeneration that can start from abandoned architectural heritages connected through the natural landscape at their origins and to which they belong.

The recognized value of the historical, economic and social identity generates an attractivity to be controled and supported with tourism and hospitality services.

The sustainable regeneration of architectural heritages with mixed compatible functions required by the site redevelopment permits to answer to the wellbeing and knowledge needs, offering public accessibility and saving 'contents' and 'containers' to protect for the posterity.

Keywords *: heritage, sustainability, tourism, landscape, architecture*

Transhumance Routes As Tourist Destinations: A Concrete Opportunity For Inner Areas Or A Romantic Suggestion?

Antonella Marlene Milano (Politecnico Di Bari)

The ancient practice of transhumance has generated on a large part of the Mediterranean territories a heritage of an intangible type (linked to the historical, cultural and socio-anthropological value), and of a material type, consisting of the infrastructures used for centuries to move herds, characterised by intrinsic landscape and environmental qualities.

In recent years, a renewed attention is emerging towards transhumance and the routes used for this purpose. In 2019, transhumance was recognised as an intangible heritage by UNESCO. In 2023, the Transhumance Trails were recognised as Cultural Routes of the Council of Europe. Furthermore, a growing number of initiatives linked to the promotion of transhumance and pastoralism culture are being organised in Europe, both thanks to bottom-up contributions, as is the case in Spain and in France, and thanks to some regulatory instruments that institutionalise the support to the organisation of events for tourism and recreational purposes (e.g. Lombardy Regional Law no. 14 of 2022).

Currently, the European landscape presents very diverse situations in terms of consistency, conservation status, and current uses of transhumance routes. However, both in the contexts in which transhumance still survives, and in those in which its practice is completely extinct, the most widespread hypothesis for the enhancement of the sheep-track networks seems to consist in their use as infrastructure for slow and experiential tourism. In central-southern Italy, where the transhumance routes -here called tratturi- constitute a dense network totalling more than 3,000 km, several projects are being carried out in this direction. These include both pilot projects on localised stretches, and larger-scale inter-municipal projects, such as the project for the tourist development of the Molise sheep-tracks involving 59 municipalities.

In the light of these ongoing experiences, the research aims at deepening the assessment of the impact that the tourist development of transhumance routes may have on local communities. In fact, although the territories involved - almost always coinciding with inner areas, far from the main tourist and economic flows - aspire to a model of slow, conscious and experiential tourism, the outcomes of current programming and planning are by no means taken for granted. On the one hand, there is the risk that the transhumance routes do not become a tourist destination due to the lack of services or the lack of attractiveness of the places. On the other hand, the risk consists in a narrow-vision territorial valorisation, limited to the tourism sector, to the expense of the environmental, historical and economic value of the transhumance routes (Curci and Gaeta, 2019). An opportunity to pursue the objective of a balanced enhancement of the territories of transhumance is offered by the ecoterritorialist perspective (Magnaghi, 2020) that proposes an integrated vision towards territorial equity by embracing the economic, political, environmental and social components. This avoids the risk of reducing transhumance to a folkloristic event in favour of a comprehensive vision that connects past and present and reinterprets the material and immaterial values of transhumance to meet needs and aspirations of contemporary society.

Keywords : *transhumance routes, pastoralism, slow tourism, inner areas, eco territorialism*

Exploring Alternatives To Tourism And Alternative Tourism Part II

'The Glory Of The Rails': The Coupling Of Rail Tourism With Cultural Heritage In Greece

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Railways have remained a part of the tourism industry and a means of regional development until today. In recent years, and especially after the pandemic and the growing awareness of the crucial issue of climate change, rail travel has become more popular. The main reason is that it constitutes a more sustainable mode of transportation while it allows the traveller to be more active during the trip. The argument that culture and tourism are interconnected has been formulated many years ago. Today, the plurality of synergies between culture and tourism constitutes a reality in which the contribution of academics, professionals, journalists, politicians, etc., has been crucial. These synergies are characteristically reflected in the general context of cultural tourism, with heritage tourism being a characteristic common field. In the case of Greece, tourism and culture are ideally combined in the case of heritage railways. The field of culture most closely related to these railways is cultural heritage, while the special interest form of tourism most closely related to cultural heritage is rail tourism.

This paper aims to analyse the connection between railway and tourism as well as its potential development in a region through the exploitation of the railway for tourism purposes by examination of railway growth and its influence on transportation and tourism along with the possibility for the railway to be the primary source of attraction for tourists. The starting point is the analysis of rail tourism, and especially heritage railways, as an attractive form of special interest tourism. The focus is given on five tourist railways in Greece (the cog railway 'Odontotos' from Diakofto to Kalavryta, the Pelion train, Katakolo-Pyrgos-Olympia, the railway line Tithorea - Bralos – Lianokladi, Nestos Valley). The first two are the most famous cases. A particular analytical reference is made to the importance of the 'SteamRailNet' European Research Project coordinated by the Laboratory of Tourism Planning, Research and Policy, Department of Planning and Regional Development, University of Thessaly in Volos. Decisive to the success of the project was the consultant role of FEDECRAIL (European Federation of Museum and Tourist Railways), which also played a role in the reopening of the Pelion train during the summer season of 2004 (a festive Olympic Year).

Two main development goals of rail tourism in Greece are proposed: a) the cooperation of agencies, regions and municipalities in the utilisation of both routes and trains and b) the strengthening of the touristic image of each destination and the identity of the place. In the era of climate change, especially after the pandemic, railways can take advantage of their distinctive advantages with the appropriate place branding. In these circumstances, there exists hope for the title of Tony Judt's book The Glory of the Rails to be confirmed· it ends with the phrase, "If we cannot spend our collective resources on trains and travel pleasantly on them… will be because we have become fenced off individuals who do not know how to share public space for the benefit of all".

Keywords *: rail tourism, cultural tourism, cultural heritage, tourist railways, Greece*

Cultural Tourism On Rail Tracks: The Case Of The Pelion Railway

Marina Aliki Deffner (Delft University Of Technology)

Railway tourism is a developing special interest form of cultural tourism, which utilizes and revives existing railway heritage. One way for this to happen is the operation of the rail route as a tourist railway. In contrast, when there is no such possibility, and it is mandatory for the rail material to remain inactive, alternative practices are followed, such as the creation of a rail trail. Thus, opportunities are created for the respective area's economic growth and for designing the spaces adjacent to the railway infrastructure to reclaim its cultural heritage, reconnect with the local community, and enhance the visitor experience.

The Little Train of Pelion, an already established heritage railway in the Greek sphere, has a suitable background for this kind of utilization since it combines active and inactive parts of a rail route, and it could set an example for handling analogous endeavours within the context of touristic development.

From 1903 to 1971, the Pelion railway connected the vital port city of Volos with the hardly accessible traditional villages of West Pelion. It provided them with a unique outlet for their products, benefited their economy immensely, and directly contributed to their evolution in essential settlements. The railway was not just a means of transport but a living character participating in Pelion's social life and is also considered a vital part of Greece's industrial heritage, being one of the narrowest railways in the world (only 60cm) and possessing technical elements of significant cultural value.

In 1971, the train's use was terminated, a decision that was met with resistance. A "Friends of the Railway" union was founded immediately, demanding its reuse as a heritage railway. This goal was achieved more than 20 years later, but only in half. Since 1996, the train has been operating as a tourist railway during the summer period, from the village of Ano Lechonia to the mountain village of Mileai, attracting several rail enthusiasts and general visitors.

Nevertheless, the part of the route connecting Volos with Ano Lechonia remains without use. To confront this urban discontinuity, the reuse of the Little Train of Pelion for touristic purposes almost in its entirety is proposed, combined with topical interventions across the route, which underline its most significant spots.

A particular interest is located between Agria and Ano Lechonia, where a more detailed plan of a spatial development strategy is conducted. This includes the design of a cultural and natural trail network while simultaneously highlighting the most important landmarks and configuring spaces of culture and leisure. In conclusion, the most significant intervention is located on Agria's railway station site. The vast and unused area is transformed into an urban park with the implementation of a much-needed center of culture and entrepreneurship for people involved in the touristic promotion and marketing of the Pelion railway.

Keywords : railway tourism, heritage railway , abandoned rail routes, Pelion railway , Agria rail station

Long Distance Walking Routes Beyond The Tourism Economy. A "Feet-On" Approach To Cultural And Socioeconomic Regeneration

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Post-COVID, Long-distance Walking Routes (LDWR) are being promoted as an alternative form of tourism, to improve local development and attractiveness, even in inner areas. The ideas of slow and sustainable tourism put LDWR into academic and public debate, and at European, national and local level, several projects and research are being developed. Where the exploitation of LDWR started a long time ago, however, they became subject to intensive tourism fluxes, similarly to other tourist hotspots. Overtourism along LDWR leads to deprivation of the economic tissue, tertiary monoculture, and even depopulation of rural areas. Pointing out the risk of developing LDWR into mass-tourism phenomena, this paper explores the promotion of unconventional LDWR. In fact, LDWR are traditionally based on historical and cultural itineraries; this may exclude territories in particular need for local development efforts. We argue, however, that LDWR could also follow social and geopolitical patterns, expanding the domains of sustainable slow tourism and connecting historical elements through contemporary perspectives. This would add motivations to slow travel and new opportunities for local communities, discussing the potential of the 'feet-on' engagement in unconventional LDWR for cultural and socioeconomic development, focusing on fragile communities and environments.

Therefore, we present a methodology for promoting unconventional LDWR through group walking, based on desk-based research and free and structured on-foot exploration. This approach connects people and empowers local communities making them aware of the potential of the LDWR. This is a method followed by FuoriVia, a Cultural Association gathering several researchers with different backgrounds, in which the authors are actively involved, and developed during a 20+ experience of walking along several European LDWR. Two recent fieldworks are used as case studies, one along as historic LDWR (Via Egnatia), and the other along a powerful cultural and socioeconomic connector: the river Danube.

The aim is to highlight the routes' development prospects and the opportunities for the areas of interest (i.e. underdeveloped rural and interior tourism versus coastal mass-tourism phenomena, archaeological and historic patterns, the cross-border value). Key factors for the success of an emerging LDWR are debated, including engaging walkers and local communities, raising political awareness, highlighting the value of natural and historic patrimony, sustainability, and participatory planning of routes, hospitality, and support activities. The objective is to build a comprehensive (historic, environment/landscape, anthropological, and socioeconomic) framework in which to insert several bottom-up valorization strategies, from the local level (e.g., maps, signage, local study groups), to the national level (e.g., online portals, nation-wide recognition and funding, cultural and natural patrimony protection), to the development of a transnational approach to LDWR. Specific stress is put on the value of stakeholder and citizen activation within the sustainable development of LDWR versus a model where authorities and tourism industry express high management and decision-making potential.

The final aim of this work is to contribute to the debate on guidelines to foster the positive externalities of slow and sustainable tourism on LDWR, through the "feet-on" walking approach for social activation, climate awareness and economic development outside mainstream itineraries.

***Keywords** : Long Distance Walkig Routes, Alternative forms of tourism, Local development, cross-border regions , Participatory approaches*

Towards The Regeneration Of Mountain Tourism Territories. Insights From The Alta Valtellina Region.

Francesca Mazza (Politecnico Di Milano)

Within European mountain regions, tourism development has produced socio-spatial gaps and relevant environmental and landscape transformations. Nowadays, the legacy of these development trajectories is further exacerbated by climate change and societal crises that make these regions much more fragile. On the one hand, the popular tourist destinations are coping with lack of snow, water scarcity, increasing temperature and glacier retreat combined with the consolidated over-tourism issues and economic displacement. Meanwhile, minor destinations and surrounding territories have recently been interested in growing tourism and residential demand.

Consequently, the rise of new destinations, the multifaceted dimensions of crises and the geographical diffusion of the investigated processes advocate a territorial, integrated and multi-disciplinary approach to support the broader regeneration of mountain tourist regions.

Within this framework, through the case study of the Alta Valtellina Region in the Lombard Alps, the contribution aims to provide a methodology to identify the multiple challenges occurring in mountain tourist territories as a fundamental knowledge base to orient the regeneration project in these contexts.

To this purpose, the proposed methodology results from a mixed approach based on GIS analysis and mapping. The first, mainly quantitative, uses and correlates 21 territorial indicators at the municipal level to identify and measure the multiple challenges posed by tourism development on the Alta Valtellina territory. As a result, five priority topics synthesize the most relevant correlations between the selected indicators, identifying the crucial issues within the case study area. Moreover, the spatialization of the five priority topics through the GIS has allowed to investigate the spatial distribution of such emerging processes within the Alta Valtellina Region. The spatial analysis points out four clusters (i.e. hotspots, fringes, places of unexpressed potential, attractive valleys of environmental value) that describe the types of territories recognizable within mountain tourist regions in terms of conditions, problems, and opportunities.

The construction of the four interpretative spatial frameworks represents a fundamental base to orient the design phase of the regeneration project, framing specific goals, strategies, and tangible-intangible measures to be implemented in the territory. Therefore, building upon the case of Alta Valtellina, the proposed methodology aims to evolve into a transferable and replicable model, offering a comprehensive approach to address the challenges of regeneration within mountain tourist territories.

Keywords : tourism development , territorial regeneration, mountain, alps

How Social Media Influences Rural Residents' Spatial Practice And Local Identity: A Case Study Of Fuling Village

Yiting Jiang (Southeast University)

Social media have opened up new growth opportunities for the development of tourism in traditional villages. This tool can not only attract the attention and sustainable development of villages, but also make villages dependent on the outside world's imagination of "tradition" and "the gaze of the other" in spatial remodeling. In this paper, we take Fuling Village, a traditional village in Fujian Province along the southeast coast of China, as an object of analysis, and explore the spatial remodeling of "outflow villages" and changes in villagers' local identities triggered by social media in the context of rural tourism. It is found that (1) the village is changing from a local space to a mobile space and an imaginary space under the construction of social media.(2) Social and power relations in the social media space influence there modeling of local space, forming the "production of virtual space".(3) The development of rural tourism affects the community and rebuilts social relations and local groups that are on the verge of disintegration. In the resistance and compromise, villagers' pride and local identity are locally enhanced, and some villagers are given the opportunity to redevelop themselves by participating in the creation and promotion of tourism. The results of the study help policy makers and tourism managers to evaluate the effects and make decisions. The development of traditional villages needs to pay more attention to refining and transforming local characteristics, preserving originality and promoting villagers' identity and pride in order to achieve sustainable development.

Doing Justice To Time-Sensitive Urbanism Part I

From Boundary Object To Cross-Boundary Subject – Rhythmic Interventions In Teaching And Learning To Support Time-Sensitive Research Capacities.

Robin A. Chang (Rwth Aachen University), **Pinar Sefkatli** (University Of Amsterdam)

Doing justice to time-sensitive urbanism is not only a matter of spatial planning or design for street- and landscapes. It is an underdeveloped potential that spatial thinkers and learners have yet to develop before even leaving classroom confines. This is undermined by the additionally underdeveloped research competencies offered through the training of spatial design as a contributing dimension to broader spatial planning philosophies and disciplines (Lehmann, 2023; Van Assche et al., 2013). We explore the challenges and opportunities relevant to time-sensitive interventions specifically through a Rhythmicanalytical approach to teaching and learning in various spatial planning and design courses with graduate and undergraduate students. The objectives of these courses investigate how understandings of rhythms-in-space (event/activity-based) in comparison to rhythms-through-space (trajectory/accessibility-based) analyses determine different needs and demands in teaching and learning matters relating to time-sensitive urbanism. This responds to recent calls for greater attention to how temporality (Wunderlich, 2024; Gerrits, Chang, & Pagliarin, 2022) and particularly rhythms (Nevejan & Sefkatli, 2020; Chang, 2023) could be better understood, framed, and observed. Pedagogically, this foregrounds the need to improve how we guide students' research through urban and regional design competencies. This is a vital first step to supporting awareness for and interventions of a time-sensitive nature in the upcoming generation of future and spatial practitioners.

We draw on comparative experiences from the winter of 2023/2024 and 2016/2017 with interdisciplinary master-level and bachelor-level courses, respectively. These wrangle with the relationships between spatial and temporal scales that steer or constrain how the design of spatially relevant services and strategies are re/produced. By examining coded reflections, learning surveys, and discussions, we present initially the exploratory challenges in developing students' capacities for breadth in, and combination of qualitative and quantitative methods. These correspond to an appropriate or extended methodological repertoire for research-informed/supported/enabled design projects. From an instructional standpoint, this contribution poses the question: How can a course be structured or equipped to support skills development and particularly time-sensitive approaches for future spatial planners and designers?

The autoethnographic reflections from the two authors representing contrasting disciplines of urban sociology and spatial planning indicate the initial mismatches but also possible interdisciplinary synergies in teaching and learning through spatial planning and design approaches. Final reflections also evaluate how pedagogy supported by research through design approaches is a foundational means to improving collective capacities in articulating and affecting how we shape the built and lived environment, as well as to what extent time-sensitive and rhythmic framing can serve the former.

Golden Age And Smart City: Mobilising Temporal Symbols To Negotiate Urban Change In Shrinking Cities

Solène Le Borgne (Université Paris-Est Créteil)

This paper examines the production and mobilisation of temporal symbols by residents and policymakers in shrinking cities, as a strategy to address and negotiate urban shrinkage. Specifically, it analyses how symbolic representations of the past and the future are mobilised by urban actors, to make sense of urban change and address it. I draw on scholarship focusing on urban symbolic politics, which analyses the strategies of urban actors with uneven symbolic power to mobilise representations of place, people and time in order to foster or oppose urban change, and the struggles that emerge from conflicting representations and urban agendas (Rousseau, 2009; Sakizlioglu and Uitermark, 2014; Savini and Dembski, 2016; Bartmanski and Fuller, 2018). I seek to answer the following questions: how do residents represent processes of urban shrinkage, how do policymakers mobilise representations to address shrinkage-related changes, and how do the residents' and policymakers' production and mobilisation of temporal symbols interact?

The analysis draws on ethnographic research – 74 semi-structured interviews, and participant observation – conducted in the French city of Nevers in 2020. It unveils how residents and policymakers produce temporal symbols and mobilise them to craft representations of place. Specific episodes of the past and associated places are constructed by residents as embodying the "decline" of their city, as they come to symbolise the broader transformations that the city has experienced, ultimately supporting narratives that ascribe meaning to the processes at play. Meanwhile, policymakers too mobilise symbols to address issues that are related to shrinkage, with the aim to shape representations of the city. Their symbolic actions draw at once on the same historical era as residents and on the future, calling on memories of a time when the city was thriving and imaginaries of a future time when the city would thrive again. Through their symbolic actions, policymakers both feed off local symbolics produced by residents, and invent new ones. Highlighting the relational dimension that characterises this process, I show that depending on urban contexts, it is not always antagonistic, unilateral or top-down, complexifying the dominant perspective in scholarship on urban symbolic politics.

The paper first discusses the concepts of urban symbols and symbolic politics, and reviews recent urban scholarship on the topic, which analyses how urban actors with significant symbolic power leverage it to execute and legitimise urban political agendas. Then, the first part of the empirical analysis examines the residents' production of symbols, and the latter's mobilisation in narratives that give meaning to the transformation of Nevers. In the second part of the analysis, I turn to policymakers, analysing how they address shrinkage-related changes or issues through actions that have an important symbolic function. Examining the residents' differentiated responses to these symbolic actions, I interrogate what this reveals of the concordances or oppositions between the residents' and policymakers' urban symbolics. I conclude by discussing how this analysis of urban symbolics politics in contexts of shrinkage informs our understanding of how these play out in a variety of contexts and complexifies current scholarly framings.

Keywords *: urban shrinkage, Urban change, temporality, urban futures, symbolic politics*

Rhythmic Visioning: An Approach For Rhythm-Based Spatial Interventions

Pinar Sefkatli (University Of Amsterdam)

This contribution discusses an interdisciplinary and multi-scale research approach for agile spatial interventions, integrating rhythm analysis and participatory design research. Based on a 5-year ethnographic work in Amsterdam Zuidoost around emergent urban issues in the city borough, we developed best practices and methods to formulate social phenomena in cities from the perspective of rhythms and strategies for rhythm-based interventions. By emphasising the interplay of activities, flows, and routines, rhythm analysis can address the human and non-human populations that inhabit the urban context and distinguish their short- or long-term needs (Lefebvre, 2008). It introduces a spatio-temporal dimension to urban life, where various social, ecological and physical dynamics continuously interact (Edensor, 2016). In the context of urban challenges and uncertainties, such a perspective can create a bridge between the infrastructural and regulatory processes of cities with the bottom-up knowledge and orchestration of the citizens (Smith and Hetherington, 2018). This way, spatial design and future visioning strategies can rely on fine-tuning the new transformations with the residents' daily rhythms, ensuring collective agency (Nevejan and Sefkatli, 2020).

To advance theory and methods of operationalising rhythm analysis, we conducted three case studies in Amsterdam Zuidoost, each touching upon a distinct urban challenge and aspect of the urban environment: (1) trash in residential areas, addressing rhythms in outdoor spaces, (2) precarity of youth organisations, addressing organisational and institutional rhythms, and (3) rhythms during the COVID-19 pandemic, addressing rhythms of social relations. The rhythm analytical approach we developed is based on capturing the elements that construct the rhythms of neighbourhoods and how these vary in space and time by studying the infrastructure, public life, and daily activity dynamics through collaborations with local bottom-up organisations and municipalities. Instead of giving the (rhythmic) elements a particular order, we collectively reflected on the emergent phenomena they constitute based on the research focus and identified harmonies and dissonances in the urban context.

Combining rhythm analysis and participatory design research in Amsterdam Zuidoost provided a nuanced, context-specific understanding of urban life. The operationalisation of rhythm analysis supports novel planning approaches for neighbourhoods that centralise the social dynamics. The application of design research focuses on a collaborative process of exploring the territories and timeframes that structure the urban environment, including the residents' daily rhythms and shared patterns. When applied in a participatory manner, rhythm analysis invites the inhabitants to share their experiences and insights. This presentation will introduce our theoretical and methodological approaches for documenting, visualising and analysing urban rhythms, advancing urban and architectural design processes for agile futures.

Keywords : rhythm analysis, spatio-temporal design, urban life, Design research

The Role Of Temporariness, Emptiness And Improvisation In Uncertain Times: Evidence From Covid-19 Temporary Structures

Sara Caramaschi (Dastu Politecnico Di Milano)

This paper focusses on the complex relationship between vacancy, temporary responses and uncertainty during turbulent times by analysing how a selection of cities—New York City, São Paulo, Milan, Moscow, Abu Dhabi, Esfahan, Karachi, Mumbai and Jakarta—addressed testing, treating, isolating and vaccinating the public in response to the coronavirus (COVID-19) pandemic. These highly visible spatial responses offer immediate, pragmatic answers to unexpected conditions and, we argue, allow a more nuanced understanding of how planning might leverage flexibility and adaptability in a (post-)pandemic world.

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Keywords : temporary urbanism, COVID-19, vacancy, uncertainty

Situating The Practice Of Temporal Urban Design

Filipa Wunderlich (Bartlett School Of Planning, University College London)

This paper discusses an alternative aesthetics and approach to the design of cities and urban places through the perspective of time and rhythm. Embracing the dimension of timespace, design is looked at as performative, thus, also sensorial and affective, and defined by the interwoven social, architectural and nature's aesthetic narratives of urban places.

In the context of a latent temporal crisis of the contemporary city, the paper departs from concerns on the acceleration of cities, its impact on the urban quality of life and the liveability of urban spaces. This, alongside, the critique of mainstream socially unsustainable growth-led design and development practices, blighted by an obsolete visual and space-focused aesthetics which fails to put people, as experiential, performative and emotional beings, or their collective patterns of mobility and wellbeing at core.

Scoping temporal urban design research and practice, the paper frames action by laying out fundamental principles for temporal design research and practice, ie. how to approach and design for senses of time, flow, rhythm and temporal atmosphere in urban places.

Overall, and from a doughnut economic perspective, this paper thinks of cities and places as temporal renewable and curatable resources, and argues for the importance of focusing on time and place-rhythms, should one want to sustainably support both social productivity, and social, sensorial and affective wellbeing by design.

An Experimental Utopia? Learning From Temporary Use And The Making Of 'Sustainable Community Hub' In The Bristol City Centre

Elahe Karimnia (University Of The West Of England)

This paper offers a critique on framing of temporary practices: meanwhile uses of vacant properties, applied as an effective strategy for recent decline of public life in city centres. In a time of renewed austerity, climate and cost of living crises, such strategies mostly acknowledge the activation of space, the liveability they offer, and the manifestation of 'communities', rather than for their radical alternatives and imaginaries, and open-ended forms of experimenting urban spaces. Previous research on temporary urbanism highlights their contingency and entanglements, and the importance of framing their temporariness. They can be possible alternatives for change, 'filling short-term economic gaps' within commodification and neoliberal dynamics of temporal and spatial adaptations; or they can be a reflection of structural change and an instrument of transformation with long-term impact' (Madanipour, 2017, p1). There is not enough research framing temporary practices for their legacies and impacts, counter-narratives, transformative scenarios, and the broader imaginaries and 'new forms of making sense of cities' (Ferreri, 2020, p.40).

This is discussed by employing a critical case study of an ongoing project related to temporary use of vacant property in Bristol and focusing particularly on the initiative's potential for an "innovative hub of sustainability, creativity and education" (Sparks Bristol, 2023). The project aims at shifting the narrative of consumption to circular economy and social inclusion. This paper reflects on two stages of this project: signing the lease before opening the doors to public, and extension of the lease for one more year, when visions (discursive aspect of the project) turned into strategies and priorities. The analysis is framed by focusing on experimental utopia (Lefebvre, 1961), reflections on and learnings from possibilities and how they were tied to strategies and actions. Bristol has a long history of hosting culture and art production in pop-up or temporary format. By framing such practices critically, it discusses the learnings along the process turning into new priorities for action, not simply as creative neoliberal fix of 'austerity localism' (Featherstone et al, 2012).

Doing Justice To Time-Sensitive Urbanism Part Ii

Urban Temporalities And The Unsettled Urban Condition

Sabine Knierbein (Tu Wien)

Settling and unsettling urban spaces can be understood through analyzing changes in everyday life with a focus on different temporalities, occurring through time, paused and accelerated, controlled and contested, cyclical and rhythmic. Time is made permanent through being located in space. This paper grounds aspects of temporality within subjects, buildings, public spaces, urban developments, cities and states. Simple concepts of linear time have been frequently embraced through-out modernist periods because they reduce the complexity of multiple and overlapping everyday rhythms and speeds of cyclical time and moments of rituals into an abstracted and narrow frame of past, present and future timelines. Such constructions of time have been key instruments in preparing the ground for processes of rationalization, optimization and compression of everyday time, suggesting that productive human activity could be expedited through a quantitative approach to measuring time. Yet everyday time is first and foremost a felt time, including sensations that mark affective, caring and soulful encounters where relations unfold differently when characterized by joy or excitement, by sadness or trauma, or if viewed as mere moments of tedium and monotony. Temporalities are inseparably bound up with the lived spaces of contemporary cities. Social rhythms are inscribed in the floorplans of apartments, in the textures of streets and within the forms of neighborhoods, in a constant making and remaking of urban spaces. 'Rhythm' relates to regular patterns of social interaction, which manifest in the organization of time and space. Intersecting human journeys, constructions, movements and struggles constantly reconfigures urban spaces—conceived through planning, appropriated through use and structured through material interventions invested over time. Social time marks the intersection of linear, rhythmic and cyclical time-scales, and assigns the fact that linear capitalist timelines are always entangled with rhythmic everyday temporalities and the more cosmic planetary time related to the cycles of nature. From an earlier published exploration of urban temporalities in times of an unsettled urban condition, this paper will develop questions to contemporary planning practices as regards its multiple temporal interferences with the practices and geographies of everyday life.

International, Transdisciplinary And Place-Based Academic Activities: Education, Research And Third Mission. The Experience Carried Out In Sant'eusanio Forconese (L'aquila, Italy)

Giovangiuseppe Vannelli (Department Of Architecture - University Of Naples Federico Ii), **Sarra Kasri** (École Nationale Supérieure D'architecture De Paris-Belleville)

This contribution refers to a collaboration between ENSA Paris-Belleville (France) and University of Naples Federico II (Italy) started in 2023 and concerning the case study of Sant'Eusanio Forconese (L'Aquila, Italy). The activity focused on the Build Back Better of this Italian hamlet that was destroyed during the 2009 earthquake, a seismic event that struck 56 villages.
Over the past 15 years, reconstruction has been proceeding while part of the inhabitants still lives in temporary "shelters", a public asset built in the after-math of the earthquake within two residential programmes: C.A.S.E. (Complessi Antisismici Sostenibili ed Ecocompatibili) and M.A.P. (Moduli Abitativi Provvisori).
Nowadays, Sant'Eusanio Forconese is pursuing the reconstruction process, representing a good practice among the 56 affected villages in terms of the percentage of private housing rebuilt. Although, in addition to the Covid-19 pandemic, which has represented a dramatic event worldwide increasing social and economic vulnerabilities, other phenomena such as depopulation – a typical characteristic of the Italian marginal and inner areas – are overlapping with the crisis caused by the earthquake.
Considering the complexity determined by these multiple crises – both local and global – the reconstruction process cannot be considered as a mere action of reconstruction of the destroyed heritage. In this sense, the general approach and the procedures developed by the U.S.R.C. (Ufficio Speciale per la Ricostruzione dei Comuni del Cratere) constitute a good practice centred on a broader idea of urban regeneration and territorial development, both for the valorisation of local resources and for the strengthening of communities and social relations.

Whitin this complex scenario, following the Covid-19 pandemic, Italy has been the recipient of "National Recovery and Resilience Plan" funds. In this framework, the municipality of Sant'Eusanio Forconese had the opportunity to implement a design proposal for a strategic building on the site of a former school that coincides almost perfectly with the barycentre of the new urban system configured by both historical and "temporary" settlement. This project demand became the premise for this international, transdisciplinary and place-based academic collaboration.

The workshop "Intervenir dans un territoire à risque: vulnérabilités, enjeux, opportunités" has been organised as part of broader educational activities carried out in Naples and Paris with master and postgraduate students. The fieldwork and the interaction with local stakeholders were crucial for a deep understanding of the challenges specific to the territory and communities.

This will be better developed in the full paper, where the case study will be used to highlight two main topics: the possible role of universities and the need for broader post-disaster design theories.

In conclusion, within a necessarily renewed relationship between local and global, universities can play a central role as game changers. Within the transformation processes inherent to contemporary transitional landscapes concerned by multiple heritages and their corresponding temporalities, place-based academic activities – e.g., through living labs – merging together education, research and third mission can represent a tool for activating, boosting and guiding public engagement, strenghtening networks and renovating policies.

Temporary Uses: How Can They Support The Legacy Of Major Events?

Isabella Inti (Dastu, Politecnico Di Milano), **Antonella Bruzzese** (Dastu Politecnico Di Milano)

In the current political, economic, social, environmental (and post-pandemic) uncertainty, how can we effectively design and activate processes of territorial regeneration? What planning tools and strategies can we use to respond to this uncertainty with adaptable, flexible, and inclusive projects? Nowadays, it is still more necessary than ever to adopt tools able to intend planning as a process, trying tentatively to update the definition of Offenen Planung / Open Planning given with foresight in 1968 by the philosopher Lucius Burkhardt.

We can identify several processes and procedures that can help a "game changer" planner in adopting an "open planning" process made of steps, such as the on-field survey, the identification of a "vision", the definition of a masterplan/palimpsest with guidelines for transformation, the organization of moments of public debate, workshops and consultation with communities and institutions; then the launch of pilot projects for temporary use to experiment which "vocations", economies and care communities, with the aim over time to sediment uses, practices, values, memories and re-significations of an evolving territory and landscape.

Adaptability, flexibility, transformations by phases, and temporary uses belong to different disciplinary traditions such as "open planning" (Burkhardt, 1969; Inti, 2019), landscape urbanism (Waldheim, 2016), or tactical urbanism (Lydon, Garcia 2015). They also belong to widespread practices and forms of intervention, temporary uses may be considered within a wide range of declinations concerning the reuse of residual buildings and spaces, large urban projects, landscape and public space regeneration, post-disaster situations and urban transformations due to big events.

Starting from case studies and projects developed in a field that involved the authors - who are also the directors of a new postgraduate master's on temporary uses at Politecnico of Milan - the paper will critically discuss the role of temporary uses for territorial and urban planning with a specific focus on major events. By comparing some recent investigations and designs of temporary uses and long-term legacy for medium and large events such as BergamoBrescia 2023 capitals of Italian culture, and MilanCortina 2026 Winter Olympics, the paper will reflect on aspects that can also be useful to further compare with 2024 Olympics in Paris. Temporary uses and major events pose recurring questions, critical issues and opportunities.

How do large flows of visitors and users of a cultural, sporting, religious, or musical event temporarily alter urban space? Which policies and strategies temporary-uses related can help to manage and regulate counter effects such as mass tourism, skyrocketing costs of living, or gentrification? What legacies (geopolitical, social, environmental) will be in the areas planned as event venues, and what effects of the induced demand for housing and touristic facilities before, during, and after the events?

Reasoning about an "ephemeral urbanism"(Mehrotra, 2016) of Olympic villages, new stadiums, tensile structures, art installations in public space, permanent or removable infrastructure and substructures, modular architecture that can be dismantled and transported elsewhere, the paper will reason about this set of temporary uses and their effects, and what kind of cities they build in the long run.

A Cohesive Adaptive Planning Model For Adaptable Urban Areas

Thomas Machiels (Faculty Of Design Sciences, University Of Antwerp)

Motivation
This is the abstract of a three year postdoc research that I will initiate in the fall of 2024. My contribution to this session entails a proposition to bring together the now fragmented adaptive planning approaches that each in their own way criticize traditional planning approaches for being linear and insensitive to uncertainties and the dynamism of urban areas.
Abstract
One of the most urgent tasks for spatial planning in urban areas today is managing unpredictable changes and increasing uncertainty caused by various challenges (e.g., growing urbanisation, climate change, socio-demographic changes). Enhancing the adaptability of urban areas is crucial to prepare them for unknown futures, but planning practice remains dominated by traditional approaches that rely on inflexible long range plans. Adaptive planning is increasingly advocated as an alternative approach. The core idea of adaptive planning - making plans, projects and urban areas adaptable to uncertain changes (in the future) - became embedded in different but fragmented research strands (e.g., strategic spatial planning, scenario planning, adaptive management and evolutionary resilience, decision making under deep uncertainty, cities as complex adaptive systems, real options theory). Their concepts are predominantly prescriptive, and the conditions for their practical usability in different spatial governance and planning systems are understudied. On the other hand, adaptive planning practices exist but have not been researched in depth. The different research strands show that concepts can apply to one or more levels of planning practice, but no research strand offers a cohesive model with concepts for every level:
1. The planning process (planning and decision-making process; methods or approaches used during the process to understand uncertainties or develop adaptive strategies).
2. The strategic plan level (e.g., strategic plan, masterplan, planning vision).
3. The regulatory level of planning instruments (e.g., zoning plan, permits, building codes).
4. The physical project level (built environment and infrastructure).
I propose to develop a cohesive adaptive planning model through theory building and empirical research by (I) integrating the now fragmented adaptive planning concepts from planning literature, and by (II) empirically researching adaptive planning practices in eight urban redevelopment projects in five European countries to inductively validate and deductively enrich the model.
The contribution is the model's cohesiveness because it will include concepts for four levels of planning: the planning process, strategic plan level, the regulatory level of planning instruments, and the project level. The empirical research will lead to new knowledge about the successes, enablers, and obstacles of APPs; how to balance legal certainty with flexibility; and the conditions for replicating APPs in different spatial governance and planning systems.
The figure below shows the core components to consider when analysing and learning from adaptive planning practices. I believe this graph is a good discussion starter that is relevant for this session. It embodies different theoretical (different research strands) and practical (four levels of planning) perspectives from which to look at time-sensitive urbanisms. Different research strands or planning levels can share the core idea of adaptive planning but differ in language and methods for responsive interventions.

Collaborative Work In Space And Time: An Example Of The Implementation Of A Co-Working Space

Nadezda Krasilnikova Krasilnikova (Tu Dortmund)

Digitalization has rendered work more flexible in terms of space and time. Working from home has become a routine part of everyday life. Since the COVID-19 pandemic, there has been extensive discourse regarding its potential for sustainable spatial and mobility development. However, the exact impact of mobile working on total mobility is still to be assessed. Certain rebound effects are to be expected, such as the tolerance of mobile workers for long journeys to their workplaces and the increase in non-work related car journeys. It should be noted that the temporal and spatial distribution of mobile work plays a crucial role in travel-related rebound effects. Some research has concluded that the number of days spent working from home has an impact on CO2 reduction (Büttner & Breitkreuz 2020; Beck et al. 2020). Simultaneously, the post-pandemic discussion suggests that urban areas with existing infrastructure and nearby services can expect fewer travel-related rebound effects (Ahrendt et al. 2020; Büttner & Breitkreuz 2020). The time-geographic approach (Hägerstrand 1970) is taking center stage in the sustainability debate. This approach is employed to comprehend agile work-related mobility behavior and to delineate spatial and mobility-related solutions for future cities and regions. These solutions include a mix of functions, incorporate new workspaces such as residential workspaces at home or in co-working, and consider usage over time, measured in days per week. The underestimation lies in the fact that the better integration of mobile work requires not only a rethinking of mixed use but also an adaptation of governance processes. This presentation explores this gap using a quadruple helix model, which describes the dynamic interactions between four institutional spheres: academia, industry, government, and users (Arnkil et al. 2010). The presentation elucidates that collaborative work must be agile in both space and time. The network of actors can change depending on the physical space and time scale. In one context, companies may serve as users of innovation, requiring support from municipalities; in another, they may function as providers of innovation, collaborating with municipalities. Collaborative actors may evolve over time, influenced by the time horizon or the stage of innovation implementation. Using the implementation of co-working spaces as an example, the presentation illustrates how collaborative work can be designed in a space- and time-sensitive manner to promote sustainable spatial and mobility development. The presentation is based on the author's publication (Krasilnikova 2023) and extends its scope.

Keywords : collaborative work, quadruple helix model, physical space, time scale, co-working space

Can Intelligence Be Sustainable?

Scaince: Can Intelligence Be Sustainable?

Eva Kassens-Noor (Tu Darmstadt), **Meng Cai** , **Vijay Gopal Vazhoth Palliyil** , **Lalita Phatthanachaisuksiri** , **Hiba Karam**

scAInce is a cross-disciplinary framework that artificial intelligence (AI) influences –infrastructural, societal, political, juridical, environmental, economic, cultural, behavioural, institutional and so forth - are shaped by imaginary ideals (AI utopias) or worsts (AI dystopias). These imaginary dimensions of AI become impacts in cities that are negotiated, adapted, and rejected as visions of different stakeholders, in particular governments, private companies, and residents, encounter each other and the realities in cities. As AI progresses as an ever more powerful transformer into this century, AI heterotopias as hybrid landscapes manifest into cities. These AI imprints fundamentally transform sustainability in our cities. Whether that is for better or worse has yet to be explained.

With our thought-piece we challenge that AI enhances a city's sustainability as Vogiatzaki et al. (2020) suggest, and that urban science need not include sustainability as Batty (2021) suggests. Scholars' most recent focus on understanding the theory of cities is called urban science which abstracts "the critical functions that determine processes of change that characterize cities" (Batty, 2021, p. 15). But, the author also acknowledges that their definition excludes many sciences, such as the physics of the built environment, the ecology of cities and the way climate impacts city form and function (Batty, 2021). Cities as complex systems need to take into account many elements, such as renewable energy, equitable transportation, green infrastructure, etc., to transform towards sustainability (Bettencourt, 2021; Kassens-Noor et al., 2021; Sodiq et al., 2019; Zhou et al., 2021). Given that a strengthened knowledge of the underlying mechanisms that drive urban process is not only possible but necessary if we take advantage of the opportunities of our time, such as urban big data and informatics (Lobo et al., 2020), theories in urban science should be based on how the structure and functioning of cities, especially under the impact of AI, can drive the transition towards environmental, social, and economic sustainability as sustainable development has become a shared commitment across the globe (Parnell, 2016; UN, 2015). With this evolving theory rapidly accelerating, yet its lack of linking sustainability with the big data revolution, there is a pressing need to cohesively integrate sustainability into the novel measurements of cities.

scAInce integrates sustainability in a fast-accelerating science among urban big data scholars and strategically shifts urban science to urban scAInce focusing on AI itself, the broader impacts AI has on different disciplines, and in particular role it plays and the contribution it makes to sustainably live on our planet.

Tracking The Prevalence Of Artificial Intelligence In Municipal Governance

Meng Cai (Technical University Of Darmstadt), **Vijay Palliyil** , **Hiba Karam** , **Lalita Phatthanachaisuksiri** , **Eva Kassens-Noor**

Leveraging artificial intelligence (AI) in municipal governance has been debated more than ever (Yigitcanlar et al., 2021; Kassens-Noor et al., 2022), yet a significant gap exists in our knowledge of its prevalence. How, where, and why local governments have utilized AI is still not clear. To address this gap, we propose an integration of a computational method, text-mining official municipal websites (Cai et al., 2023), and a classic qualitative research method, content analysis (Krippendorff, 2018), to systematically track and analyze the prevalence of AI in urban governance. As a demonstration, we applied this integrated method to a dataset of the official websites of municipalities in the United States (Cai, Huang and Decaminada, 2023). Results show that the usage of AI in municipal governance in the United States is still in its infancy. Though more than 400 municipalities mentioned AI on their websites, most of them are discussions about city strategies rather than AI implementation. Location-wise, the more populated areas have a higher prevalence. Furthermore, the most common purpose of using AI in local governance is to improve efficiency. This study contributes to the literature by not only introducing a new way to monitor AI prevalence in municipal governance but also providing a complete and detailed picture of AI adoption by local governments in the United States.

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Acceptance Of Ai Solutions: Correlating Hp Omnicept Measurements To Russell's Circumplex Model

Niklas Suhre (Technical University Of Darmstadt), **Meng Cai** (Technical University Darmstadt), **Hiba Karam** (Technical University Darmstadt), **Vijay Palliyil** (Technical University Darmstadt), **Lalita Phatthanachaisuksiri** (Technical University Darmstadt), **Eva Kassens-Noor** (Technical University Darmstadt)

The implementation of novel technological solutions including Artificial Intelligence (AI) in cities is rapidly advancing (Herath and Mittal, 2022). To make AIs widespread uptake viable people must accept novel technological solutions (Godoe and Johansen, 2012). Invoking positive emotions can increase acceptance (An et al., 2022). A new approach to test public acceptance is Virtual Reality (VR) (Michalik, Kohl and Kummert, 2022). State-of-the-art VR headsets have sensors for tracking user behavior. For this study, we used the HP Reverb G2 with HP Omnicept. This enabled us to capture the heart rate, and pupil dilation of the user. Russell (1980) provides a two-dimensional, circular model for categorizing emotions. It includes an arousal and a valence axis. These refer to the brain activity and the positivity of an emotion. In our study, we identified if and how these axes correlate with measurements from the VR headset. To achieve this, we exposed participants to selected scenarios in VR. Four scenarios triggered different emotions, including active and passive, and positive and negative emotions. These scenarios cover the quadrants of Russell's circumplex. During the exposure, we asked the participants to express their emotions. The VR headset measured their heart rate and pupil dilation simultaneously. The experiment showed that the arousal axis of Russell's circumplex model correlates with the heart rate with some restrictions. However, we found that the valence axis does not correlate with our measurements. We conclude that to evaluate the valence axis of Russell's circumplex model, a new approach must be developed.

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Can Intelligence Be Sustainable?

Cornelius Darcy (The University Of Olivet)

SELLING TECHNOLOGY: INFLUENCING PERCEPTIONS OF AUTONOMOUS VEHICLES

Disruptive products and technologies change both how we live and the ways in which we live in communities. Automated vehicles (AVs) have the potential to be both disruptive and transformative. However, periods of anticipatory ebullience were disrupted in 2018 and again in 2023 with several high profile crashes and the consolidation and departure of key technological developers. The crashes shook the confidence of the public, industry, and regulators and call into question the merits of developing fully automated vehicles that drive on public roads without input from humans.

Although academic research on AVs continues, with the exception of a few instances, researchers have not sought insight from the industry creating these vehicles regarding the future of the technology and of how the industry is engaged in resetting expectations.

This session draws on a 2021 study that investigates industry strategies to influence perceptions of automated vehicles post 2018 and how perceptions of AVs affect communities. This study is based on interpretations of information transference, information moderation, and technology acceptance. Understanding how the AV industry is influencing perceptions in a changing technological landscape contributes new perspectives on a disruptive and transformative technology and how industry-led information moderation becomes an important contributing factor to future acceptance. New information will be shared regarding the events of 2023 and how communities and the AV industry are adapting.

Keywords *: automated vehicles, AVs, technology acceptance, information transference*

Unsustainable Data, Sustainable Ai

Liang Zhao (Kyoto University)

What is life? Schrodinger observed that life is such a system that can always keep its entropy (a quantity to measure the disorder of a system) at a low level (Schrodinger, 1944). In contrast, the entropy of a matter only increases, following a natural law called the Second Law of Thermodynamics. If the entropy of a system reaches a certain high level, it collapses (life dies).

Inspired by Schrodinger's observation, today we consider life a medium that imparts "good" (i.e., low entropy) information. On one hand, life imparts data to others, including genetic information, knowledge, fiction, and so on. On the other hand, it owns a life-like characteristic to keep information at a level of low entropy. Therefore, a life always has two distinct characteristics. The natural one follows the entropy-increasing law, physically and mentally, whereas the life-like one tries to keep its body and information at a level of low entropy, i.e., keep them in order (Zhao, 2021).

Not surprisingly, these two characteristics of life are fundamental in the human society as well. Urbanization, for example, can be understood as the effort of human to keep the expanding and entropy-increasing society in order. It is the trend for ensuring human survivability (Daylight, 2023).

Of course, cities cannot avoid the natural entropy-increasing law. Focusing on information, the author considers big data a threat to human survivability by recent urbanization and the development of ICT. The problem is not the data but the high entropy introduced by the data. When the brain of someone is occupied by high entropy data, they gets confused. In fact, one is easier to get mental health problems when exposed to too much (disordered) data (Gao et al., 2020). This does not happen with data of low entropy, even if its volume is big. Analogously, human society has more health problems when occupied with high entropy data that comes naturally.

To address this issue, methods are necessary to keep the information entropy low. Mindfulness, meditation and reflection are useful practice for a single human. For the society, researches, algorithms and technologies are useful. AI is promising for that purpose, as it can automatically reveal information of low entropy from data of high entropy. Notice that the point is the wise use of AI, not to use it to generate more data. We remark that the environmental issue due to the use of AI needs to be carefully considered as well. The author will illustrate some use cases or suggested use of AI in keeping the entropy level of human society low. They include:

Why data is not sustainable.

Collecting less data by IoT devices, illustrated by a cognition training game (Liu et al., 2018).

Forgetting old data, illustrated by the movement on right to be forgotten.

Issues on the use of generative AI software.

In summary, the author argues that data is unsustainable but (wise use of) AI is. We do not need Big Data but Small Information.

Disrupted Lives: Are Cities Prepared To Manage An Ai Mediated Future?

Mark Wilson (Michigan State University)

Over the past thirty years, cities have been subject to a number of disruptions associated with technology (internet, autonomous vehicles, artificial intelligence), health (pandemics), and climate change (sea level rise, water supplies, heat). As slowly changing systems based on costly infrastructure, cities' ability to adapt to change is constrained by resources and the mindset of residents and leaders. The rapid introduction of artificial intelligence (AI) is the next wave of change that will need to be understood, and unwelcome side effects mitigated.

Artificial intelligence has the potential to bring many improvements to urban life, with better management of the environment, traffic, waste handling, and improved delivery of services. While the interests vested in an AI based urban economy have the advanced knowledge and resources to promote the positive aspects of new technology, residents and local governments are necessary partners that often lack the funding and expertise needed to serve the needs of residents. As has long occurred with the introduction of new technologies, the social justice and equality dimensions are often ignored in the rush to accept the next new thing.

This presentation will consider the readiness of cities to manage the disruptive wave of AI as it affects many aspects of urban life, such as: 1) Employment change, especially for routine and repetitive tasks that may lead to unemployment and displacement, or requite additional training and education. 2) Inequality in terms of income, access to employment and opportunity, and the further polarization of urban society. 3) Privacy issues associated with the data demanded by AI enabled systems. 4) Bias incorporated into the algorithms and systems that further social inequality and continue unfair treatment and discrimination in areas like hiring, law enforcement, and public services, 5) Urban planning and the need to integrate AI into city systems and adapting the built environment to serve new infrastructure and social needs, and 6) Governance of AI mediated urban systems and the need for new ways to consider accountability, transparency, and ethical decision-making.

The challenge for cities is to harness the benefits of AI for improved urban life, while at the same time limiting negative outcomes. In managing new technologies, cities also need to be mindful of the lack of consensus around economic and social change, and the collision of interests around new technologies that affect the social, economic, and political elements of cities.

The Potentials Of Digital Technologies And Artificial Intelligence For The Spatial Regeneration Between Cities And Remote Mountain Areas

Stefano Di Vita (Politecnico Di Milano, Dipartimento Di Architettura E Studi Urbani)

The contribution considers the challenges of digital transition in relation not only to compact and/or dense cities and metropolitan areas, but also to wider territorial contexts of contemporary urbanity, which intercept both urban and rural areas. In this framework, the paper considers and integrates the literature review on: (i) the regional urbanization (Brenner, 2014); (ii) the socio-spatial divides within cities, as well as between cities and remote areas (Rodriguez-Poze, 2018); (iii) the multi-faceted articulation of smartness between digital, social, and spatial components, and its potential extension from the urban scale to the regional one (Morandi et al., 2016); (iv) the demands for multi-level planning to deal with urban and regional phenomena and dynamics which are no more circumscribable within traditional administrative borders (Zimmermann et al., 2020). Accordingly, the paper moves from the contributions of the author to the research project "Digital services and territorial innovation: the case of the metropolitan region between Milan and Turin" (Politecnico di Milano, Department of Architecture and Urban Studies – DAStU, 2015-2016) and to the research project "FIVE of Olympics' Flag: Framework for Impact eValuation of the Effects of Olympics For Longterm Achievement of (common) Good" (Politecnico di Milano, Polisocial Award 2019, Departments DIG, DENG, and DAStU, 2020-2021). On this background, it aims to compare previous analyses in order to actualize them, as well as to reflect on the opportunities to transfer the research methodologies. In particular, it aims to questions the opportunities to transfer the contents and the spatial implications of the digital transition: (i) from the urban perspective to the urban-regional one; (ii) consequently, from the metropolitan conurbations to the city-mountain (re)connections.

The urban context of Milan and the macro-regional context of North-Italy are taken as case studies. On the one hand, firstly the Expo of Milan 2015 has been taken as an occasion to reconsider the risks of disparities and the potentials of regeneration for the metropolitan region between Milan and Turin, along the motorway and high-speed train axis. On the other hand, subsequently the Winter Games of Milan-Cortina 2026 has been taken as an occasion to reconsider the risks of disparities and the potentials of regeneration between the Milan metropolitan area and the Valtellina mountain region, along the national road and regional train axis. Referring to these different territorial contexts, the paper illustrates: (i) at multiple territorial scales, the analysis of existing spatial resources, as open spaces, public spaces, collective facilities, and abandoned buildings and sites to improve, reuse, and reconnect; (ii) the analysis of existing digital services; (iii) the analysis of multi-faceted users and their demands for services; (iv) the selection of priorities for a location-based and site-specific combination of ICT services and artificial intelligence, on the one hand, and proposals of spatial regeneration (from single hubs to extended networks of infrastructures, settlements, and landscapes), on the other. The paper aims to discuss the outcomes and limits of these analyses and scenarios, at the crossing point between physical and digital components, and the possible processes and phases for their implementation.

Keywords : regional urbanization, in-between areas, digital services, spatial analysis, spatial regeneration

Beyond Left Behindeness

A Window Of Opportunity For Small And Medium Size Towns In The Eu Urban Policy? Practices, Challenges, And The Way Forward

Carlotta Fioretti (Eui And Jrc), **Pier Paolo Saraceno** (Jrc)

The paper focuses on the role of Small and Medium-Sized Towns (SMSTs) within the framework of European Union (EU) policymaking, in particular, that branch devoted to urban and territorial development.

Since its foundation, the EU urban discourse has focused on larger cities and metropolis exemplifying the essence of what was considered as urban. Moreover, a system of funding mechanisms on a competitive basis (e.g. URBAN initiative) privileged cities with larger administrative systems and more developed capacities in project and strategy design.

Things have changed both at the level of the narrative and of the funding. The reasons behind this change are multiples: the convergence among the urban, territorial and rural EU policies, the birth of networks and interest groups of SMSTs and their growing lobbying at the EU level, the upsurge of the narrative of the 'left behind places' at the political level (Rodriguez Pose, 2018). In addition, SMSTs began to be more present as well in the research agenda (Bański, 2021; Mayer and Lazzeroni, 2022).

As a matter of fact, the role of SMSTs in ensuring a balanced territorial development of the EU and in strengthening urban-rural linkages is today acknowledged in many policy documents and guidelines (Böhme et al., 2022). Moreover, funding opportunities seem to be more open also to smaller cities and towns, with an increase in project applications from smaller cities to competitive funding (e.g. Innovative Actions), and mainstream funding (e.g. Cohesion Policy) aimed at spreading urban development policies in all types of territories (Pertoldi et al. 2022).

In other words, it seems that a window of opportunity has opened for SMSTs at the EU level.

The objective of this paper is to see to what extent SMSTs can take advantage of this window of opportunity. Based on an analysis of different EU initiatives promoting urban development in the past and current programming period, the paper looks at if and how SMSTs take part in them, and which challenges they face in doing it.

The paper will conclude, by providing some recommendations to make the EU urban policy more apt for this specific target.

Keywords *: Small and Medium-Sized Towns, European Union funding, urban and territorial development*

Innovation Functions In Small- And Medium-Sized Towns In The European Urban System: Between Left Behind Places And Borrowing Size Towns

Anna Growe (Kassel University), **Thomas Terfrüchte**

The presentation deals with spatial-functional patterns in the European urban system. Special attention is paid to innovation functions in small- and medium-sized towns. While urban research has mainly focused on large cities and metropolises for a long time (Growe & Terfrüchte, 2023), small and medium-sized towns have only recently become the focus of research, although they are significant places of settlement in Europe (Wagner & Growe, 2021). Studies show that small and medium-sized towns in the polycentric urban system in Europe are less characterised by services and still feature more industry and manufacturing, but at the same time some have an important function as places to live (Hamdouch et al., 2017).

Understanding innovation functions as part of a broader set of metropolitan functions (such as government, transport, economy, science or transport), the presentation focuses on the questions of whether and where which metropolitan functions can be found in small and medium-sized towns in Europe. Based on the assumption that metropolitan functions can also be found outside large cities, we ask whether there are special spatial patterns for innovative functions that are related to the town size class.

The findings show that innovation functions can be identified in small and medium size towns and innovation functions can be differentiated into education and research organisations, possibilities for knowledge exchange, and innovations. Considering all city sizes (from small towns to large metropolises), the results confirm the assumption that city settlement size and the location of metropolitan functions are positively related: the larger the town or city, the stronger the metropolitan functions. However, a closer look at the cities within the various size categories reveals other factors that also influence the role of cities – and small and medium-sized towns – as innovation locations. An important factor influencing the existence of innovation functions is the location within a metropolitan area or in the vicinity of a metropolitan centre.

For small and medium-sized cities, the functionally differentiated impact of the location and distance-influenced role of cities is particularly relevant. In small and medium-sized towns in spatial proximity to large urban centres, some functions can benefit from the spatial proximity to a large market and thus accommodate functions that would be expected in larger cities instead of in small and medium-sized towns. These borrowing-size effects (Meijers & Burger, 2017) can be observed for innovation functions.

Keywords : *Small and medium-sized towns, European urban system, Metropolitan functions, Innovation functions, borrow-size effect*

No Town Left Behind: Understanding The Role Of Small And Medium-Sized Towns In Territorial Welfare Policies

Marco Del Fiore (Politecnico Di Torino), **Mauro Fontana** (Politecnico Di Torino), **Loris Servillo** (Politecnico Di Torino)

In recent years, in the Italian context, the renewed interest in inter-municipal and supra-local dimensions played an important role in the construction of territorial policies. The reasons for this interest are rooted in different issues and times. For instance, the crisis of the welfare state, the renewed interest in left-behind territories and the breakdown of the supra-local dimension derived from the Delrio reform (Law 56/2014). Some policies targeting left-behind territories are capitalizing on this renewed interest, as the National Strategy for Inner Areas and the Green Community Strategy. Nevertheless, these territorial experiments largely ignored small and medium-sized towns (SMSTs).

Within the Italian polycentric context, SMSTs assume a pivotal role serving as functional and managerial hubs for strategic territories. They encompass various facets—ranging from the economy and employment to infrastructure, education, research systems, sustainability, and historical-cultural identity. These urban entities not only act as gateways for smaller municipalities to access specialized production chains and essential civic services but also function as crucial connectors, bridging the urban-rural divide. With 370 small municipalities ranging from 20,000 to 50,000 inhabitants and 70 medium-sized municipalities between 50,000 and 75,000, totalling 440 Italian municipalities identified as SMSTs, these towns constitute a significant portion of the national territory and population.

To delve deeper into the contribution of these cities towards fostering active, inclusive, and well-functioning territories, this paper employs a multi-disciplinary approach, combining qualitative and quantitative methods such as a case study town and the analysis of national policies like the PON "Città Medie" (Medium Cities) initiative. The research reveals the crucial role of SMSTs in crafting supralocal strategies, particularly in topics like welfare and housing. Case studies showcase innovative approaches adopted by these towns to address societal challenges and foster territorial development. These findings highlight the unique contribution of SMSTs to territorial welfare and innovation, challenging conventional urban-centric perspectives.

This study's findings offer a paradigm shift in understanding territorial dynamics by foregrounding the significance of SMSTs. By emphasizing the role of these towns in supralocal strategies and showcasing their innovative approaches, this research contributes to a more inclusive and holistic approach to territorial planning, ensuring that no town is left behind in the pursuit of welfare and innovation.

Keywords : Small and Medium-Sized Towns, Welfare policies, Left behind places

The Local Appropriation Of A National Policy In Favour Of 'Left-Behind Places': Between The Influence Of The Metropolitan Growth Model And The Creation Of Innovative Planning Strategies. The Example Of A Small Former Mining Town In Central France

Coralie Marboeuf (Umr Territoires, University Clermont-Auvergne)

The increasing use of the term 'left-behind places' in public debate and in the media has highlighted the problems of decline experienced by areas that are usually given little consideration and considered to be falling behind the growth trends of metropolises and dynamic regions (MacKinnon et al., 2022; Pike et al., 2023). These areas, which are often sparsely urbanised like small and medium-sized towns, are facing a slowdown in their demographic, social and economic dynamics, and a weakening of their capacity for action and development (Roth, 2016; Béal, Rousseau, 2022; Béal, 2023). The literature on small and medium-sized towns has therefore shown the importance of studying these areas (Bell, Jayne, 2009) and emphasising their role in territorial innovation, particularly as an interface between urban and rural areas and as centralities (Mainet, 2008; Edouard, 2014).

This context has led to the implementation of public policies aimed at 'left-behind places' in different national contexts (Martin, 2021). In France, the government has introduced a number of public policy measures aimed at specific categories of area: small and medium-sized towns and rural areas (Béal, 2023). One of these public policies aimed at the category of small towns. This is the "Small Towns of Tomorrow" programme launched by the State in 2019-2020, from which more than 1,600 small towns with fewer than 20,000 inhabitants are currently benefiting in order to implement their regeneration projects.

These national policies have been questioned in the media and scientific literature. Not only do they offer limited financial resources to small towns, but above all they present a risk of standardisation of projects and remain modelled on a metropolitan model of growth, both of which reduce the capacity of small towns to deal with their specific local problems (Béal et al., 2017; Delpirou, 2019). Developing innovative solutions tailored to their specific territorial contexts is a real challenge for small towns, which have to deal with the difficulty of maintaining project developers (shopkeepers, businesses, etc.), the impoverishment and ageing of the population, the vacancy of the housing stock, the lack of private investors, and so on.

Based on an analysis of the planning and development actions carried out by a small former mining town in central France (Saint-Eloy-les-Mines), which is taking part in the 'Small Towns of Tomorrow' programme, this paper aims to show how small towns are trying to adapt these national policies to their specific local challenges and to implement innovative planning strategies and tools. While the discourse and strategies of the municipality remain influenced by the quest for growth and attractiveness and by the imaginary and development model of the national programme, my case study reveals a number of signs of innovation in local planning strategies. The success factors lie in particular in the ability of the municipality to mobilise and coordinate different organisations and professionals, including those from the housing and urban planning sectors, who have helped to strengthen engineering and expertise in the area and to implement innovative solutions adapted to the local context.

***Keywords** : small towns ; innovation ; planning strategies*

Services Of General Interest As A Vehicle To Leave No Region Behind? The Role Of Small Towns As Centres For Sgi Provision

Alois Humer (Austrian Academy Of Sciences)

The provision of Services of General Interest (SGI) is regarded a key, or a 'substantiation' of Territorial Cohesion (Humer 2014). Everyday facilities of education, health care, public transport, energy supply, communication services and so forth are essential for the well-being of the society and the functioning of the economy. Additionally, the provision of SGI is a truly spatial matter and therefore, regional disparities may be fostered or reduced, according to the distribution and location of SGI across regions. Yet, the governance of SGI is highly different in EU regions and member states (Humer 2014). Claims of equal or fair living conditions for everyone irrespective of one's (peripheral) location stand against the centrifugal forces of service provision and better living conditions in highly urbanised areas. Not least, the regional provision of SGI is a political-normative decision. It is a decision whether SGI provision is used to equal-out territorial inequalities between peripheries and centres or laissez faire. At the same time, regions themselves have a stake if they want to focus on providing SGI and intra-regional wealth (Franz & Humer 2021). Urban areas from small towns to large cities are decisive in regional planning to serve as central places and nodes of flows (Humer & Granqvist 2020). Literature about 'Places left behind' has not yet explicitly shed light on the relevance of SGI provision in all that. Thus, the guiding question is, if SGI provision may ease the feeling and the condition of peripheral left-behind-places including their regional centres.

The conceptual framework of this contribution forms a triangle between (i) 'grounded regions' in a Territorial Cohesion discourse (Franz & Humer 2021), (ii) 'city-ness and town-ness' functions of SGI provision (Humer & Granqvist 2020), and (iii) 'places left behind' (Rodriguez-Pose 2018; Mattila et al. 2023). Vis-á-vis this conceptual background, the governance context regarding SGI provision in Austrian small towns and their hinterland is being discussed. In doing so, this contribution gives insight into recent strategic debates of regional planning and policy in Austria concerning the future provision of SGI.

***Keywords** : Services of General Interest, public service locations, central places, centre-hinterland*

Capitalizing Stigma: Counter-Narrating Regional Decline Within/From Finland's 'Capital Of Pessimism'

Johanna Lilius (Senior Scientist, Aalto University)

It's Just About Gender

Changing The Game In Suburbia?! Planning Innovations For The Societal And Ecological Transformation Of Newly Planned Urban Expansion Areas In Germany

Henriette Bertram (Tu Braunschweig), **Johanna Niesen** (Tu Braunschweig), **Sarah Mente** (Tu Braunschweig)

For several decades, suburban residential areas have been criticised not only for their enormous ecological footprint, but also for fostering unequal gender relations. Feminist scholars and activists have pointed out that women (as traditionally the main care givers) living in suburbia were marginalised spatially and socially and have campaigned for a better recognition of reproductive tasks in the design of the built environment. Suburban space was seen as an inhibitor of emancipation, forcing women to give up paid work due to lack of close-by employment, childcare, and inflexible public transport. Especially the monofunctional layout of the housing estates and the car-oriented transport infrastructure were identified as socially and ecologically unsustainable (McDowell, 1999; Terlinden, 2010).

After two decades of reurbanisation and redensification, many cities in Germany and beyond are currently planning new expansion projects at the outskirts, some of them including thousands of housing units and workplaces. These projects aspire to differ from earlier ones, especially in terms of infrastructure provision and the multifunctionality of spaces. Generally, they aim to be more compact, more diverse in socio-economic as well as cultural terms, and provide flexible and attractive infrastructure and public spaces in order to create lively and inclusive neighbourhoods (Bertram, 2023). These observations are in line with recent research on suburban spaces on a global level which suggests that suburbs in general are changing rapidly, mirroring or even anticipating societal and political changes, thereby becoming "raw, unpredictable and diverse" (Keil, 2017). Some even argue that nowadays the suburbs are places of social innovation while the inner cities are becoming more and more homogeneous and uniform (Frank, 2024).

In our presentation, we would like to discuss three currently planned or recently finished suburban residential areas in Germany – Hamburg-Oberbillwerder, Munich-Freiham and Frankfurt-Riedberg – in terms of their contribution to gender equality and ecological transformation. While climate adaptation and resource protection feature prominently in the debates around the new planning areas in the three cities, gender equality is only addressed implicitly through the aims of family/child-friendliness and the creation of favourable circumstances for the reconciliation of paid and unpaid/care work for people of all genders.

Based on a qualitative content analysis, we will discuss the plans for the new suburban residential areas. We will show that many of the demands of feminist and gender-sensitive planning are in line with the needs to adapt to climate change and to protect the natural environment. Several of these demands have been incorporated to date, making sub-urban living less car-dependent, more ecologically sustainable and more accessible. We intend to carve out common ground as well as diverging aspects between feminist/gender-sensitive and ecologically sensitive planning and ask whether a substantial impulse towards socio-ecologic transformation can be expected from the suburbs during the next decades.

Keywords : socio-ecological transformation, Gender Equality, care, Suburbia

Lost In Transformation? Gender, Intersectional And Spatial Perspectives On Debates About Sustainability Transformations

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Social-ecological crises such as the COVID-19 pandemic and climate change constitute some of the most pressing challenges of our time and are deeply rooted in societal structures. Consequently, systemic changes seem indispensable. These include ultimate changes of gender relations as well as reflexions of spatial structures, both linked in co-construction. Against this backdrop, transformation has become one of the most prevailing concepts in contemporary sustainability debates and transformation research has developed as a lens to both study and facilitate fundamental transformation processes of societal systems towards sustainability. However, in the course of this transformative turn the concept of transformation has also become a buzzword with conceptual and normative vagueness and a lack of critical reflection (Blythe et al., 2018).

As researchers from gender-oriented spatial and sustainability sciences, we have engaged in transformation research with a particular interest in the interlinkages of social-ecological, spatial and feminist perspectives (Levin-Keitel et al., 2018; Kienesberger and Wolfram, 2022; Wolfram and Kienesberger, 2023; Dankers et al., 'forthcoming'). Building on these conceptual work allows for a critical analysis of the varying understandings of transformation within the debate, revealing inconsistencies, gaps and dethematizations within transformation thinking.

In our presentation, we will thus outline some of the most pertinent misconceptions and blind spots in sustainability transformation debates, with a particular focus on intersectional gender perspectives. Firstly, we point out numerous misunderstandings within transformation thinking that lead to inconsistencies in definitions, argumentations and inconclusive references, e.g. conceptually very different approaches (resilience, political ecology, etc.) are referred to as socio-ecological, without raising the question of the underlying understanding of societal relations to nature. Secondly, we identify serious blind spots in debates on transformation, e.g. capitalistic economic rationalities are often not questioned. And third, we illustrate why and how intersectional feminist research is a useful starting point for overcoming those current pitfalls and broadening research perspectives of transformative thinking. For example, gender perspectives can deepen a critical understanding of sustainable development and provide critical insights into societal relations to nature. We use the category of space to illustrate these conceptual considerations. In spaces and places, societal relations to nature and gender relations become visible and empirically tangible.

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Keywords : *sustainability transformations, feminist perspectives, intersectionality, space*

Gender Justice And Transformation Within The Donut

Sybille Bauriedl (Europa-Universität Flensburg)

The donut economy debate on "safe and just space" has opened up a new perspective for the transformation debate, which promotes the normative goal of so-called "strong sustainability": economic action should take place within the framework of a sustainable social foundation and planetary boundaries. The contribution discusses the way in which an intersectional perspective and, in particular, gender justice is taken into account in this approach, or how it could be explicitly integrated.

Keywords *: Gender, Transformation, Sustainability*

New Territoriality (European Port City In Transition)

Interpretation And Presentation Strategies For Historic Port City Of Izmir

Bilge Nur Bektaş , Serdar M. A. Nizamoğlu

The port city Izmir has a long history, dates back to Hellenistic period. This multilayered city, Smyrna, has enduring powerful connections based on trade with Mediterranean regions since 19th century. It covers diverse cultural assets, such as khans, bazaars, churches, mosques, synagogues, İzmir houses, fountains, and cultural buildings. The historic city is conserved as urban and archaeological site, and also covers registered buildings at national level.

Throughout the history, fire and earthquakes played a significant role to shape historic urban tissue. Important planning studies were conducted. Although functions and buildings were altered in time, spatial organization and macroform of the urban space has been conserved. Plans of 19th and 20th centuries are especially significant to understand today's living urban heritage.

This paper asserts that cultural heritage of the past, which has not sustained today, should be interpreted and presented as a conservation attitude. This is a way of regarding whole cultural layers of the multicultural urban heritage, and respect for the past communities. The study aims to determine cultural heritage assets based on the historic roots and develop new strategies to conserve cultural heritage and adopt today's living urban life.

Accordingly, planning history which shaped the urban fabric as a port city in 19th century is analyzed to understand previous planning decisions and their impacts on today's urban place. The Graves Plan dated 1837, the Storari Map dated 1852, and the Saad Plan dated 1876 are important documents showing the development tendency of the urban and rural areas, important axes, main land uses, as well as cultural groups living in the city of those times. These plans show the overall urban and rural areas, giving important general view of the historic roots.

Afterwards, 1905 dated the Goad Insurance Plans with significant details are analyzed. Prepared due to the need for insurance against fire risk, the plans shows the most significant and vulnerable place of the city, the most vital part of the historic city near to port. This area witnessed to cultural life of heydays of Smyrna, when diverse communities were living side by side, charming intellectual life of the merchants were happening in the 20th century. Based on spatial and historic analysis of the plans, conserved and demolished buildings, changes in spatial organizations, urban pattern, as well as functions are evaluated.

The Historical Port City Site Management Plan (2022-2027) states that interpretation and presentation studies must be conducted for the conserved urban fabric including urban pattern and street forms, also cultural routes to be determined accordingly. This study lastly develops interpretation and presentation strategies, based on the Management Plan and beyond. The strategies are proposed both for urban conservation area as a whole, and for single buildings and buildings groups that documented in the Goad Plans.

This paper contributes to interpretation and presentation of cultural life of 19th and 20th centuries, within its social and cultural context of those times. The study also aims to contribute to foster importance of the historic roots, improve networks, and maintain sustainable development.

***Keywords** : Historic port city, interpretation and presentation, cultural heritage, Smyrna, Izmir*

The Port As Heritage And Shared Landscape. Framing The Port-City 'Axis Of Relationship' In Some Relevant Italian Cases

Chiara Nifosì (Politecnico Di Milano - Dastu)

Since the 1970s, the development of maritime transport and the consequent conflicts with the territory have led many European and global cities to a progressive decentralization of ports to extra-urban areas and to an important process of regeneration of partially disused historical ports. Conversely, in Italy, historic ports have expanded within the urban system, generating a situation of paralysis, and generally making integration between port and city or waterfront redevelopment more difficult, which in other contexts has followed the new availability of space.

A hinterland saturated by urbanization and a coastal strip characterized by urban and natural materials allow few possibilities to accommodate new innovations: a significant number of small and medium-sized ports that, limited in their expansions, to be competitive, are called to elaborate collaboration strategies between with territory, that cannot be based only on microeconomic criteria, nor on the sectoral needs of global operators. The recent renewal of the national regulatory framework on ports (D.L.169/2016 and subsequent corrective measures) and the implementation of the National Recovery and Resilience Plan, have led to an acceleration of the planning/design process and interventions of infrastructures, outlines a change in the ways of interpreting and constructing port-city spatiality, opening a new debate on the interface-spaces role and quality.

Within the framework of the reform of Law 84/94 and in the context of the drafting of the new "Port Master Plans for the Western Ligurian System of Genoa and Savona/Vado Ligure" (now underway and the first example of integrated development of Port Master Plans), and with reference to other research experiences completed on port master planning Italy (Monfalcone, Venice, Fiumicino), the proposed paper collects and interprets studies and multidisciplinary researches on the "port-city relationship axes", which are the result of a continuous dialogue between the planners in charge, the AdSP (the Port System Authority), the other institutional bodies involved (Municipality, Province, Region, State), and the University (Politecnico di Milano-DAStU, consultant and others).

The port-city interface of the cases investigated is discontinuous, 'grey' and fragmented due to the infrastructural barriers that extend along the port arches: a sequence of highways, railways, parking areas, storage areas, gates and checkpoints of various nature and permeability. It is virtually impossible to make these barriers completely permeable due to the requirements of port operations.

However, the port and the city can be integrated through the shared redesign of the state-owned perimeter, towards a greater continuity, quality of the public interface or barrier penetration and towards the de-isolation of some relevant artefacts to be enhanced and made usable. In the case studies cited, principles of "physical connectivity and inclusiveness" of the boundary and barrier spaces and of "comfort and functionality" of the public space are put into practice through techniques of mitigation of the effects of climate change (heat islands, hydrogeological risks) and of "valorisation of the heritage in use and in disuse" through the reuse and redevelopment and re-functionalisation of important artefacts that represent tangible evidence of the historical relationship between the port and the city.

***Keywords** : innovative planning, port-city interface regeneration, public spaces, italian port*

A Collaborative Perspective For Port City Transition Governance. The Manifold Boundaries At Play In The Case Of Venice

Silvia Sivo (Iuav University Of Venice)

Venice, whose origins lie in an "amphibious" environment (Bassani, D'Acunto and Madricardo, 2022), is historically known for its intertwined land-sea identity and strategical territorial location that has made it a port city par excellence. Over the centuries Venice thrived as an international economical gateway and cultural hub between the overseas and the hinterland, while managing complex relationships between the urban and rural networks extended to the entire lagoon, whose delicate balance included the maritime dimension. The navigation channel network was part of the complex shallow coastal ecosystem of the lagoon and its relationship with inland water bodies and the external sea, in a crucial balance that allowed the development of both the city and maritime activities. The management of such a system has been the reflection of the political and administrative forms of government that have succeeded one another over time.

In the last century, the development of industrial and touristic activity have progressively influenced the planning choices of the lagoonal waterways, changing the balance between port, city and the region, to which the fragmentation of the institutions in charge by sector and scale of competence also contributed.As a result of the alteration of the lagoon dynamics, also due to the technological requirements and the impact of ship traffic (Scarpa, Zaggia, Manfè, Lorenzetti, Parnell, Soomere, Rapaglia and Molinaroli, 2019) the surviving of the tidal ecosystem and the historical city have been threatened, as demonstrated by the cascade effect on the preservation of world historical and cultural assets (UNESCO, 2020).

The urgency of dealing with epochal changes makes it necessary to adopt new conceptual frameworks to complement models that have hitherto described the spatial systems linking the foreland, the port and the hinterland (Vigarié, 1979), more focused in investigating the mutual relationships between the working port, the urban and the water systems taking place in peculiar territories and are prompted by dynamics at different spatial and temporal scales. From this perspective, Venice represents an emblematic case for investigating the redefinition of material and immaterial domains that transition challenges take on by overcoming the boundaries between port, city and surrounding environment. Furthermore, understanding the long-term evolution of the port's interfaces with the city, lagoon and hinterland, taking into account the relationships between the actors involved, puts the search for a common vision of port cityscape (Hein, 2019) at the centre.

This contribution, part of the author's PhD research, will adopt the methodological approach of historical investigation - combining historical geospatial mapping and historical institutional analysis - in order to identify the spatial and institutional interdependencies between port, city and the lagoon. The historical insights will provide a comprehensive outline of the overlapping and the lacking in decision-making processes, which questions a solutionism approach and fosters design and relational strategies for collaborative planning and governance.

The objective is to highlight the recurring dynamics, the critical junctures and the path changes in the perspective of a port city governance that holds together the threefold dimension of the just transition: economic, social and ecological.

Keywords : port city territories, historical geospatial mapping, historical institutional analysis, integrated planning, collaborative governance

Maritime Green Corridors From Sea To Land –Techno-Managerial Efforts For Some Or Green Transition For All?

Lukas Höller (Tu Delft)**, Mina Akhavan** (Tu Delft)

Maritime (or ocean) transport is the backbone of international trade and the global supply chain but also plays a crucial role in the tourism industry. Yet, maritime shipping, both for commodity and passenger flow, raises concerns about human health and environmental issues.

Decarbonising the shipping industry – in other words, transition to a green maritime sector – requires new technologies, heavy investments, and coalitions among public and private actors and civil societies, as well as identifying the development potential of each territory. This paper explores a territorial approach to the implementation of the Maritime Green Corridor (MGC) as an innovative and yet maturing concept. MGC officially gained momentum in 2021, by the International Maritime Organization (IMO)'s Clydebank Declaration. Once fully developed, MGCs will create a worldwide network of nodes (ports and port cities) and links (shipping routes).

This paper reviews the state-of-the-art development process of MGCs, its territorial dimension and the challenges of its implementation. Then we introduce a complex case in the European Region: the green corridor strategies and hydrogen initiatives along the Rhine River, which is the infrastructural backbone of Northern Europe, connecting essential industrial clusters and networks of integrated urban regions all the way from its source in the Swiss Alps, towards the multi-gateway port region in the Amsterdam, Rotterdam, Antwerp delta. Based on OCED's framework for SDGs, the following dimensions are discussed: (i) place-based approach: place-based solutions that territorial specificities, needs and capacities now and in the future; (ii) multi-stakeholder collaboration: the MGC should actively engage and promote dialogue among various stakeholders, including local government, businesses, community organizations, and educational institutions; (iii) multi-level governance and integrated spatial planning.

The paper discusses that territorial governance and spatial planning should move beyond growth paradigms towards alternative – avoiding further regional disparities and discontent, promoting multi-stakeholder engagement in decision-making processes, so should Green Corridor strategies, in order to respect the territorial complexities of land- and waterscapes they operate and will operate in.

Keywords *: Transition , Maritime Green Corridors, Port-City network, Zero emission, Rivers, Sea*

Planning Theory In The Deleted Lands

Faces Of Informality: Comparative Insights Into Informal Settlement Policies And Practices In Egypt And Albania

Kejt Dhrami (Co-Plan Institute For Habitat Development), **Nancy Abdel-Moneim** (Arab Academy For Science Technology), **Artan Kacani** (Polis University)

Abstract for Session 11: Planning Theories in Deleted Lands
This study presents a comparative analysis of the policies and practices surrounding informal settlements in Egypt and Albania, two countries with distinct historical and socio-political contexts. Informal settlements, as a global urban phenomenon, pose significant challenges to urban development and planning, as well as the right to housing. In Egypt, with an estimated 15 million residents in informal areas, and Albania, experiencing a surge in informal settlements post-communism, the issues of definition, regulation, and integration are of paramount importance.

In Egypt, informal neighborhoods house nearly 60% of Greater Cairo's population. These areas often lack formal land titles, basic infrastructure, and access to essential services. The government aims to "formalize" these areas while curbing their expansion. However, the ambiguity in the concept of informality leads to inconsistent policies and practices, often neglecting critical issues like poverty and marginalization, and focusing narrowly on unregistered land.

Conversely, Albania represents a unique case in the Western Balkans, witnessing a rapid increase in informal settlements driven by rural-urban migration and government inefficiency after the fall of communism (Kacani, 2020). It is estimated that 200,000 people live in informal zones around major cities like Tirana and Durrës. The Albanian legal framework recognizes informality, allowing for regularization initiatives to confer property rights and develop infrastructure. Yet, these efforts have been fragmented and politicized, lacking a cohesive strategy for the integration of informal or ex-informal settlements.

The primary objective of this study is to conduct a comparative analysis of the policies and practices related to informal settlements in Egypt and Albania, uncovering the diverse "faces" of informality that characterize these contexts. By examining the nuances and complexities in each country's approach to managing informal settlements, the study aims to explore and contrast how informality is defined and perceived in the socio-political and cultural contexts of Egypt and Albania; while comparing the policy frameworks and regulatory approaches implemented (if so) in these cases. The policy framework will be paralleled by a more "localized" perspective through three case studies:

Firstly, an examination of a bottom-up collaborative process of urbanization of illegal/informal settlements in Bathore, Albania will be highlighted, showcasing the regeneration of the area over 20 years. Secondly, the case of upgrading informal settlements in Egypt will be presented, alternating strategies between "formalization" and eviction in a mistrusting environment for the local population.

Thirdly, the relationship between informality and land development will be explored in a case study in Durrës, where an innovative methodology of 'transitioning informality' is piloted and assessed.

Our research results will highlight 1) how varied interpretations of informality hinder unified policy action and create confusion in urban development strategies; 2) how stakeholder collaboration and community participation, though crucial, are largely insufficient if the communities are not fully tenured/formalized and empowered; and 3) practices of inclusion of informal areas into land management practices, to accommodate healthier land markets may be (arguably) a solution that is effective and replicable in other global contexts.

Keywords : Informal settlements, policy analysis, land development, right to housing

Using Digital Collaboration To Achieve Holistic And Resilient Planning: A Case Study Of Jerusalem's Ezrat Torah Neighbourhood

Shlomit Flint Ashery (Bar Ilan University)

This article examines how citizen science can be utilized to incorporate sources of knowledge and increase the involvement of local minority populations in CC resilience planning. The role of a digital collaborative planning process in bringing together diverse sources of knowledge for resilience planning of minority neighbourhoods has only received partial research attention so far. This study seeks to add to previous theoretical approaches by combining local knowledge with "big data" in order to plan an urban future for the Jerusalem religious enclave Ezrat Torah. In addition to residents, representatives of the Jerusalem Municipality and the Ministry of Environment and students from Bar-Ilan University participated in the planning workshops. In addition, real-time analysis and simulations of interactive scenarios of neighbourhood planning evaluation, impact, and decision-making were conducted using Geodesignhub (GDH). The findings indicate that a digital process that mixes knowledge sources in a directed way supports the creation of holistic planning that integrates all urban systems. The ability of local knowledge to mediate between systems creates a uniform and seamless space. Thus, both the aspiration of democratization of the planning process as well as an optimal planning product for residents can be achieved.

Keywords : Planning for climate resilience, Tools for climate resilience, Geodesign, Digital Collaborative Planning, Transition drivers for a sustainable development, Jerusalem.

Still Ongoing Western Influence In Planning Worldwide? Planning Systems For The Global South From The South?

Wolfgang Scholz (Tu Dortmund University)

Most former European or US American Colonies still share a common colonial heritage which is their planning legislation.
The paper analyses different urban planning models and ideals deriving from Western Countries and looks at their translation, adaption and hybridisation into the urban reality in Africa, the Gulf Countries and Southeast Asia.
To support the development of an own planning legislation and a planning theory for the Global South from the South, the contribution will cover both colonial and post-colonial times picking some example countries as Tanzania, Oman and the Philippines.
However, the prevailing phenomenon of informal urbanisation which constitutes the largest portion of recent urban development is not yet covered by the inherited planning system. Informal urbanisation and its power relations cannot be covered by these Western based planning approaches. The same applies to planning procedures following the changing planning approaches in Europe after 1960s as participatory planning and recent climate change adaption and mitigation efforts. A planning theory for the Global South has, therefore, to address among others these questions:
What is the role of urban planning and urban planners?
What is the relationship between the Government and its citizens and traditional leaders?
What is the position of a state with its inherited governmental structures, planning legislation and procedures towards informal urbanisation?
How can planning in such a setting address the SDG, New Urban Agenda and climate change measures?
To which degree are these international agendas again a colonial construct?
The paper will trace back the influencing models and ideals and present the morphological implication regarding adaptive, hybrid and refused components and display the consequences for the urban fabric in terms of fragmentation and segregation of space based on the mentioned case studies.

Keywords : planning system, Colonisation, Global South, planning legislation

Representing Future And Fictitious Cities And Infrastrcutures: The Accountability And Power Of Visualizations

Visualising Life In Volumetric Cities: City Digital Twins And Other Disasters

Gillian Rose (University Of Oxford)

A critical aspect of many sociotechnical imaginaries is the imagery that accompanies and co-constitutes them. This paper focusses on the visualisation of 'city digital twins'. A digital twin is a three-dimensional, digital animation of an object, which can be manipulated on a screen and which is updated with data from its referent object. Originally conceived as a tool for modelling and monitoring the design and performance of manufactured products, it has in the last decade or two moved into the field of urban planning and management. Twins imagine cities as three-dimensional volumes, and the status of the model as an animated digital object is critical to their effects. While many of the criticisms of smart city "corporate storytelling" (Söderström et al., 2014) can also be levelled at city digital twins, this paper pays particular attention to visibilities and spatialities of their animation in order to specify the multiple forms and kinds of urban life that they generate: the human bodies that observe twins and that are observed by them. It goes further, however, and argues that the kinds of human life co-constituted with these twins must be understood in relation to the volumetric cities that appear elsewhere in contemporary visual culture. Volumetric models are now pervasive (Rocha and Snelting, 2022). The paper turns to disaster movies as another exemplification of volumetric digital urban imaginaries. Specifically, it proposes that disaster movies are the flip side of digital twins: the visceral intensities of disaster movies are the other to the anxieties generated by the twins' techniques of the observer.

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Don't Look Up: How Renderings Impact Citizens' Perceptions Of Large And Conflictual Infrastructure Projects

Jan Boon (University Of Hasselt), **Tom Coppens** (University Of Antwerp), **Martijn van den Hurk** (Utrecht University), **Wouter Van Dooren** (University Of Antwerp)

Governments have embarked widely on major programs and projects to develop cities and catch up on infrastructure backlogs, involving high capital expenditures. Large and complex spatial projects such as the development of infrastructure, urban districts, or business parks often trigger substantial controversies and conflicts (Wolf & Van Dooren, 2017). In anticipating such public controversies, architects, urban designers, and project promotors such as governments, development agencies, or private developers, often use strategies to positively influence public perceptions of said projects to generate support planned infrastructure projects.

The visual embellishment of infrastructure projects through renderings has been a popular legitimizing strategy for large infrastructure projects. Renderings are two-dimensional images intended to give an artistic impression of a three-dimensional design of planned and designed buildings, infrastructures, or urban environments (Ching, 2015). Through visual language, renderings spur debate about the value and meaning of city and infrastructure building endeavors. However, their use has become controversial in settings where embellished renderings are used to manipulate public opinion on large-scale projects (Nastasi & Ponzini, 2018) – in particular when such visualizations create unrealistic or overly optimistic representations.

In this paper, we address two literature gaps. First, despite the widespread use of renderings, their effectiveness as tools influencing citizens' evaluation of proposed projects remains unclear. Scholars have mainly addressed such themes as architect-client relationships in design processes, media and communication strategies, or the evolving craft of designing and techniques of rendering in general. Also, these contributions were almost exclusively in art and design. Contributions from different angles, such as public administration and spatial planning, are rare (e.g. Mélix & Christmann, 2022; Nastasi & Ponzini, 2018). Second, and related to the previous literature gap, scholars have not studied the conditions that may affect the effectiveness of renderings.

This study will use an experimental set-up to explore (1) how embellished renderings (vs. non-embellished renderings and textual descriptions of a project) impact citizens' perceptions of the proposed (real-life and highly conflictual) infrastructure project Oosterweel in the city of Antwerp; (2) and (2) what the moderating effect is of, first, the perspective of the rendering (lifeworld vs. bird's eye) and, second, citizens' familiarity with the project, mobility preferences and routines, their place of living (i.e. proximity to the project), and their political interest.

The study is preregistered (see: https://osf.io/9uwvt)

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Live Projects. A Design Approach To Account For Diverse Embodied Experiences In Socio-Ecological Transitions

Liesbeth Huybrechts (Uhasselt)

Participatory Design in urban design and planning dealing with socio-ecological transitions often still foreground visualisation methods, using maps or models, that insufficiently account for diverse embodied experiences of people's daily environments (Huybrechts et al, 2020). Recent scholarship has pointed to the critical role of accounting for embodied experiences, a range of emotions, including resistance, fear, unease, and scepticism, which are often unnoticed and undervalued in the participatory design process (Jönsson, & Lindström, 2022; Otte & Gielen, 2020). Not addressing these, unintentionally excludes particular groups in society, inhibiting just transitions (Huybrechts et al, 2020).

This contribution therefore uncovers the need to account for embodied experiences within visualisations in Participatory Design processes. It presents ongoing research into Live Projects as visualisation platforms to articulate, discuss and mitigate these embodied experiences, ultimately promoting more agonistic and just participatory spaces for participants. Through a systematic Participatory documentation and analysis of 50 Live projects over the past 9 years in the format of an exhibition, we were able to detect their different ways of (more or less successfully) dealing with embodied experiences. We discovered that Live Projects work very well in unveiling the unspoken, that what in a rational verbal debate can not be revealed (strategy 1), imagined (strategy 2) or triggered (strategy 3). It also became clear that the Live projects enable us to go beyond the inter-human emotions and make emotions between human and more-than-human - that in socio-ecological transitions often feel uncomfortable - tangible.

The above-discussed research does not only show the advantages of Live Projects as visualisation approach, but also reveals that it is beneficial to make a careful analysis of the projects we do on a daily basis to develop a more subtle and elaborate language to give embodied experiences a place in visualisation approaches in Participatory Design. In this way not only positive experiences but also those that feel uncomfortable to handle can be given a place. Our analysis of the Live Projects has proven to be a rich resource to open up this language. In this presentation we will discuss our analysis in relation to Live Projects we realised in the framework of the Noord-Zuid Limburg project, a large road transition project in Belgium.

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Keywords : Participatory Design, Visualisation, Live Projects

Keeping It Real: Experimenting With Renderings For Fictitious Infrastructures

Martijn van den Hurk (Assistant Professor), **Gijs Grimbergen** , Hannah Huth

Plans for new infrastructures such as roads, bridges, and mass transit systems are prime sites of citizen participation and public controversy. Governments present renderings of planned public infrastructures to generate support for their projects in this contested environment (Rose, Degen and Melhuish, 2014). Renderings are conceptual illustrations that employ appealing imaginations of the future, serving as presentation and marketing tools that communicate ideas, visions, or projects to an audience in an accessible way. Ching (2015) argues that such representations intend "to persuade an audience of the project's value" (p. 190). Christmann et al. (2020) state that renderings create publicity, evidence, and transparency; they convey stories about the future that generate resonance.

Renderings come with different styles, viewpoints, and levels of detail, and they may contain unrealistic or overly optimistic features that compromise the accuracy and veracity of plans. Examples of such features include people, traffic, vegetation, street furniture, color, lighting, weather effects, and storytelling. Against this backdrop, Moore and Webber (2008) consider renderings as normative practices of representation that can misrepresent policy impact. Visuals can evoke positive emotions and persuade citizens to support a project, even when such support is undeserved (Alon-Barkat, 2020). Consequently, attractive renderings are a potential threat to accountability: governments can use them to hide the real effects of a project from the public. Previous research has shown how governments mislead publics by misrepresenting benefits and costs but has overlooked how renderings can be a powerful instrument of misrepresentation.

Through an experimental research design, this study detects, explains, and predicts the effects of renderings on the public perception of large projects to rebuild infrastructures. The paper presents the results of a large randomized survey experiment in which 1,500 respondents evaluate renderings of a fictitious infrastructure project. The findings improve our understanding of how malleable public opinion is with manipulative imagery and demonstrate how important it is that governments keep it real when representing future projects.

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Keywords *: Visualization, Public infrastructure, Survey experiment*

Transformative Change In Spatial Planning For Biodiversity

Assessing Transformative Planning Practices Through A Content Analysis Of Plans From 7 European Countries.

Susana Orta-Ortiz (University Of Trento), **Enzo Falco** (University Of Trento), **Davide Geneletti** (University Of Trento)

Our study presents a theoretical framework that describes different transformative features that can be attributed to various plans' components, such as visions, strategies, information baseline, and actions, instruments, or regulations. Building on the transformative change literature, such features can assume a restructuring, path-shifting, innovative, and multiscale character (Fedele et al., 2019; Bulkeley et al., 2020; Visseren-Hamakers et al., 2021). The framework details them for the governance of spatial planning systems, implementing the mitigation hierarchy, the spatial planning provisions for sectors, and biodiversity and ecosystem services. Restructuring features concern a reorganization of planning instruments and regulations, the sequential implementation of the mitigation hierarchy goals (i.e., enhance, avoid, minimize, restore, and offset), and the spatial arrangement of ecosystems, including diversity and size. Path-shifting features redirect how planning decisions are taken to embrace a pluralist, adaptive, inclusive, and proactive approach and when plans induce a shift of the current trend of species population, ecosystems, and ES loss. Innovative features are based on new knowledge, policies, and strategies not implemented before, such as using nature-based solutions to meet biodiversity goals. Multiscale features foster cross-sectoral and multilevel stakeholder involvement, creating synergies between spatial and temporal scales and coordinating mitigation hierarchy goals across spatial planning scales.

The framework was applied in a content analysis of 28 plans covering different NUTS levels across 7 European countries with a good biodiversity performance, including Italy, Denmark, Germany, Portugal, Scotland, Spain, and Switzerland. We extracted roughly 80 transformative elements from these plans: a considerable share had a restructuring character, while those with higher transformative potential (e.g., path-shifting and innovative) were less frequent. Representative restructuring examples include defining new land use classes and constraints for non-developable land and embracing mitigation hierarchy goals. Path-shifting practices include recognizing the need for assessing future ecological degradation to prioritize preventing measures and changing green spaces' regulatory regimes based on the multiple values attributed to ecosystem services. Unifying several neighborhood plans into one, saving the distinctiveness of neighborhoods and a tailored design of nature-based solutions for enhancing biodiversity emerged as innovative planning practices. A common multiscale feature among several plans was implementing participatory approaches to negotiate environmental goals between public authorities, local businesses, and autonomous bodies, for instance, with the support of a specialized multidisciplinary research and communication center. Other transformative practices will be presented during the Special Session to discuss the transformative potential of current plans and synergies and complementarities between transformative features, e.g., path-shifting planning strategies, innovative information baseline, and restructuring regulations. Moreover, insights will be provided on aspects to improve/phase out, such as the role of the mitigation hierarchy for biodiversity conservation and the inconsistent integration of transformative elements across the plans' vision, strategies, information baseline, and actions.

Keywords : transformative potential, planning instruments, biodiversity, ecosystem services

Planning For Biodiversity Restoration In The Dutch Ooijpolder-Groesbeek: A Tripartite Strategy Of Democratic Plans, Individual Discretion And Financial And Planning Instruments

Henk-Jan Kooij (Radboud University Nijmegen), **Bibi Witvliet** (Radboud University Nijmegen), **Huub Ploegmakers** (Radboud University Nijmegen)

This contribution focuses on the case of Ooijpolder-Groesbeek near the city of Nijmegen in the east of the Netherlands. Since the 1950s, Dutch rural landscapes have undergone improvements for agricultural production, but this has resulted in a decline in landscape and biodiversity. Under the auspices of Dutch and EU agricultural and spatial policies, agricultural production was mechanised and intensified, and the landscape was rationalised for mechanised farming with the aid of planning instruments such as land consolidation and land development. These policies were successful in achieving policy goals, such as increasing agricultural production (van den Brink and Molema, 2008).

However, the spatial policies resulted in large-scale landscapes, loss of historical landscape elements and landscape fragmentation. This led to a steady decline in biodiversity, including general and specific species connected to the rural landscape, such as farmland birds. These trends were recognised and from the 1990s, the Netherlands devised new strategies to counter landscape fragmentation and biodiversity loss. They did this through the reconnection of habitats using a new strategy called the Ecological Main Structure (Beunen and Barba Lata, 2021). This strategy focuses on extending existing nature areas, developing new ones, and creating connection zones between islands of nature within a sea of agricultural production. This involves significant funding for buying out farmers and a lengthy spatial planning process to change the land use plan from 'agriculture' to 'nature'. The beginning of the strategy was promising, but it was hindered by rising land prices and social unrest, which caused a delay. Therefore, new strategies were required.

In the early 2000s, stakeholders in the Ooijpolder-Groesbeek region began considering the state of the rural landscape and potential opportunities for redevelopment (Zwaan and Goverde, 2010) . This marked the beginning of a strategy for landscape redevelopment and biodiversity restoration. The aim of this contribution is to identify and elaborate on the three interconnected strategies that emerged between 2005 and 2015.

Through interviews, participant observations, focus groups and document analysis we have identified three interrelated strategies for landscape en biodiversity restoration, and show how, why and in which contexts they work:

Shared Vision-Making and Democratic Anchorage: A novel planning instrument, the Landscape Development Plan, was introduced, fostering shared vision-making and democratic anchorage of ambitions. This plan started off from a shared physical-geographical landscape perspective and had high ambitions. It included an implementation program to guide for landscape and biodiversity restoration efforts.

Individual Farmer Perspective: Emphasizing the role of the individual farmer, the Landscape Farm Plan was devised for each participating farmer. This personalized plan considered the farmer's perspective, aligning their activities with the overarching landscape and biodiversity restoration goals (cf. Mills et al., 2017).

Financial and Organizational Arrangements: To secure long-term contracts with farmers for landscape redevelopment and management, a set of interrelated innovative financial and organizational arrangements was established. Crucially, these contracts aimed at preserving the zoning status of the lands while financing sustainable landscape practices. This included a monitoring scheme to improve the landscape and biodiversity performance of the new landscape structures.

***Keywords** : landscape restoration, biodiversity restoration, spatial planning, financial arrangements, farmer perspective*

Dis-Integrated Urban Biodiversity: An Analysis Of Urban Policies And Plans In Italy

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Since its recognition as a major global challenge at the Cities for Life Summit parallel to the 11th meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD) held in Hyderabad (India) in 2012, Urban Biodiversity (UB) has become a central topic in science and policy worldwide. Indeed, several researches have pointed out the potential that cities have in supporting a broad array of plants and animals but also in playing a critical role in biodiversity conservation with initiatives that enhance residents' knowledge and stewardship of biodiversity (Secretariat of the CBD, 2012). Nonetheless, there are still several challenges and obstacles to overcome when scaling up the key benefits of UB through effective policies and plans in cities.

This contribution presents the outcomes of an analysis of urban policies and plans in Italy where the objectives of UB safeguarding, restoration, provision, and enhancement are explicitly acknowledged. The research is conducted within the activities of the National Biodiversity Future Center (NBFC), one of the five national research centers funded by the Italian Recovery and Resilience Plan within the NextGenerationEU program, aimed at aggregating and sustaining the scientific research on biodiversity in the different national territorial contexts and, specifically, of the Spoke 5 of NBFC oriented to examine biodiversity dynamics and values in cities.

Methodologically, the analysis relies on a mapping activity of the relevant urban policies and plans adopted by the provincial capital cities in Italy addressing UB in its multiple benefits. The objectives are to understand the interface between biodiversity and urban policies and identify guidelines and strategies for reorienting the action of city governments towards conserving and enhancing UB. The survey has a two-fold focus, respectively, on the urban policies adopted at regional, sub-regional, municipal levels, and on the spatial plans in charge of translating the general objectives identified in policies into concrete actions, and monitoring their implementations (Nilon et al., 2017). The first level emphasizes the discursive construction of, and the tools/mechanisms employed for, UB policies and their multi-level and multi-actor dimensions oriented to downscale general objectives from the EU and national levels to the local level (Uchida et al., 2021). The second focuses on the sectoral and thematic plans addressing UB, with attention to investigate the relationships with the statutory spatial plans and identify the relevant baseline data, indicators, targets and resources for supporting the implementation of UB objectives (Pierce et al., 2020).

The research findings show that, while at the European and national levels, a clear trajectory of policies regarding urban biodiversity can be observed, at the local level policies mainly have a sectoral focus as well as an ambiguous impact on UB and lack tools and mechanisms for monitoring their implementation. Concerning the plans, the survey highlighted the pervasive, although rhetorical, diffusion of UB strategies and actions in spatial plans. Nevertheless, the scarce integration between thematic and statutory plans results in the difficulty of implementing and monitoring in an integrated way the objectives related to the protection and restoration of urban biodiversity.

Keywords *: urban biodiversity, spatial plans, urban policies*

Goals, Barriers And Enablers To Realising Biodiversity Delivery Through New Development

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The protection and enhancement of biodiversity through the built environment is a key current challenge for spatial planning. In common with global approaches, the English planning system utilises a mitigation hierarchy, which seeks to focus development in less sensitive areas, or mitigate or compensate for any biodiversity loss though habitat creation or enhancement on or off site (Maron et al, 2024). Despite this, planning decisions are frequently criticised for not sufficiently safeguarding nature through the development process, leading to calls for stronger regulation for biodiversity and incentives for the sector (Jerome et al., 2019). Notably, and most recently, the introduction of Biodiversity Net Gain (BNG) legislation as part of the Environment Act 2021 aims to reverse biodiversity loss by requiring all new development to deliver a 10% increase in biodiversity compared to the pre-development baseline. The effective delivery of this legislative requirement, and more, is central to biodiversity protection and enhancement.

Delivery of biodiversity may be blocked or enabled by different factors throughout the development process, including balancing other policy agendas (e.g. affordable housing), client requirements, land values and expertise in the development teams (Calvert et al., 2018). However, the relative importance of these for different stakeholder groups is not well understood for biodiversity. In particular, the importance of these factors for biodiversity as a specific objective beyond the delivery of green infrastructure more generically is not known. Therefore, this paper presents a ranked overview of the key goals barriers and enablers encountered in realising greater biodiversity through new urban development and redevelopment projects.

The paper utilised a Delphi expert panel method to rank the importance of goals, barriers and enablers to biodiversity delivery through development as identified through a systematic literature review. This review encompassed research considering delivery of green infrastructure and nature-based services as well as biodiversity specifically. These identified factors were then ranked using expert stakeholder opinion via an iterative survey, in line with the Delphi methodology. This promoted the generation of a reliable consensus viewpoint from stakeholders, where possible, and captured differences of opinion between panel member (Beiderbeck et al., 2021).

Legislation and its enforcement emerged as the primary lever for improved biodiversity delivery. Economic motivations are currently not considered significant enough to work as enablers, and the extent to which they present a barrier is contested among stakeholders. The findings also highlighted the lack of preparedness in skills, knowledge and resources among planners and other built environment professionals to appropriately ensure that legislative aims are delivered. The findings also indicated differences of opinion between stakeholders on the viability of biodiversity delivery and the extent to which biodiversity can be effectively co-delivered alongside multiple objectives for urban space. The findings have implications for the way in which green infrastructure is conceived in development projects and for the successful implementation of BNG legislation. Overall, the research provides an improved understanding of the specific landscape of biodiversity delivery which can support improvements in the delivery of biodiversity through spatial planning both in England and elsewhere.

***Keywords** : Biodiversity, development, barriers and enablers*

Opportunities Of Integrating Economic And Financial Instruments Into Spatial Planning To Enhance Biodiversity

Yuanzao Zhu (Helmholtz Centre For Environmental Research – Ufz), **Karla Locher-Krause** (Helmholtz Centre For Environmental Research – Ufz), **Heidi Wittmer** (Helmholtz Centre For Environmental Research – Ufz)

Biodiversity is being degraded globally at unprecedented rates, affecting not only the environment and ecosystems, but also long-term economic growth and human health. Rapid urbanization and land use changes are among the major drivers of biodiversity loss. Various tools have been adopted to prevent biodiversity loss in spatial planning, such as clearly defined biodiversity objectives in planning strategies, and the mitigation hierarchy as a regulatory tool to ensure minimization of negative impacts from developments. Economic and financial instruments, which use incentive and disincentive mechanisms to motivate changes in stakeholder behavior towards desired policy objectives, have great potential to enhance biodiversity and to address socioeconomic inequality. However, there has been little systematic discussion of the opportunities offered by the use of economic and financial instruments in the context of spatial planning. Here, we analyze the generic economic and financial instruments that promote biodiversity, their characteristics, and the application in spatial planning. We link these instruments to the mitigation hierarchy based on principles such as steward-earns, beneficiary-pays, and polluter-pays, and analyze the potential application of different economic and financial instruments under a transformative change framework, which explicitly addresses inequality (Wittmer et al., 2021). We find that current recommendations for using economic and financial instruments in spatial planning often focus on supporting the implementation of nature-based solutions in cities. However, there are broader perspectives on the integration of economic and financial instruments into spatial planning processes to enhance biodiversity, particularly in the context of development, where the economic and financial instruments can be relevant to measures prior to and along all stages of the implementation of the mitigation hierarchy. Our conceptual analyses highlight opportunities for incorporating economic and financial instruments to promote biodiversity in spatial planning, as well as challenges in designing and adapting the most appropriate instruments for different legal contexts, scales, and cases.

Keywords *: Economic and Financial Instruments, Transformative Change for Biodiversity, Spatial Planning, Mitigation Hierarchy, Environmental Justice*

Ecological Transition As A (Planning) Game Changer? Questioning Reinventing Cities And Similar Competition

Which 'Game Changers' For Which 'Innovation'? Actors, Competencies, And Behaviors In 'Innovative' Planning And Design Competitions.

Barbara Pizzo (Dsdra - Sapienza University Of Rome), **Antonella Bruzzese** (Dastu – Dipartimento Di Architettura E Studi Urbani, Politecnico Di Milano)

Reinventing Cities (RC) is a competition organized by the C40 Cities Climate leadership group – an international network of cities created in 2005 to respond to the global climate crisis. Member cities share the will to implement innovative policies and solutions to environmental challenges. Indeed, it appears as a globally shared perspective on how to keep together environmental objectives and urban development, meaning high environmental performance, high-quality architecture, and diffuse collective advantages. In fact, since its first launch in the mid-2010s, this design competition emphasized its 'innovative' aims and implementation modalities.

A key component of this 'new' way to conceive urban transformations are the actors, which are expected to imagine, design, and realize urban innovative solutions through 'new' multidisciplinary groups with ad hoc configurations. Overall, RC21 calls show high expectations of private actors, for their (alleged) capacity to mobilize funds, knowledge, and competencies, and to provide creative solutions. At the same time, public actors still seem to play a decisive role, starting with e.g. the choice of the sites and essential regulations: the 'rule of the game' appears to be public.

Indeed, actors emerge as a main issue when analyzing what is shared among the different cities, what relies on the success of this call, and what is produced in the different localities: with their different origins, scope, and behavior on the one side, but also with some common traits on the other: e.g. their (supposed) 'new' inclination and capacity to build alliances (and what kind of alliances they build) to reach the defined goal; some standardized interpretation of 'green transition' and 'urban sustainability'.

Thus, we will present here the preliminary results of our ongoing research (Gomes et al. 2022; Bruzzese 2022; Dang Vu & Pizzo, 2022) that considers the calls launched in different cities in Europe (Paris, Rome, Milan, Madrid, Oslo, and Reykjavik) focusing on actors.

Our interest here is to show if, how, and to what extent RC21 calls have produced the expected innovation looking in particular at actors, actors' relations, knowledge, and skills mobilized, considering the urban projects produced and comparing:

actors involved;

actors' relations;

group dimension and main related features such as: international/national/local; newly, purposedly constituted/already active; financial/investment capacity;

competencies: multidisciplinary/specialized;

presence of prestigious professional or design teams;

ancillary staff members specifically devoted to coordination and management;

which interpretation of green transition and sustainability do they convey and contribute to circulating.

To do so, we are adopting mixed methods, such as desk research focusing mainly on the analysis of the documents produced for the calls in the cities mentioned above, and their winning projects' presentations; on-site direct analyses and interviews.

Circulation Of Imaginaries And Solutions For A Sustainable City In The Reinventing Cities Winning Projects

Federica Appendino , **Helene Dang Vu** (Université Gustave Eiffel)

Given their pressures on the planet, cities could be key places where the fight against climate change needs to be addressed. Initiatives to test innovative urban solutions for climate change mitigation and adaptation have proliferated over the past decade. Among them, Reinventing Cities, an international competition led by C40 to stimulate carbon-neutral projects that demonstrate innovative and replicable climate solutions, is gaining momentum with more than twenty cities worldwide participating. In this context, it is interesting to ask to what extent this initiative gives way to new images of urban projects, or rather to a standardization of them. What is really being reinvented in terms of vision, approach and solutions? What is being circulated? To answer these questions, this paper focuses on the analysis of 23 Reinventing Cities projects in five European metropolitan areas (Oslo, Madrid, Milan, Paris, Rome), combining both desk and field research. First, an analysis of C40's discourse, in particular its strategic document 'Guidance to Design a Zero-carbon, Sustainable and Resilient Project', is conducted to question its impact on projects. Secondly, the innovation and climate expectations of the participating cities will be explored in depth and finally compared with the solutions of the winning projects. In a broader sense, this is an opportunity to question the circulation of urban models and their local translations in European metropolises.

Keywords *: Urban renewal, call for projects, urban innovations, Climate change, Circulation of urban models*

Reinventing Cities And Municipal Urban Strategies: What Game Are Public And Private Actors Playing?

Pedro Gomes (Espi2r Research Unit, Espi Paris), **Laura Pogliani** (Dastu - Politecnico Di Milano)

Reinventing Cities is the product of Parisian Mayor Anne Hidalgo's policy boosterism. Hidalgo and her team have actively promoted the diffusion of Réinventer Paris in different types of urban (even rural) areas in France and among many metropolises throughout the world, most notably C40 member cities (Jung, 2023). The aim is to test the leading capacity of large cities to become the catalyst for a change in their approach to urban regeneration issues, and the competitive bidding tool is the driving force for gathering ideas, capital, and demonstrations of interest. Local planning actors use this competition format to serve different political and planning objectives (Rio et al., 2019).

Unsurprisingly, Reinventing Cities is overwhelmingly an instrument for urban regeneration, with most brownfield or infill sites. However, site surfaces and stated program ambitions vary greatly, especially between cities. It thus appears that Reinventing Cities, too, serves different purposes in different settings.

Our presentation investigates three European cities participating in Reinventing Cities: Paris, the birthplace of the Reinventing franchise, and the two biggest participants in RC: Milano (10 sites) and Madrid (7 sites). We mobilize previous monographic work developed on Milanese and Parisian urban projects in Reinventing Cities and similar competitions (Gomes and Pérès, 2022, Pogliani, 2022), as well as additional semi-structured interviews undertaken as part of the Observatory with C40 staff and with project participants in different cities.

The key and often neglected issue in defining urban regeneration hypotheses concerns the compatibility of the transformation objectives with the city's overall urban development prospects, assuming that the new functions to be settled can meet both the requirements of better energy and environmental performance and the acute demand for urban welfare, particularly the issue of housing in metropolitan cities.

Our hypothesis is that RC is seen as an additional tool to pursue existing urban strategies and thus create public value (Candel, 2022), rather than being a game changer - in climate action and in general. Indeed, in all three cities, site requirements are aligned – sometimes very explicitly – with land use plans and regulations and/or with newly elected, left-leaning city officials. However, Reinventing Cities can also be interpreted as encroachment of private logic in such strategies. Indeed, the competition's effectiveness depends on its ability to include local actors' private, profit-driven logic, jeopardizing project implementation otherwise.

Aligned with existing policies as it may be, RC represents a new way of designing and implementing urban and real estate development projects. Our analysis of project implementation shows that, on the one hand, RC's administrative innovation brings increased uncertainty and additional risks for project implementation, and, on the other hand, it renews the public debate among urban professionals and garners unusual media attention – arguably, one of the competition's objectives.

We will conclude our presentation by discussing the balance between public and private interests in Reinventing Cities by commenting on sites, expected programmes and (un)successful implementation stories.

***Keywords** : Madrid, Milano, Paris, urban regeneration, Reinventing Cities competition*

Housing, Health And Policies Part I

Planning & Health Citizenship: Air Quality In London

Lucy Natarajan (Ucl)

This paper draws on the work of a new research cluster at UCL, who are looking at the scientific, social, and governance dimensions of opportunities and challenges for planning arising from 'health citizenship'. Taking air quality as an iconic urban public health concern, it focuses on claims to knowledge of risk and risk appetite, and the multi-faceted nature of agency for environmental change. This investigation contributes to the wider agenda of understanding the politics of local actions on sustainability, and promoting institutional practices for forms of urbanism that promote well-being and democracy. What is yet to be addressed is the position of planning, as the key platform for statutory spatial strategy, within this. Current debates around the depoliticization of public decision-making, consider the social justice implications for urban infrastructures (e.g. White et al., 2022). For progress in environmental governance, is particularly important to understand how planning might be legitimised within the landscape of actors that mediate and negotiate risk.

Social theory of risk selection (Douglas & Wildavsky, 1993), and Foucauldian notions of norms around the uses of spaces, are used to examine recent empirical data from London on planning for air quality. This enables study of the social nature of the selection of knowledge and the means to reaching decisions with a focus on consent of citizens. Governing spaces are framed as infused with situated world views that shape learning, and epistemic affinities are associated with expressions of morality about environmental conditions. These may align with / stand contrary to public preference, but the politics of interests in urban amenity are the starting points for unpacking social justice concerns. The assessment of diverse urban tools that achieve control (Sorkin, 2008) also considers the bounds and design of how they shaped by 'agents of change', i.e. those actors that go about socialising risk and guarding norms, including citizen-led actors involved in informal governance activities as well as formal actors of planning across the multi-scalar, uneven statutory bodies of planning controls in England.

Ultimately the paper asks whether - animated by the potential of citizen-led agents of change - planning might engage with alternative spaces of political performance around urgent and territorialised outcomes of public health? Key to this is its engagement with citizens actions, whether direct political action and agitation / informal regulatory action (Long et al, 2022, Pargal et al. 1997). The sense of urgency within sustainability narratives is highly problematic but also testament to the ongoing politics and demands for strong local environmental plans. Contestations around planning's role have focused on the depoliticization, for instance the counterhegemonic debates (e.g. Purcell, 2009, White et al., 2022), and ethics work (e.g. McClymont, 2019; Lennon, 2017, Banvill & Torres 2019). We recognize that dissent cannot be displaced (as well set out e.g. by Ranciere, Mouffe and others), yet new roles for the state might also resurge.

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Climate Adaptation In Apartment Blocks: Health-Promoting Housing In Climate Change As An Interplay Of Spatial, Technical, And Social Innovations

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Structural, natural, and social environmental conditions directly impact everyday life and human health. Insufficient living environments can, among other things, cause physical and psychological stress and trigger illnesses. Especially in urban, densely populated areas, extreme situations can have devastating health effects on residents. Densification processes, environmental stress, and the increase in social inequalities lead to fast-paced development dynamics in cities and urban regions.

Climate adaption in existing apartment blocks is highly relevant in view of the numerous climatic challenges, as construction in the future will have to focus more on existing buildings than on new builds. In addition, in the interests of climate justice, existing housing supply in disadvantaged and dense neighborhoods in particular must be adapted, because here in particular it needs cool homes on hot days, more greenery and natural shade in the neighbourhood to make the heat more bearable. Flexibility and resilience of buildings and their surroundings are therefore necessary in order to be able to react to changes due to climate change. Further, the living space and living environment in the neighborhood are key determinants of individual well-being as central everyday places for people (BMAS 2021: 530). The significant influence of the spatial interiors is not surprising. In industrialized countries such as Germany, people spend an average of 90% of their time in living and working spaces. Building conditions and social behavior interact with each other. How we behave depends largely on the spaces that surround us. At the same time, behavior determines the space. In the living environment, individual health behavior (e.g. sufficient sleep, rest periods, etc.) meets the conditions (protection from noise, cold, mould, etc.). The living environment can act as a stimulus for health promotion - for example for exercise, social interaction, or the adaptation of routines - if it offers the appropriate conditions for this (Gebhardt N. et al. 2023)

A multidimensional perspective with various interacting factors (performance of building components, space efficiency, renewal cycles, everyday living routines, aesthetic requirements, etc.) plays an important role here, making climate adaptation and health an interesting vehicle for housing development. People and their behavior must be considered just as much as the conditions under which they operate.

The interdisciplinary Urban Health Solutions working group at RWTH Aachen University deals with the interdependencies between people, buildings and the living environment with regard to the design of health-promoting conditions and impulses for health-promoting behavior. The presentation will provide insights of initial conceptual ideas for our research approach in relation to the adaptability of man-building-district to the consequences of climate change and put them up for discussion.

***Keywords** : climate adaption, multi-perspectivity of planning , Built and Lived Environment*

Building Pandemic Resilience Through Clean Indoor Air: A Strategy For Sustainable Urban Health

Milana Trounce (Stanford University)

The ongoing challenges posed by global pandemics have underscored the need for resilient urban environments that safeguard public health. This abstract proposes a strategic focus on clean indoor air as a cornerstone of pandemic resilience, particularly in the context of urban planning and sustainable development.

Drawing on insights from the BioSecurity and Pandemic Resilience course at Stanford University, this abstract emphasizes the critical role of healthy buildings in mitigating the spread of airborne pathogens. The course, which incorporates perspectives from healthcare, government, technology, and public policy, provides a comprehensive understanding of pandemic preparedness and response. Central to this is the recognition that the built environment significantly impacts public health outcomes, particularly in densely populated urban areas.

The abstract highlights recent advancements in air quality monitoring and building science that can be leveraged to enhance health outcomes. The integration of these technologies into urban planning and building design represents a proactive approach to pandemic resilience. By prioritizing indoor air quality in the construction and retrofitting of urban infrastructure, cities can mitigate the spread of airborne diseases and enhance the overall well-being of their inhabitants.

Furthermore, the abstract argues for a policy-driven approach to implementing clean air strategies in urban environments. This involves collaboration between various stakeholders, including policymakers, urban planners, healthcare professionals, and technology innovators. By embedding health-centric considerations into urban planning processes, cities can foster environments that are not only resilient to pandemics but also promote sustainable and equitable urban living.

In conclusion, the abstract posits that the pursuit of clean indoor air in urban regions is not just a health imperative but a crucial element of sustainable urban planning. It calls for a paradigm shift in how cities approach the design and management of the built environment, advocating for a model that places health and sustainability at its core.

Empowering Place-Based Health Approaches By Developing Local Health Strategies

Gonçalo Santinha (University Of Aveiro)

As urban regions worldwide grapple with the imperative to create just and sustainable spaces, the interplay between governance, health, and local planning emerges as a critical nexus. This study builds upon the insights gleaned from three distinct yet complementary studies conducted in Portugal. In response to the very recent decentralization reforms in the health care sector, our research explores the design and implementation of Local Health Strategies through the prism of the place-based health approach concept. Drawing inspiration from citizen science and community science perspectives, the approach transcends the conventional engagement of citizens solely in understanding health-related issues. It delves into the transformative potential of involving citizens in the policy-making process at the local level. The presentation integrates lessons learned from strategies conducted in different municipalities in Portugal, showcasing diverse participatory approaches and methods employed to gather insights and develop Local Health Strategies.

The presentation unfolds with a dual purpose. Firstly, to explore the evolving role of local governments in health governance, presenting a conceptual framework for developing Health Strategies at the local level. Such conceptual framework advocates for the replacement of centralized governance models with collaborative relationships among local governments, health care providers, and stakeholders. By fostering constructive partnerships, it seeks to address the critical gap in knowledge regarding the conceptualization, implementation, and evaluation of local health initiatives and strategies, with a nuanced consideration of health determinants and community proximity. Secondly, the presentation will delve into the barriers faced during the process of elaboration and implementation. It will shed light on challenges related to data acquisition and the intricate interactions with the community, stakeholders, and political parties. Emphasizing the need to captivate citizens' interest, promote the involvement of different groups, and raise awareness among political stakeholders, the discussion will offer solutions to these challenges.

Highlighting the significance of a place-based health approach, this presentation underscores the importance of tailoring health strategies to local contexts and involving local actors in decision-making processes. It aims to ignite a dialogue that transcends conventional boundaries, fostering a paradigm shift towards community-driven urban health planning, while navigating and overcoming the barriers encountered during the formulation and implementation phases.

Keywords *: decentralisation, place-based health approach, community participation, local health strategy*

Learning From New York City. Active Heritage For Healthy And Responsive Cities

Federica Fava (Roma Tre University - Department Of Architecture)

Exacerbated by widespread urbanization and global risk factors, loneliness, depression, and post-traumatic stress disorder are on the rise worldwide. As the Covid-19 pandemic has recalled, urban contexts have a seminal role in supporting or hampering mental health. Despite the urgency to rethink how care is conceived, designed, and delivered, current planning approaches address mental health needs in a very limited way, underestimating the role of heritage-based solutions in city development and management. For health equity to be reached, recognizing heritage, histories, and stories beyond that of communities' (environmental) injustice means to value important resources of knowledge and resilience, directly applicable to current planetary crisis.

With its focus on prevention, the paper aims to develop a new critical understanding of place-based experiences in planning for health, shedding light on the role of heritage-making in the territorialization of public health and the city's responsiveness to future shocks. It thus explores a level of activeness that links mental health and wellbeing to the way places are transformed, lived and managed; a domain that is little considered in the paradigms of the Active City.

The timeliness of the research is based on the assumption that the promotion of mental health urgently requires a new approach to urban development and management, one that is able to rely not only on technical and natural solutions but also on cultural ones. Following Frédéric Keck, the hypothesis of the work is that heritage dynamics can significantly contribute not only to prevention but also to the "technology of the imagination" needed to build city preparedness.

Drawing on emerging practices currently undergoing in New York City (NYC), this paper contributes to cover this gap by shedding light on place-based experiences that have been building – directly or indirectly – a bridge between heritage, (mental) health, risk mitigation, and urban transformation.

As it is well known, NYC is at the forefront in planning for health. It was the first city to adopt the Active City Guidelines (2010) and today includes health as one of the three core values of the NYC Comprehensive Waterfront Plan 2021, with special attention to climate change, resilience and community responsiveness. In March 2023, NYC launched the Mental Health Plan (MHP), that includes among its goals the need to «create environments that equitably support good mental health for children and youth». However, the Bronx's highest rate of coronavirus cases among New York City's five boroughs (August 2020) confirms that a person's zip code is the better predictor of their health.

Intersecting insights gained from four experiences (Interference Archive in Brooklyn; H.E.Arts Center in South Bronx; Red Oak Grove in Lower East Side; Recharge station in Central Manhattan) insisting on as many heritage sectors (archive, adaptive heritage reuse, natural heritage, ephemeral practice respectively), the article explores how and to what extend the activation of specific heritage assets (not) works as healing device, contributing to fight environmental injustice and create more resilient and cohesive territories.

Methodologically, the research firstly developed through fieldwork conducted in New York between August and October 2023. Former results have been thus discussed and deepened with psychologists of Rome Health Agency. This study is indeed part of an Italian research project funded under the National Recovery Plan, aimed at supporting innovative approaches in the cultural heritage sector. The objective of CHANGES – Cultural Heritage Active innovation for Next-Gen Sustainable Society (2022-2025) is to show how cultural heritage can contribute to current societal issues, fostering sustainable development goals. Learning from NYC's complexity and contradictions, the paper thus provides some indications to orient the heritage discourse toward healthy and responsive cities for all.

Housing, Health And Policies Part II

Empowerment And Participatory Approaches To Urban Health: The E-City Programme

Enza Lissandrello (Aalborg University), **Marcus Zepf** (Ecole D' Urbanism De Paris)

The E-city program started in 2020 to focus on the socio-environmental health challenges prevalent in the East and South regions of Ile-de-France, home to nearly 2 million individuals. The E-city action program is structured to evaluate the impact of the environment and individual or collective practices on health trajectories. The program is designed to identify the underlying socio-environmental factors that impact health and to support public action by empowering individuals to build resilience and cope with their health. The program's ultimate objective is to enable informed public health policies and support individuals in positively impacting their health outcomes. E-city is a flagship tool through which UPEC aims to become a university committed to its territory within the next ten years. This paper will examine the initial phases of the E-city program from the methodological point of view and the critical learnings. The program brings together UPEC research labs, academic partners, and student communities around urban health. The first empirical experimentation has been carried out over the last two years and involved the university campus as a part of the territorial system, enhancing scientific research collaboration across disciplines and encouraging dialogue between the academic world and civil society. Additionally, the first period aimed to coordinate the actions of UPEC services and the surrounding territory and engage students to become active participants in understanding and designing challenges and perspectives on urban health issues. The first phase of the experimentation has highlighted two main challenges. The first challenge is working with interdisciplinarity. Urban health is not a 'fixed' objective but a dynamic process in which socio-environmental and socio-economic factors constantly transform and interweave with upcoming human needs, urgencies, and contingencies that must be considered in their complexity. The second challenge is empowerment. Engagement strategies need to include well-designed and complex surveys and questionnaires and active actions to take ownership of their health trajectory. Empowerment can remain an empty signifier if respondents are not encouraged to become active in their health. Community building is key to empowerment, both across disciplinary silos and in the continuous dialogue on health and the environment with a multitude of stakeholders via activation of events such as workshops, stands, conference debates, and seminars to cultivate capacities in the network of relationships. E-city follows an approach that considers the urban ecosystem as a life-size laboratory and relies on experimentation starting from the initial idea of cohorts for empirical analysis of territorial data. This method has helped to understand the emerging dynamics of urban health that often remain undermined due to the difficulties of navigating the complexity of urban inequalities and social justice that are not always addressed adequately in urban health research and by public policies and local stakeholders in various sectors.

Keywords : Community Engagement, transdisciplinary, Interdisciplinary approach, health and social equity, equity, social justice

Aging And Urbanization: Investigating Different "Aging In Place" Models In The City As An Opportunity To Empower Individuals' Healthy Longevity

Stefania Butti (University Of Bergamo), **Emanuele Garda** (University Of Bergamo), **Maria Gattuso** (University Of Bergamo), **Francesca Morganti** (University Of Bergamo)

While elderly population in the 21 century is increasing, to sustain the wave of urbanization the city's planning and urban policies are changing. It is necessary think future scenarios according to the empowerment trend of the aging, who are moving from an ageist stereotypical view (Butler, 1975), and to innovative inclusive urban contexts that move far from an idea of elderly as a 'problem' or 'economic burden' for the society (Phillipson, 2013).

According to this vision Aging in Place (AIP) models were recently introduced to sustain urban age friendly policies (Vasunilashorn, et al., 2012). AIP, in fact, considers neighbourhoods and communities as crucial determinants of healthy longevity (Oswald et al., 2010) and intend to rethink and re-designing urban spaces around aged individual's needs. This innovation is congruent with the psychological research on aging considered in a lifespan perspective (Morganti, 2022) and with the idea of considering the aging period in a sort of "New map of life" (longevity.stanford.edu) that requires new projects for longevity.

The research main objective is to understand how different possibilities of AIP can determine healthy longevity. Over 80 years groups of individuals living in two different neighbourhoods of Bergamo city are analysed as case study. Taking in mind two main focuses - individuals and places - quantitative and qualitative measurements are introduced. Adopting a bio-psycho-social and ecological model of lifespan development (Bronfenbrenner, 1979), the individual focus assesses the healthy status (quantitative) and the motivation to empower in aging (qualitative). At the same time, adopting a multidimensional and multi-level lens, the place focus requires a spatial urbanistic analysis (e.g. functional and morphological setting; presence of physical barriers or limitations) combined with an ethnographic participant observation (qualitative). This multiple approach is necessary for give importance not only to the individuals AIP choices and to the creation of her/his proximal relationships, but also to the role of the entire system that surround the individual able to determine it. Through the introduction of this research model, we would like to understand the aging individuals life history, the motivation of a living choice inside the city, and perceived satisfaction in the interaction with the urban environment she/he decide to live within. By analysing how some different AIP solutions influences their everyday living condition within the city of Bergamo we'll be able to determine different grades of healthy longevity, and we'll contribute to provide a fundamental perspective shift in the studies of aging and urbanization.

A possible implication of this study could be the involving of policymakers, urban planner and architects, to propose new empowerment possibilities of urban spaces (in particular public or collective spaces) and contribute to introduce cities innovation that can turn aging into affordable places for new AIP models, according to the World Health Organization proposal (WHO, 2017) and the NexGeneration EU (next-generation-eu.europa.eu).

Keywords *: Aging in place, Age-friendly city, Healthy longevity, empowerment, inclusion*

Health And Residential Location Patterns Of Baby Boomers And Challenges For Health Care In Rural-Suburban Areas

Marvin Stiewing (University Of Kaiserslautern-Landau (Rptu)), **Kirsten Mangels** (University Of Kaiserslautern-Landau (Rptu))

Approximately one quarter of the German population was born in the high birth rate years between 1955 and 1969, making them part of the so-called baby boomer generation (Stefan et al. 2022: 1ff.). As they age, this generation will have a greater need for medical care - as the largest patient group of the future, baby boomers are therefore highly relevant to the provision of medical care. To comply with the legal mandate of providing outpatient care in close proximity, a demand-driven service is necessary (National Association of Statutory Health Insurance Physicians 2024). The demand-side accessibility standard for general practitioner care is hereby set at approximately 15 minutes, while general specialist care is considered to be reachable within 30 minutes (Sundmacher et al. 2018: 7f.). With people living longer and remaining active for extended periods, the boundaries of 'old age' are yet becoming less defined. Phenomena such as down-aging and the increasing importance of quality of life in the context of a silver society are giving rise to new phases of life (Zukunftsinstitut GmbH 2024). However, just as there is a paucity of data on the health and mobility behaviour of the baby boomers, there is also a paucity of data on the residential location behaviour of the baby boomers after their impending retirement.

From a demand perspective, and particularly with regards to the baby boomer generation, a number of planning-related questions arise. For instance, What role does the accessibility of healthcare play in the future residential location decisions of baby boomers? What are the current and anticipated needs and demands (demand parameters of baby boomers)? How can telemedical services be incorporated to improve the quality and accessibility of medical care in rural-suburban areas and, more importantly, what is the level of acceptance of digital, mobile, and hybrid healthcare among the baby boomer generation? Additionally, questions arise regarding the supply side, such as municipalities and medical practitioners. What is the relevance of medical care infrastructure for the community development? Finally, which decisions and choices made by medical practitioners are relevant for municipal decision-makers? What opportunities are available to influence the selection of locations for medical care services, including medical care centres, municipal clinics, and private clinics? What conclusions can be drawn regarding the impact of the determinants of the baby boomer generation's residential location choices on settlement development concepts and models in spatial planning, with a focus on spatial planning?

To address some of these questions, a partially standardised survey on healthcare provision was conducted among baby boomers in two rural and two suburban municipalities in Rhineland-Palatinate, Baden-Württemberg, and Thuringia. The survey was conducted as part of the sub project 'health' within the joint research project 'Ageing Smart - Designing Spaces Intelligently', which is funded by the Carl Zeiss Foundation and RPTU Kaiserslautern-Landau with more than 4.3 million euros (Carl Zeiss Foundation 2024). The insights gained into demand patterns and needs for health care, (supra-local) residential location behaviour, mobility behaviour, and the acceptance and relevance of digital and mobile forms of medical services are used to identify the need for action on the part of policy-makers and health care providers and to formulate options for action to ensure health care and mobility.

In the long term, the results will be integrated into the targeted Decision Support System (DSS) of the joint Ageing Smart project to support policy making in the project's seven pilot municipalities. This contribution discusses the results of the survey and the conclusions drawn for the provision of health care and mobility at the municipal level.

Keywords *: public health, urban and territorial planning, baby boomers, demographic change, decision support*

Compliance With Covid-19 Regulations In Cities Vs. Suburbs: The Role Of Communities' Forms Of Capital

Emil Israel (Technion – Israel Institute Of Technology), **Tal Feder** (Technion – Israel Institute Of Technology)

While cities' planned and built environments are key to healthier communities, urban areas are considered to be a sustainable form of settlement. Nonetheless, urban sprawl has caused disparities in the health of those living in cities vs. suburbs. One explanation for this disparity is the willingness of residents to comply with the recommendations and instructions of health care experts or public directives (Israel & Feder, 2023). While the findings in the literature are equivocal, there is evidence indicating that the social status of urban communities influences the health of their residents. Compliance, in the context of health behavior, is defined as "the extent to which a person's behavior coincides with medical or health advice" (Winnick et al., 2005, p. 718). Compliance is an essential part of what makes communities resilient. However, we know little about the factors that influence this compliance. To fill this gap in the literature, we examined data from Israeli municipalities in cities and suburbs about compliance with the government's COVID-19 regulations. In 2020, the COVID-19 pandemic spread worldwide, disrupting everyone's daily lives. To try to contain the spread of the disease, most countries imposed various restrictions. These restrictions differed depending on the country, region, and city. In addition, residents varied in their levels of compliance with them. Scholars have identified various factors that prompted people to do so.

The COVID-19 pandemic has also highlighted the link between people's health and where they live. Densely populated and poorer urban areas were affected more severely than suburban localities by the spread of the disease. The image of suburbs as safer and less prone to restrictions led to a shift in housing demands away from cities and toward the suburbs. Indeed, previous studies have indicated that those who live in small and relatively homogeneous suburbs enjoy better life-chances than those who live in large and diverse cities (Israel & Frenkel, 2015). Given the importance of cities on human health, and considering the fierce competition with suburban enclaves, identifying the factors that promote or impede healthy communities is imperative.

As one step in this direction, we investigated the differences between the residents of Israeli cities and suburbs in their level of compliance with the government's COVID-19 regulations. We also explored whether the physical and social characteristics of these cities and suburbs played a role in this compliance. To this end, we utilized Pierre Bourdieu's (2018) concept of three forms of capital–economic, cultural, and social– and their role in the communities' spatial opportunity structures. We used regression models to evaluate the influence of the social and physical characteristics of these communities on their residents' compliance with the health directives and recommendations, based on variations in their level of economic, cultural, and social capital.

The results suggest that those living in suburban communities have more economic, cultural, and social capital than those living in cities, leading to more adherence to government directives during the pandemic. In this respect, we concur with Keil (2018), who noted that, "in a majority urban world, most activity in terms of the expansion and contraction of urban population, built form and economic activity will occur in peripheral areas. So that our urban century is really a suburban one" (p. 15). Developing a new perspective on the reciprocal interactions between cities and suburbs with regard to compliance with COVID-19 regulations might shed light on the social mechanisms that drive health behaviors in both types of communities. Doing so can improve enhance the resilience of communities, hopefully reducing regional inequities based on place of residence.

Encouraging Healthy Ageing Through The Planning Of Age-Friendly Communities In Estonia

Sirle Salmistu (Phd), **Nele Nutt** (Phd), **Kristiina Kupper** (Msc), **Zenia Kotval** (Phd, Faicp)

Health is one of the key factors that influences individuals in their everyday life, particularly older adults. This also has implications to urban planning and design professions. According to United Nations global ageing report, the proportion of the world's population of older people will increase to 16% by 2050 (United Nations, Department of Economic and Social Affairs, Population Division, 2020). Same trends are visible in Estonia where the number of people over 65 years old are predicted to increase to 28% by 2050 (Statistics Estonia, 2019). One in five Estonians are already over 65 and possibly require more assistance and supportive environments in terms of their functional abilities. Still, spatial interventions and the built environment in Estonia are dominantly focused on younger generations, older adults are not fully involved in the development of urban public space and community building. At the same time, it is crucial that older adults should be able to use public spaces to remain active and socialize to avoid social isolation and loneliness. Ageing communities will challenge existing societal support structures and built environment, and require proactive interventions, serious awareness, and better acknowledgement by the city developers, decision makers and built environment professionals.

Creating urban space that meet the needs and expectations of people over the life-course, especially in older age, has become increasingly relevant (Buffel & Phillipson, 2018; Gilroy, 2021). The concept of Age-Friendly Cities and Communities (AFC) has emerged as community development initiative since 2006 in response to a global ageing society with public health as overarching concern (Steels, 2015; van Hoof et al., 2021; WHO Regional Office for Europe, 2017). Well-designed communities and physical environments support opportunities for healthy ageing, promote physical and mental health and well-being through infrastructural and programmatic planning. Ageing and health is intertwined in all fields of community development and policies, and as such, urban planning and design has a responsibility to influence improving the health, well-being, and quality of life of all people, including older adults. These principles are supported by the Estonian Welfare Act and recently completed principles of Age-Friendly Estonia (Kuldne Liiga MTÜ, n.d.; Sotsiaalministeerium, n.d.). This, however, requires increasing awareness, empathy and mainstreaming urban ageing issues.

The aim of the paper is to demonstrate how urban planning and design in Estonia is responding to these social and demographic trends: what are the spatial and policy interventions for developing age-friendly communities in Estonia, what are the major challenges, and how to encourage creating age-friendly communities in Estonia that enables people to maintain independence and to grow old in their communities (healthy ageing). Additionally, the paper demonstrates what are the main characteristics, including adequacies and shortcomings, in recently constructed public spaces addressing older adults as users of these spaces.

The findings show connections between components of built environment, transportation and mobility, social engagement and interactions as well as political will and attitudes that are critical to achieve age-friendliness of the places. Also, findings demonstrate how urban planning and design can contribute to health, healthy ageing, and quality of life of older adults.

The paper indicates what is the state of age-friendliness in Estonia and enables to put Estonian case to international and comparative arena in the realm of urban ageing and age-friendly environments in the context of urban planning and design.

Keywords : Age-Friendliness, Age-Friendly Communities, Age-Friendly Cities, Inclusive Planning, Universal Design, Built Environment, Urban Planning, Estonia

Educational Infrastructure

Linking Educational And Territorial Policies To Fight Spatial Inequalities: The Italian Case

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The paper presents the intermediate outcomes of ongoing research on the distribution and organization of the educational infrastructure in Italy. It proposes the need to consider education as a fundamental territorial policy, which requires planning and governance instruments attentive to the specificities of the different territorial contexts. Original cartographies and datasets provide evidence of the public school system as a crucial resource for social cohesion and inclusion, confirming to what extent the presence and good functioning of an area's educational and cultural infrastructure contributes not only to a more general quality of life for minors and adults but also significantly affects the healthy life expectancy of children (Save the Children 2022).

In recent decades, two distinct territorial narratives have emerged in the national debate on schools. Firstly, there is a focus on metropolitan areas, sharpening school segregation processes that exacerbate spatial and social polarizations. Secondly, national cohesion policies address reducing marginalization in inland areas, designating schools as safeguards against depopulation. However, significant portions of the country, non-metropolitan and non-inland, encompassing medium-sized cities and medium-small towns, where half the national population resides, are excluded from this panorama. In this intermediate Italy, issues arise concerning inequalities in educational supply distribution, revealing increasing territorial polarization based on degrees and spatial conditions, demanding targeted actions and policies.

This paper examines education at two observation scales. Firstly, on a national scale, it analyzes the nationwide distribution and geolocation of schools across different age groups (3-5; 6-10; 11-13; 14-18 years). This assessment is conducted at both municipal and grid-based levels, dividing the Italian territory into comparable sections. Further analyses assess residents' access to educational services, including the average distance per municipality to the nearest schools, the count of reachable schools within 15 minutes on foot or by bicycle, and for upper secondary schools, within 40 minutes by public transport. The concept of potential accessibility, combining these dimensions, is also explored synthetically. The analysis sheds light on access conditions and educational choices in Italy, highlighting challenges within a diverse, distributed infrastructure amidst varied urbanization and public mobility networks.

A second, closer scale (regional/sub-regional) analysis made it possible to compare territorial morphologies, administrative perimeters, and inter-institutional relationships between schools and territories. This operation allows linking the educational system to the plural forms of government of the school and the territory at the inter-municipal level, which is the most appropriate for the promotion of 'extended' proximity policies.

In a country like Italy, in which the great heterogeneity of urban forms is combined with significant administrative and sectorial fragmentation, the spatialisation of public education policies represents a crucial operation for a more in-depth and situated discussion on the role of the school as a civic and social barycentre for the territories. In these terms, the presented research work constitutes an operational atlas that can support decision-making processes on school sizing, siting, and targeting investments in school buildings and educational organisation to promote equity of access to educational services and fight the growing forms of educational poverty and territorial inequality.

Keywords *: territorial policies, spatial inequalities, educational infrastructure, mapping, Intermediate Italy*

The Territorial Reconfiguration Of Education In Northern Germany – What Consequences For The Future Of Rural Schooling?

Holger Jahnke (Europa-Universität Flensburg)

From its very beginning, the emerging subdiscipline of „Bildungsgeographie" (geography of education and learning) has been concerned with the spatial patterns of school infrastructure and the accessibility of education in rural areas. In the German context of the 1960s and 1970s participation and success rates in higher secondary education varied significantly according to the geographical distance between families' residences and the next adequate school infrastructure. These findings fostered the geographical expansion of the public education system into more peripheral areas, eventually leading to higher participation, and an attenuation of social and spatial disparities in educational attainment.

Since the 1990s a general transformation from public educational provision towards more neoliberal forms of educational governance can be observed (Mary et al. 2023). For the case of Germany it is characterized by three major trends (Freytag et al. 2015): (a) the privatization of education through the expansion of private institutions on the one hand and the introduction of mechanisms of competition on the other; (b) the decentralization of the public education system through a shift from (regionally) centralized school planning towards local and school autonomy guided by incentives and frameworks from the national and European level an (c) the opening of school institutions from half day to (voluntary) full day schooling while at the same time introducing nonformal and informal educational offers into the school.

Especially peripheral areas with shrinking numbers of school children have been and still are confronted with the threat of school closure at primary and even secondary level. In the case of Schleswig-Holstein (Northern Germany) so-called „educational landscapes" have developped to mobilize place-based cultural capital to compensate for the lack of teachers and the withdrawel of public education. However, pre-existing disparities concerning the quality of educational offers and their accessibility between neighbouring municipalities might be enhanced (Jahnke 2019). More recently, the arrival of refugees as well as the post-pandemic trend towards „rural gentrification" has given hope for a demographic reversal and re-imagination of a positive future in rural areas (Jahnke 2020).

In this presentation, I will discuss the territorial reconfiguration of education in rural areas and its possible consequences for future developments.

Educational Landscapes - An International Perspective

Angela Million (Tu Berlin)

The realization that education and urban development are closely intertwined is evident internationally in the emergence of a nascent field of research. A broad spectrum of terms exists to describe the forms of interaction between various educational and youth care institutions on one hand and the structures of spatial planning and policy on the other. Terms such as "Community Schools," "Community Learning Centers," "Multi-Service Schools," and "Extended Schools" denote a globally (Million and Castillo 2023) and particularly in Europe widespread phenomenon linking local education especially to community development. Other keywords describing this development of educational infrastructure include "multiple use of (school and campus) space" and "publicly accessible spaces (within schools)". Starting from the popular development of educational landscapes or educational networks (known as Bildungslandschaft or Bildungsverbund in Germany - Heinrich and Million 2021), the aim is to understand them internationally. Based on a literature review and interviews, this presentation discusses how space and education are conceptually linked and their underlying rationales, taking into account the political system of the respective research locations as well as country-specific programmatic approaches and their materialization.

Various spatial education concepts and programmatic approaches can be identified and examined in the European context. However, ongoing or completed reform programs indicate a discernible trend. The physical design of learning environments is viewed as a vital tool for reforming the education system in a changing society, as seen in Grosvenor/Rasmussen 2018. As the discourses in the researched European countries differ significantly in some aspects, with varying understandings of education and different political agendas having a considerable impact on debates about spatial education concepts, a common European foundation can still be identified. Tracing these discourses as well as common aspects can serve as groundwork for examining education landscape-like concepts in specific examples within the European/international context as a base for urban development and planning discourse.

A Planning Tool To Improve The School Environment In Poor Neighbourhoods ? Reflecting On The Recent Experience Of School Contracts In Brussels-Capital Region

Geoffrey Grulois (Université Libre De Bruxelles)

With the regionalization of Belgium 1989, the Brussels-Capital Region, made up of 19 municipalities, has gained political autonomy in terms of urban planning and development. However, the Belgian federalism model has kept education as a competence of the three Communities (Flemish, French, German-speaking). The result is, de facto, a disjunction between the urban planning of Brussels and the policies of schools. This lack of comprehensive planning policy concerning school in Brussels is partly responsible for the spatial degradation of school in poor neighbourhoods.   Since 2017, the creation of the School Contract as a new planning tool to improve the school environment in Brussels and strengthen relations between the school and its neighbourhood has been set up as part of urban revitalization policies. The School Contract tool is framed on the successful experience of Neighbourhood Contracts by emphasizing citizen participation and investment in community infrastructures.

This presentation will analyse the new programme of School Contracts by contextualizing it in the social geography and planning culture of Brussels. It will reflect on its outcome by questioning the process of planning and implementation of the first School Contracts in Brussels.

Shrinking Cities Research: Lessons Learned And Ways Forward Part I

Emmanuelle Cunningham-Sabot (École Normale Supérieure)

Jasmin Aber (Creative Exchange Lab (Cel))

Sophie Buhnik (Tokyo City University)

Maxwell Hart (Queen's University)

Karina Pallagst (Rptu Kaiserslautern)

Kai Zhou (Hunan University)

Norma Schemschat (University Of Amsterdam)

Charline Sowa (Cdhu, Conseil Développement Habitat Urbanisme (Troyes))

Helen Mulligan (Cambridge Architectural Research Limited)

Post-Growth Planning - Transformation Or Revolution?

Sofia Greaves (Universidade De Vigo)

Kim Carlotta von Schönfeld (Western Norway University Of Applied Sciences)

Christian Lamker (University Of Groningen)

Alois Humer (Austrian Academy Of Sciences)

Peter Ache (Radboud University)

Jin Xue (Norwegian University Of Life Sciences)

Federico Savini (University Of Amsterdam)

Shifting The Paradigm: Redifining The Power Dynamics In South-North Collaborations

Subhashree Nath (Leibniz Institute Of Ecological Urban And Regional Development (Ioer))

Benjamin Davy (University Of Dortmund)

Neelakshi Joshi (Leibniz Institute Of Ecological Urban And Regional Development, Dresden)

Oren Yiftachel (Ben-Gurion University Of The Negev)

Cao Kang (Zhejiang University, China)

Participatory Processes

Moritz Maikämper (Arl – Academy For Territorial Development In The Leibniz Association)

Jia Ling (The Hong Kong Polytechnic University)

Xiaomeng Zhou (Utrecht University)

Oya Memlük Çobanoğlu (Gazi Üniversitesi)

Xiaoxia Zhang (Tu Delft)

Three Characters In Search For An Author. Sustainability, Resilience And Transition

Ombretta Caldarice (Politecnico Di Torino, Dist, Responsible Risk Resilience Centre)

Grazia Brunetta (Politecnico Di Torino, Dist, Responsible Risk Resilience Centre)

Alberto Giacometti (Nordregio - Research Centre For Regional Development And Planning)

David Simon (University Of London, Department Of Geography)

Nicola Tollin (University Of Southern Denmark)

Jan Zaman (Idea Consult)

Pasquale Capizzi (Arup)

Filipppo Magni (Università Iuav Di Venezia, Epic, R3c)

Federico Beffa (Fondazione Cariplo, Milano)

Paolo Siccardi (Fondazione Cariplo, Milano)

Unlocking The Future Of Planning

Markus Zepf (Ecole D'urbanisme De Paris (Eup), Université Paris Est Créteil (Upec))

Enza Lissandrello (Aalborg University)

Clément Orillard (Ecole D'urbanisme De Paris)

Built Environment Education

Ceren Sezer (Rwth Aachen University)

Eugenio Morello (Politecnico Di Milano)

Christa Reicher (Rwth Aachen University, University Professor)

Francesco Musco (Department Of Architecture And Arts, Università Iuav Di Venezia, Venice, Italy)

Chrisna Du Plessis (University Of Pretoria)

Matej Niksic (Urban Planning Institute Of The Republic Of Slovenia)

Tijana Dabovic (University Of Belgrade)

Reframing "Territory" With The Help Of Applied Ontology

Camilla Perrone (Department Of Architecture - University Of Florence)

Stefano Borgo (Laboratory For Applied Ontology, Cnr-Istc)

Stefano Moroni (Milan Polytechnic University)

Giovanni Fusco (Université Côte D'azur-Cnrs-Amu-Au, Espace)

Temporality In Planning Thought

Gérard Hutter (Leibniz Institute Of Ecological Urban And Regional Development (Ioer))

Simin Davoudi (Professor)

Raine Mäntysalo (Aalto University)

Andy Inch (University Of Sheffield)

Miriam Jensen (Aalborg University)

Thorsten Wiechmann (Tu Dortmund)

Transnational Urban Projects Within Cultural Heritage Areas. Exploring Assemblages, Intersections, And Transformation

Davide Ponzini (Politecnico Di Milano)

Laura Lieto (Universita' Degli Studi Di Napoli Federico Ii Docenti)

Matteo Basso (University Iuav Of Venice)

Zachary Mark Jones (Politecnico Di Milano)

Urban Planning For Health Equity

Heike Köckler (Arl; Hochschule Für Gesundheit)

Thomas Verbeek (Tu Delft)

Carlo Fabian (Arl; University Of Applied Sciences And Arts Northwestern Switzerland)

Miriam Weber (Arl; City Of Utrech)

Magdalena Maierhofer (Arl, Gesundheit Österreich Gmbh)

Daniel Münderlein (Arl,Kassel University)

European Values And Spatial Planning

Ben Davy (University Of Johannesburg, Faculty Of Law)

Stefano Cozzolino (Ils - Research Institute For Regional And Urban Development)

Tijana Dabovic (University Of Belgrade)

Anita De Franco (Politecnico Di Milano)

Kang Cao (Zhejiang University)

Just Green Transitions: Transforming Or Transitioning To What?

Yahya Shaker (Interuniversity Department Of Regional And Urban Studies And Planning (Dist) - Politecnico Di Torino (Italy))

Elena Todella (Interuniversity Department Of Regional And Urban Studies And Planning (Dist), Politecnico Di Torino, Italy)

Fiona Imami (Polis University, Tirana)

Erblin Berisha (Interuniversity Department Of Regional And Urban Studies And Planning (Dist) Politecnico Di Torino, Turin, Italy)

Alberto Giacometti (Nordregio - Research Centre For Regional Development And Planning)

Stefano Moroni (Milan Polytechnic University)

Dominic Stead (Aalto University)

Anila Bejko (Polis University, Tirana)

New Geographies Of Logistics

Simonetta Armondi (Dastu-Politecnico Di Milano)

Carlo Salone (Dist - Università Di Torino)

Fabiano Compagnucci (Gran Sasso Science Institute (Gssi))

Laetitia Dablanc (University Gustave Eiffele Ravetz)

Tom Daamen (Tu Delft)

Ward Raws (University Of Groningen)

Markus Hesse (University Of Luxembourg)

Planning Future Histories

Sarkar Alankrita (Tu Delft)

Hanna John (Tu Delft)

Reicher Christa (Rwth Aachenöller (Tbc))

Panigyrakis Phoebus (Tu Delft)

Ugovern: : Governance And Urban Regeneration For Sustainable Communities

Federica Scaffidi (Leibniz University Of Hannover)

Nagwa Kady (University Of Amsterdam)

Andre Legarza (University Of Amsterdam)

Tuna Taşan-Kok (University of Amsterdam)

Eleonora Righetto (Università degli Studi di Padova)

Ezio Micelli (Università IUAV di Venezia)

Sarah Ozogül (University of Groningen)

Futuring The European Metropolitan Region Under The Change– Between Strategic Positioning And Everyday Life Worlds

Camilla Perrone (Department Of Architecture - University Of Florence)

Karsten Zimmermann (Dortmund Universit)

Valeria Fedeli (Polytechnic Of Milan)

Peter Ache (Radboud University)

Marco Cremaschi (Sciences Po, Paris)

Ivan Tosics (MRI, Budapest)

International Comparison Of Shrinking City Policies. Their Accomplishments And Struggles

Keiro Hattori (Ryukoku University)

Jan Polivka (Berlin Technology University)

Naomi Shimpo (University Of Hyogo)

Hiroki Nakajima (University Of Tokyo)

Tomohiko Yoshida (Ritsumeikan University)

Angela Million (Tu Berlin)

Tim Rieniets (Leibniz Universität Hannover)

Evaluating Emissions And Equity Impacts Of Transportation Investments Aligned With The Climate Action Plan For Transportation Infrastructure (Capti) In California

Serena Alexander (Northeastern University), **Shams Tanvir**

Transportation and climate change are undeniably interrelated. New and expanded federal and state investment programs in transportation infrastructure offer a chance to transform mobility and build a more sustainable, equitable, and resilient system. The California State Transportation Agency (CalSTA) adopted the Climate Action Plan for Transportation Infrastructure (CAPTI) in 2021 to help align transportation infrastructure decisions with the state's climate, health, and equity goals. The purpose of this research was to help evaluate emissions and equity benefits from transportation investments across the State of California. The research methods involved: 1) estimating and comparing the vehicle miles traveled (VMT), and consequently, emissions impact of CAPTI on major investment programs using a VMT rating system; and 2) spatial analysis examining how projects with various VMT ratings are distributed across the state and in relationship with disadvantaged communities. Findings indicate that the adoption of CAPTI has resulted in an overall reduction of GHG emissions generated across the portfolio of programs, and an increase in the number of investments that do not generate higher GHG emissions and other pollutants. Also, spatial analysis shows that transportation infrastructure investments are reaching disadvantaged communities and areas with the greatest need for mobility improvements. California should continue investing in transportation infrastructure in a manner that is equitable and that reduces VMT and emissions but achieving the state's climate goals requires a stronger emphasis on alternative transportation modes to make transit and active transportation modes more accessible and more appealing than driving.

***Keywords** : greenhouse gas emissions, transportation emissions, equity, Vehicle Miles Traveled, climate action*

'Transecting' Borders: Building A Land-Water Imagery Of An Estuary

Caterina Anastasia (Research Centre For Architecture, Urbanism And Design (Ciaud), Lisbon School Of Architecture, Universidade De Lisboa)

At a time of renewed interest in the potential of watercourses (including their design potential), the author's research project promotes a vision of the Tagus Estuary as the shared public space and beating heart of the Lisbon Metropolitan Area, a system of water spaces that is the strongest unifying element of the city that set along it – dubbed the 'City of the Tagus Estuary'.

Focusing on the land-water interface, the objective of this presentation is to read the Tagus Estuary through cross-sections. By using 'transecting as a line of investigation' the aim is to offer a narrative of the estuary rather than a (precisely delineated) description of it. Similar to the writers who also used the 'transect' as a way to structure a narrative around movement through space (Gandy, 2020), this presentation sets it as a basis.

According to Gandy's suggestions (2020), a 'transect' is a mobile form of data collection that involves tracing a line through a designed area, typically on foot, in order to systematically record what can be found. Although deprived of the physical act of walking – a familiar method in ecological surveys (Gandy, 2020) – here transects are still characterised by a mobile gaze that runs, crosses, cuts, and finally fixes frames illustrating the length of the estuary through a few characteristic fragments.

By transecting the huge water space of the Tagus Estuary and emphasising the concept of 'transect' (cut or transection) and its creative potential, the work will focus on the character of the land-water edge, in space and time (at different times). The result will aim to document and narrate the character of the interface defined by recent public space interventions and highlight the design potential of different inhabited shores along the estuary.

In making an overview of the implemented solutions, the concluding remarks will emphasise the need to acknowledge and explore the potential of the proximity to water and the ever-shifting estuarine landscape, both for the construction of an imagery of the City of the Tagus Estuary and for the design of its specific land-water contact.

Keywords *: land-water interface, city and river, transect, ever-shifting water imagery*

Sensing The Cities: Reviewing The Quality Of Portable Sensor Data.

Chhavi Arya (Rheinland-Pfälzische Technische Universität Kaiserslautern), **Julia Mayer** (Deutsches Forschungszentrum Für Künstliche Intelligenz Gmbh (Dfki), Kaiserslautern), **Martin Berchtold** (Rheinland-Pfälzische Technische Universität Kaiserslautern), **Martin Memmel** (Deutsches Forschungszentrum Für Künstliche Intelligenz Gmbh (Dfki), Kaiserslautern)

The past decade saw a plethora of new data sources being created that powered the idea of a 'Smart City'. The use of data to understand cities is not a new phenomenon. However, the betterment of information and communication technology has led to the proliferation of sensors in the urban fabric that generates vast troves of data regarding urban dynamics. These sensors may be fixed or mobile, but they have given rise to new datasets that measure how different components in the city change through time (Batty, 2021).

The data thus produced is not only a tenet for the efficiency of data-driven governance but can also help in making urban spaces more comfortable and safer for more people. The sensors have the potential to explore how people experience their environment. The research on hand-held and wearable sensors and their ability in understanding movement patterns across and within cities is gaining momentum in this regard. The literature has shown that analysing these data empowers researchers to better understand and model human mobility (Jiang, Yin and Zhao, 2009), city dynamics and semantics (Jiang and Miao, 2015), monitor and optimize traffic and city services, to manage disasters and improve people's quality of life and wellbeing (Ratti and Claudel, 2016). As such, our cities are becoming more knowable, fuelled with geo-contextual information that is employable by the realm of urban planners.

It can be said that the opportunities of expanding datasets are also addressed by the European Data Act 2022 that lays down regulations to make more data available by the data holders to the data recipients and public sector bodies for the tasks carried out in public interest (European Commission and Directorate-General for Communication, 2022). Specifically for the cities and for the urban planning community in general, it can potentially increase an exchange and re-use of data within stakeholders.

However, the issue of data quality presents a fundamental challenge. Passive data-collection is highly dependent on the participant regularly carrying and charging the sensing device. Moreover, the limitation for their large-scale employability and their stability poses problems that can be foreseen to compromise on the uptake of portable sensor data in urban analytics. The speed at which portable sensors are being employed is much faster than the research and development in the area of data standardisation.

The research takes a closer look at the portable sensors like activity trackers to enumerate the quality issues. The trackers recorded the GPS trajectories of volunteering Baby Boomers in Kaiserslautern, Germany over two weeks with an objective to understand the extent of their everyday activities with respect to the built environment. Their trajectories are spatially visualised to bring out their daily physical extent and explore the dependence on morphological features such as built density, visual greenery, and accessibility to green spaces. The collected data is studied to analyse the impact of data gaps on validity, reliability, and sensitivity of the conclusions.

The aim of the research is to bring out the issues that can compromise data quality of the portable sensing technologies so that their potential for democratic policymaking can be enhanced further. These are currently being used for focussed-group studies to understand accessibility and mobility patterns, physical activity and measuring activity spaces of citizens. The results of this research can improve the employability of portable sensors in focussed group studies in urban planning. With a high spatial resolution, it can assure a bottom-up planning approach and can be a game-changer for expanding a city's database for urban analysis.

Keywords *: portable sensors, data quality, data biases, visualisation, urban analytics*

Assessing Public Sentiments In Post-Urban Regeneration: A Location-Based Analysis Of The Karaköy Salıpazarı, İstanbul

Selin Aslan (Gebze Technical University), **Fatih Terzi** (Istanbul Technical University)

Urban regeneration initiatives worldwide have gained prominence in academic discourse, not only for their impact on the physical structure of cities but also their social contributions to the daily life experiences of urban habitants. Scholars emphasize the importance of considering the social aspect in achieving successful urban regeneration, suggesting that such projects should aim to integrate the city and its residents by taking into account the daily life dynamics of local residents. In cases where the social dimension is not adequately addressed, urban areas and their component parts experience the emergence of new social memory and identity pressures within the region (Creve and Beaverstock, 1998).

Although the social integration is highlighted as a primary aspect in urban regeneration, it can be challenging to make definitive assumptions regarding social effects of regeneration projects. Herein, revealing the existing community sentiment patterns can serve as a valuable social-spatial source to observe symbiotic relationship between humans and their environment.

Within this theoretical framework, the study approaches the social dimension of urban regeneration through the case of Karaköy Salıpazarı district. The intricate urban regeneration process of the area and implementation of the Galataport Complex within the historical landscape of the Karaköy has recently raised criticism about its perceived deficiency in social integrity (Korkut and Nalbantoğlu, 2023; Karslı, 2015). However, current literature falls short in providing a tangible claim about the socio-spatial transformation experienced by the site. This gap in the literature underscores the need to investigate the transformative power of the Galataport urban regeneration project on the socio-cultural fabric of the locale, as well as its associated reflection on public sentiments. It is also important to emphasize that the Salıpazarı urban regeneration project is not just a redevelopment effort but also a kind of cruise port initiative aimed at boosting public space through mixed-use development.

Following this objective, the focus of the study relies on location-based data derived from Google Maps, which enables users to rate places and share associative reviews. The study is methodologically structured around five consecutive steps: (1) extraction of Point of Interest (POI) data using Google Maps API, (2) scraping google maps reviews of respective venues in the year 2023, (3) implementation of sentiment analysis to respective reviews via Neuro-Linguistic Programming (NLP) techniques, (4) conducting hotspot analysis to evaluate clustering of aggregate ratings of venues, and (5) cartographic representation of sentiment analysis outcomes and review density within ArcGIS Pro.

The findings of the study indicate that, despite the high density of reviews in the Galataport Complex area during the year 2023, public sentiments associated with the project area tend to register at a low level compared with the broader Karaköy Salıpazarı district. Additionally, the application of hotspot analysis to venue ratings reveals the presence of two distinct cold spot clusters within the project area, indicating consentrations of negative public sentiments.

In conclusion, this study underscores the significance of the social dimension in the urban regeneration process, revealing the negative reflections on public settlements patterns in instances where its realization proves elusive. In navigating complex landscape of urban regeneration, and for fostering inclusive and resilient urban environments, the study recommends the adoption of a comprehensive approach in future planning endeavors.

Keywords *: Urban regeneration, Sentiment Analysis, GIS, Istanbul*

Unveiling Songdo: An Analysis Of Public Spaces And User Engagement

Idil Ayral (University Of Utah (Asia Campus))

As a newly developed city in South Korea, Songdo's urban planning, rooted in sustainability and smart city initiatives, differs significantly from common urban development strategies in the country.

The planning and development of Songdo began in the early 2000s to establish an international business district. The city has been envisioned as an innovative and sustainable urban area, with a focus on creating a smart and livable environment.

This research explores public spaces in Songdo as an important case study of a shift towards user-friendly urban models. Despite the abundance of green areas, public spaces in the city face the challenges of underuse. The study focuses on five key parks, employing observation, on-site surveys, and public feedback to analyze usage patterns, design elements, and user preferences.

The research outlines the development of Songdo's public spaces, including Central Park, Sunrise Park Global Park, Haenuri Park, and Haetmuri Park. A comprehensive examination of these spaces reveals variations in usage and satisfaction levels.

The study conducted comprehensive observations in five significant public spaces across various days and hours to analyze user behavior and usage patterns. Design and planning elements were documented through photography and map markings, and on-site assessments were made of the existing facilities and urban furniture. Public surveys were made with users of different age groups, focusing on visit frequency, duration, and preferences for design elements in the parks. Additionally, users provided subjective statements on feelings associated with the spaces, using a ranking scale from 1 to 5. The research aimed to gather insights into user perceptions and preferences for enhancing these public spaces.

Recommendations and conclusions emphasize enhancing accessibility, amenities, and activities to activate underused spaces, highlighting Songdo's role as a prototype for future urban development in South Korea, and the need for a people-centric approach to address challenges in public space utilization.

Keywords *: public space, public space activation, public spaces in songdo, green space*

The Battle Of Public Action In The Face Of Dark Stores : The Behind-The-Scenes Construction Of A Public Problem In The Field Of Digital Delivery Platform Economics.

Pierre-henri BESNARD (Ecole Nationale Des Ponts Et Chaussées, Ed Vtt, Lvmt)

At the time of the COVID19 pandemic, several major metropolises including Paris, Lyon, Amsterdam, Barcelona and New York experienced the accelerated development of a new form of online commerce: quick-commerce, a fast delivery method for food products or meals in around fifteen minutes. In order to exist, companies such as Gorillas, Getir, Flink and Gopuff need storage space close to delivery points, i.e. in the heart of the city. This is where dark stores come into play: "set up like mini-markets, these small warehouses with a surface area of less than 400 m2 are only accessible to staff responsible for collecting and delivering products" (Rai et al., 2022).

While some legal uncertainties may enshrine their presence for a time, as shown by the example of the city of Paris, local government action to regulate them, combined with media coverage, will lead to the closure of the vast majority of them. Indeed, on March 23, 2023, the Conseil d'Etat ruling legitimized the reclassification of dark stores as warehouses within the Local Urban Plan (PLU). The battle waged by the City of Paris against these players in the fast delivery digital platform economy, in cooperation with a network of cities at both national (Lyon, Lille, Marseille) and European (Barcelona, Rome, Amsterdam, Berlin) level, demonstrates the convergence of public action in the face of this targeted problem.

It's as if public action had succeeded, in this case, in mastering the platform economy that it had failed more to regulate for other sectors (short rentals, micromobility, etc.) (Jeannot & Cottin-Marx, 2022). This poster, which relays part of a thesis, therefore aims to question the social forces at work in the construction of the public problem (Bernardin, 2022) dark stores and the instruments used to keep them out of urban centers. In the light of the ecological and social issues raised by urban logistics and its fast delivery segment, the aim is to understand what the formulation of the problem of dark shops by public action reveals about the treatment of both the digital economy and the place of logistics activities in metropolises.

The choice to study dark stores as an object of public action is interesting in order to understand how, unlike other issues, this one very quickly rose to the top of the agenda of local authorities, which succeeded in mobilizing instruments and converging to provide a response to a targeted problem. This work follows on from other analyses carried out on the economy of digital platforms such as Airbnb (Aguilera et al., 2019) or Waze (Courmont, 2018). What's more, it is part of a reflection specific to the challenges of urban logistics through a methodology aimed at looking at how the public problems of goods mobility are partly forged from the local scale, in the immediate public space, and are then articulated on the more macro scale of governance mechanisms. We will analyse how the framing of this problem and the instruments used to tackle it are the result of coalitions and definitional struggles between different groups: elected representatives, technical staff, local residents' associations, workers' unions and representatives of fast delivery companies.

***Keywords** : Digital Economy, urban logistics , public action, collective action, local authorities*

Planning For Just Energy Transitions In Public-Housing Neighbourhoods

Alessandro Bonifazi (Polytechnic University Of Bari), **Monica Bolognesi** (Polytechnic University Of Bari), **Franco Sala** (Ricerca Sul Sistema Energetico - Rse S.p.a.), **Laura Grassini** (Polytechnic University Of Bari)

The nexus between energy transition, poverty and public housing in Italy shines through in the figures released by the housing management bodies: more than half of the stock under management, about 400,000 dwellings built between 1970 and 2020, is classified as high energy consumption and the households living in them commit more than 10 percent of their income to energy consumption (Federcasa, 2024).

Neighbourhoods "in crisis" - whether large public housing estates or other residential areas - add to the material degradation of buildings (with limited energy performance) a lack of services and infrastructure and insufficient attention to the material, cultural and relational dimensions, which affect the living conditions of the community (Pasqui et al., 2021), leading to social injustice and greater difficulty in triggering and sustaining territorial innovation.

Among the distinctive features that the energy transition seems to take on in high-density urban neighbourhoods, at least two have become well established both in the scientific literature and in the public policy repertoire. The first trait concerns the increased decisiveness with which attention is focused on drastic reductions in energy consumption by acting on the efficiency lever (in particular, by improving the energy performance of buildings) or, with a growing consensus but still not without scepticism, by triggering behavioural changes that contemplate the acceptance of sub-optimal comfort levels, according to the sufficiency principle (Erba et al., 2021; Jungell-Michelsson&Heikkurinen, 2022).

The other hallmark of energy transitions in high-density neighbourhoods is the tendency for place-based approaches to prevail (Moroni et al., 2019), where the energy community is assumed to coincide with or be shaped by the local community (Prezza et al., 1999; Rohe, 2009). Although such approaches resonate with a well-established tradition in spatial planning and local development (RTPI, 2021), this strand of the energy transition seems to view places more as partitions of space in which to organise the socio-technical transformations required to adapt to global change (Raven et al., 2012; Rutheford&Coutard, 2014), rather than as an elective dimension in the ever-evolving effort to understand the interplay between nature, community and society (Batty&Marshall, 2009; Healey, 2004). The most relevant embodiment of this approach, best defined as area-based, is the Programme on Positive Energy Districts and Neighbourhoods introduced by the European Strategic Energy Technology Plan in 2018 and overseen by the Joint Programming Initiative Urban Europe , according to whose framework definition, "Positive Energy Districts are energy-efficient and flexible urban areas or groups of connected buildings that produce zero net greenhouse gas emissions and actively manage an annual surplus of local or regional renewable energy production. They require the integration of diverse systems and infrastructure and the interaction between buildings, users and regional energy, mobility and ICT systems, while ensuring energy supply and welfare for all, in line with social, economic and environmental sustainability". Despite the geometric-functionalist orientation of the adopted reference, the first real-world examples of positive energy districts tend to escape the grids due to specific contextual factors (Derkenbaeva et al., 2022).

Based on a comparative case study research design (Gerring, 2017), the present work aims to explore the prospects of renewable energy community building in public and social housing estates in six Italian cities, mostly medium-sized or metropolitan. In some of them, the development of positive energy districts is also underway or planned. Preliminary reflections point to both similarities and dissonances with the trajectories of corresponding processes observed under different contextual conditions, while the paradoxical implications of energy sufficiency for social justice call for a bold approach to address inequalities by leveraging cross-scale social networks and co-producing more than local energy transition pathways.

Keywords *: energy justice, social housing, Positive Energy Districts, Renewable Energy Communities, sufficiency*

Towards A Method For Infrastructure Decision Making From A Post-Growth Perspective

Geert te Boveldt (Vrije Universiteit Brussel)

As infrastructure tends to be heavy in terms of both impacts and investments, decisions in this domain are not to be taken lightly. For making logical, informed and transparent decisions, the dominant appraisal method is cost-benefit analysis (CBA). It is mandated by institutions such as the EU, World Bank and Asian Development Bank, but is also strongly criticised by environmental and social scholars. CBA gauges a project's social desirability or 'sustainability' by translating and aggregating not only the economic but also the ecological and societal impacts into a monetary value, resulting in an easy-to-interpret outcome that helps navigating complex trade-offs.

But it also considers a project desirable or 'sustainable' no matter how severe the environmental or societal damage, as long as sufficient economic growth is generated. Thus, CBA only considers the total net impacts, without taking into account their societal, spatial or temporal distribution or existing socio-spatial inequalities, as it assumes that benefits will eventually trickle down to the disadvantaged (Sen, 2000).

The question is: how to translate a project's effects into an aggregated score for navigating trade-offs between positive and negative impacts, taking into account the existing distribution of benefits and burdens over environment and society in space and time? How can this 'prioritarian appraisal' take into account the pre-existing socio-spatial variegation of needs and boundaries, instead of assuming that overall economic growth will eventually fulfil everyone's needs? In this contribution we therefore report on the development of a novel method for appraisal from a post-growth perspective.

To do so, we first revise appraisal's ethical foundations, as societal desirability is ultimately a question of distributive justice. Current appraisal is rooted in 'total' utilitarianism and uses a linear utility function, i.e., the unit value of an asset (e.g., trees, jobs) is set by generalised standards and remains the same regardless of its scarcity or abundance for specific groups in specific spatio-temporal contexts. As an alternative, we explore the principle of prioritarianism (Adler and Norheim, 2022; Parfit, 1997). Here, the value of a project does not reflect the total absolute increase of assets, but how it affects the relative position of relevant stakeholders, i.e., prioritising the most needy. Mathematically, we translate this in using not a linear but a logarithmic, degressive utility function, where value increases with scarcity and decreases with abundance. While this principle is intuitive for many, and is used in indicators such as the Human Development Index, it has not yet been used in appraisal.

Using a case of airport extension in the Netherlands as an example, we demonstrate the steps of prioritarian appraisal. First, the determination of entities ('stakeholders') between which the social, spatial or temporal distinction is relevant in the scope of the appraisal. Second, the determination and hierarchisation of basic needs the project in question is likely to affect. Third, the determination of stakeholders' initial positions with regard to these basic needs and fourth, how the project proportionally affects these positions. For these steps, data from impact assessments studies can be used. Sixth, the construction of utility functions by taking the natural logarithm of proportional change of the stakeholders' position with regard to their basic needs. These utility functions allows to compare the project's desirability for each individual stakeholder, but can also be aggregated to assess the overall desirability.

Electrification Of Road Freight Transport. Consumptions And Greenhouse Gas Emissions For The Next Generation Of Overhead Line Hybrid Trucks.

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As the road freight sector continues to be dominated by diesel engines and associated greenhouse gas and air pollutant emissions, the importance of finding sustainable solutions becomes urgent. Currently, climate-friendly alternatives in heavy-duty trucking narrow down to three main solutions: Battery Electric Vehicles (BEV), Trucks with Hydrogen Fuel Cells (FCEV), and Hybrid Trucks with dynamic charging via overhead line infrastructure (O-Trucks). This study reports on advancements in heavy-duty truck electrification, focusing on the second generation of Overhead Line Trucks (O-Trucks).

O-Trucks, combining stationary and dynamic charging, present a promising avenue for a successful transition in long-distance transportation. By avoiding extended downtime for fast-charging large batteries and instead enabling dynamic charging while driving, they are a feasible option for a climate-neutral transformation. The O-Trucks with dynamic charging, currently under testing in the ELISA Project in Germany, Hessen, has transitioned from the first generation Hybrid Electric Vehicles (HEV) to the second generation plug-In Hybrid Electric Vehicles (pHEV) since July 2022. While the first generation has undergone extensive scrutiny (Boltze et al. (2022), Schöpp et al. (2021), Schöpp et al. (2022)), limited information is available on the improvements and potential scalability of the second generation.

This paper presents findings of additional reductions in greenhouse gas emissions achieved by the second-generation O-Trucks compared to a conventional Diesel Truck (as seen in Hilgers (2016)) and a first-generation O-Truck. The hypotheses to be explored include:

the second generation exhibits lower fuel consumption, but higher electricity consumption compared to a Diesel Truck and a first-generation O-Trucks,

greenhouse gas emissions resulting from fuel and electrical energy usage are reduced compared to a Diesel Truck and a first-generation O-Trucks, and

the second generation demonstrates an increased influence of overhead line infrastructure on emission reduction in O-Trucks.

The methodology involves analysing vehicle data from 10 Trucks in the ELISA Project between September 2022 and October 2023. Data aggregation, filtering, and evaluation, guided by Schöpp et al.'s (2021) literature, will be performed.

Preliminary results indicate that the fuel consumption of the second-generation vehicle, "Nena," is reduced by approximately 15% compared to the first-generation vehicle, "El Leon," and by around 37% compared to any conventional Diesel Truck. Comparatively, the electricity consumption of the second generation has increased only slightly by approximately 3% compared to the first generation. Furthermore, the second generation exhibits approximately 19% and 40% reductions in greenhouse gas emissions compared to the first generation and a Diesel Truck, respectively.

This study highlights the continued progress in the development of the eHighway system using the evolution of O-Trucks technology. The second generation demonstrates substantial emission savings compared to the first generation. The findings also shed light on the impact of overhead line infrastructure on vehicle usage and emission reduction. This research sets the stage for examining further advancements, such as the influence of stationary charging on O-Trucks usage and the associated improvement in electric vehicle range.

Keywords : *big data, Sustainability, road freight transport, greenhouse gas emissions, consumption*

Assessing Sea-Level-Rise Impacts On Active Mobility: A Case Study Of Amsterdam

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Coastal cities are home to 40% of the world's population and face a significant climate threat from sea level rise (United Nations, 2017). Active mobility, such as walking and cycling, can provide various benefits, including social, environmental, and health advantages (Chapman et al., 2017). However, there is a lack of research on how active mobility can cope with the impacts of the climate crisis, especially when extreme events such as floods disrupt the mobility system.

This study used a multi-layer model to assess the potential risks and impacts of sea level rise on active mobility in Amsterdam, Netherlands. The model integrated multiple factors, such as climate change scenarios, transportation networks, land use, elevation, and socio-economic characteristics, to estimate the exposure and vulnerability of active mobility to sea level rise. The model also used enhanced binary topographic maps (eBTM) to evaluate the flood extent and depth on land and active mobility networks under six sea level rise heights for the years 2050 and 2100 (Poulter & Halpin, 2008).

The results showed that in the 2050 scenario, flooding mainly occurred on the outskirts of the city, with sea level rise ranging from 0.13m to 0.82m; in the 2100 scenario, a sea level rise of 0.82m caused a "jump over a barrier" situation, where water overtopped either natural or artificial barriers. The active mobility network in the exposed areas was more severely affected by flooding, and active mobility users in these areas had a higher potential of being impacted. Indeed, the sea level rise's impacts on the accessibility of active mobility are assessed with integration maps on depthmapX (Turner, 2004). The active mobility's loss of accessibility correlation to the Amsterdam socio-economic context was not validated because of this borderline significant Kruskal-Wallis H test's p-value (p=0.058); the geographical inequality between the city centre and its periphery remains.

This research revealed, through a replicable method, that active mobility is indeed vulnerable to climate crisis threats, in this case, sea level rise. The research recommends foreseeing climate crisis impacts on decarbonated mobility and implementing resilient active mobility development. The study also suggested three adaptation strategies to address the threat of sea level rise on active mobility. Future research would certainly corroborate the vulnerability of AM in the face of other climate-related threats.

Keywords *: Active mobility, Climate crisis, Coastal Cities, Accessibility, Resilient planning*

Evaluating Urban Biodiversity: Unraveling The Ecological Impact Of Historic Centers

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Historic centers play a crucial role in shaping the identity and well-being of their inhabitants. While scholarly attention has traditionally focused on the conservation of the built environment within these centers, recent years have witnessed a growing emphasis on assessing the environmental aspects of these areas. This shift is prompted by the escalating challenges posed by rapid population growth, urban development, and the overarching climate crisis. Notably, the ecological dimensions of historic centers, including issues related to ecosystem services and biodiversity, have come under scrutiny.

This article delves into the intricate relationship between the built environment and avian biodiversity in two case studies conducted in Castellón de la Plana, Spain. Employing a systematic four-phase approach, the study first conducts a comprehensive literature review to select relevant biodiversity indicators. Subsequently, open data analysis and integration into Geographic Information System (GIS) software form the second phase. The third phase involves on-site data collection and the mapping of biodiversity indicators, while the fourth phase encompasses the generation of thematic maps to visualize behavioral patterns linking bird colonies with the morphological aspects of the built environment.

The study demonstrates that the relationship between birds and building characteristics varies depending on the location. The associations in the historic center differ from those observed in the Grao neighborhood, possibly due to the distribution of green areas, the size of urban cores, or socio-spatial dynamics. Fieldwork data confirms clear nesting requirements for birds like swifts and sparrows, which need cavities and crevices, predominantly found in older buildings. This observation aligns with findings in Indonesia, where swifts breed in specific structures with thick walls and small openings, providing a cooler environment inside.

Despite these valuable findings, it is important to acknowledge certain limitations in the study methodology. The use of the line transect method, while insightful, is constrained by potential structural biases inherent to the distinctive nature of the assessed districts. Acknowledging these limitations, this study contributes essential knowledge to the intricate interplay between historic urban structures and avian biodiversity, paving the way for informed interventions aimed at enhancing ecological sustainability within historic centers.

Keywords : *urban habitats, avian biodiversity, green heritage*

Acting As A Competitor Or A Supplier? A Comparative Case Study On The Role Of Swiss And Australian Environmental Organizations In Planning Processes And Land-Use Regulation.

Lauriane Cailleux (University Of Lausanne)

The current land scarcity has highlighted the crucial need for adequate planning processes, through efficient land-use regulation and multi-stakeholder inclusion. In this direction, the constant shortage of public sector resources leads to the expansion of the role of additional actors in the planning process. More and more tasks are now undertaken by intermediaries, that could be private (private consultants, developers) but also third-sector actors (such citizens' associations or NGOs).

Through a comparative case study of Australia and Switzerland, this article sheds light on how environmental organizations influence the planning process, through both collaborative and competitive actions.

Based on documents analysis and complemented with experts' interviews, it demonstrates how these third-sector actors interact with public authorities, from knowledge production to the execution of regulatory tasks.

As a result, the article exposes that, depending on characteristics such the level of public authorities' resources or the political-administrative configuration, environmental organizations will be more likely to opt for either a competitive approach (for instance political campaigning or going public though media) or a collaborative approach (such as land-use monitoring, being integrated to discuss local land-use plans) to engage into and influence the planning process.

Keywords : environmental organisations, land use regulation, intermediaries, comparative case study

Activity Connections And Pandemic Transmissions In 15-Minute Community: Case Study Of Shanghai

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In the post-pandemic era, infectious respiratory disease is still a potential threat to urban health. Research about its transmission is mostly on regional, urban, or indoor scale, while less on community scale. The 15-minute community is a basic unit of urban activities that aims to provide sufficient public and commercial facilities and services within 15-minute walking and cycling distances. This paper aims to investigate the activity connections and pandemic transmission patterns of a typical 15-minute community in Shanghai, and explore planning strategies for enhancing community resilience. According to the GPS trajectory data of survey respondents in a 15-minute community, we identify their activity connection networks. We further simulate how pandemics are transmitted on this network, including the transmission time from each node to the whole network and how this time changes with the intensity of pandemic prevention measures. Based on that, we provide planning strategies for how to find a trade-off point between reducing pandemic risks and maintaining regular activities in 15-minute communities.

Keywords : 15-minute community, Activity connections, Infectious respiratory disease, Pandemic transmission, Community resilience, Shanghai

Predictive 'Devices' For Planners: A Critical Review From Morphogenetic Models To Ai

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From the end of the 1970s, a range of studies dealing with city and infrastructure modelling was explored from the point of view of morphogenetic principles, often leading to simpler discretizations through cellular automata, multi-agent systems and fractal geometry (Allen & Sanglier, 1979). These are reductive approaches, as it should be: we know that a model only makes sense if it is a reduction and therefore, to some extent, a falsification. Anyway, the utility of these tools has been recognised in many fields and, in urban studies, the goal of their application has often been the description of the growth of a city by segmentation and/or extension of the street network (Courtat et al., 2011).At the same time, as early as the 1980s, some urbanists paid attention to the risk of oversimplification of deterministic predictive models in urban studies. City planning and design processes work as "non-trivial machines"' (Von Forester, 1981). A "non-trivial machine" would be one in which the output cannot be predicted from its input, constituting a machine endowed with agency and autonomy. City design involves 'intelligence', ability to deal with the unpredictable and with what happens while the process is running (Secchi, 2000). Nevertheless, data tools and mathematical models can help designers to better understand their actions, stimulate their imaginations through visualisations and interact with new resolutions and sizes of acquired data.

For this reason we propose, as a "game changer", a review of some experiences dealing with a more sustainable approach especially based on networks of data, in order to study how to solve or limit specific environmental problems. An example can be the heat island effect, which is being studied, among other research groups, by the MIT Concrete Sustainability Hub.We can therefore study the implications of these approaches in urban design: these are almost "unique" cases, which should be studied one by one by adjusting the rules of a customisable model, evolving and reshaping itself based on constant training.

In this framework, the role of Artificial Intelligence (AI) becomes vital, since it can inform a system with huge amounts of data continuously collected in the field, for instance by means of sensors connected to a neural network (As et al., 2022). On the one hand, the role of AI could be relevant in order to find 'patterns' in the datascape and help define 'laws' and perhaps models for understanding environmental phenomena in urban contexts. In this sense, through a machine learning process thanks to the machine's ability to digest a large amount of data from the past, it could help understand the degree of effectiveness of recent urban transformations in relation to environmental emergencies (for example: starting from satellite imagery studying heat island effect, the impact of very recent urban forestation projects, the results of depaving, etcetera, could be verified) and, in this sense, build more sophisticated models for understanding the impact of these changes in cities.On the other hand, from a generative point of view, AI might allow the comparison of different scenarios, as well as encourage "absurd reasoning", in a way that changes, sometimes enhances and never excludes the role of the planner.

Keywords : *algorithm and data, morphogenetic models, Artificial Intelligence (AI)*

The Residents' Behavioral Characteristics And Renovation Strategies Of Beijing's Traditional Communities：insight From Modern Housing Lifestyles And Improvement Demand.

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In the early days of the founding of the People's Republic of China, the housing stock in Beijing was about 13 million square meters, and the current housing stock is about 600-700 million square meters. Since 2000, Beijing has built 20-30 million square meters of housing every year. On the one hand, existing residential buildings have become the absolute majority of China's urban residential supply in the future. On the other hand, the peak of residential construction in the past 20 years will continue to meet the demand for renewal and improvement of tens of billions of square meters of old communities.

This article selects 4 typical traditional communities in Beijing: traditional Hutong communities（a community of alleys）, tube-shaped apartment buildings, neighborhood houses, and commercial housing. From the perspective of community residents' demand behavior characteristics and activity patterns, we analyze the renewal and transformation paths of traditional communities to adapt to modern lifestyles.

The purpose of this study is twofold:

1) Investigate the current features of the community's spatial environment and its residents' behavioral characteristics using the method of combining PSPL survey and questionnaire evaluation. Conduct empirical analysis based on the data resources generated during people's community activities. Make connections between the behavioral portraits of the residents and the community renovation strategies. Consequently, communities' resources and services can meet the needs of the populace. In order to comprehend the fundamental requirements of their community's public life, the study concentrated on the substance of the residents' daily activities and gathered pertinent data through behavioral trajectory recordings and interviews. According to Maslow's demand model, community needs are divided into: house (kitchen, toilet, living room, etc.) - basic service needs (shopping malls, barber shops, restaurants, etc.) - high-level functional needs (schools, hospitals, post offices, banks, etc.) - environmental greening and public spaces - physical environment (pollution, water, space, light, surroundings, etc.) - cultural qualities (cultural activities, artistry, environmental space, neighborhood relations, etc.). By analyzing the 158 valid questionnaires that were recovered, it was discovered that people living in commercial housing and neighborhood houses strongly desired high-level functional needs as well as communal public spaces, while people living in traditional Hutong communities and tube-shaped apartment building strongly demanded complete housing. Residents of traditional Hutong villages also hope that the original social network and historical significance will not be destroyed by urban renewal.

2) Three methods are outlined below for raising the quality of the stock traditional housing while still satisfying user modern lifestyle needs. The first is supplement，to make full use of open space, wasteland and land vacated by demolition of illegal construction and other ancillary facilities in residential communities to increase public activity space. Coordinate the use of existing housing resources such as public housing, office buildings for community residents committees, comprehensive community service facilities, and idle boiler rooms to add basic public service facilities and convenient commercial service facilities. The second type is renovation, in which residents carry out "application-style" vacations according to their own wishes, and the freed space is redesigned, and shared kitchens, new sewage treatment facilities, and bathrooms are built according to people's needs; youth apartments can also be built. Introduce new young people in the form of courtyard experiential hotels or B&Bs to introduce tourists. The third category is replacement, in which social capital seamlessly takes over the property management of the community. At the same time, based on the market-based rent of the house, the replacement plan is organically integrated with the renovation of the old community, and ultimately achieves goals such as improving the environment, optimizing functions, and balancing work and housing.

Keywords *: community renavation, housing quality, behavioral characteristics*

Cleaning Up The Second-Hand Market Space In England: Where -And Why- Developers Use Permitted Development Rights To Convert Vacant And Obsolete Office Space Into Housing

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Purpose

Between 2013 and 2021, the UK government modified the planning regulation, allowing the conversion of offices into residential without full planning permission. This deregulation process, justified by the need to stimulate the housing market and foster regeneration in downtown areas (UK Parliament, 2013), was undertaken by extending Permitted Development Rights (PDR). PDR were introduced in British planning in 1995 to enable being excluded from full planning permission for certain minor developments. By removing the quality requirements established in a full planning permission, this policy allowed the appearance of dwellings with extremely low-quality standards – such as units of circa 15 square metres and even without windows (Clifford et al., 2019). Previous noteworthy studies have researched the planning deregulation and housing quality consequences of PDR implementation in England (Canelas et al., 2019; Clifford & Madeddu, 2019; Ferm et al., 2021); but the geographic perspective has not been systematic, and the underpinning explanations for carrying out OTR conversions has lacked robust evidence. Hence, this research aims to identify the main trends concerning the geographical distribution of OTR conversions in England and understand what factors explain this phenomenon – emphasising the geographical perspective of a case study.

Methods

To answer these aims, this research holds a quantitative approach. Using government statistics, we first build a national overview of the geographical distribution of OTR conversion. In addition to mapping a country-level picture, this first stage allowed us to identify a case study where OTR conversions have had a prominent impact. Then, we develop geospatial modelling to comprehend which variables strongly relate to a higher OTR conversion rate for the chosen case study (London Boroughs), using as variables the total office properties number, office space (square metres) and rated value (£/square metre).

Results

Applying cluster analysis and statistical methods, this research unveils that clustered Local Authorities located in London area with higher amounts of OTR conversions had higher rated value increments and showed dramatic loss of office space. Despite representing nearly 9% of England's Local Authorities, between 2013 and 2021, this cluster concentrates around 30% of the total OTR conversions, averages a 32% office value increment -over a 7% nationwide average- and contributes 22% of the five million sqm of office space lost. In other words, where OTR conversions were significant, the office space value increased due to low-value offices being converted to housing – diminishing the total floor space volume and raising the value of remaining better-quality office space. To confirm these conclusions, we conducted a spatial correlation analysis applying Multiscale Geographical Weighted Regression (MGWR). Our findings deliver robust evidence that rated value is the variable that significantly influences the OTR conversion rate (51% r-squared) globally, obtaining higher coefficients locally in the Boroughs with higher OTR conversions.

Practical implications

Considering that lower rated values can be directly related to the second-hand office market, this research suggests that PDR allowed a window of opportunity to "clean up" the vacant and obsolete office space in the London area.

Originality/value

To sum up, despite that literature has somewhat acknowledged the role of the second-hand office market in analysing PDR implications, the novelty of this research lies in providing empiric evidence on the reasons that caused OTR conversions to be desirable – and how they distribute geographically in London Boroughs where the second-hand market hold a higher share of the office market. Our findings contribute a geographic overview of where -and why- a deregulation policy benefited office space owners and developers by facilitating the process of cleaning up obsolete space, causing not only the appearance of low-quality housing but also dramatically transforming neighbourhoods' social and activity dynamics.

Keywords : *urban planning deregulation, housing policies, office-to-residential conversion*

Machine Learning-Based Analysis For Predicting Urban Waterlogging And Decoupling Risk Composition In High-Density Urban Settings: A Case Study Of Shenzhen , China

Haifeng Diao (Tongji University)

The intensification of extreme meteorological events coupled with rapid urbanization has precipitated acute urban flooding challenges. This underscores the critical need for accurate prediction of urban waterlogging risks and a thorough understanding of their causal factors, particularly in high-density urban settings, to avert flooding disasters. Traditional methodologies have been constrained by the spatial diversity and complex dynamics inherent in urban flooding, leading to imprecise predictions of waterlogging scenarios. Based on a multivariate data-driven approach, machine learning methods can be used to accurately predict urban waterlogging and analyzing the influencing factors. A multi-factor database consisting of hydro-meteorological, urban surfaces, building configurations, and inundation depths was established initially in this study. Four machine learning algorithms (LightGBM, RF, SVR, and BPDNN) were compared for predicting the risk levels of urban flooding in Shenzhen under various design storms. LightGBM was identified as the most effective, owing to its superior predictive accuracy and robustness. A distinctive element of our analysis involved employing the Shapley additive explanations for a decoupling analysis to elucidate the specific relationships between individual risk factors and flooding events. We discovered that severe flooding predominantly impacts older metropolitan regions during extreme storm events (i.e., greater than a 20y return period) or long-duration rainfall (i.e., exceeds 12h duration). It has prominent coercive effects on urban flooding when precipitation and duration exceed 125mm and 55h, respectively. Key determinants of flood risk included the Percentage of Impervious Surface (PIS), Building Congestion Degree (BCD), and Density of Buildings (DB), with regional flood exposure escalating significantly when these factors exceed thresholds of 15%, 0.08 and 15 n/ha, respectively. We recommend the adoption of adaptation strategies, including low-impact development practices and nature-based solutions, particularly in high-density urban settings, to enhance their resilience to flooding. This research not only introduced innovative methods for predicting urban waterlogging but also illuminated the influential determinants and their mechanisms within the built environment, thereby making a substantial contribution to bolstering resilience in high-density urban settings.

Keywords : Urban waterlogging, Machine learning, Building configuration, Risk assessment, Climate change

The Power Of The Grid. Problems And Suggestions About Spatial Multi-Data And Multiscale Territorial Representations

ETTORE DONADONI (Dastu - Politecnico Di Milano), **Giacomo Milan** (Mox - Politecnico Di Milano)

The contribution presents some intermediate outcomes of ongoing research in which the territorial representation of spatial data at different scales plays a key role, focusing on the geometric support and the distribution models of data on this support. The aims of this work are the readability of data concerning the territory at different scales, the comparability of data of different natures, the operability of data for the construction of spatial indicators, and the construction of interpretative representations capable of guiding policies, projects, and resilient strategies for overcoming gaps.

The territory investigated to develop this reflection is that part of Italy that has been excluded from two main territorial narratives in the Italian debate in recent decades: on the one hand, we find a focus on metropolitan areas; on the other, national development and territorial cohesion policies have focused on combating the marginalization of inland areas. We called this part of the country: Intermediate Italy.

Territorial data, for their multivariate nature, incorporate information on complex multi-disciplinary phenomena, which can be fully treated as big data processes. First analyses have revealed certain limitations of the spatial bases used for data representation. Some spatial bases have a strong geometric lack of homogeneity within them, e.g. the administrative bases on which statistical data are collected have a great variability of area from one unit to another. In addition, data from different sources are based on different geometries, which makes it difficult to compare and correlate data, e.g. land use information does not coincide with administrative units. Regarding the dimension of the investigation window, switching from one scale of observation to another makes it necessary to identify geometric bases on which to set the upscaling or the downscaling of data, despite the fact it is not always possible to identify bases that dialogue coherently with each other. Indeed, sometimes it is not possible to disaggregate the data beyond a certain threshold of detail, or sometimes data aggregations are based on too large portions of territory. It is also required to deal with different types of spatial geometries, such as combining area values with point patterns. As a final stage, in the context of big data inspection, with the scopes of explainability and predictability, it becomes determined to investigate the overall variability of data represented on the common grid. Our target is to include as many possible different sources of data to reduce the unexplained variance. By this way, during comparison and classification, it will be possible to exploit algorithms of feature selection without losing the information carried on by the model.

In conclusion, we propose a common grid with a homogenous and uniform tessellation for the representation and inspection of spatial variables. This allows us to treat them all as predictors in a unified regression model to interpret the data strictly related to the territory at different scales.

***Keywords** : mapping, big data, grid, models, territorial resilience*

The Relationship Between Urban Development Indices And Carbon Emissions In China

Jiahua Dong (Chinese University Of Hong Kong), **Harry Lee** (Chinese University Of Hong Kong)

In the context of China's dual carbon goals, which commit to achieving peak carbon emissions by 2030 and carbon neutrality by 2060, the demand for effective strategies to control carbon emissions has intensified. Approximately half of the global population lives in urban areas, which are responsible for approximately 75% of the carbon emissions. The relationship between urban development and environmental sustainability thus needs increasing attention, particularly in the context of rapidly growing economies such as China. To achieve the Paris Agreement and China's dual carbon goals, it is imperative to disentangle complex urban development systems, understand their functioning, formulate effective responses to environmental challenges, and break the dichotomy of urban development and environmental sustainability.

There exists a highly intricate interconnection that weaves together various facets of urban development. These intricate correlations link diverse processes, structures, interactions, and transformations that involve materials, information, and knowledge. Increasing carbon emissions pose a serious challenge to our socio-ecological system. Urban development in China is tightly linked with the governance strategies. Distinct governing methods in China signify diverse development strategies, and these variations can influence the mode of production, subsequently impacting environmental sustainability. The urban development indices reflect the diverse development status of China's different regions shaped mainly by economic and policy factors, which are driving forces that keep the dynamics of the socio-ecological systems. Understanding these variations is crucial for producing effective and targeted interventions to manage and reduce carbon emissions. Hence, this study aims to provide evidence-based insights into the urban development indices and its relationship between carbon emissions using quantitative models.

This research will delve into key urban development variables, spanning industrial structure, economic development, innovation, and environmental management. The research will extract factors to streamline these variables, providing information on the intricate relationships within the urbanisation-environmental sustainability dynamics. The results aim to underscore the significance of regional cooperation in clean energy usage, implementation of appropriate policies, technology development, and economic growth, which together can contribute to reducing carbon emissions. This study will contribute valuable insights into the interconnected dynamics between urbanisation and environmental sustainability, offering insights for policymakers and stakeholders.

Keywords : Urban Development Indices, Carbon Emissions, Sustainability, Regional Cooperation

How Public Spaces Accessibility Affects Its Vitality In Tod Area：a Case Study Of Shanghai, China

Chenhao Duan (Tongji Universitty), **YONG CHEN** (Tongji University), **Peipei Tang** (Tongji University)

There is growing recognition that providing public spaces with high accessibility in TOD area can effectively promote the urban vitality, and maximize the efficiency of urban space utilization. Previous studies have used several methods to measure the accessibility of public space in city area, however, there still lack studies exploring the association between public space accessibility and vitality in TOD areas.

Therefore, in this study, public space was categorized into 4 types: plaza, green space, commercial street and atrium. 18 typical TOD areas in Shanghai were selected as the study area, and about 300 public spaces in the area were selected as the research objects to explore the correlation between the accessibility and vitality of different types of public spaces. This study focuses on two aspects of accessibility: the accessibility to surrounding facility which including metro station, commercial building, office building, residential building and the accessibility in the pedestrian network. The accessibility to facility includes shortest distance to metro station(DTM), average distance to commercial building (DTC), average distance to office buildings (DTO) and average distance to residential buildings (DTR), and the pedestrian network accessibility includes "Betweenness" (BET) and "Closeness" (MED), the distance to facilities are calculated based on GIS software, and pedestrian network accessibility indicators are calculated by sDNA. In addition, in terms of measuring the vitality of public space, the number of people and types of activities in each public space were recorded through field research and behaviour mapping, and using the activity density and activity diversity indicators illustrate the vitality of public space. Finally, based on SPSS software, correlation analysis and multiple regression analysis were used to quantitatively analyse the influence of different accessibility indicators to different types of public space vitality.

The results show that there are differences in the impact of different accessibility indicators on the vitality of public space. Firstly, the vitality of green space has a significant correlation with DTR, but there has no correlation with DTM, indicating that in order to improve the vitality of green space in the rail transit station area, it is necessary to arrange the green space in a convenient location which near the residential area, and the distance between the green space and the metro station is sometimes not important. Secondly, a variety of accessibility indicators have a positive impact on the vitality of the square, including DTM, DTC, BTE, etc., indicating that the influencing factors of the vitality of the square are relatively comprehensive, and the overall connection with a variety of facilities needs to be considered when organizing the square location. Finally, DTM has significant correlation with the vitality of commercial street and atrium, but DTR didn't affect the vitality of commercial street and atrium, indicating that the vitality of commercial public space is mainly contributed by metro stations, and residents in the TOD area have less use of commercial street and atrium

Keywords *: Public Space Vitality, Accessibility, Transit-Oriented Development (TOD)*

Diachronic Multimodal Approaches Of The Interwar Urban Landscape Of The Fokionos Negri Street Linear Park

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The Historic Urban Landscape contains all the tangible and intangible elements inherited from history, human creation, and tradition, as well as those from the current urban reality and it represents a carrier that humanity is obligated to preserve without interfering with the invincible force of change that is the city itself. According to the definition of the European Parliament (1986) "The open-air urban space is an elementary part of the urban heritage, a strong element of the architectural and aesthetic form of a city. It plays an important educational role. It is ecologically important. It is important for social interaction and for enhancing social development. Supports financial activities […]. It plays an important role in serving needs for leisure and recreation. [..]".

In my PhD thesis, which is in progress, I argue that the holistic approach of UNESCO to the management of the Historic Urban Landscape is necessary in Athens, where the classical past often obfuscates people's perceptions of recent architectural and social history, but also of the way in which that history is relevant to them. In Athens, the legal framework protecting the architectural heritage of the city center promotes, for historical and political reasons, the archaeological richness and its neoclassical interpretation, neglecting the protection and promotion of important buildings and open spaces of the twentieth century. These complete the image and identity of the city as modern monuments, interpreting the mechanisms of its evolution and how people accept it in their daily lives. The emphasis on the classical past, moreover, limits the possibilities of studying and protecting both the buildings that can be characterized as monuments of the modern architectural heritage and the places and architectural ensembles that connected in various other ways to the collective memory. The result is that many such buildings and complexes are altered or even destroyed.

Kypseli is one of the oldest and most densely populated neighborhoods in Athens. Fokionos Negri, a linear park where trade, leisure and services coexist with housing, is its main street and, together with K .Kanaris's Square, is the heart of the district. It was created in the interwar period and was, from the beginning, a highly desirable area for residence, attracting upper and middle income groups. Today the area hosts many buildings characteristic of "Athenian Modernism". With unusually low car annoyance for the center of Athens and high vegetation, this linear open space creates an expanded urban void in a densely populated area and these characteristics make it highly attractive for habitation even today. Around the 1990s, Kypseli received the negative impact of peri-urbanization and attracted immigrant groups. Today, it has developed a cross-cultural character and seems to be experiencing its "redemption story".

Taking as an example the linear park of Fokionos Negri, I am trying to develop a method of studying the Historic Urban Landscape which focuses on the period of "Athenian Modernism" and utilizes, among other things, artistic approaches to the urban landscape. In the occasional artistic approaches to the area we can find valuable testimonies and assessments of the way people appropriate the space (practically and symbolically), but also of the importance attributed to the area in relation to the wider transformations of the Athenian space.

The present essay will focus on a diachronic multimodal "mapping" of the linear park, which enable us to understand how society perceives the physiognomy of the area in different periods of time. The aim is to contribute to the recording, evaluation and highlighting of the incompletely protected newer urban building and natural heritage of the neighborhoods of Athens.

Keywords *: historic urban landscape, interwar urban heritage, multimodality, Fokionos Negri Street, urban transformation*

Built-Up Land Expansion And Associated Natural Carbon Loss From Aspect Of External Influence

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Land use and land cover change, particularly the expansion of built-up areas, have been widely recognized as a significant factor influencing the carbon balance (Liu et al., 2021). The diverse responses of ecosystems to different land use types can result in the release of carbon stored in terrestrial ecosystems into the atmosphere, especially during the transition from ecological land to built-up land. In response to this challenge, the State Council of China has proposed the establishment of the Ecological Red Line (ERL), a stringent ecological protection system (Xu, Yang and Tan, 2019) The ERL has played a crucial role in curbing unrestricted urban expansion and safeguarding ecological functions. According to China's territorial spatial plan, development activities are strictly prohibited within the designated ERL areas. However, the delineation of these areas has not adequately considered the carbon loss associated with land use changes. Furthermore, there is a growing focus on the allocation and management of resources, as well as the responsibility for resource consumption among regions. China, being a large country with significant spatial heterogeneity, experiences inter-regional built-up land expansion and concurrent indirect carbon losses due to imbalanced conditions in different regions.

This study focuses on Jiangsu Province as a representative region in China, presenting a novel framework for analyzing the footprint of built-up land expansion and carbon changes, including carbon storage and net ecosystem productivity (NEP), from 2005 to 2015. The study employs a Multiregional Input-Output (MRIO) model to assess the embodied built-up land expansion in Jiangsu Province driven by external regions and the hidden carbon losses related to Jiangsu. The findings reveal that between 2005 and 2015, built-up land increased by 4377.05 km^2 in Jiangsu, resulting in a carbon loss of 1.8 Tg. Notably, from the perspectives of both embodied built-up land expansion and hidden carbon services, Jiangsu transitioned from a net exporter to a net importer, indicating economic growth and industrial upgrades. Throughout this process, Jiangsu predominantly received land and carbon services from less developed regions, such as Hebei and Henan. To foster harmonious development and implement appropriate compensation strategies, such as environmental taxes, careful consideration is needed. Additionally, to achieve stable and sustainable development in Jiangsu Province, we recommend the reconstruction of the Ecological Red Line by incorporating a carbon protection area of 4782 km^2.

Keywords : Built-up area use, Low-carbon City Planing Strategies

Analyzing The Relationship Between Road Network Density And Urban Elements: A Case Study Of Shanghai City

Yuchen Gao (Tongji University)

With the increasing number of private cars, some roads in China have become congested in recent years. The existing regulations on road density in China are outdated. The road network density indicators specified in the "Urban Road Traffic Planning and Design Specification" are significantly lower than the actual application scenarios. The "Shanghai Pudong New Area Plan" differentiates between municipal roads, central activity areas, and the main urban area, providing corresponding standards, mostly based on empirical judgment. Therefore, there is an urgent need to develop scientific and quantitative indicators for road network density.

Additionally, with the increasing coverage of metro systems in first-tier cities like Beijing, Shanghai, Guangzhou, and Shenzhen, the current number of metro lines in Shanghai has reached 20, while Beijing has 27, with a total operational distance of 807 kilometers. The introduction of rail transit has significantly alleviated the traffic pressure on urban road networks and has made the relationship between road network density and development intensity more complex. However, there is currently limited research on the impact of rail transit on the relationship between road network density and development intensity, or conclusive findings have not been obtained, highlighting the need for further research in this area.

This paper focuses on Shanghai as the research object and utilizes open-source data to provide a comprehensive overview of the relationship between road network density and urban elements. At the city level, the study analyzes the relationship between road network density and spatial elements of the built environment in Shanghai. This includes examining the correlation between road network density and spatial location and the distribution relationship between road network density and rail transit stations. The analysis aims to understand the current spatial relationship between the distribution of the road network in Shanghai and the built environment elements.

Keywords : road network density, urban elements, transportation planning, spatial analysis

Proximity-Based Urbanism From The Business Owner Perspective

Santiago Garcia Gabilondo (The University Of Tokyo), **Yuya Shibuya** (The University Of Tokyo), **Yoshihide Sekimoto** (The University Of Tokyo)

Proximity-based urbanism – such as compact city models, chrono-urbanism (15-20-30-x minute cities), transit-oriented development, etc. – aim to create more environmentally, socially, and economically sustainable cities by promoting nearby accessibility to services and infrastructure to residents (Logan et al, 2022). These urban planning models promote densification as one of the main strategies to achieve these goals, but until this moment not all stakeholders have been equally involved in these densification strategies which could prevent the benefits of these models from being adequately distributed between all stakeholders (Wamsler, 2017).

We identify that proximity-based urban models often ignore the financial sustainability of the business community that fulfills the citizens' needs. If businesses cannot thrive under the proposed density changes, the long-term viability of these urban models is at risk. We find that little existing research focuses on identifying financially sustainable land-use density ratios from the perspective of the business sector, as it is assumed that higher density directly leads to sustainability. This omission could be especially harmful to existing independent business owners, whose existence could be threatened if the densification strategies fail to balance the introduction of new businesses and new potential customers (i.e. residents and workers). Therefore, in this research, we aim to contribute to the existing proximity-based urban planning analytical framework prioritizing the financial sustainability of existing businesses approaching densification strategies. To do so we aim to develop a framework to simulate the introduction of large-scale mixed-use projects to improve the accessibility of these areas under the conventional metrics analyzed by proximity-based urban planning models while ensuring that all surrounding existing stores can maintain at least the same level of revenue that they received before a project implementation.

Our case study area is the Setagaya municipality, located in the Tokyo prefecture, under the assumption that the existing stores are all financially sustainable under the current conditions. To set the benchmark commercial cluster revenue, we follow a previously developed methodology (Garcia-Gabilondo et al, 2024), which consists of estimating the population's disposable income and distributing it between its daytime and nighttime locations, then calibrating the Huff model to best fit aggregate level revenue data. We then conducted a what-if analysis in areas that were subject to recent major real estate projects in recent years within our study area, evaluating how altering the built volume mix would yield different results using common metrics from the proximity-based urban planning models (Knap et al, 2023). Finally, we estimate the maximum commercial built volume that could maximize service accessibility to the nearby population, while ensuring at least the same level of revenue for existing stores.

We found that there was significant variation in the maximum commercial built volume ratio that would avoid impacting existing businesses' revenue based on the location of the projects, as the location directly affects the number of competing businesses for the same number of customers. We also found that within the maximum new commercial volume, significant gains in accessibility to urban services could be achieved. This is as far as the authors' knowledge, the first framework that intends to implement a quantitative framework to guarantee business sustainability within the proximity-based urban models. We acknowledge that there are some limitations in the current methodology, such as many businesses operating at a loss in reality, and that analyzing commerce as a whole is an oversimplification of actual shopping behavior. Still, we believe this is a first step towards more financially sustainable urbanism.

Keywords : *Proximity-based urbanism, 15-minute city, business promotion, financial sustainability, Urban densification*

Urban Transformation Through Public Participation. A Comparative Study Of Thessaloniki (Greece) And Hanover (Germany)

Lena Greinke (Leibniz University Hannover), **Nora Mehnen** (Leibniz University Hannover)

Public participation in urban development has a rich tradition in Europe, particularly in Greece and Germany. Especially in (inner) city development, public participation is becoming increasingly important. This paper compares participation processes in Hanover and Thessaloniki through a review of the literature, observations, and interviews, examining the extent to which the cities can learn from each other regarding their public participation culture. Both cities have experienced growth, focusing on sustainable planning. While Hanover has an established culture of participation, Thessaloniki is in the process of developing one. Citizen-led initiatives are thriving in both cities, and establishing a local culture of dialogue is crucial for future progress. Thessaloniki can learn from Hanover, and Hanover in turn could benefit from embracing international perspectives

Assessment And Rational Allocation Of Group Differentiated Needs For Urban Waterfront Greenway Public Spaces From A Multi-Source Data Perspective: A Case Study Of The Core Section Of The Huangpu River In Shanghai

Yuhan Guo , **Chi Wang** (College Of Architecture And Urban Planning, Tongji University)

As the shoreline of the core section of the Huangpu River in Shanghai becomes interconnected, the waterfront public space has undergone a transformation from an early focus on continuity to a current emphasis on "people-oriented" shareability and coordination. Traditional waterfront greenway public space planning lacks a precise assessment of the characteristics and needs of different population groups, resulting in issues such as homogenization of space, low usage efficiency, and unbalanced allocation of public resources.

To address the current problem, recognizing the diverse needs of different user groups and specifically coordinating the configuration of waterfront public spaces is an important indicator of the rationality of urban spatial layout. Therefore, this study takes the spatial layout and configuration needs of the core section of the Huangpu River in Shanghai as an example, utilizing multi-source urban data and urban design analysis techniques. It conducts an in-depth study of the spatial needs of user groups of different age compositions in three aspects: overall spatial accessibility, functional integration, and convenience of activities.

At the level of user diversity, this study bases its analysis on mobile phone signaling data, examining the demographic composition and spatiotemporal distribution of activities in waterfront greenway public spaces, and subsequently constructs a map of crowd activities. In terms of spatial needs, based on spatial syntax and spatial Design Network Analysis(sDNA) technology, the study analyzes overall spatial accessibility, identifying potential segments of vibrancy concentration along the waterfront greenway. Utilizing Points of Interest (POI) data, it refines the layout of waterfront spaces and analyzes the distribution of functional elements in detail. Based on social media data, it assesses the current use of public service facilities and identifies service blind spots. Ultimately, using ArcGIS tools, the study overlays the intensity of different group activities, service intensity, and spatial demand intensity, aiming to locate high-pressure areas in the service of waterfront greenway public spaces. This clarifies the demand focal points of the waterfront greenway public spaces to ensure individuals' equitable sharing of public space.

In summary, this research focuses on the activity characteristics and spatial needs among different groups, and successfully constructs an evaluation framework based on group differences, providing key support for the equitable allocation of public space resources. Through such detailed assessments, it aims to preemptively gauge the public space attraction and needs of waterfront greenways, contributing to creating more inclusive spaces that cater to diverse needs. Consequently, it provides valuable decision support for optimizing the overall planning and subsequent management of urban waterfront greenways.

Combatting Transport-Related Social Exclusion? The Case Of Demand-Responsive Public Transport In Flanders, Belgium

Marjolein Hantson (Vrije Universiteit Brussel), **Freke Caset** (Ugent, Vrije Universiteit Brussel), **Kobe Boussauw** (Vrije Universiteit Brussel)

In Europe, demand-responsive transport (DRT) services have grown in popularity throughout the past decades. In peri-urban and rural areas public transport demand (and supply) is generally low, highly variable, or spread over large or dispersed areas, increasing the appeal of systems that consider actual demand individually and short-term. While this rationale seems sensible in theory, many questions remain as to the ability of DRT services to sufficiently cater to the needs of people in urban peripheries and rural territories, especially those who strongly depend on public transport. In European peri-urban areas, the rollout of such mobility services often coincides with a deprioritization of the social goals of public transport, leading to gradual disinvestments and reorganizations of public transport systems in light of economic efficiency objectives. In the face of these developments, it is highly questionable that the accessibility gaps that are left by public transport in these areas are sufficiently closed by DRT services.

While the nascent literature on DRT (Schasché et al. 2022) is increasingly diverse both empirically and methodologically, we argue that there are a number of major shortcomings that prevent us from drawing meaningful conclusions about the extent to which DRT services effectively combat transport-related social injustices. First, there is a major deficit of studies that take a clear-cut user-centric perspective in which day-to-day user experiences, needs and preferences are elicited and interpreted. As recently argued (König and Grippenkoven 2020 and Thao et al. 2023), DRT studies predominantly focus on supply- instead of demand-side related factors, and personal-level user insights remain thin on the ground. Second, we require a more dedicated focus on those user groups that most critically depend on DRT services to participate in society. This involves developing a better understanding of what it means to 'depend' on DRT, what factors most strongly shape this dependence, and why particular social groups are more dependent than others. The latter pursuit requires moving beyond a mere identification of – most commonly – women, retired, unemployed and disadvantaged social groups as those who are most prone to using DRT, but to situate and understand their dependence in the local context and from an intersectional point of view.

Against this backdrop, our work aims to contribute to a better understanding of the extent to which DRT services can combat transport-related social injustices in a peri-urban and rural context. More specifically, we aim to address the following main research question: which social groups are most dependent on DRT services, and why? We apply this question to the case of Flanders (Belgium), where a DRT system locally coined 'Belbus' has been servicing the region for over thirty years. In the first part of our research, we address this question at the general level by descriptive and inferential statistics. In a second part, we zoom in on a few user subgroups that self-report as highly dependent on Belbus, and deepen our understanding on the basis of a living-lab approach.

Keywords *: demand-responsive public transport, peri-urban region, Flanders, transport-related social exclusion*

The Relationship Between Green Space Pattern And Urban Green Space Equity: A Case Study Of Guangzhou City

Jinjing Hu (Tongji University)

The equity of urban green space focuses on whether different social groups can equally share green benefits, which is also an important manifestation of urban inclusiveness. How to promote equity in urban green space and reduce inequality among groups has always been a very important research topic.

The pattern of urban green spaces usually reflects the allocation of resources within the city. Previous studies have suggested that urban spaces located at the center of the green space pattern are often more able to enjoy abundant green space resources. However, current research on the impact of local features such as structural characteristics and patch fragmentation of green space patterns on urban green space equity is insufficient.

Therefore, this article takes Guangzhou as the research area and uses mobile signaling data to model and analyze the behavior of the population in different housing price ranges during different working days and holidays in accessing green space facilities. The key evaluation indicators for green space equity in urban areas are obtained by evaluating the accessibility of green space for different groups of people. Furthermore, regression analysis is conducted based on the basic characteristics of the green space pattern in Guangzhou, attempting to analyze the impact of urban green space structure on urban green space equity. Furthermore, combined with the GWR model, we attempt to analyze whether the impact of green space patterns on urban green space equity has a certain degree of spatial heterogeneity. Finally, based on the analysis results of this article, we will discuss and attempt to propose corresponding optimization suggestions for the urban green space pattern.

This study will help the cities adapt to the high-density urban development stage, optimize the existing urban spatial pattern, reduce the inequity of green space within the city, and enhance the inclusiveness within the city.

***Keywords** : Green Space Pattern, Urban Green Space Equity, GWR Model, Guangzhou*

Getting Public Transport Networked: A Philosophical Thinking For Complex Implementation

Shaohua Hu (University Of Liverpool), **sophie sturup**

This paper addresses the question of how to effectively navigate the complexity involved in implementing significant changes in public transport systems. It achieves this by examining various cases of Networked Public Transport implementation across diverse regions, including Europe, the United States, New Zealand, Australia, and China. The findings presented in this paper not only provide insights into appropriate responses for managing the complexity of implementing substantial changes in public transport systems (transport/governance tracks) but also propose a suitable mechanism for dealing with complex social policy issues, incorporating a discussion on the Dialectic of Holism and Reductionism (future tack). This study is inspired by the urgent need for a Networked Public Transport system, which consistently faces public backlash due to the failure to address complexity during implementation. The research relies primarily on the collection of secondary data online and analyses the implementation processes in these diverse cases through the lenses of the Dialectic of Holism and Reductionism. The findings underscore the necessity for systemic and resilient approaches (Ackoff, 1974; Australian Public Service Commission, 2007; Geyer and Rihani, 2012; Meadows, 2008; Stroh, 2015). This study proposes a general philosophical framework or mechanism derived from a comparative study based on the Dialectic of Holism and Reductionism. It includes elements such as public consultation, phased rollout, ongoing learning processes, and multi-physical intervention to address the complexity of implementing transport policy. However, it's crucial to note that the mechanism proposed in this research demands a significant time investment, potentially conflicting with the urgent nature of addressing climate change. Further studies are needed to explore strategies for reducing the time cost associated with implementation to expedite the process."

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Keywords : Networked Public Transport, Holism, Reductionism, Complexity, Transport Policy

Transformational Change Through Domestic Climate Migration

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Human migration in response to environmental pressure is as old as humanity itself, but the rapid pace of climate change has made it an increasingly important adaptation strategy in response to climate events, such as flooding, sea level rise (SLR), drought, and extreme weather events (McLeman and Smit, 2006). The World Bank projects that globally, climate change could force 216 million people to move within their countries by 2050 (Rigaud et al., 2018). While countries such as Bangladesh are the most vulnerable, there will be significant movement within highly developed countries like the US as well, with sea level rise alone placing 13.1 million US residents at risk of displacement (Hauer, 2017). Extreme heat, repetitive forest fires, and droughts may also create displacement, although it is important to note that in the US, movement into high-risk areas much outweighs movement away from them (Clark et al., 2022). Up to 25 million US residents live in areas likely to experience significant in-migration with resulting pressure on their natural and built environment as well as socioeconomic well-being (Robinson et al., 2020). In recent years, most of the policy conversation and scholarship has focused on managed retreat, the government-organized movement of groups of people from a high hazard location to a lower-hazard area. But the statistics above suggest that unmanaged retreat, by which we mean the choices individual households make to move away from climate hazards absent government direction, may be a much more potent force shaping rural and urban communities. While the impacts on sending areas are critical to understand, in this paper we focus on the implications for receiving communities, the places to which domestic climate migrants will move, and we seek to answer this at the micro scale of households and communities, rather than the macro scale of demographic projections, with a focus on the U.S. Northeast region. Our research questions are RQ1) What is currently known and unknown about the likely impacts of climate in-migration on receiving communities, including social justice concerns; and RQ2) what does the recent experience with COVID-migration into rural areas of the US Northeast teach us about what communities can do now so that future climate migration effects positive transformational change?

In this study we combine results from two new research efforts plus existing literature to create an integrative perspective on the challenges to and opportunities for receiving communities, with a focus on internal movement within United States. To gather expert and lived-experience perspectives, in spring 2024 we will hold a 2-day expert-convening in association with the Lincoln Institute of Land Policy, gathering perspectives from 18 representatives from NGOs, front-line communities, and academics from across the US to scope out RQ1. To better understand on-the-ground experiences (RQ2), in 2023 we held eight focus groups with real estate brokers in the 22 rural counties of the US Northeast which experienced the highest relative levels of in-movers from outside their region from 2020 to 2023. Key findings from the focus groups include that climate is not yet the top reason for many brokers' clients to move, but it appears as a secondary or tertiary concern, and brokers are very concerned that housing supplies, infrastructure and social services are not sufficient to support even the COVID level of in-movement, much less a significant swell from climate impacts. Synthesizing these results in the context of existing literature allow us to suggest key areas for research and practice that can help make in-migration a positive force in receiving community futures.

Keywords *: climate change adaptation, migration, Rural Areas*

The Health Inequality In Shrinking Cities: The Effects Of Urban Shrinkage On Excess Death During The Covid-19 Pandemic

Gukhwa Jang (Seoul National University)

Urban shrinkage, defined as a long-term demographic and economic downturn, is one of the critical drivers leading to the deterioration of urban resilience. Prolonged crisis situations can have direct and indirect negative effects on a city's health system, and changes in the socio-economic conditions of shrinking cities worsen their overall health. In such situations, the sudden onset of a crisis, such as the COVID-19 pandemic, can result in accumulative health damage in shrinking cities, which are already facing a health crisis. However, the specific impacts of COVID-19 in the context of urban shrinkage remain poorly understood. This study aims to conduct a cross-city comparative study investigating the effects of urban shrinkage and underlying determinants on excess mortality due to COVID-19 using a random-slope multilevel regression model. From January 2020 to 2023, monthly excess mortality in 1,584 cities across 17 countries was calculated. We categorized all cities into two types based on changes in population and gross regional domestic product from 2010 to 2020: 1) Shrinking cities and 2) Non-Shrinking cities. The findings reveal that urban shrinkage is linked to higher health damage during the pandemic compared to non-shrinking cities: the average monthly excess death in shrinking cities was 9.2 higher than in non-shrinking cities. Moreover, socioeconomic factors such as higher population density, lower income, a higher ratio of elderly individuals, worsened social disparities, and a lower employment ratio are associated with severe health outcomes in shrinking cities. The results indicate that long-term depopulation and economic downturn can worsen urban resilience. The findings underscore the need for enhanced crisis management and healthcare systems in shrinking cities, considering their underlying socio-economic status.

Keywords : urban shrinkage, resilience, excess death, COVID-19, sustainability

Research On Urban Spatial Optimization Strategies In The Loess Plateau—A Case Study Of Mizhi County, Yulin City, Shaanxi Province, China

Ruonan Jia , **Zuobin Wu**

Based on the ecologically fragile background characteristics of the Loess Plateau and the tight constraints of urban spatial land use, ecological threats such as global climate change and soil erosion have further intensified the disaster risks faced by urban spatial development.Therefore, how to deal with the urban spatial impact brought about by the fragile ecological background, increasing human disturbance, and intensified climate change has become the biggest practical problem facing the Loess Plateau.Combining the regional characteristics and practical problems of the Loess Plateau, this paper takes Mizhi County, Yulin City, which is typical of the Loess Plateau, as an example to propose a spatial optimization strategy of prevention-adaptation-recovery."Preventive" layout strategy for urban space. Based on the disaster risk assessment results, multi-scenario simulation is used to identify the optimal urban spatial layout to avoid high-risk urban disaster areas."Adaptive" darning strategies for urban blue-green spaces. Systematically identify key areas such as ecological pinch points, breaking points, and fragmented ecological spaces in urban ecological spaces. Repair land patches that hinder the connectivity of corridors such as gully hydrology and ravine greening, and patch up the urban blue-green space network."Recovery" strengthening strategy for urban functional space. It is recommended to adopt a low-impact development model for urban space construction to provide the city with more permeable surfaces and ways for rainwater to be digested and utilized, so that the hydrological characteristics of the area after development are consistent with those before development, reducing runoff and alleviating the pressure on the urban drainage system. Thereby reducing the vulnerability of urban spatial environment.

Keywords : Loess Plateau, Urban Space, Water and Soil Erosion,Spatial Optimization

Redefining Urban Neighborhoods: Applying The 15-Minute City Concept In Seoul

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Background and Objectives
This study proposes a new method using daily mobility data in order to redefine neighborhood boundaries, reflecting residents' actual travel patterns. Inspired by the '15-Minute City' concept, which focuses on creating accessible zones based on travel time, this approach seeks to transform urban planning by aligning neighborhood planning with actual mobility patterns. We aim to apply this methodology to Seoul's existing Neighborhood Plan, which is segmented into 116 zones based on population size, to assess potential new area definitions. Furthermore, this study compares our new zone boundaries with Seoul's '2030 Neighborhood Plan' to assess the congruence of functional neighborhood boundaries.
Methods
This study focused on residents living in the Seoul Metropolitan Area and used the 2016 and 2021 National Household Travel Survey data. We employed network analysis based Community Detection techniques using the Louvain algorithm to delineate neighborhood zones of Seoul. The research focuses on selected travel data within a 15-minute timeframe, focusing on walking and cycling modes, to examine the nature and extent of neighborhood-based activities. We compared travel and neighborhood patterns between 2016 and 2021. Additionally, the study quantified the extent to which these derived boundaries align with the 116 neighborhood zones outlined in Seoul's 2030 Neighborhood Plan using the Jaccard Index.
Results
Using community detection on Seoul's mobility data, we discovered dynamic neighborhood zones distinct from the conventional 116 zones. The analysis of travel data within a 15-minute timeframe revealed new neighborhood zones that more accurately reflect residents' actual walking and cycling patterns, diverging from existing planned zones. Furthermore, a comparison with the 2030 Community Plan using the Jaccard Index identified both alignments and discrepancies, highlighting areas with potential for urban planning improvements.
Conclusion
This study redefined neighborhood boundaries precisely, enabling a comparison with Seoul's current neighborhood zones. By evaluating the extent to which existing urban plans reflect actual mobility patterns, the research offers insights into the complex dynamics of urban movement and functional neighborhood structures, suggesting ways to improve the precision and adaptability of urban planning.

Keywords *: neighborhood planning, community detection, network analysis, 15-minute city*

Navigating The Housing Market Arena: Understanding Local Actors, Their Motives And Strategies In The Housing Development Process Using The Policy Arrangement Approach

Senta Christine Knoche (German), **Nicole Reiswich** , **Astrid Maurer** , **Peter Davids**

Conventional permanent dwellings are being removed from the common housing market, e.g. through (a) vacancy and dilapidation until the dwelling becomes uninhabitable as abandoned property, or (b) subletting in other sectors, e.g. as holiday homes. Particularly in tense housing markets, this reduces the supply of (affordable) housing. This illustrates the complexity of the housing market: it is a highly entangled web of interdependencies between housing market actors of supply and demand, politicians, administrators, the local community, and researchers. All these actors influence the housing market and their motives as well as their behaviors should be analyzed when trying to understand why interactions on the housing market are leading to delays in the development of housing. To understand this web of actors, this research perceives the housing market as an arena.

The concept of the housing market arena focuses on the interaction between the various players, who each pursue their own interests but are also interdependent. It therefore offers a strategic approach for governmental actors to understand the motives of the other actors in the arena in order to be able to take appropriate land policy measures. By zooming in on specific cases of recent building developments in Germany, using the policy arrangement approach the research examines structures and strategies in two housing market arenas. The case studies include an abandoned property in the city of Munich and a new development project with social and holiday flats in the rural-touristic Garmisch-Partenkirchen, both in Germany.

This way, the study will analyze the motives and strategies of actors involved in these housing developments and how they are influencing each other and the process of development. Therefore this study explores two cases: a case in Munich dealing with a high demand for both affordable and profitable housing; and a case in Garmisch-Partenkirchen dealing with a demand on holiday housing and housing for the local community. The findings point out the importance of involving and understanding a wide range of actors' motives in the development process. In this way, actors in the housing market arena act as players who, with their weapons and weaknesses, can influence the entire project development in their own way and with their own strategy. This knowledge can help to develop and adapt strategies in the process of project development.

Keywords *: housing market arena , land policy, policy arrangement approach, local actors, germany*

Principles For Adaptive Planning, Decision-Making And Governance: Perspectives From The Global South For Addressing Compounded Uncertainty

Mrudhula Koshy (Norwegian University Of Science And Technology)

Recent decades have witnessed an increase in compounded uncertainties due to a simultaneous occurrence of climate crisis, environmental degradation, health emergencies, and geopolitical changes. Such crises have resulted in a growing interest in addressing compounded uncertainties through adaptation in urban planning. However, there are differences in how literature from contexts in the Global North and Global South conceptualise, theorise and operationalise adaptation. Global North contexts tend to emphasise adaptation led by well-resourced institutions, robust institutional mechanisms, sufficient resources, and limited vulnerabilities (Haasnoot et al., 2013; Aytur et al., 2015). Literature from contexts in the Global South are either based on top-down frameworks developed in Global North contexts (Van Alpen et al., 2021; Gomes et al., 2023) or focus mainly on bottom-up, community-led adaptive interventions where the onus of adaptation is shouldered by vulnerable communities ((Kirby et al., 2018). At present, there are limited efforts on bridging and contextualising these approaches. This paper addresses some of the limitations of adaptation perspectives in planning, decision-making, and governance by bridging contributions from the Global North and Global South.

This article draws on a case of uncertainty in a developmental context, that of the unprecedented floods in 2018 and 2019 in Wayanad, a peri-urban hill district in Kerala, India, to put forward six adaptation principles for planning, decision-making, and governance, namely localised, relational, fast, flexible, frugal, and incremental that could be useful to deal with compounded uncertainties. The article argues for proactive planning under uncertainty that articulates inherent urban vulnerabilities under short- and long-term uncertainty in developmental contexts. Furthermore, the article recommends moving beyond adaptation towards an interactional, value-laden, participatory, community-oriented, and partnership-based planning, decision-making and governance approach that bridges existing community and institutional strengths for improving responses to compounded uncertainty.

The climate crisis shows much evidence of how planning, decision-making, and governance strategies must adapt better and embrace uncertainty as part of the planning processes. The paper concludes by stressing that crises should not be debilitating but rather enable the scripting of imaginaries that redefine transformation and catalyse collaboration at multiple levels. In this respect, the principles are relevant for, and can enrich the approaches for addressing compounded uncertainties also in Global North contexts.

Keywords : urban planning, decision making, governance, adaptation, Global South

Climate Adaptation In Cities And The Transition To Green Infrastructure: The Potential Of Post-Industrial Landscapes

Janaina Krohling Peruzzo (University Of Amsterdam), **Homero Fonseca Filho** (University Of São Paulo)

The challenges related to the impacts of climate change in cities have pushed municipalities to assess their capacity to withstand extreme climate events such as heat waves, drought, storms and floods, air pollution, and subsequential impact of the generalized environmental degradation. These issues are already impacting cities significantly, prompting them to implement mitigation and adaptation strategies.

In this scenario, efforts and resources tend to be largely directed to strengthen hard/grey infrastructure, but not only has this been insufficient in withstanding extreme weather events, it reinforces the patterns of urbanization that have conditioned the current unsustainable state of cities: historically, hard infrastructure was often imposed over geomorphological characteristics and in disregard to natural cycles in most cities around the globe in the past century. On the other hand, ecological thinking in city design and nature based solutions have also been explored as strategies to improve resilience and quality of life in cities.

There are many levels and scales where these strategies can be implemented and will benefit the city, addressing specific conditions in different areas, especially when they are developed as part of infrastructure systems. The concept of Green Infrastructure has been used in urban planning as a multi-scale instrument to support ecological functions since the XIX century (Mell, 2010; Benedict, 2001; Foster, 2011).

Identifying opportunities of establishing green infrastructure requires a multiscale approach to understanding the territory, beginning with the characterization of the geomorphological characteristics of the city, but also of its socioeconomic and spatial dynamics, as a way of identifying vulnerabilities and opportunities to be addressed in conjunction with another. The post-industrial landscape in particular has considerable potential in articulating nature based solutions as part of green space system, although it is important to analyze the impact of different project parameters in order to effectively contribute to the process of adaptation to climate change.

Net Effects Of Urban Form And Forest Areas On Energy Efficiency Through Seasonal Temperature Variations

Changyeon Lee (Chung-Ang University)

Over the past century in South Korea, the average temperature has increased by approximately 1.5°C, which is roughly twice the global temperature rise (Ministry of Environment in South Korea 2019). Lee (2021) found that the regional warming in South Korean cities was influenced by regional physical environments as well as global warming. Many scholars in the field of urban and regional planning are interested in urban forms, as the urban physical conditions, and forest areas, which are related to regional thermal conditions. In addition, Silva, Oliveira and Leal (2017) concluded that there is a trade-off between transportation and residential energy efficiency under some urban form factors, such as density and land use mix. They argued that high density increases cooling energy by raising the temperatures, but reduces the energy consumption in transportation by reducing travel distance. However, when one urban form, such as density, increases the seasonal temperature of summer and winter, the net efficiency of density on energy consumption may be controversial. South Korea, located in a temperate climate zone, has four distinct seasons. For residents, cooling energy is mainly consumed in the summer, and heating energy is consumed in the winter. In the summer, increasing regional temperature may increase the energy used for cooling; on the other hand, in the winter, increasing regional temperature may reduce the energy used for heating. Therefore, this study aims to explore the net effects of urban form on energy use for cooling and warming. Using structural equation modeling (SEM), we identify the causality in direct and indirect effects of urban forms. We assume that the urban form influences the regional thermal environments and then the regional building energy usage. As the study area. we include the entire South Korean cities. Density and spatially clustered urban and forest areas are contained in the urban form. High density and expanded urban areas might increase regional temperature, but expanded forest areas decrease regional temperature. We also include socio-economic factors that might affect regional energy consumption. The results of this study provide evidence to establish sustainable cities in terms of being environmentally friendly and energy efficient.

***Keywords** : Urban Form, Forest Areas, Regional Thermal Environment, Energy Efficiency*

Prediction Of Ecosystem Service Value And Construction Of Ecological Security Pattern In Metropolitan Area Based On System Dynamics

Siying Li (Tsinghua University), **Zeyin Chen** (Tongji University)

Urban ecological patterns are affected by human activities and climate change, which is reflected in the fact that land use change threatens ecosystem services and is not conducive to the construction of ecological security patterns. The urban agglomeration in the middle reaches of the Yangtze River in China covers an area of 326,100 square kilometers, with a high degree of ecological fragility, frequent floods and floods, and its ecological change is a key factor affecting the ecological security of the Yangtze River basin. In this paper, we combine the system dynamics (SD) model, the patch generation land use simulation (PLUS) model, and the minimum cumulative resistance (MCR) model to generate the SD-PLUS-MCR model, simulate the ecosystem service value (ESV) of three different land use scenarios in 2035 based on the past data and explore the results of the changes in the ecological security pattern (ESP). And focusing on the introduction of factors such as flooding and climate change in this process, this paper assessed the influence of spatial determinants on the spatial incidence of each land use type through logistic regression modeling, and a total of 22 factors were collected. The results showed that under the natural increase scenario (NIS), economic development scenario (EDS), and ecological protection scenario (EPS), land use change under NIS and EPS had a positive impact on ESPV, with growth in the area of ecological sources and the length of ecological corridors, and ESPV under EDS responded negatively to land use change. Compared with the NIS scenario, ecological land was more significantly and effectively protected in the ESP scenario. This study provides a basis for future ecosystem protection in urban agglomerations.

Construction Of Ecological Security Pattern In Metropolitan Areas Based On Ecosystem Service Flow: The Case Of Wuhan Metropolitan Area In China

Siying Li (Tsinghua University), **Zeyin Chen** (Tongji University)

Research on the supply and demand of ecosystem services and spatial matching is a prerequisite for the formulation of regional urban and rural sustainable development strategies, and the judgment and control of the spatial carriers on which ecosystem service flow(ESF) are based is a fundamental task for the efficient allocation of urban and rural resources, which can improve the traditional planning path of passive ecological protection. Current research on ESF is mainly based on theoretical studies, and quantitative analysis of ESF is still in its infancy, with an even more insufficient role in the transmission of pattern construction.

As a typical area of rapid urbanization in China, the middle reaches of the Yangtze River have long been characterized by increased population density, rapid regional economic development, and drastic changes in urban spatial patterns and land-use structures, resulting in the destruction of natural landscapes, reduction of species diversity, and decline of ecosystem services, with the Wuhan metropolitan area being a typical example. In this study, the Wuhan metropolitan area is taken as an example to clarify the path of constructing ecological security pattern(ESP) based on ecosystem services. Three mid-decades, 2000, 2010 and 2020, are chosen for the study, and the supply and demand analyses of water supply services, carbon sink services and food supply services are carried out, the spatial flow of each type of service is portrayed by using the breakpoint formula and the field strength model, and the shortest paths conducive to the flow of ecosystem services are calculated by using the Least Cumulative Resistance model as potential ecological corridors, and the network is combined with the corridors to form a "network" and a "corridor". The network will be combined with the corridors to form a regional ecological spatial pattern of "source-corridor-mismatch zone". This study will also propose a control strategy based on ESP, which will ultimately provide a basis for ecosystem protection in the metropolitan area.

The innovation of this study lies in 3 aspects: research direction, research content, and research unit. In terms of research direction, from the perspective of urban and rural planning, most of the single-category approaches are used as a guide to construct ESP, and there is a lack of integration of the whole flow idea based on local supply and demand capacity; therefore, this study will add to this gap by proposing a method for constructing a regional ecospatial pattern that incorporates ecosystem services to enhance the guiding significance. In terms of research content, previous literature is lacking in the study of the spatial law of ESF, and also lacks the study of spatial pattern construction based on supply-demand relationship and spatial identification of flow, with little spatial fallout. In terms of research units, most of the existing studies take the grid unit as the unit of analysis, and have not yet explored the spatial and temporal change characteristics of the urban-rural gradient from the perspective of supply-demand matching.

From The New Wave Of Digital Media: A Case Study Of Digital-Media-Driven Rural Development In The Shanghai Metropolitan Area

Xiangcheng LI (Tongji University), **Chen Chen** (Tongji University)

The rise of digital media in the world, along with the expansion of the mobile web, has brought new opportunities and challenges for rural development. Currently, the frontier practice of rural development has shifted to the Global South, and China has also become one of the newcomers in the current wave of the information revolution(Kaye, Chen and Zeng, 2021). Under the combined effect of the two forces, the villages in the Shanghai metropolitan area of China have become the high tide of digital media-driven development. Based on endogenous and exogenous paradigms of rural development(Lowe, Murdoch and Ward, 1995) and geographies of media and communication (Adams, 2009), this study constructs a conceptual framework of 'digital-media-driven rural development' (DMdRD), which takes the production, and dissemination of rural imagery in the process of digital media development and its impact on rural development as the object of study. Based on this conceptual framework, the study uses support vector machine (SVM) and other techniques to mine a large amount of text and image data extracted from two different digital media platforms, and deconstructs the typical producers of rural imagery (rural residents, tourists, enterprises, government, multi-channel network, key opinion leader) and their imagery production mechanisms, and to characterize the digital media imagery of the village in Shanghai metropolitan area. Preliminary conclusions have been obtained so far, including 1) digital mediatized rural image is characterized by territoriality; 2) different digital media platforms can lead to differences in digital mediatized rural image; 3) sustainability is one of the core challenges of the DMdRD . The study will further explore the relationship between rural geospatial characteristics and the spread of digital mediatized rural image by combining GIS tools and geostatistical methods. This study enriches the research case of the rural area as a data desert. Based on the aforementioned findings, the study will discuss the characterization and mechanisms, key strategies, policy tools, and planning implications of DMdRD in order to promote rural development around the globe to better cope with the new wave of digitization and mediatization transformation.

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Keywords : Digital Media, Rural Development, Geography of Media, Rural Image, Shanghai Metropolitan Area

Revealing The Spatiotemporal Evolutionary Characteristics, Influencing Factors And Mitigation Measures Of Carbon Emission In Tokyo

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Greenhouse gas emissions have gradually led to the global warming crisis and the increasing frequency of extreme weather events (Phillips et al., 2022). In a global context, urban carbon emissions are identified as the most significant component of greenhouse gas emissions. Therefore, it is imperative for urban planning to prioritize carbon emissions mitigation to effectively combat climate change and achieve urban sustainable development goals.

We identify that: (1) Existing research object mainly focuses on the calculation of carbon emissions at the national scale. Therefore, the proposed measures were primarily centered on improving energy efficiency, advancing the adoption of renewable resources, and afforestation, etc. (2) This field faces multiple challenges, such as being at an early stage of development, the lack of data availability, and the divergent interpretations of low-carbon emissions among interested governmental actors. The lack of a holistic approach and the macroscopic focus of the existing policies for carbon emission mitigation could lead to the proposed policies failing to respond to a more localized scale. (3) Additionally, the current approach predominantly emphasizes on the impact of the production sectors, thereby neglecting the significant role of individuals in the proposal of mitigation strategies.

Consequently, this article aims to advance the discussion on strategies and policies of carbon emission strategies from the perspective of land-use policies. We systematically consider multi-domain carbon mitigation measures to enhance efficiency, such as the coordination of urban scale economies, the promotion of sustainable development and the feasibility of planning measures. Additionally, the article introduces an analysis of human behavior to enhance public engagement in research conclusions and constructs a low-carbon development framework.

We choose Tokyo as research sample for two reasons: (1) Japan, as one of the most developed economies, has taken many measurements to build low-carbon cities and has achieved the highest level of carbon emission control in advance of other countries (Yaacob et al., 2020). (2) Tokyo is considered as representative of the contemporary Japan, and its carbon emissions are of major importance when making mitigation policies of carbon emissions on city-scale (Long and Yoshida, 2018).

In our study, we first utilized GIS to examine the spatiotemporal evolutionary characteristics of carbon emissions across 23 wards of Tokyo from 2005 to 2020. Secondly, we employed GeoDetector tool (Wang et al., 2010) to identify crucial and dynamic factors influencing these emissions in four key areas: economy, society, environment and transportation, including an analysis of the interactive influence relationship among these factors. Thirdly, we used Tapio decoupling model (Tapio, 2005) to investigate the relationship between carbon emissions and economic development. Finally, we discussed the low-carbon development policies in Tokyo.

Our findings revealed several key insights: (1) Carbon emissions in Tokyo have steadily increased since 2005 while significantly decreased after 2015. (2) Population density, land-use policies, commute, as well as the density of the roads network are significant factors of carbon emissions in Tokyo. (3) Tokyo has undergone a transition on its economic development and ecological environment, shifting from a phase of expansive negative decoupling to a state of strong decoupling, and the decoupling status reached its best point in 2020. (4) Among some of the successful land-use policies on localized scale we found that urban planning should mix and refine land-use, promote public awareness campaigns for low-carbon development, and integrate social characteristics, market measures and urban functions to guide public behavior towards reducing carbon emissions.

Keywords *: Carbon emission, Mitigation measures, Tapio decoupling model, GeoDetector tool, Influencing factors*

Research On The Protection And Inheritance Structure Of Urban And Rural Historical And Cultural Heritage In Qinghai Province

Yu Peng Liu , Wen Di Dong , Yi Min Wei

With the development of urban areas, it is an important part of urban planning in the new era to strengthen the top-level design of the system, establish a scientific, powerful and effective system for the protection and inheritance of urban and rural historical culture, in line with the attitude of being responsible for history and the people. This article takes Qinghai Province, an important region along the Silk Road, as an example, based on the research of the evolution of settlement space, extracts and evaluates local characteristic values, and forms the overall structure of urban and rural historical and cultural protection and inheritance in Qinghai Province.At present, China has carried out corresponding protection and inheritance work in some regions, but its current protection and inheritance structure is mainly based on subjective judgment, without any related mature research path.This article will focus on the research of existing historical and cultural relics classification. Firstly, the urban relics are classified according to periods, and the distribution characteristics of cities in important periods such as the Qin Dynasty, the Han Dynasty, and the Tang Dynasty are studied. By combining with political, economic, cultural, ecological and environmental impact mechanisms, hidden relic resources are inferred to improve the protection content. Secondly, through keyword extraction analysis of existing literature data, the characteristic element values of Qinghai Province are refined, and graded evaluation is carried out. The protection values at all levels are matched with material relic sites in the protection list and reflected in material space. Finally, through multi-dimensional correlation construction of protection and inheritance structure, a "one lake, three rivers and three arteries, three cores, three corridors and multiple pieces" urban and rural historical and cultural protection and inheritance structure is formed. Starting from the research perspective of existing historical and cultural relics, this article analyzes its internal impact mechanism and proposes a protection and inheritance structure based on value rational evaluation. It has important reference significance for regional historical and cultural protection and inheritance work.

Keywords : Historical heritage, Protection and inheritance, Evolution mechanism, The silk road

How Urban Morphology Affects Wind-Heat Environment: From Ancient Cities To Modern Cities

Jiankun Lou (Tongji University), **Lan Wang** (Tongji University), **Jiayu Li** (Tongji University), **Yinghui Jia** (Tongji University)

Climate change is one of the most important global environmental phenomena that human beings face in this century. The urban wind-heat environment is an important part of the urban climate, and it affects the health of residents to a large extent. The urban wind environment can affect the air quality, and thus affect the risk of respiratory and cardiovascular diseases of residents. The urban heat island effect and heat waves can easily cause heat stroke, heat-related diseases, and even death among the population. The structure and morphology of the city are important factors that affect the urban microclimate. How to optimize the urban spatial morphology and improve the urban wind-heat environment has increasingly attracted the attention of relevant scholars and managers. At present, most of the studies on the outdoor wind-heat environment are conducted in modern cities, and there are few studies on the traditional urban morphology. Traditional buildings and settlements often reflect the concept of human adaptation to the climate, and related studies can inspire us to design more livable and healthier cities in the future.

The urban thermal environment and wind environment are important factors that affect the health and quality of life of urban residents, and they are also affected by the urban spatial morphology. This research selects three residential blocks in Beijing that were built at different times, representing ancient cities, modern cities, and historical blocks in modern cities, and uses ENVI-met and WindPerfectDX to simulate the thermal environment and wind environment of the three types of blocks respectively. In the simulation, the ancient and modern climate information are used respectively, and the thermal environment and wind environment parameters under the summer and winter scenarios are simulated. By comparing the average radiant temperature, physiological equivalent temperature, universal thermal climate index, wind speed and wind direction indicators under different seasons and scenarios, the differences and advantages and disadvantages of the three blocks in terms of thermal comfort are analyzed. We found that the ancient city and historical block have the characteristics of low building height, narrow street width, high aspect ratio, diverse building orientation and shape, low reflectivity and high heat capacity; while the modern city has high building height and density, and the urban morphology is more uniform. Under different climate conditions and different seasons, the ancient city and modern city are expected to have significant differences in the thermal environment and wind environment, while the historical block has both ancient and modern characteristics. The thermal environment and wind environment of the ancient city and historical block are better than those of the modern city block, mainly because their spatial morphology is more reasonable and diversified, conducive to ventilation and shading. Based on this, this paper puts forward some suggestions for urban planning and design based on spatial morphology, including increasing the green space area and complexity of the morphology, reducing the building density and height, adjusting the building orientation and staggered degree, etc., in order to provide reference for the improvement of the urban thermal environment and wind environment. The significance of this paper is that it discusses the urban thermal environment and wind environment from the perspective of spatial morphology, and provides reference and inspiration for the protection and development of historical blocks and the construction of climate-adaptive cities.

Designing Therapeutic Public Spaces - A Sydney Case Study

Sephira Yawen LUO (University Of Sydney)

The notion of well-being as a social sustainability strategy has gained relevance in the post-pandemic context, which reshapes the interactions between people and urban public spaces (Dodd 2021). In this context, a renewed understanding of public architecture is required to accommodate the shifting paradigm of social interactions in urban open spaces. This thesis investigates the expanded conceptualisation of public architecture as the spatial design of public-facing architectural façades and adjacent open spaces, emphasising the therapeutic effect of public architecture in promoting subjective well-being (SWB).

The expanded understanding indicates the potential application of art curatorship in facilitating social-sustainable public architecture, which encourages a new framework that specifically fosters subjective well-being by promoting positive interactions and overcoming some of the negative impacts of loneliness and stress associated with social isolation (Celbiş et al. 2023). "Urban public spaces" are defined as the "quintessentially democratic spaces of a city", offering access to open-air and positive social interactions (Kent & Thompson 2019, p.159). Public architecture is a small-scale urban public space that "sensitively considers the existing demands" and is often associated with residential areas (Winters 2007). It creates a social-gathering space for the neighbourhoods or a network of communities, inviting interaction without barriers. The purpose of public architecture is to engage in critical or aesthetic reasoning focusing on interpersonal relationships (Gehl 2013). It shares specific characteristics with urban architecture regarding the urban engagement initiative and design-driven spatial strategies. However, public architecture emphasises social impacts at a neighbourhood scale and adapts to evolving social needs.

This PhD thesis proposes that positive social connections in urban open spaces can significantly promote SWB on a neighbourhood scale. The research suggests two pairs of comparative case studies in Sydney, Australia, to investigate the current practice of promoting SWB with design strategies in urban public spaces. This paper covers parts of the thesis on using naturalistic observations and semi-structured interviews to investigate how public space design can increase perceived SWB by promoting positive subjective experience and social interactions on-site.

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Bwim.puls: A Project Experimenting With Care And Cooperation As A Method To Overcome Resistance To Change. Approaching Mobility Transition With An Experimental Urban Project In Baden-Württemberg, Germany

Lorenza Manfredi (Hochschule Biberach), **Verena Krappitz** (Baden-Würrtemberg Institut Für Nachhaltige Mobilität (Bwim), Hochschule Biberach)

Mobility transition is about creating quality in the city to meet needs and motivate different mobility behaviors. However, change is often seen as a threat to one's autonomy, and feelings of resistance to change are widespread in some of Europe's peripheral regions, as in the case of Baden-Württemberg, an area that is already particularly fragmented and characterized by small, isolated settlements.

The experimental project bwim.puls addresses mobility transition with a series of temporary experiments in small towns in Baden-Württemberg. Through an experimental approach and a program of performative interventions, the project is formulated with a focus on the character of the existing in each town to enable the creation of care cooperations. Indeed, this type of cooperation can offer a new impetus to address issues of change that have traditionally not been met in this type of rural setting.

Measures are then proposed that are easy to implement and particularly effective for a temporary change of uses in urban space, while the issue of mobility is carefully addressed by looking at three specific fields of action: transportation is conceived together with an urban planning approach, which allows for mobility shifting along with considerations of settlement structure. A third level is atmospheric, which actively involves citizens in change through an inclusive narrative. Through this approach, the financial problems associated with the austerity policy that has had a particularly high impact in Germany are overcome through a cooperative approach. This brings into play the energies of already active citizens to support the changes fostered by the expertise brought by the BWIM team of experts, and allows for overcoming the resistance of reluctant citizens to change. A series of gathering, exchange and respective learning activities, as well as in-depth analysis of the area in its urban and relational development, serve as the basis for the implementation and success of the project.

The impulses are implemented in the form of a 10-day cooperative task force, preceded by several months of preparation and followed by a period of scientific evaluation of the results. As a research and transfer interface, BWIM brings together the mobility expertise of five Baden-Württemberg universities with eight professorships. BWIM works in interdisciplinary teams and in collaboration with local authorities, initiatives, associations, committed citizens and companies. Occasionally outside experts are invited to contribute their knowledge to the local context. The two pilot cities Sulz am Neckar and Weil der Stadt will be tested in spring 2024, and the first results are emerging.

After the intensive impulse testing phases, a reflection will compile the experiences of the project and examine the potential for transferability to the regional level. The experiment of cooperatively implemented, solidarity-based mobility thus becomes a method that seeks to address the issue of mobility transition at the regional and local levels.

***Keywords** : care, resistence to change, cooperation, experimental project, temporary urbanism, sustainable mobility*

Reflection On The Transformation Of Tirana's Architectural Spaces

Jonida Meniku (Phd)

The architectural spaces that form the function in the main squares and bazaars are often considered the best place to understand the history of the city due to their many layers of construction. Every political regime tried to leave their mark on the public square in Tirana, (Albania), often by constructing a building and often by destroying one from a previous regime in the process.

The squares, or old bazaars of Tirana, as the first urban core of the city, represented the economic, trade, and financial centre of the community, a meeting place for people, a place of recreation and a place where people could discuss politics.

The effort to understand what the squares and bazaar spaces were and what they meant for the city is also an effort to understand the relationships between people, their ideas and mentalities, the basis of the city's economic development, and the various customs and traditions that are not recorded in any written documents.

This research presents the transformation of two of Tirana's public spaces that have had interventions and promoted new forms and functions of cultural and environmental tourism, as illustrated by the cases of Skenderbeg Square and Tirana-Old Bazaar, which is significant and almost prophetic for the understanding of a country such as Albania, whose destiny is suspended between East and West: "two circles, one with Tirana at its centre and a radius equal to the distance between Rome and Tirana, and another with the same radius yet with Istanbul at the centre, which meet at the eastern border of Albania". The question therefore is: can this research contribute to understanding emergent participatory architecture and insights around these forms of design in urban areas of Tirana city? The goal of this study is "participatory architecture," which regenerates infrastructure and public space. These interactions have recently been facilitated by the use of real-world, physical, and digital planning production through an analysis methodology.

The methodology of the study is that of evidential, analytical, and comparative description; it focuses on and highlights its features and presents further current activities, including returning the Tirana Skenderbeg public space and Tirana Old Bazaar as cultural heritage centers.

The study pursues the core values of encouraging citizen participation and activating citizenship through two tactics for engagement: (a) the digital lab, which engages new architects and practitioners to promote a global debate while also generating a vessel for international concepts, which is simultaneously a tactic and a strategy; and (b) the physical lab, which engages local citizens in urban actions to prototype the ideas generated using the digital lab, enabling each event to inform the next one. This approach is exciting, challenging, and relevant in the Albanian context, establishing a social and physical legacy achieved by embracing an open interactive design process that responds positively to the needs and aspirations of the community and tourists. This method stimulates innovative design, seeking to add benefits through economic growth, cultural heritage activity, and greater tourist coherence.

Keywords : Keywords: architectural square, bazaar, participatory architecture, digital-realistic models, community voice.

Planning For Innovation In Cities: An Ontology For Urban Logistics

Luciano Agustin Pana Tronca (University Of Trieste And Iuss Pavia)

Cities are ideal for experiments in real-life conditions with citizens as key stakeholders, along with technology providers, research institutions, and the local government ((Dignum, et al., 2020); (Schliwa, et al., 2015)). The local context makes it easier for actors to set goals, negotiate, solve problems, and provide feedback (Sengers, et al., 2016)

The "legitimacy" of experimentation as a sociotechnical intervention raises significant issues at the intersection of science, policy, and practice to address societal challenges (Sovacool, et al., 2020). Urban experimentation has been used to overcome governance issues, stakeholder misalignment, strict regulation, and citizen disengagement.

In urban freight, the ecosystem in which freight activities are developed is complex. Freight stakeholder goals are more diverse than public transport. Public transport is often considered a public good and may be subsidised, while freight is more influenced by economic demand and supply.

Governments now experiment with freight. In the UK, six Future of Freight grants were awarded from the Transport Research and Innovation Grant Programme to fund pilots that went beyond proof of concept, or Horizon Europe-funded urban freight research and implementation projects.

The shift to thinking about freight as a key area for systemic change through the management of innovation ecosystems in cities requires clarity on stakeholders and their roles in organising such ecosystems. We use bibliometric and content analysis to examine academic workstreams that intersect urban freight, innovation, and planning frameworks to better understand how the public sector can act.

By looking at several case studies of innovation ecosystems and at the literature, we see that there are factors that influence the planning or orchestration of innovation ecosystems from a public sector perspective. Policies and incentives, the role of the public sector (how the administration sees themselves, the types of powers they have, etc) and the knowledge of ecosystem and context factors (city conditions).

We developed an ontology for an agent-based model that can help decision-makers prioritise incentives to enhance their innovation ecosystems according to their preferred institutional setting. In an ABM, individual agents (in this case, we consider a quadruple helix approach (Verlinde & Macharis, 2016)) and their actions are modelled and input into a computational model to capture systemic behaviour and understand emergent effects of individual agent choices. The ontology shows the actor's characteristics, the environment, different planning frameworks, and the interactions that actors perform in order to innovate.

The Historic Link Between Neighborhood Planning And School Segregation: Evidence From Alabama

Rebecca Retzlaff (Auburn University)

The research question for this paper is: how was neighborhood planning used by planners in the U.S. to keep schools segregated in the post-Brown v. Board of Education Era? To answer this question, we provide a literature review of the linkages between school segregation, residential segregation, and neighborhood planning. We also completed case studies of three cities in Alabama to determine how plans in those cities used the neighborhood unit theory to keep schools segregated.

The boundaries of neighborhoods are crucial determinants of school zoning. In many states in the U.S., children are only allowed to attend schools within their neighborhood boundaries. Residential segregation is fundamental to the landscape of education in the U.S. If neighborhoods are/were segregated, so were/are schools. An underexplored area of research is on the connections between planning, neighborhood segregation, and school segregation. One crucial piece of this underexplored literature is how the neighborhood unit theory of planning was used to keep schools segregated in the mid-twentieth century.

Clarence Perry popularized the neighborhood unit theory in 1929, providing guidelines on how to design a neighborhood, centered on a small school. Perry's ideas gained popularity among social reformers of the 1920s and was used as the basis for the Garden Cities movement. Throughout the 1950s and 1960s planners in Alabama used the neighborhood unit theory as the basis for planning.

To choose the case studies we chose cities in Alabama with a population over 100,000 because those were more likely to have a comprehensive plan, more likely to incorporate school segregation into plans, and more likely to have school desegregation lawsuits initiated. Three cities in Alabama had a population over 100,000 in 1960: Birmingham (population 340,887), Mobile (population 202,779), and Montgomery (population 134,393).

We conducted historical and archival analysis to analyze historic city plans and litigation on school integration in Alabama in the three cities. Each of these cities used plans that followed the neighborhood unit planning theory, and each of them had significant and dramatic civil rights activism and litigation over school integration.

The research finds a strong connection between neighborhood planning and school segregation in cities in Alabama. In Birmingham, Mobile, and Montgomery, planners used the neighborhood unit approach to avoid desegregating schools. School segregation was a key motivation of planners' use of the neighborhood unit concept of planning, and the delineation of neighborhood boundaries. School Board officials used those same neighborhood boundaries to make school zoning, construction, and funding decisions. After planners and school administrators established these racially motivated neighborhood boundaries, attorneys argued that school segregation was due to personal preferences of people to live near their own race in school desegregation court cases, including Carr v. Montgomery.

The relevance of this research is new insight into the relationship between school segregation and planning in the U.S. South during the civil rights era. The research has implications for current planning practice because many schools in Alabama are still segregated. Neighborhood planning continues to have significant relevance to planning practice today, including in new urbanism.

Keywords : Planning history, School Segregation, Neighborhood Planning, Alabama, Neighborhood Unit

Urban Vacant Land A Tool For Re-Configuration And Re-Appropiation Of The City. Tokyo And Buenos Aires   The City

Marcela maria riva de monti (Etsam)

The urban vacant land is ussally associated to the decline and considered a tool for renaturalizing the city. The reuse of vacant land and abandoned structures can represent an opportunity for the economic growth and recovery of a diverse range of urban areas
However a closer look ata the trajectory of Tokyo and Buenos Aires
Vacant land presents many challenges for older financially distressed cities. Community engagement is a veryimportant element to solve the urban vacant land problem and assist in long term regeneration.
 UVL shows fragmentation and irregular shape, and significant spatial differences exist at parcel, transect, city, and national levels. Proximate causes, such as excessive land division, irregularly shaped land parcels, decreases in resident population, deindustrialization, land speculation, insufficient investment, and environmental concerns, can all result in UVL. Currently

Keywords : marginality, Community engagement, Urban regeneration and renewal

Exploiting Gps-Based Travel Behavior Surveys To Determine Who Is Served Poorly By The Transport System

Diana Saadi (Technion - Israel Institute Of Technology), **Karel Martens** (Technion - Israel Institute Of Technology)

This paper presents an approach to use GPS-based travel behavior surveys to determine who is being served well and who is being served poorly by the transport system. We draw on the extensive literature on transport disadvantage, which has shown that travel behavior patterns of disadvantaged population segments differ in multiple dimensions from more advantaged members of society (Currie 2011; Lucas 2012; Murphy, McDonald-Lopez et al. 2022; Pritchard and Martens 2023; Singer and Martens 2023). Drawing on this literature, we defined 13 travel parameters or indicator variables that may highlight relative ease of movement. These include, among others, trip frequency (overall, in evening hours, and in night hours), number of motorized trips, trips made as a car passenger, trip speeds (for all motorized trips and public transport trips only), trip detour ratio, and number of extensively long walking trips (over 2 km). None of these parameters by themselves is sufficient to determine whether someone is served well or poorly by the transport system, as behaviors may be the result of choice as well constraint. However, we argue that jointly the parameters are likely to differentiate well-served from poorly-served people.

We apply our approach to data from four GPS-based travel behavior surveys conducted in Israel's four main metropolitan areas (N = 27,571). We calculate z-scores for all travel parameters, with negative values potentially indicating mobility problems and positive values relative ease of movement compared to the entire sample. We subsequently conduct known-group analysis, comparing mean z-scores across four population segments differing in their level of access to private motorized vehicles (car or motorbike).

For all travel parameters, we find that z-scores systematically increase as access to private motorized vehicles improves. Carless respondents score poorest on all travel parameters on average. Among others, they conduct much more long walking trips, less overall trips and less trips at night, make more trips as a car passenger, and travel at lower speeds when using public transport. In further analysis combining car ownership with age, we find a significant decrease in mobility score at older age for all respondents irrespective of car-ownership level, but with a particularly strong decrease among elderly without access to a car. Combining car ownership level and urban density, we find an improvement in mobility score for all groups as density goes up, suggesting that living at higher density enhances people' ease of movement. Like in the case of age, the effect was strongest for people without access to a motor vehicle, with carless respondents living at the highest urban densities showing mobility scores comparable to respondents who share a car with two or more adults and are living in neighborhoods with substantially lower densities. Regression analysis confirms the importance of car ownership, population density and employment density in explaining mobility scores, along with household size.

Taken together, these findings provide some first evidence that revealed travel behavior patterns can indeed be used to identify population segments poorly served by the transport system. While more research is needed, the approach holds promise to determine the impacts of transport investments on people's ease of movement.

Reclaim Student Housing. How Can Affordability, Well-Being And Desirability Be Conciled?

Marion SERRE (Ecole Des Arts Décoratifs, Ensadlab), **Agathe Chiron** (Ecole Des Arts Décoratifs, Ensadlab), **Chloé Perreau**

The "Changing student lives" research and training chair is supported by the École des Arts Décoratifs and the national center of student social services in France[1]. Since 2019, the research team has been experimenting with new forms of student residences that are both desirable and affordable.

Living in small rooms and sharing facilities (kitchens, bathrooms, toilets) are generally considered to be the two main sources of discomfort. In response, current policies tend to favor larger and "all-inclusive" student accommodations: the nine square meters rooms with collective facilities are progressively being replaced by studios of 14 to 18 square meters, including individual kitchen and bathroom.

On the one hand, increasing surface area may seem to improve comfort, but on the other hand, it has serious consequences for users, in at least three respects. Firstly, it necessarily means a reduction in the number of available beds, while demand continues to rise. Secondly, it makes rooms more expensive for the most precarious students, especially those who do not benefit from housing assistance[2]. Lastly, "all-inclusive" accommodation substantially reduces the creation of collective spaces, thereby risking increasing the student's social isolation and associated mental health risks, as the COVID-19 crisis clearly demonstrated (Belghith & al., 2020; Filho & al., 2021).

To improve student housing, are increasing accommodation space and individualizing facilities the only answer? Aren't there other models to be invented, beyond an exclusively pragmatic and technical vision of comfort? How can the hedonic dimension of student housing be placed at the heart of policies that drive its production? How can we make it a real springboard for the social life of students and their mental health?

« I've met all the people I know in the kitchen. »

« For me, the kitchen is a key area. We meet there several evenings a week. It's like family dinners you know!"

« I shouldn't have left my room for a studio, because I don't see anyone here. »

« This workspace has saved my studies. Without, I would have drop out."

"I don't go there, but knowing that I can join people makes me feel better."

"We have to be able to pay our rent, so it's ok to share the kitchen. Bathrooms and toilets... Only if it is cleaned."

Based on these testimonies, we looked at the role and effects of common spaces in student housing, especially for the mental health and well-being of students. In this perspective, an action-research method inspired by the generative programming (Zetlaoui-léger, 2013) and architectural permanence (Ricard, 2016) approaches was implemented for two years in two student residences[3]. This immersive method has revealed a sum of practices, details, discrepancies between discourses and reality, leading to real transformations being tried out with students and staff. Transforming and adapting spaces in an iterative process has resulted in technical recommendations, but it has also revealed the potential of common spaces and their design (crossing forms, colors and governance) to care for mental health, especially to reduce social isolation and feelings of loneliness. This research therefore challenges current political guidelines, by demonstrating that a large and all-inclusive accomodation is not an answer to students' economic and social problems and that common space and social interaction could play a key role in the production of affordable, well-being and desirable student housing.

[1] The National Center (Cnous) and its Regional Centers (Crous) attend the improvement of living conditions of students, offering accommodation and services.

[2] It risks being amplified with the Immigration law, which proposes the elimination of housing assistance for foreign students.

[3] In the Crous of Créteil and Paris.

Between Urban Renewal, Capitalism, And The Quality Of The Open Spaces

Dalit Shach-Pinsly (Technion-Iit), **Hadas Shadar** (Nb Haifa School Of Design)

This lecture explores the qualitative and the quantitative values that influenced the built environment of an urban renewal project. The site explores in the 1950s when it was built as public housing, and during its urban renewal process in 2010-2015, based on private money.

Throughout this lecture we will examine how ideological shifts, such as capitalism or private funds, are reflected economically, permeate government and local conduct, impose its own interests on the built environment and generate facts on the ground.

To understand the outcome of the urban values and quality of a renewed urban site, we analyzed the renewed urban environment from three main aspects:

We evaluated the quality of housing and the built environment using several quantitative urban measures. For example, we traced the changing spatial quality by evaluating walkability in the neighborhood, open vistas, the variety of housing units, the openness of space between buildings, and additional parameters.

We compared the qualitative values of the old and new constructions: equality, community, attachment to the land, individualism and capitalism.

We examined the site's long-term resilience before and after the urban renewal in the light of changes in the complex space.

The conclusions of the lecture will focus on the need to change the mechanism of urban renewal in order to incorporate all the needs of the neighborhood and in order to keep the urban resilience over time. The urban renewal evaluation will be demonstrated on a specific case study.

Living Powerless. The Effect Of Intense Load Shedding Oncommunity Dynamics In Suburbs Of Cape Town.

Laura Silva (Paris School Of Economics), **Franco Bonomi Bezzo**

This article focuses on the impact of infrastructural instability, concretely expressed by scheduled interruptions of power, on community dynamics in three areas of the Southern suburbs of Cape Town, characterised by different ethnic and socio-economic features. Leveraging in-depth interviews with residents, we shed light on the ways in which the electricity crisis shapes patterns of solidarity within communities while simultaneously exacerbating fragmentation and the perpetuation of inequalities. On the one hand, the scheduled power interruptions act as a catalyst for reshaping social bonds, fostering a sense of solidarity as residents collaboratively navigate the challenges posed by inconsistent access to electricity. On the other hand, power interruptions deepen existing fault lines, both between and within communities. Socio-economic and ethnic disparities critically emerge as certain groups may be better equipped to cope with the disruptions, further entrenching inequalities. Additionally, the strain on resources during power interruptions give rise to localised tensions, highlighting the fragility of community cohesion. By uncovering these dynamics, the article contributes to our understanding of the social ramifications of infrastructural precarity. It underscores the importance of considering the historical underpinnings as well as the local contexts, ethnic and socio-economic disparities in addressing the multifaceted impacts of electricity access on community life in Global South cities

Keywords *: infrastructure, precarity, south africa*

Reflections On Reflection. Towards A Reflective Research Practice In Cross-Border, Transdisciplinary Projects

Anika Slawski (Th Lübeck University Of Applied Science, Faculty Of The Built Environment, Chair Of Urbanism And Planning), **Vivienne Mayer** (Th Lübeck University Of Applied Science, Faculty Of The Built Environment, Chair Of Urbanism And Planning)

The funding priority Sustainable Development of Urban Regions (SURE) aims to tackle the current and future challenges of urban development in ten different projects across Southeast Asia and China. Accompanying this funding priority is the SURE Facilitation and Synthesis Research project (SURE F&SR) whose central concern of synthesis research is the question: How to observe impact in the context of sustainable developments of urban regions?

The intended impacts of each project are situated within the complex context of global dynamics, transdisciplinary urban and spatial research, and SURE's multi-layered funding priorities. To address these challenges, the authors propose an impact-oriented monitoring model that makes scalable and transferable solutions visible, goes beyond pure indicators and meets the high degree of flexibility required in a rapidly changing world (Albert, 2022; Slawski et al., 2022). There are two main and closely related requirements for a flexible monitoring system: self-set references that serve as criteria and a culture of reflection. The intended impacts of the entire funding priority are represented in a SURE reference picture which serves as a baseline. However, as research indicates a significant disparity between our aspirations and our actions (Raelin, 2002), the reference picture is only useful when accompanied by reflection tools that enable constant alignment and adjustment. SURE F&SR aims to initiate a culture of reflective practice and proposes tools for reflection to supplement the reference picture and enable each project to track its intended impacts. The contribution therefore focuses on exploring the culture of reflection from both a theoretical and a practical point of view, presenting the main challenges and proposing solutions to overcome the key challenges faced by cross-border, transdisciplinary projects.

In this contribution, reflection is defined as „the practice of periodically stepping back to ponder the meaning of what has recently transpired to ourselves and to others in our immediate environment. It illuminates what the self and others have experienced, providing a basis for future action." (Realin, 2002, p. 66). Reflection is a crucial component of experiential learning, leading to new insights and a deeper understanding of one's experience. Furthermore, reflection is not solely internal to the individual but is highly dependent on the context and intertwined with action: On one hand, reflection cannot be comprehended without reference to action, and on the other hand, it enhances one's experience through consciousness-raising and increased awareness (Kemmis, 1985). The paper emphasises the significance of a reflective practice for cross-border and transdisciplinary research, as reflection can dissolve biases (Sensoy, DiAngelo, 2018), lead to the discovery of new approaches and expand problem-solving abilities (Realen, 2002), and offer a more application-oriented way to observe progress towards impact than an indicator-based measurement system (Albert, 2022).

To initiate a culture of reflection, SURE F&SR developed the SURE Toolbox based on theories and practical experiences from projects, including requirements mentioned during collaborative sessions such as a world café and peer-to-peer discussions. The tools address various challenges mentioned by the projects, such as creating a safe space for reflection, harvesting existing knowledge, promoting a solution-driven mindset, and formalizing informal reflections that often occur outside of work hours. In addition, it is particularly important in cross-cultural, transdisciplinary research to establish a common language among stakeholders and engage in active and unbiased listening. The SURE Toolbox provides a practical guide to reflection, aimed at promoting a reflective research practice. It offers an alternative model for observing progress towards impact, using tools that facilitate ongoing reflection on self-set references, rather than relying on static indicators.

Keywords *: reflective planning practice, Sustainable urban development, reflection tools, cross-border research*

Assessing The Visual Perception Quality Of Urban Public Spaces With Time Series Street View Imagery

Yiwen Tang (Tongji University), **Yang Xiao** (Tongji University)

The well-being of residents in densely populated areas is significantly influenced by the environmental quality of their public spaces. However, gauging residents' satisfaction and achieving social inclusion in these spaces has been a challenge. This is largely due to traditional methods relying on fieldwork and manual analyses. To address this, this study have developed a cost-effective and innovative approach for assessing and monitoring the visual quality of public environments. Our method begins with screening outdoor public areas using Points of Interest (POI) and remote sensing data. This is followed by analyzing street view images across different time series, leveraging advanced machine learning techniques. Lastly, examine (1) the variation in public space quality across regions with distinct socio-economic characteristics during the same timeframe, and (2) the varying degrees of enhancement in the environmental quality of public spaces across different areas over time. Distinct from conventional studies that depend on on-site visits or surveys, our approach utilizes a comprehensive dataset to train a deep learning model. This model evaluates six perceptual indicators of public spaces across various regions. We conducted a longitudinal analysis of Shanghai using images spanning over a decade. The results indicate that our perceptual model achieves high accuracy levels. Our method, which incorporates temporal aspects of street view imagery, effectively evaluates the spatial equity in the development of public spaces. By monitoring changes in the visual quality over time, it offers an automated, scalable workflow. Moving beyond the traditional focus on roadway routes, this study provides detailed insights for the allocation and enhancement of urban public spaces. It aims to promote equity and sustainability in public spaces' planning and design, ultimately contributing to a more livable urban environment.

Keywords : Public space, Environmental quality, Street view imagery, Visual environment, Time series

From Formality To Informality: Streetscape Analysis In The Old City Core Of Xiamen

Zisheng Tang (The Bartlett School Of Planning)

The arcade street, as a unique feature in the urban landscape of Xiamen, plays a pivotal role in offering a versatile public space that caters to the daily needs of the city's dwellers. This research embarked on a diachronic exploration of the spatial form of arcade streets within the old city core of Xiamen, with the primary objective of unraveling the intricate interplay between spatial form and socioeconomic, political, and cultural factors. To achieve this, the research adopted a typo-morphology approach, utilizing historical maps, satellite imagery, relevant documents, and other resources to analyze the morphological characteristics of arcade streets. This comprehensive analysis enabled the understanding of the transformation of arcade streets in Xiamen from the early 20th century to the contemporary era. The findings indicate that despite the varying degrees of damage to their original spatial configuration, the streetscape of arcade streets in Xiamen's old city core has astonishingly retained its historical appearance since the beginning of the last century. On the other hand, the arcade streets within informal settlements have been excellently preserved in terms of usage, typology, and scale due to the micro-regeneration efforts. This research highlights the indispensable interconnectedness between spatial form and everyday life, concurrently demonstrating how top-down interventions can significantly shape the livability of built environments. In conclusion, it emphasizes the paramount importance of social production of space and interactions between public and private sectors in creating a more livable and sustainable built environment for cities.

Keywords : Streetscape, Urban Morphology, Densification

Housing Units And Parking Lot In Tirana During 2024

Parashqevi Tashi (Albanian), **Ani Tola** , **Ani Tashi**

In big cities, such as Tirana, parking spaces dedicated to residents are critically important elements of the housing unit, second after the residential building. For the last 30 years, the overall layout, shape, and organization of open spaces between residential buildings have changed. Before the 1990s, the housing units were characterized by a variety of elements such as internal roads, gardens, greenery, playgrounds for children, urban furniture, service areas, etc. However, parking spaces for the vehicles intended for the residents were not included, as a major amount of the population did not own personal vehicles. In addition to the open space not being intended for outdoor parking, indoor and underground parking was also not designed as part of the buildings. Underground floors of residential buildings of the housing units were utilized as basements and used as shelters or service areas. Ground floors, on the other hand, are accessible from main streets, and partially contained commercial and service areas, as well as housing. Secondary streets inside the housing units were only accessed by emergency vehicles such as ambulances and fire engines, as well as trucks for the distribution of wood during winter.
Since the 1990s until the present day, simultaneously with other economic and political transitions, the number of personal vehicles has increased. Thus, mobility in residential areas, especially in those built before 1990, has changed completely, altogether with the layout and elements of the open space of housing units. A considerable amount of green areas has been occupied by open parking lots, mainly used for commercial and recreational services on the ground floors. In addition, new constructions emerging in the spaces between existing buildings designed before 2000 did not include closed parking spaces inside the building, as it was not an obligation of urban planning regulation at the time.

Exploring Infrastructures' Acceleration And Deceleration For A More Balanced Territorial Development

Gloria Toma (Polytechnic University Of Bari)

Modern society has led to significant transformations in mobility which are reflected especially in travel speeds. In fact, we are witnessing accelerating trends in infrastructure on one hand and countertrends towards slow mobility on the other. These transformations consequently influence the crossed territory.
The paper explores the effects of speed variations of mobility infrastructures (acceleration and deceleration) on the territory. The effects of infrastructures have been widely studied in the literature, starting from environmental effects to socio-spatial ones, with a particular emphasis on those connected to high-speed railways. Over the decades there has been an ever-increasing speeding up of social life (Rosa, 2015), a phenomenon which has particularly affected mobility infrastructures. Since mobility constitutes one of the main factors in the modification of the territory, it is therefore necessary to understand the role that travel speed has in these transformations. Some geographical studies (Ollivro, 2000) have already analyzed the evolution undergone by mobility with regards to speed, moving from a 'homogeneous slowness' (travel speed limited to muscular strength) to a 'differentiated speed' (different degrees of speed significantly higher than the original one).
The study of the effects of this evolution on the territory has highlighted a series of significant transformations. Over time, the increase in travel speed has produced several economic benefits related to activities, employment, and tourism development (Chen and Vickerman, 2017) while leading, on the other side, to increased competition, hierarchization and polarization dynamics on a local scale (González-González and Nogués, 2016). Attempts to facilitate connections between main cities, or hubs, has led to a concentration of benefits in these areas to the detriment of the territories in between (Givoni, 2006). As a result, infrastructural acceleration has contributed to the development of territorial imbalance. In parallel, there are different trends that look at slowness as a potential rather than a weakness, such as slow city movement and slow tourism development. It is therefore worth questioning about the potential of an infrastructural development that allows a slow crossing of the territory.
In order to make a deeper exploration of infrastructures' acceleration and deceleration effects, the research starts from an analysis of key positive and negative effects of both fast (roads, highways, railways etc..) and slow infrastructures (walking path, cycling paths, greenways etc..). The aim of the research is therefore to define a framework for the analysis of the effects of speed variations of mobility infrastructures and to study a complementary development of slow and fast infrastructures, trying to achieve a more balanced territorial development.

The research themes will be contextualized by considering the gap between northern and southern Italy. Starting from the unification of Italy up until today, it represents an important discussion case for infrastructures policies that aim for a homogeneous development of the entire country.

Keywords *: Acceleration, Deceleration, Territorial balance, Infrastructures' effects*

Which Population Groups Are Particularly Affected By Urban Heat? – Developing A Standardised Survey To Analyse The Effects Of Urban Heat

Jasmin Uttner (Tu Dresden), **Andreas Ortner** (Tu Dresden), **Alexandra Weitkamp** (Tu Dresden)

Climate change leading to more frequent heat extremes also exacerbates the urban heat island effect. Especially in cities, individuals therefore experience severe health problems due to high temperatures. However, city dwellers are differently affected: Firstly, the uneven heat distribution in the city exposes residents to different temperatures (exposure). Secondly, some population groups are more sensitive to heat than others (sensitivity). Thirdly, certain individuals cannot avoid high temperatures in their daily lives or struggle to adapt to heat stress (adaptive/ coping capacity) (Wilhelmi and Hayden, 2010; Sandholz et al., 2021).

In order to adequately address the heat impacts on health with limited (municipal) resources, targeted climate adaptation measures are needed. Given the heterogeneity within the urban area and of the inhabitants, small-scale information on the heat risk/ vulnerability dimensions (exposure, sensitivity and adaptive capacity) is required to identify affected population groups (Ellena, Breil and Soriani, 2020). While several studies on exposure and specific sensitive groups exist, integrated approaches that consider the subjective heat perception and adaptive capacity of city dwellers are scarce (Sandholz et al., 2021). The presentation introduces the design of a standardised household survey to answer the following research questions: "Which population groups are particularly affected by heat?" and "Where in the city and in what everyday life situations, such as housing, work, leisure, and mobility, are adaptation measures especially required?". The selection of the German case cities and the districts for the study is also presented.

The survey focusses on the three dimensions (exposure, sensitivity and adaptive capacity) and shall collect crucial information at the individual level that cannot be obtained from data-driven analyses. Based on a systematic literature review, the survey includes questions about the residents' behaviour and activities during heatwaves, as well as their ability to adapt to such conditions. Additionally, it shall investigate the accessibility of cooling infrastructures, like air-conditioned buildings and green spaces. Questions on cooling elements at home are also included. Furthermore, the survey collects socio-demographic information on residents' age, income, education level and health status to derive insights on their sensitivity. The study will be conducted in Dresden and Frankfurt am Main, Germany, which are severely affected by heat. The selected districts within the cities represent urban heat hotspots and are identified using GIS analysis based on the cities´ existing climate function maps. The questionnaire is going to be distributed to local households using a random sampling method.

As surveys provide individual-level data, a sufficient number of responses is needed, to draw reliable conclusions below the district level, or to generalize the information to different population groups. Therefore, a standardised survey is insufficient to fully address the research questions. Accordingly, the PhD project will incorporate additional secondary data on heat exposure and sensitivity, as well as the expertise of local stakeholders and experts who can provide important site-specific background knowledge. Linking and comparing the results of these methods shall improve the quality of the findings and enable well-founded statements. Subsequently, recommendations for targeted urban climate adaptation measures can be derived.

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Impact Of Tourism Development Process On The Production Space Of Cultural Heritage Sites From The Perspective Of Authenticity

Jiang Wang

Authenticity is the primary principle that should be followed in the process of protection and development of cultural heritage sites. From the perspective of time, the principle of "authenticity" is based on the fact of development and flow, rather than being limited to a specific or fixed historical time node; from the perspective of space, the built heritage cannot exist without the environment, and the protection of "authenticity" depends on the joint action of multiple subjects in the environment. From the perspective of purpose, the aim of "authenticity" protection is not to restore the "original" state, but to ensure the sustainability of the "future". In the process of cultural tourism development, the entry of external resources and the demand of the market will change the original economic production structure of the heritage site, and different subjects such as local residents, foreign operators, local governments, and planners will continue to recreate the production space. This paper focuses on the production space, and analyzes the changes of agricultural space and handicraft space in the development of cultural tourism from the perspective of authenticity, taking Xizhou Ancient Town and Zhoucheng Village in Yunnan Province, China as examples. Xizhou Ancient Town is based on rice field resources combined with land transfer and circulation procedures, introduces social enterprises to concentrate farming, recruits surrounding villagers to participate in labor, and holds the "Rice Culture and Art Festival" to create a "Xi" brand (which means happiness in Chinese) of agricultural products. On the basis of the original production tradition of tie-dye handicrafts, Zhoucheng Village renovated the abandoned state-owned factory building as a tie-dye museum, integrating sightseeing, display, production, experience and other functions, moving the production work from the original private family workshop to a public cultural place, and further promoting the communication between local villagers. In these two cases, the spatial ownership and functional changes led by the government and planning departments have injected new connotations into the regional agricultural and handicraft traditions on the basis of continuing the regional agricultural and handicraft traditions, which is conducive to the survival of the rice field landscape and tie-dyeing process itself, also an active expansion and exploration under the principle of "authenticity". In the process of cultural tourism development, planning, playing a leading role with legal effect, should take the key space as the carrier to guide the functional positioning of the area, and at the same time, combined with policy means, build a real-time operation platform, and provide positive guidance for the protection and development of cultural heritage sites under the principle of "authenticity".

Keywords *: authenticity, production space, cultural tourism development, Xizhou Ancient Town, Zhoucheng Village*

Dynamic Visual Assessment Of Urban Streetscapes: Hengshan Street In Shanghai As A Case Study

Xueling Wang (College Of Architecture And Urban Planning, Tongji University, China)

Objectives: By investigating the relationship between the urban street environment and human perception under "dynamic" walking situations, this study seeks to improve the urban street landscape and maximize the walking experience for the public. Using a combination of qualitative and quantitative research methods, a dynamic visual assessment system with subjective, objective, and interactive components is created. In order to examine the dynamic visual perception mechanism, system is quantified by using scientific and professional techniques.

Methods: Based on previous research on the subjective and objective evaluation of urban streets, a dynamic landscape visual objective evaluation system is chosen and built, including spatial elements (sky view factor, architectural visual proportion, green view index), spatial configuration (mean horizontal visual depth), and spatial vision (color richness). The following are the definitions of subjective indicators: clarity (vague-clear), transparency (enclosed-open), richness (monotonous-rich), and relaxation (suppressed-relaxed). Based on the subject-object interaction principle, dynamic visual subjective and objective evaluation indicators have been developed, including dynamic viewing frequency, landscape preference offset degree, and spatial vitality index. Data on surface elevation, building elevation, and road elevation are gathered from open-source platform OpenStreetMap and the geographic spatial data cloud, with an emphasis on Shanghai's Hengshan Road. In addition, 80 example photos are taken using fixed-point photography on the spot. The green view index, building area percentage, and sky area proportion of the sample sites are computed using image semantic segmentation algorithms. The mean horizontal visual depth is calculated using GIS spatial analysis. Color richness is calculated by analyzing the RGB values of the image colors using Colorimpact software. Subjective assessment indicators of the sample points are computed on the basis of these results and the subject-object linear regression equations that are currently available. In order to ascertain dynamic viewing frequency based on 40 sets of two-step path trajectory data, landscape preference offset degree based on 21 two-step path positioning photographs, and spatial vitality index based on 26 Baidu heatmap data, the study also employs GIS overlay analysis and inductive statistics methods.

Results: The study examines correlation between the dynamic visual perception mechanism and visual assessment system using the Partial Least Squares Regression in SPSS. Moreover, a scatter plot in three dimensions is created. According to the study, "dynamic viewing" behavior influences how people perceive their surroundings while they are in cities significantly. Reduced desire for space and pedestrian flow are caused by a decrease in dynamic viewing frequency. The public's impression of street space is enhanced in terms of clarity, transparency, ease of use, and richness when there is a greater range of spatial hues within the field of view, a smaller building area, and more translucent and clear spaces.

Conclusion: These results emphasize the significance of subject-object interaction, or "dynamic viewing" behavior indicators, in enhancing street scene perception and visual quality. Planning and designing urban streetscapes should focus on elements including viewing frequency, viewing preferences, and spatial vitality in dynamic visual environments.

Study On Environmental Form Indicators Affecting The Walking Vitality Of Open Space In Three-Dimensional Commercial Blocks

Yunjing Wang (College Of Architecture And Urban Planning, Tongji University), **Yu Zhuang** (College Of Architecture And Urban Planning, Tongji University)

In contemporary cities, online shopping has become the preferred mode of consumption for most consumers, significantly impacting offline physical commerce. This problem is particularly evident in three-dimensional commercial blocks with large space capacity and diverse forms, which now require intensive, refined, and high-quality development strategies on walking vitality. Studies have shown that the spatial structure obviously affects the walking activities in the three-dimensional commercial block. We hypothesize that with the growth of offline purposeful consumption demand, other environmental form indicators besides spatial structure play an equal or greater role in affecting walking activities. Therefore, this study selects three representative three-dimensional commercial blocks near Optics Valley traffic roundabout in Wuhan, China as cases. By combining the field measurement and the axis analysis of space syntax, we analysed the environmental form characteristics of open space in three-dimensional commercial blocks. Among them, accessibility is the main indicator to evaluate the spatial structure, which is obtained by using Depth Map X. Based on actual observed walking activities data, we evaluated the walking vitality of the sample blocks and explored the correlations between the environmental form characteristics and walking vitality in their open spaces. The results confirm our hypothesis that in addition to the spatial structure, the shop formats and leisure facilities in the open space have a greater impact on the walking vitality of the blocks.

***Keywords** : Three-dimensional commercial block, Multi-floor open space, Accessibility, Axis analysis, Walking vitality*

Investigating The Carbon Sinks Of Urban Green Spaces Based On Remote Sensing, Uav Oblique Photography, And Ai Technologies: A Case Study Of Shanghai Metropolitan Area

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As the largest metropolis in China, Shanghai is currently in the process of de-carbonization and carbon neutrality. The government announced that Shanghai will achieve carbon neutrality by 2060. This is not an easy target for a metropolitan area with a population of about 25 million. Urban green spaces can play an important role in urban de-carbonization and carbon neutrality, thanks to the carbon sinks delivered by vegetation. Especially in a high-density metropolitan area like Shanghai, green spaces are more precious resources. This study investigated the green spaces and carbon sinks in the Shanghai metropolitan area using UAV oblique photography, remote Sensing, and AI technologies.

On a large scale of the entire city (low precision), this study used SPOT/VEGETATION PROBA-V 1 KM and MODIS satellite remote sensing data to obtain the long-term series NDVI (Normalized Difference Vegetation Index) of the Shanghai metropolitan area, verified by Shanghai's regional NPP data (Net Primary Productivity of vegetation calculated through the light energy utilization model GLO_PEM), to estimate the total amount and spatial distribution of carbon sinks at the scale of Shanghai metropolitan area. On small scales like streets and blocks (high precision), this study introduced a new three-dimensional method for investigating urban green spaces and carbon sinks based on UAV (Unmanned Aerial Vehicle) oblique photography to reveal the causes of spatial changes in carbon sink intensity of urban green spaces. First, the oblique photographic information of urban green spaces was collected with a four-axis UAV equipped with an image sensor, and three-dimensional models of urban green spaces were constructed in an aerotriangulation algorithm. Then, the green spaces and vegetation were extracted from the city model, while the vegetation types were identified by using certain AI-based image recognition algorithms. Finally, the 3-D space occupancy rate of urban green spaces and the carbon sinks of vegetation were calculated based on the vegetation volume and chlorophyll content per unit volume of various types of vegetation.

The results show that the annual carbon sink of green spaces in the Shanghai metropolitan area is about 121.62 million tons, which is far lower than Shanghai's carbon emissions. It indicates that Shanghai is still far from achieving carbon neutrality. The spatial distribution map of Shanghai's carbon sinks shows that Shanghai's carbon sinks are mainly concentrated along the Huangpu River, in suburbs, and in urban residential areas with higher life quality and higher land prices. Through the high-precision UAV urban carbon sink investigating method, the study found that the higher the 3-D space occupancy rate of urban green spaces, the higher the carbon sink of the streets or blocks. This indicates that increasing the vertical greening volume of the green spaces is more effective than increasing their horizontal areas in terms of improving the carbon sink levels of cities. To be more precise, the three-dimensional occupancy rate of green spaces in urban areas should be increased rather than the two-dimensional area rate, and the utilization of the composite greening pattern combining trees, shrubs, and grasses may be a more conducive way to improving urban carbon sinks.

Adapting Legacy Institutions To New Challenges In Public Transport: A Comparison Of Formal & Informal Institutions In Cross-Agency Transit Coordination In The Us And Europe

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Transport providers are looking for creative solutions to recover after the pandemic and encourage use of low carbon transportation. Now is a time of great interest in ways to adapt to changing work and land use patterns in many cities. Yet institutions change slowly, and the literature on transport institutions are is sparse compared to other policy spheres. The current conversations about service adaptation are shining a light on long-standing transport institutional challenges like fragmentation, inconsistent fare structures, financing, and lack of coverage. In many cities, there are multiple operators, private and public, multiple cities, counties, tendering agreements and funding systems in place. Governance shapes the frequency of transfers and their difficulty, affecting ridership (Miller et al., 2005; Walker, 2012). This includes the existence and ease of cross-operator ticketing (Buehler et al., 2017), schedule coordination, terminal and app sharing, and data coordination (Rivasplata, 2012).

This paper conducts an in-depth qualitative analysis of transit providers in two metro regions in the US and two in Europe, using in-person interviews and document analysis in order to identify how transport agencies under different legacy institutional structures are adapting (or not). For each case, we interview agency CEOS or staff responsible for service planning to understand the extent of coordination with neighboring transit providers, or lack thereof, and the governance challenges that might need to be overcome to make this possible. We also examine a combination of annual reports, policy documents, tax collection information, fare policies and interagency agreements/ MOUs, in order to understand the link between governance and service outcomes like coverage and trip time to work.

This paper looks at metro regions in the US and Europe, with over a million people, focusing on cases where providers are locally governed and funded, and cases where they are governed and funded at a higher level of government (e.g. regional, state, or national). The interviews highlight the challenges of integrating services under each condition. This paper focuses on the role played by local versus higher level governments, how funding sources supporting public transport affect decision making, and examines the various institutional structures governing coordination, such as interagency agreements. The study also considers informal coordination structures like regular meetings between agency CEOs or service planners. This work adds detail to the literature of transport governance, building off of previous literature documenting the range of regional transport governing structures (Weinreich & Skuzinski, 2021), measuring levels of fragmention (Skuzinski et al., 2022 & 2023), and studying how governing structures developed over time (Weinreich & Bonakdar, 2020).

This paper focuses on how different legacy structures translate into policy making, particularly when that policy making requires transport operators to work outside the jurisdictional boundaries under which they were designed to provide services. How the operators adapt the transport network to new needs under different institutional circumstances is a pressing issue for academics and practitioners alike.

Keywords *: transportation, fragmentation, governance, collaboration, institutional adaptation*

Examining The Relationship Between Perceived Walkability And Urban Design Qualities: A Deep Learning Approach Utilizing Street View Imagery

Yang Xiao (Tongji University), **mengkun Song** (Tongji University)

Promoting walkable streets can yield societal benefits regarding public health, environmental sustainability, and social well-being. 'Walkability' has become a focal point in urban research, drawing considerable attention from urban planners. Various empirical studies have examined the correlation between walkability and five urban design qualities proposed by Ewing. However, most of these studies have centred on Western cities, such as New York, Salt Lake City, and Dallas, leaving a dearth of evidence from an Asian perspective.

This study endeavours to assess the applicability of Ewing's framework and investigate the impact of urban design qualities on perceived walkability in an Asian city. Accordingly, our focus is on Xi'an, China, chosen for its representation of a typical high-density Asian city with historic districts emphasising walkability and modern districts designed with a car-oriented approach.

A distinctive feature of this paper lies in the utilisation of street view image data and deep learning techniques to quantify urban design qualities. We employ deep convolutional neural networks to predict individuals' perceptions of walkability.

Our findings affirm a correlation between the five urban design qualities and walking perception in an area characterised by a blend of modern and traditional urban landscapes and forms. Notably, complexity emerges as the most influential variable, exhibiting positive and negative effects. Conversely, imageability and transparency show negative associations with walking perception. Furthermore, the study identifies significant spatial variations in the effects of these urban design characteristics on walking perception.

The implications of our findings extend significantly to policy formulation, particularly in street design guidance. Existing guidance documents, such as 'London Streetscape Guidance,' the 'Urban Street Design Guide' in the US, and 'Street Design Guidelines' in New Delhi, provide technical details for pedestrians, cyclists, and transit riders. However, it is crucial to acknowledge that empirical experiences from these documents should be contextualised within the local regions, cultures, perceptions, and behaviours. Moreover, our study underscores the need for tailored design guidance, as a single standard may not be suitable for areas with diverse cityscapes. Encouraging efforts to understand spatial visual characteristics and behaviours, especially in integrating artificial urban spaces with natural elements like mountains and rivers, could further enhance urban design practices.

Keywords *: Urban design quality, walkability, Street view imagery, Deep learning*

The Point-Of-Interest (Poi)-Based Study Of The Functional Configuration Pattern Of Urban Transit-Oriented Development(Tod) Surrounding Areas In China

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Traffic congestion and environmental problems have become serious issues for sustainable urban development as a result of population growth, expansion of residential areas, and extensive use of private vehicles (J.J. Lin and C.C. Gau， 2006). To address these cumulative problems, scholars and urban planners have proposed strategies to reduce the use of private vehicles. Among these planning strategies, Transit Oriented Development (TOD) has been continuously promoted in recent decades. (Wei et al., 2020) TOD sites can create a clustering effect, resulting in a dense, diverse, and pedestrian-friendly mix of daily activities. The area around a TOD site is viewed as an urban space that fulfills the economic, recreational, and social needs of local residents and is rich in urban functions. However, previous studies have rarely explored the differences between different urban functions and how they interact with the built environment to form vibrant TOD areas.

This study aims to explore the areas around 120 globally prominent TOD sites by introducing a data-driven analytical framework, and finds that a total of 178 urban functions emerge around TODs. Through cluster analysis, the results of this paper describe the differences in TOD types based on the urban functions around the TOD sites, identifying four different site types, including industry- focused, urban center, transportation hub, and airside innovative （Figure 1） .

Figure 1 Classification of urban TOD site types

Then, the spatial distribution pattern of urban functions around these four types of TOD sites is analyzed, and the spatial topological relationship between each function is found through the spatial location of these functions within 800m of the TOD site (Ana Galelo et al., 2014), for example, the specialty stores around the industry- focused TOD site conflict with the exhibition halls, and can not be configured in the similar space （Figure 2). A similar pattern exists for the spaces in the other three types of TOD stations (Figure 3-5).

Figure 2 Distance weights of the maximum probability distribution for small categories of functions at industry- focused sites

Note: Distance between two functions within 80m is green, 80m-600m is yellow, over 600m is red.

Figure 3 Distance weights of the maximum probability distribution for small categories of functions at Airside innovation sites

Figure 4 Distance weights of the maximum probability distribution for small categories of functions at transportation hub site

Figure 5 Distance weights of the maximum probability distribution for small categories of functions at Airside innovation sites

Through the centrality analysis, it is found that the central element of industry- focused TODs is market complexes （Figure 6） , the central element of airside innovative TODs is bus stops （Figure 7） , and the central element of city centers and transportation hubs is restaurants （Figure 8-9） , which are urban functions that can drive the development of TODs.

Figure 6 Industry-focused TOD site function centrality ranking

Figure 7 Functional centrality ranking of airside innovation TOD sites

Figure 8 Functional centrality ranking of transportation hub TOD sites

Figure 9 Functional centrality ranking of city centre TOD sites

Using cluster analysis, the findings of this paper describe the differences in the types of TOD based on the urban functions surrounding TOD sites, identifying four different site types. The distribution patterns of urban functions around the different types of TOD sites are now analyzed around the TOD evidence.

There are also some shortcomings in this paper that need to be improved, firstly, the lack of traffic data, information such as the service targets of TOD sites and the frequency of the metro are very important for TOD sites, on the other hand, POI cannot fully reflect the functional characteristics of the city.

Keywords : Function configuration, Transit-Oriented Development (TOD), Point of interest(POI)

Spatial Analysis Of Walkability In Urban Space In The Simulation Ofthe Interaction Of Street Environment And Pedestrian

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Nowadays, daily travel patterns in many places throughout the world are overly dominated by cars, a situation known as "auto dependency" that is now regarded as a severe and expanding global issue and causes many pollution and traffic accidents, which contradicts the world's stated commitment to achieve net zero emissions. To address both environmental and public health challenges, authorities and scholars are pushing for the creation of efficient and sustainable transport networks. Thus, there is an expanding body of research on how the built environment affects travel behaviour as a result of the unique potential for active mobility like walking and cycling.

As Indicators of walkability are a crucial tool for assessing how the built environment influences people's choices for active mobility, which helps to advance more egalitarian and sustainable street environment with a focus on both pedestrians and cyclists. Since researches always treated pedestrians as homogeneous and do not take into account individual differences, pedestrian research has historically been scarce, including modelling, a record of observations, or even a more qualitative approach. Furthermore, the current research on pedestrian and cyclist frequently disregards any potential interaction effects that street environment may have on walker, and very little architectural and qualitative research has examined how ubiquitous street elements affects human behaviour, with the majority of studies focusing on the technology and service content needed to make street furniture ubiquitous. Similarly, quantitative methods are also rarely used in urban planning or architecture area.

In my research, a mixed method will be applied from both quantitative and qualitative perspective using observation, semi-structured interview to capture the individual private thoughts and behaviour of pedestrian as well as the street environment data, then apply it into an agent-based modelling for further spatial analysis, which will give a clear picture of the interaction of pedestrians and the street environment through all aspects and to see what factors cause a street environment more enjoyable or suitable for evacuation. Hopefully, this research will greatly contribute to improving the quality of citizens' lives including aspects of safety, efficiency and convenience. More specifically, the study contributes to debates around walkability, safety, sustainability, social justice and inclusion (e.g., designing streets for ageing populations, families and children), as well as interdisciplinary debates on urban design, street design and modelling of complex dynamic systems that combine behavioural and environmental science inputs.

Keywords *: Active travel, walkability/rollability, pedestrian-oriented city design,, sustainable urban planning, urban and transport planning, Agent-based Model, planning evacuation, mixed-methods research design*

Identification And Planning Of Potential Ventilation Corridors: A Case Study Of Wuhu, China

Po-Yu Yang (Southeast University)

The development of high-density cities has exacerbated the severity of the problems faced by urban microclimates under global warming, and the urban heat island effect (UHI) has become one of the most important factors that reduce the quality of urban life. At the same time, the increasing size of urban built-up areas and the growth of building density have led to the weakening of cities' ability to communicate with the natural environment around them and the degradation of green infrastructure (GI). The blockage of wind by buildings further affects the efficiency of urban heat dissipation and negatively affects urban air quality. Ventilation corridors are considered an essential part of the urban wind environment, in which urban canopy ventilation is believed to have great potential for mitigating the urban heat island and is incorporated into urban planning in many regions (Huang & Wang, 2023). The analysis of ventilation corridors is mainly carried out at meso and micro scales, and the commonly used methods include urban surface roughness calculation (Wong et al., 2010) and CFD simulation (Hsieh & Huang, 2016).

The study area of this paper is located in Wuhu, a city situated in the lower reaches of the Yangtze River in China, and during the summer, the region is dominated by the western Pacific subtropical high (WPSH), which results in high temperatures and high humidity, and the heat island effect is noticeable. The frequency of extreme summer temperatures in this city has shown a significant upward trend in recent years, and ventilation corridor optimization is needed to mitigate the urban heat island effect and improve the thermal comfort of residents.

In this study, we designed a multi-scale urban ventilation corridor identification method that combines land surface temperature (LST) retrieval, GIS spatial analysis, and CFD simulation. At the mesoscale, LST is calculated using Landsat8/9 imagery, and land use and building data are overlaid to identify functional spaces, compensative spaces (Kress, 1979), and spaces with ventilation potentials in the study area. At the microscale, the identified ventilation corridors are validated using CFD methods to simulate the wind environment and heat dissipation under different building layouts in the study area, and the urban design is optimized based on the simulation results.

In the context of the global challenge of climate change, the methodology proposed in this study can effectively identify spaces with ventilation potential in cities, which can help to plan ventilation corridors in urban planning, guide construction activities, and provide new insights for climate-resilient design in cities.

***Keywords** : Urban wind environment, Ventilation corridors, Urban Heat Island (UHI)*

Analysis Of Spatiotemporal Evolution Of Landscape Ecological Risks In The Fujian Delta Urban Agglomeration

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[Objective] This study focuses on the ecological risks associated with the evolution of land use in economically developed coastal regions, such as the Fujian Delta Urban Agglomeration, characterized by the risk of ecological functional loss and spatial fragmentation. The objective is to investigate the spatiotemporal and scale effects of landscape ecological risks, elucidate the patterns of land use and landscape pattern evolution within the Fujian Delta Urban Agglomeration, and provide a scientific reference for ecological spatial control strategies and methods.

Methods The Fujian Delta Urban Agglomeration is selected as the study area, utilizing land-use change data from 2000 to 2020 as the basis. The methodology involves analyzing land-use dynamic trends, land-use type transition matrices, and other characteristics of land-use changes. Furthermore, the study delineates changes in patch-type levels, landscape overall levels, and employs landscape indices to construct a landscape ecological risk assessment model. The obtained results include the spatiotemporal distribution characteristics of landscape ecological risks and spatial autocorrelation analysis outcomes.

Results Over the period from 2000 to 2020, the overall evolution of land-use patterns in the Fujian Delta Urban Agglomeration primarily exhibited a trend towards non-agriculturalization. The overall fragmentation of the landscape ecological pattern deepened, and landscape ecological risks experienced a phase of initial reduction followed by escalation. Urbanization activities such as the Xiamen-Zhangzhou-Quanzhou integration played a crucial role in driving the evolution of land use and landscape patterns within the Fujian Delta Urban Agglomeration.

Conclusion The coastal and southeastern regions of the Fujian Delta Urban Agglomeration exhibit significantly higher ecological risks compared to other inland areas. Cities such as Xiamen, Zhangzhou, and Quanzhou present landscape ecological risks characterized by "stable and controllable," "mildly uncontrollable," and "fundamentally controllable" features, respectively. The spatial distribution of overall landscape ecological risks demonstrates substantial heterogeneity, with spatial units exhibiting higher or lower ecological risk indices tending to aggregate. Distinct "low-low" and "high-high" aggregation types are observed in the northwestern inland and southeastern coastal regions, respectively. This study contributes valuable insights into the scientific understanding and methodologies for ecological spatial control in the Fujian Delta Urban Agglomeration.

***Keywords** : the Fujian Triangle Urban Agglomeration; Land use; Landscape pattern; Landscape ecological risks; Spatiotemporal evolution*

Research On Carbon Emission Accounting Methods For Urban Spatial Elements

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Climate change has emerged as the most significant environmental threat to humanity and the planet in the 21st century. Anthropogenic greenhouse gas emissions are a primary cause of the increase in extreme climate events, with carbon dioxide emissions contributing to over 80% of total greenhouse gas emissions. Its growth is closely linked to the process of urbanization. In response to the impact of carbon emissions on the global climate, China has set ambitious goals, aiming to peak carbon emissions by 2030 and achieve carbon neutrality by 2060.

Accurate and reliable carbon emission accounting methods are crucial technical tools for monitoring urban carbon emissions and regulating the construction of low-carbon cities. Currently, most urban carbon accounting research relies on energy activity data or economic data, providing an overview of total carbon emissions within the city. However, this accounting system lacks close integration with urban spatial elements. The results fail to intuitively reflect the impact of spatial changes on urban carbon emissions, leading to insufficient feedback for urban planning. Therefore, by connecting urban carbon emission accounting methods with urban spatial elements, we can quickly identify high-carbon emission areas in the city and measure the impact of urban construction on urban carbon emission levels. This has significant practical implications for achieving the goal of urban carbon neutrality.

This article summarizes existing urban carbon emission accounting methods. Building on this foundation and taking Harbin in China as the research object, we analyze its crucial basic data over the past 15 years. We establish a translation framework for urban carbon emissions from energy use activities to space utilization activities and then construct an urban carbon emission accounting method based on urban spatial elements. Finally, the accounting results are compared with energy use carbon emission data to verify the accuracy of the accounting method.

Based on the research conclusions, this carbon emission accounting method eliminates the dependence on energy data, utilizing urban spatial data to calculate carbon emissions. It provides technical support for the preparation and implementation of low-carbon urban planning, facilitating the use of urban planning tools to assist in achieving carbon neutrality goals.

Keywords : Carbon Neutrality, Carbon Emission Accounting, Low-carbon City Planing Strategies

Intelligent Technology+: Regional Spatial Planning For Pm2.5

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In the face of climate change, shifts in energy consumption patterns, and industrial restructuring, the mitigation of atmospheric pollution has emerged as a pressing global concern. At the regional level, the problem of fine particulate matter pollution such as PM2.5 is increasingly difficult to deal with due to its spatial dispersion, posing a major threat to environmental quality and public health. China, marked by rapid industrialization and urbanization, has witnessed urban agglomerations taking center stage in economic growth. However, this progress has been accompanied by deteriorating air quality, notably in critical economic zones like the Yangtze River Delta. Traditional spatial analysis methodologies, including spatial econometric models and geographically weighted regression models, have been extensively employed for examining the spatial evolution of PM2.5. Nevertheless, these approaches often encounter limitations when dealing with intricate data challenges, an arena where artificial intelligence technology excels. This research aims to amalgamate established spatial analysis methodologies with advanced artificial intelligence technologies to enable a precise examination of the factors influencing and spatial projections of PM2.5 within the urban agglomerations of China's Yangtze River Delta. Drawing from PM2.5 data spanning from 2006 to 2019 in the urban agglomerations of the Yangtze River Delta, and in conjunction with environmental and economic indicators, this study has crafted a comprehensive analytical framework. Subsequently, following an examination of data characteristics, an algorithm was meticulously designed using ensemble learning techniques and calibrated with historical data. Finally, this study accurately identified the primary determinants impacting the regional spatial distribution of PM2.5 and forecasted its future trends, thereby furnishing robust data support for the formulation of effective regional environmental strategies. The findings of this research introduce an innovative perspective for addressing the predicament of regional PM2.5 pollution, playing a pivotal role in enhancing urban air quality and promoting sustainable urban development. Additionally, this paper serves as an exploratory application of intelligent technology in the realm of regional spatial planning, offering practical case references for governments worldwide in their pursuit of smart city development and collaborative urban governance.

Keywords *: Smart Cities, Spatial Planning, PM2.5, Air Pollution, Regional Planning*

Urban Greenery Preferences And Land Surface Temperature Mitigation Effect Measured By Green View Index(Gvi): A Case Study In Washington, D.c.

Zhenpeng Zhang (University Of Illinois Urbana-Champaign)

With the deterioration of urban living conditions, never before has the beneficial function of urban greenery been emphasized for creating sustainable cities. Many plant-related indexes were developed to examine the climate change mitigation potentials such as the Normalized Difference Vegetation Index (NDVI) and park areas, while they are all 2-dimensional indexes. The Greene View Index (GVI) provided a more precise measurement of urban greenery, which can stimulate the pedestrian's view and thus represent human's realistic feeling of the 3-dimensional street environment. Former GVI studies have studied the effect of GVI on physical activities, walking time, accessibility to greenery, and the association between GVI and pollution. These studies present GVI's useful and exact measurability to the built environment. However, there is a deficiency in the study of the relationship between GVI and Land Surface Temperature (LST) along streets and validation analysis of mitigation effects. This study is a validation study, which first examines the distributional difference of GVI in 10 tracts with the worst wealth polarization in Washington, D.C. With a pre-trained semantic segmentation model, GVI is inferred and calculated based on 5724 Google Street View images, and then GVI data are analyzed at the tract level and segmented street level to conduct Spearman's correlations between income variables and Land Surface Temperature. The preliminary conclusion is that tracts with a higher GVI, tend to have higher median household income and fewer total number of people living in poverty. Different races in poverty tend to have different preferences for higher urban greenery. The White alone, the White alone (not Hispanic), and Asian people living in poverty prefer to live in tracts with high GVI. For these tracts with the higher GVI, we found that fewer African American, Hispanic and Latino people living in poverty live there. And there are no clear preferences for American Indians and Two or More Races who live in poverty. In addition, despite there being no clear correlations between GVI and LST in a few streets, the LST of street space shows significant negative correlations (p<0.001) with GVI in the scope of big data. The correlation coefficient of -0.45 between LST and GVI was drawn, although less correlated than that with NDVI (-0.65), their LST mitigation effects are virtually the same as represented by regression lines. Overall, this study argues that it is more convenient to improve GVI rather than NDVI of small-scale street environments for environmental improvement due to its human-centric attribute.

Keywords : Green View Index, Temperature mitigation, Street greenery, environmental inequity

Exploring City Net-Zero Pathways: Examining Carbon Emission Characteristics Of Different City Types From A Socio-Economic Perspective: ——A Case Study In The Northern Metropolitan Area, Taiwan

Rui Wen Lin (National Cheng Kung University), **Hsueh Sheng Chang** (National Cheng Kung University)

In response to the phenomenon of climate change induced by global warming, countries worldwide have been declaring net-zero carbon emissions and setting short-, medium- and long-term carbon reduction goals, particularly in city areas, which are recognized as primary hotspots for emissions and development. Statistics reveal that the carbon emissions of Taiwan's six municipalities account for 70% of the nation's total, underscoring the critical importance of "city spatial net-zero transformation" as one of the key elements in achieving net-zero goals. This implies that further emission reductions must be addressed through effective spatial planning strategies(Quinio and Rodrigues, 2021).

However, since different cities exhibit unique carbon emission characteristics, a uniform spatial planning strategy may not be universally applicable. Therefore, before devising spatial strategies, it is crucial to comprehend the diverse socio-economic backgrounds and development trajectories of various city typologies. Existing city classification studies often focus solely on the performance of spatial structures in carbon reduction, overlooking the social and economic dimensions of cities(Ou et al., 2019). This oversight makes it difficult to fully explain the effectiveness of different development structures using the same carbon emission pathways under similar spatial patterns, leading to controversies and a lack of clarity in responses to net-zero strategies.

In comparison to studies that solely investigate the correlation between city spatial structures and carbon emissions, analyzing cities from the perspective of socio-economic attributes can more concretely explain city carbon emission differences. Therefore, categorizing cities based on sector structures first is essential to subsequently discuss achieving net-zero and carbon reduction for each type individually. This implies that "understanding the types and locations of cities that influence carbon emissions" and "revealing the characteristics of carbon emissions of different city types" warrant further exploration. The integration of Principal Component Analysis (PCA) and k-means of cluster analysis for cities based on different variable characteristics provides better result(Joshi et al., 2022), as each cluster type can reflect the similarities within the same type and the heterogeneity between different types, thereby enabling the identification of carbon emission characteristic differences among different city types.

In conclusion, this study aims to delve into the possibilities of Taiwan's city net-zero transformation pathways, focusing on the northern metropolitan area as the research scope and targeting 107 urban areas and townships within this region. Through the selection of the proportion of employment populations in various sectors, cities are classified and identified. The ultimate research outcomes will contribute to "understanding various unique types of cities that influence carbon emissions and their individual distribution locations," serving as the basis for inferring carbon emission trends and guiding actual management. Furthermore, in conjunction with the establishment of city-level carbon emission and sink lists, "clarifying the characteristics and potential differences of carbon emissions of different city types" will facilitate subsequent discussions and the formulation of appropriate spatial planning strategies for different types of cities. Additionally, this study addresses the past oversight of discussing only the impact of spatial structures on emissions reduction while neglecting the social and economic characteristics of cities themselves, providing clearer and more specific guidance to support future policymakers in devising targeted carbon reduction policies.

Keywords *: Net-Zero, Carbon Emission, City Types, Socio-Economic Development, Cluster Analysis*

Design Climate-Adaptive Urban Green Regeneration: Nbs Strategies For Future-Proof Streetscapes

Bianca Andaloro (University Of Basilicata), **Ina Macaione** (University Of Basilicata), **Alessandro Raffa** (University Of Basilicata)

In the last two decades, global cities are addressing climate challenges, by transforming their infrastructural spaces through Climate-adaptive Nature-based regeneration, also aiming to cope with local ecological, social and economic asymmetries. Inside a prevailing technical and performance-based approaches, to date design research around Climate-adaptive Nature-based regeneration of urban infrastructure is limited, failing to impact on current transformations and to be implemented beyond larger cities. Taking advantage from a 'research by design' methodology, the research aims to leverage design potential for climate-adaptive green regeneration of infrastructural spaces and mainstream this approach in current practices. With this purpose, an operational Framework is defined, giving both conceptual and operational insight for Climate-adaptive Nature-based Streetscapes that will be tested inside a Southern Europe urban context in the future.

Keywords : Climate-adaptive design, green regeneration, Nature-based Solutions, Research-by-design , streetscapes

Housing Renewal In Historic Districts Oriented Towards The People's &Quot;Sense Of Gain&Quot;: A Case Of Shanghai, China

Miao Hu (Tongji University)

The people's "sense of gain" has emerged as a central concept in China's recent urban development. In 2014, China introduced the notion that the primary criterion for evaluating the effect of urban development should be whether the people experience a "sense of gain". This term embodies vital principles of fairness and inclusivity, aiming to ensure that disadvantaged groups share the fruits of urban development.

In historic districts, such as the historic center of Shanghai, live many disadvantaged groups, including the elderly, domestic migrants, and low-income individuals. Due to historical factors, they were "left behind" amid rapid economic development and significant social change following the Chinese reform in 1979. Their immediate aspiration is to improve old housing conditions, have private bathrooms and kitchens, and elevate overall quality of life. How does Shanghai address this issue and foster a "sense of gain" among these communities?

This paper first examines the concept of the "sense of gain", and suggests its three connotations: 1) Holistic development of human material and spiritual well-being; 2) Ensuring community participation rights and fairness; 3) Necessity for mechanism and policy innovation.

Then, in chronological order, the paper examines how Shanghai enhanced people's housing conditions over different periods since the real estate boom in the 1990s. 1) 1990s: Total reconstruction. Residents were relocated to new houses in the suburbs; Old houses were demolished, making way for new high-rise residences targeting the middle class. although residents moved to larger houses in the suburbs, they lost the low-cost convenience, close social network, and place attachment provided by the city center. 2) 2000s: Indoor renovation. The primary structure of old houses remained unchanged; Modest kitchens, bathrooms, and other facilities were added; Original residents were kept in the city center. It protected social relations but increased the burden on historic buildings. 3) 2010s: Restoration of old houses to their original appearance. Preserve the original appearance and historic features of buildings; Rebuild aging building structures; Architects customize indoor plans for each household, providing private kitchens and bathrooms; Residents can choose whether to stay or relocate, with various compensation options available.

Thirdly, this paper discusses the trends, effects, and limitations of Shanghai's efforts. 1) Both material and spiritual development are gradually balanced. In the 1990s, housing renewal primarily focused on expanding living spaces and introducing modern amenities. But now, it extends to the preservation of residents' emotional attachment to their original community and the support derived from their social networks. 2) Residents' deeper involvement in housing renewal promotes satisfaction and equity. In the 1990s, their involvement was limited to providing opinions with minimal influence on decisions like relocation. Now, with assistance from community architects, residents actively participate in designing individual home plans during renewal, mediating spatial interest conflicts, and ensuring more equitable benefits for every household. They also have more options, deciding whether to relocate according to their willingness. 3) The emergence of community planners, the introduction of various compensation policies, and the promulgation of several technical documents also provide support. Nevertheless, the "contradiction" between historic preservation and improving residents' living quality in Shanghai's practice requires further discussion.

In short, this paper examines housing renewal in Shanghai's historic center and discusses the changes, efforts, and experiences in China's recent urban development oriented toward the people's "sense of gain". The goals of housing renewal are shifting from mere expansion of living space to considering spiritual aspects such as social relationships and place attachment. Active and deep community involvement enhances residents' satisfaction and the fairness of the renewal outcomes. All these contribute to increasing disadvantaged groups' "sense of gain".

Inhabiting The Rural Space. Reflections On The Housing Emergency Of Seasonal Workers In Agriculture

Letizia Chiapperino (Polytechnic Of Bari), **Mariella Annese** (Arcod Department, Polytechnic Of Bari)

The intensification of migratory movements towards the European context from the global South is a clear sign of the unstoppable prospect of international mobility, legal and illegal, of populations as a result of changed geo-political conditions, environmental crises and disasters, poverty and economic uncertainty (Blasco, et al., 2023). These dynamics produce reverberations in terms of demographic transition, imbalance in local economies towards parallel and opaque labour circuits, and spatial transformations in the territories where refugees reside and transit. The effects described above occur to the extent that the illegal mobility of migrants who escape recognition mechanisms and the authorities of host countries and are willing to accept subaltern working conditions and live in precarious housing solutions prevails. Spatially, these dynamics produce 'camps', opaque spaces in which criminal power structures inside and outside the community, illegality and the absence of rights allow immigrant populations to settle.

In the Italian context, camps are referred to as 'informal settlements', and correspond to shantytowns, tent cities, abandoned farm villages, veritable ghettos, in which between 50,000 and 80,000 immigrants, mostly labourers, agricultural workers, have lived for at least forty years (Mira, 2021). The contribution intends to focus on the informal settlement of Borgo Mezzanone, located in the productive area of the Tavoliere in Apulia, where about 4,000 migrants reside on a temporary and permanent basis, engaged in the activity of harvesting agricultural products according to the cyclical nature of the agro-food chain and the maintenance of fields for the subsequent sowing and harvesting phases. The settlement expresses in a plastic way and with a dual value conflictuality, power relations and extractive dynamics that affect the bodies of those who reside here as much as the rural territory in which the practices of living and working together with trajectories of displacement are realised (Bianchetti, Boano, & Rondot, 2022) (Rondot, 2022). That is, the spatialisation of internal, ethnic, cultural, and legal conflicts between residents, and external, between rejectionist national migration policies and the growing demand for labour in intensive agricultural production; power relations determined by social forces in the hierarchical organisation of the field and by economic forces in agricultural production circuits with the demand for cheap labour and the intermediation of ambiguous figures; extractive dynamics of labour exploitation of bodies and the loss of ecological, social and political value of rural space.

In the current condition, the rural space of the Capitanata, a territory with the highest concentration of seasonal workers settlements, becomes the spatial domain of the disavowal of rights and the disintegration of co-evolutionary relations and long-lasting processes of territorialisation, now replaced by dispossession logics (Harvey, 2003). This, in the context of the investigation, assumes relevance if one looks at the legacies of a policy of the early decades of the twentieth century that invested the territory with the 'Enlightenment' vision of new rural communities, then transposed to the agglomerations of the agrarian Reform founding villages in which the inhabitants-workers are engaged in the care of the soil and the production of goods (Pennacchi, 2008).

The concurrence of these settlement forms of the recent past with the migration processes underway today may suggest conditions for action that can guide the extraordinary opportunity offered by the PNRR through the measure for overcoming squatter settlements. This economic measure, aimed at providing an adequate response to the absolute housing emergency of migrant workers and breaking the relationship of subordination with the corporals, allows us to question whether and how a housing policy can allow us to rethink rural space in the perspective of building new alliances between bodies, practices, interests acting in it.

Observing The Youth Housing Crisis. To Reposition The Issue (And Policies).

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In Italy the continuing disorientation of housing policies and the lack of a strategic vision, particularly with public housing (Wolfgring 2023), left at the market all the answers at the problem. Rising housing costs, (with forms of property rent speculation and high energy costs of the period) now determines a relevant problem of housing affordability (Bricocoli and Peverini 2023).

The consequence is the exacerbation of a housing crisis that exposes low- and middle-income social groups and the growth of forms of marginalization, segregation and economic inaccessibility that undermine "the right to the city" (Lefebvre 1973).

Housing affordability touches individuals differentially, depending on household composition, income, and living context. However for young people the cost and quality of housing strongly conditions social inclusion. Affordable housing is more important for young people's mobility (spatially and otherwise), as it is the condition that allows them to seek the best job or educational opportunities (Presta, 2022). Young people's difficulty in securing adequate housing is delineating a generation gap, with an increasing share of them forced to live with their original household.

In the Italian context, the way in which the housing crisis touches younger individuals is so relevant that their housing future is in question. The target's lack of economic independence conditions housing independence, aggravating the situation of the family of origin and limiting access to tertiary education, especially for those from peripheral or economically and socially disadvantaged backgrounds. In fact, 68% of university students in Italy live with their parents, compared to the European average of 34%. Only 5 percent have accommodation in a university residence, against a European average of students with a bed in a residence of 17 percent (Eurostudent 2021).

In the face of the perplexities that affect national policies on student residency (L. n.338/2000 and its implementing decrees) (Gainsworth and Peverini 2022), the present work intends to propose a research project that aims to study the affordability condition of housing for young people in the Mezzogiorno, with particular reference to the region of Puglia and the target 18-26 years old.

University students fall into this target, as a partial category of it, who together with young workers (knowledge workers, freelancers, creatives...) (Banfi & Bologna 2011) experience the housing problem in a relevant way, having an insufficient response from the Right to Study policies oriented to the realization of student housing. ogether, they represent a social category "politically de-legitimized of attention because they are waiting for a 'more adult' condition" (Indovina 2023) for which urban living conditions are variable and coincidental and equally improper categorization, since very often multiple living conditions coincide (student, worker, city users, parent, etc.).

This research project, from the requirements of the specific target and subcategory of the "college student," based on an analysis of the local housing market (as an Observatory of the Youth Housing Condition), intends to trace the specificity of the target and the complementary unresolved questions.

In the wake of previous research and ongoing investigations, it aspires to support urban policies that, overcoming the current schematic classification of users, are able to look in an integrated way at the issue of housing policies with reference to public action, with a view to new residential models (co-housing, student housing), but also to guide the private market.

Housing affordability, from the perspective of the 18-26 target audience and the social and economic capital this represents, questions the possibility for a young adult (college student, but also knowledge workers) to have access to housing, and more broadly ends up questioning the urban society of the future.

Keywords : *youth, housing affordability,, housing policies, urban policies, observatory*

Temporal Evolution And Conservation Of Urban Morphology In Harbin With Space Syntax

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Harbin is a city historically shaped by its railway heritage. The construction of the Chinese Eastern Railway, a railway linking Europe and China, has rapidly transformed Harbin from a fishing village to an international metropolis in just half a century. The railway brought expatriates to Harbin, as well as European planning concepts to China. In the process of rapid modernization, Harbin's unique urban form is based on a Western urban texture, overlaid with localized planning ideas. Thus, understanding the historical development and preserving the spatial morphology of Harbin's historic core are key research goals. This research employs the spatial syntax framework to decode the urban axis model of Harbin across four distinct developmental epochs. By quantifying the local integration indices of these axis models, our investigations divulge that the burgeoning expansion of Harbin's urban footprint and the establishment of novel districts have not fundamentally disrupted the historical urban axes. This study contributes to our understanding of urban adaptation and suggests ways to preserve these unique urban features.

Keywords : Evolution and conservation, Urban morphology, Urban model, Space syntax, Harbin

Characteristics And Effectiveness Of Different Industrial Land Regeneration Implementation Modes: A Comparative Study Of Two Rounds Of Urban Regeneration In One Site

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With the deepening of globalisation, global cities are competing more and more fiercely for resources, and the level of urban public services has become the key to attracting resources. Urban regeneration is an important opportunity to improve urban development and public service level, and the multiple-actor collaboration is a key means to realise the public interest. This paper focuses on the mechanisms, influencing factors and strategies for realising public interests in urban regeneration of industrial land with the participation of multi-actors. Taking the two rounds of urban regeneration of Red Town in Shanghai as examples, it analyses from the logic of Actors' Relationship - Policy System - Regeneration Effectiveness, explores the influencing factors and protecting strategies of public interest; and finally summarises the dilemma and outlook of urban regeneration of industrial land in China today.

Evaluation And Spatial Governance Strategies For Old Residential Areas' Renewal And Reconstruction In Urban Downtown Districts: A Case Study Of 70 Old Residential Areas In Changzhou ,China

Pan Hu (Southeast University), **Keyi Sun** , **Jialu Cheng** , **Yu Shi**

With the accelerated process of urbanization and rapid population growth, some old residential areas face the imminent threat of decline and contraction, posing a critical issue of how to rejuvenate these communities (Schenkel, 2013). Old residential areas, integral components of urban downtown districts, need to consider various influential factors including multi-stakeholder participation (Bovaird, 2007), preservation of historical heritage (Said, Aksah, and Ismail, 2013), infrastructure upgrading and redevelopment, resident satisfaction (Gu et al., 2019), and the diverse needs of marginalized groups (Clark, Kearns, and Cleland, 2016). The renewal of old residential areas holds paramount significance in revitalizing regional vitality, enhancing resident well-being, and fostering the sustainable development of urban economic and social aspects.

The paper conducts a comprehensive evaluation using 70 old residential areas in the central urban area of Changzhou City, China, as a case study, with over 1500 valid questionnaires distributed. Initially, the study introduces the theory of the entire life cycle, considering factors such as the type of neighborhood renovation, the design of renovation plans, the quality of renovation projects, operational management during renovation, and the overall benefits of the renovation. It constructs an evaluation system covering the entire process of old residential area renovation. Furthermore, the paper establishes a resident satisfaction evaluation system focusing on the dimensions of space, services, and culture. Through a comparative analysis before and after renovation, the study delves into various aspects, including individual element satisfaction and satisfaction among specific demographic groups, utilizing post-renovation resident satisfaction as a means to further validate the accuracy of the evaluation results.

The renovation projects in old residential areas have notably enhanced the physical spatial environment, leading to a substantial improvement. After the renovation, overall resident satisfaction showed a significant increase, with space, services, and culture satisfaction levels rising by 25.32%, 21.44%, and 19.78%, respectively. The most conspicuous amelioration was noted in the pedestrian comfort rating, and there was also a significant increase in satisfaction regarding environmental hygiene and neighborhood safety. However, in the context of the renovated old residential areas, issues related to parking facilities and property management persist as focal points necessitating concentrated attention and resolution. Particularly noteworthy is the pivotal role of satisfaction among the elderly with regard to the outcomes of the renovation. In the prospective renovation planning, it is essential to carefully consider the development of facilities and services that better meet the identified needs of the elderly. In addition, it is notable that some old residential areas show shortcomings in managing the renovation process.

Based on the comprehensive evaluation results, this paper proposes spatial governance strategies from several dimensions including construction implementation, social organization, cultural characteristics, fund allocation, service administration and approval procedures. Simultaneously, aiming to further enhance the overall effectiveness of the revitalization efforts in the old urban areas, the paper, considering the existing renovation foundation, surrounding development conditions, and the relationship between planned and implemented projects and the renovated neighborhoods, categorizes the 70 old residential areas and their surrounding plots into four linked development zones. Tailored strategies for linked development are then presented based on the specific conditions within each zone.

Urban Compounding: Housing What Is And What Could Be

Kirsten Dormann (University Of The Witwatersrand)

This paper examines the transformation of the South African version of the Victorian/ Edwardian bungalow from a free-standing house into a courtyard form of building – seen as a bungalow 'compound' - as part of wider city-making processes. It focuses on changes in two central neighbourhoods of Johannesburg, Yeoville and Rosettenville, established at the beginning of the 20th century, for nuclear families of a white, privileged minority. After the official abolition of apartheid in the early 1990s, these areas have been almost completely re-populated with immense socio-cultural changes – and intensely densified. The rule of law treats the mainly non-formal appropriation of the buildings, and their yards as a spatial illegality.

Much is assumed about the changes, and few of these are considered 'good' by the planning authorities but in fact, too little is known or understood about how these residencies are being transformed inside out. The metanarrative of crisis and slums that Nuttall and Mbembe (2008) critiqued as dangerously one-sided definitely prevails here. This study's accounting suggests a grey area – or rather a possible gap – between official recordings and lived realities. The paper identifies what appear as misconceptions, and highlights the need to explore the reasoning behind what does not seem to match reality. The focus, however, turns on the properties themselves, as emerging epitomes of house lives/home spaces (Heer, 2019; Jenkins, 2013) as knowledge sources and as developing citational grounds.

Based on a typological approach to reading the change of the domestic spaces over time, an in-depth analysis vis-à-vis social, economic, juridical, and political entanglements across scales highlights the need for transdisciplinary knowledge transfers, in this case in particular between planning and architecture. The aim is to render the, at times, contested spaces, into valid forms of city building. Essentially, as a partly 'self-made' possibilities for many, the bungalow compounds ultimately highlight the need for any 'solution' to consider an alternative understanding of what constitutes the 'problem.'

Methodologically, the study has examined the bungalow compounds through innovative design research, and developed an alternate catalogue of properties based on more than thirty detailed case studies as micro samples of emerging urban domesticity. By empirically tracing and analysing the transformation of the bungalow compounds as it happens, plot-by-plot, the study argues for recognising the valuable knowledge embedded in the transforming architectures, as an undetected game changer, to reflect the urban environment's current condition as it is, or as it could be (Simone & Pieterse, 2017).

The bungalow was the first residential model used in speculative mass housing in South Africa for the middle and skilled working class after the discovery of gold in the last years of the 19th century (Hindson, 1987). Imported from India via colonial Britain, it is one of the most common, most repeated, and most adaptive formal dwelling structures in inner city suburbia. However, the 'bungalow compound' has neither been acknowledged nor researched as an entity – especially in terms of its re-defined role as a contemporary form of affordable co-housing, and related policies. The paper introduces the unique collection of case studies as a catalogue of possibilities and considers the material as an interrogation device to intervene in a specific but widely relevant situation. It is as much about the bungalow compound in Johannesburg as about a methodology of guiding new orders, and related policy, from the ground up.

Note: The paper makes use of original drawings. They are part of the author's (unpublished) PhD Urban Compounds: Investigating aspects of rapid urbanisation and densification in Sub-Saharan Africa and the effect on the physical morphology of selected suburbs in Johannesburg.

Regulating Residential Open Space In Calgary, Alberta, Canada

Natalie Robertson (University Of Calgary), **Fabian Neuhaus** (University Of Calgary)

Within the province of Alberta in Canada, allocation of public open space – parks, playing fields, playgrounds, school grounds, and naturalized areas – in new residential developments is regulated provincially even though residential development applications are administered and approved at the municipal government level. Where once the allocated amount was overseen and approved by a provincial ministry, eventually a pre-set 10% of gross area was enshrined into legislation (The Surveys and Expropriation Act – Subdivision and Transfer Regulations, 1960). Over time, the method of calculating this 10% has evolved, decreasing the net amount of open space available (The Planning Act – The Subdivision and Transfer Regulation, 1967; The Planning Act, 1977) and, unlike other residential and subdivision development parameters, this stipulation remains the only statutory planning/development regulation dictated by the provincial government. As population density targets in new residential developments have increased over the past few decades, the 10% open space allocation requirement remains (Modernized Municipal Government Act, 2016), resulting in increasing pressure on neighbourhood open spaces.

This project categorizes suburban residential developments according to the provincial open space policies in place during their initial design and construction. Using these categories, we examine open space policy evolution using four variables: a) spatial allocation differences for open space over time (how have policies changed), b) mandated allocation versus real-world provision of open space (is there a say-do gap?), c) the relationship between allocation, provision, and municipal population density targets within the different open space policy categories. Using government-sourced geospatial datasets for the city of Calgary, Alberta, we extract surface area coverage information of existing open space for a selection of suburban neighbourhoods falling within different policy categories. This provision result is compared with open space requirements stipulated within policy documents and contrasted against population density and/or any municipal mandates for open space. This temporal and geospatial comparative policy analysis process reveals relative consistency between what is mandated versus what is provided. However, because of shifts in how that 10% is calculated at different periods in time, the amount of open space available to residents has changed. Further, enforcement of these 'statutory' requirements without consideration of other municipal priorities (statutory and non-statutory) can undermine the intended goals of the open space provision inadvertently. Results from this project provide quantitative metrics of statutory development policy outcomes and highlight a potential disconnection between desired outcomes and the effectiveness of policies in achieving those outcomes. This speaks to the necessity of policy review quantitatively, qualitatively, and reinforces the most important aspect of planning and development policy: Answering the question "What is the purpose of this policy, and what problem are we trying to solve?"

***Keywords** : Suburban Development, Urban open space, Provincial Regulations*

Actors, Collaboration, And Conflict Dynamics In Local Governments' Urban Regeneration Incentive Strategies

Semra Niron (Istanbul Technical University), **Imge Akcakaya Waite** (Istanbul Technical University)

Urban regeneration is an arena in which local governments navigate multifaceted opportunities and challenges. Coined after 1990, the term characterizes collaborative processes among stakeholders from the public, private, and voluntary sectors in fostering transformation policies, practices, and strategies to address local communities' needs (Roberts, Sykes and Granger, 2017; Wang et al., 2021). Incentives for urban transformation play a crucial role in this process, fostering cooperation among stakeholders and ensuring their acceptance of regeneration practice (Hanson and Rohlin, 2021). With collaboration being crucial for ensuring the applicability and sustainability of incentives provided by central and local governments, this study examines the effectiveness of formal urban regeneration incentives offered by local governments in promoting collaborative planning in the case of Zeytinburnu, Istanbul.

The district of Zeytinburnu has emerged as a noteworthy player in urban regeneration within the Istanbul metropolitan area and Turkey. As the EU-supported Matra REGIMA project's pilot area for institutional and community capacity building for urban regeneration, it has had an extensive two-decade experience with urban regeneration and its associated incentives (Ozcevik, Beygo and Akcakaya, 2010). To date, the Zeytinburnu Municipality is actively engaged in efforts focused on incentives for urban regeneration. In examining the case of Zeytinburnu, the study dissects the collaboration and governance strategies implemented by local authorities throughout the production, approval, implementation, and feedback phases of urban regeneration incentive processes. It employs qualitative research over 37 interviews with key stakeholders, including representatives from the local and central governments, civil society organizations, private sector entities, and the local community. Through content and discourse analysis of the collected data, the study provides a nuanced and critical perspective on collaborative processes within an urban regeneration framework.

The findings highlight collaborative shortcomings in the creation of Zeytinburnu's urban regeneration incentives, emphasizing the need for more diverse perspectives. Although local government representatives commended the process for its defined structure and transparency, local residents, and NGO and private sector representatives criticized the lack of effective participation, transparency, and fulfillment of expectations, suggesting a need for continuous improvement and collaboration in incentive processes. The subsequent feedback phase discerns the efficacy of indirect and brainstorming methods for the assessment and refinement of urban regeneration initiatives, while concurrently revealing the existence of conflicts.

The implications for the successful realization of urban regeneration initiatives that emerge from the case study revolve around the imperative of prioritizing transparency, nurturing participatory frameworks, ensuring comprehensive stakeholder involvement, steadfastly upholding principles of justice, and proactively addressing any conflicts. These insights, while contributing to existing scholarly perspectives, can serve as prescriptive benchmarks for the proficient management of urban regeneration and the cultivation of a broad-based societal endorsement. By untangling roles, deciphering initiatives, and examining conflict dynamics, the study may contribute to furthering collaboration and governance dynamics in urban regeneration schemes across and beyond Istanbul.

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Strategies For Small Public Space: Reclaiming Urban Green Space

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Small public space in urban areas is a category of urban public space characterized by its abundant quantity and widespread distribution. In many cities, like Istanbul, rapid development and privatization often compromise both the well-being of city dwellers and the ecological vitality of our cities. However, nowadays, the current urban green spaces in the city are declining. This proposal foregrounds the imperative to reclaim and prioritize these spaces within the urban landscape. We aim to illustrate how even the small public spaces can be transformed, underscoring the importance of public spaces as a fundamental public right. The research aims to proceed in connection with the ratio of green areas per capita and we will focus on the question of "How can green spaces be reclaimed in small public spaces?. The design methodology is based on literature review, archive data collection, and Jan Gehl's method of observation each small public space in Istanbul. The observation and examination results will propose creative solutions that maximize the utility of existing small public spaces, allowing users to connect with green elements and one another. By integrating multi-functional design ideas into these green spaces, we foster community interaction, support a diversity of activities, and enhance aesthetic appeal while upholding sustainability principles. This approach reasserts the urban environment as a realm for its users, advocating for a shared, vibrant, and inclusive public domain.

Assessment And Spatial Optimization Of Ventilation Efficiency In Railway Hub Areas Based On Cfd Technology

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With the accelerated pace of urbanization and marked increase in automobile ownership in China, vehicular exhaust pollution has become a significant concern in urban air quality, posing substantial challenges to both public health and sustainable urban development. Railway hubs and their surrounding areas, serving as convergence points for various types of vehicles, are facing a bleak outlook regarding exhaust emissions. Additionally, the architecture in these railway hub areas, often characterized by large-scale, enclosed designs, creates an urban form distinctly different from adjacent city spaces. This leads to poor ventilation and challenges in effective pollutant dispersion, adversely impacting the environmental quality of nearby areas. In recent years, the concepts of Transit-Oriented Development (TOD) and Station-City Integration have increasingly gained attention(Chunfang, 2021). Beyond functioning as transportation nodes, the railway hub areas now play a crucial role as urban public spaces, enhancing urban activities, strengthening the appeal and functionality of city locales, and contributing to the creation of livable urban environments(Jie, 2023). However, past designs and planning of railway hub areas, predominantly transport-focused, have neglected the environmental quality of surrounding spaces. In future developments, addressing vehicular pollution in these essential open urban spaces of railway hubs is urgently required.

This study addresses the aforementioned issues by utilizing emerging technological methods and theoretical models to conduct in-depth research and provide solutions. Initially, it involves the use of atmospheric samplers to measure pollutant emissions in various railway hubs and their surrounding areas. The collected data will be compared with the average levels in the surrounding urban spaces to assess the actual pollution levels in these railway hub areas. Furthermore, the study selects Shapingba Station, Hongqiao Railway Station, Shanghai Station and other typical railway hubs, which represent three main urban morphologies - centralized, networked, and axial type. For the selected cases, the study will model the station and its surrounding urban spaces and use CFD (Computational Fluid Dynamics) software to simulate pollutant dispersion. And based on the CFD simulation results, the study will further compare the ventilation efficiency of different spatial types of railway hubs, explore the intrinsic connection between spatial forms and pollutant dispersion efficiency, and identify issues in these three types of space forms. Finally, building on the quantitative analysis above, the study proposes spatial optimization strategies for different types of spaces forms in railway hubs and their surrounding areas. Additionally, it recommends a comprehensive planning process for railway hub areas supported by CFD technology, encompassing pre-design identification, post-design simulation, and post-construction optimization. This approach aims to provide a design methodology for future station-city integrated designs oriented towards spatial quality.

Current planning and design of railway hubs and their surrounding areas often neglect ventilation efficiency and air quality. This study innovatively integrates CFD (Computational Fluid Dynamics) technology with the planning and design of railway hub areas, exploring the issues from the perspectives of efficiency assessment and spatial optimization. The spatial optimization strategies proposed in this research offer transformative ideas for addressing atmospheric pollution in railway hub areas. Additionally, the comprehensive planning process supported by CFD, as suggested in this study, provides a methodological reference for newly built railway hub areas. With the deepening integration of station-city developments, there will be stricter demands for air quality around station areas. Consequently, the creation of urban spaces oriented towards environmental quality will require increased collaboration and efforts from more planners and designers.

Keywords : CFD, Railway Hub Area, Pollutant Dispersion, Ventilation Efficiency Assessment, Spatial Optimization

Form Follow Mobility: A Method To Identify Potential Urbanization Area In The Over-Rail Plane Under The Orientation Of Station-City Integration And Pedestrian Priority

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The goal of station-city integration is to address the problems of isolation between railway stations and cities, land use inefficiency and lack of vitality in station area so as to make full use of the potential of railway stations. An important strategy to promote station-city integration is to create plane over rail, and embed urban functions within this new substrate (TAN et al., 2023 and Nikken Sekkei,2019). Walking is the primary transportation means within the over-rail plane and should be prioritized in this area(Zacharias et al., 2011). Therefore, how to embed urban functions in over-rail plane while guaranteeing the efficiency of walking becomes an important research question for those railway stations which adopt the strategy of over-rail development in the design stage.

This article explores the research question in three steps. Firstly, this article selects several cases to analyze the functional composition of over-rail plane, and sort out the organization principles in this area, including walking priority, especially the priority of walking in and out of the station. Secondly, the author summarizes some methods of walking path generation and evaluation, and proposes the corresponding process based on the wool algorithm and Spatial Design Network Analysis tool (Cooper and Chiaradia, 2020). Finally, the author selects two representative projects to demonstrate the application of this methodology in identifying potential development areas and evaluating existing development areas: taking Shenzhen North Railway Station as an example, the author identifies the potential development areas in the over-rail plane where additional functions can be set up; taking Chongqing Shapingba Station as an example, the author evaluates whether the current entrances and the location of urban functions in the over-rail plane is reasonable.

This paper shares a method of arranging urban functions within the over-rail plane that helps to convert pedestrian into people who stop and use urban functions while safeguarding pedestrian mobility.

Keywords *: Station-city Integration, Pedestrian Priority, Wool Algorithm, Identify Potential Urbanization Area, Over-Rail Plane*

Form Follow Mobility: A Method To Identify Potential Urbanization Area In The Over-Rail Plane Under The Orientation Of Station-City Integration And Pedestrian Priority

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Keywords *: Station-city Integration, Pedestrian Priority, Wool Algorithm, Identify Potential Urbanization Area, Over-Rail Plane*

Study On Refining Historical And Cultural Values Of Urban And Rural Areas In Qinghai Province

Yimin Wei , Weining Shi , Chao Ma

The recognition of historical and cultural values and their inheritance and use play an important role in "consolidating cultural confidence and telling a good Chinese story". In the face of the state's new requirements to strengthen the protection and inheritance of history and culture in urban and rural construction, the value and characteristics of historical and cultural resources are the root of protection and utilisation, and highly condensing the value and characteristics of urban and rural historical and cultural resources in Qinghai Province is an important basis for building a protection and inheritance system. The paper takes Qinghai Province as the research object, based on China's national historical and cultural protection and inheritance system, excavates the value theme content of Qinghai Province, summarises the core value of provincial historical development, which helps to base on the characteristics of the province, and excavates the value theme content for the planning of provincial historical and cultural protection and inheritance system, as well as sorting out the relevant carriers with important theoretical value and practical significance. This paper combines the methods of geography, history, LDA theme model and GIS, analyses the origin of culture, cultural lineage and theme content condensation, and combines the relevant planning and historical and cultural heritage of time and space development characteristics, summarises and extracts 21 value characteristics from five aspects of politics, economy, society, science, technology and culture and geography, and finally integrates and condenses the core value of Qinghai: national ecological security strategy area; national unity integration and intertwining area; red spirit genealogy promotion area; plateau habitat wisdom inheritance area. Combined with the relevant exploration of the preparation of Qinghai Province's protection and inheritance planning work, it is intended to provide ideas for the current recognition of the value of the province's urban and rural historical and cultural characteristics and the use of cultural heritage.

Keywords : Historical Culture, Historical Culture Protection and Inheritance System, Qinghai Province, Value Condensation

The Land Policy Race In India

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This paper traces the changes in land regulations during the last decade, to facilitate the release of land for urban development in the Indian context. Focussing on the emerging changes to land regulations, we illustrate the shifts in the Government of India's approach towards land, moving from a welfarist perspective to one of capturing speculative land value gains. While such shifts are observed in other contexts, the Indian story exemplifies how the regional governments influenced the mobilisation of different legal instruments and have shaped the shifts towards land development models that aid the capture of land value gains for financing urban development and incentivising large developers. Focussing on the evolution of laws including the: Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation, and Resettlement Act of 2013 (RFCTLARR Act) introduced by the Government of India, we discuss the responses by regional governments. We show how implementing the RFCTLARR Act has not been easy as envisaged by the National Government. In response, the regional governments introduced various land pooling and assembly models, which have simultaneously diluted and subverted the implementation of RFCLARR Act at the sub-national level.

The contest is far from over, as the Government of India's Ministry of Urban Development is attempting to enforce new land based fiscal tools through centrally supported schemes for urban development. Consequently, the provincial governments have responded by fast tracking land assembly models, which are now seen as 'alternative' to land acquisitions. Some of these include licensing models, reconstitution/pooling/readjustment models, and negotiation-based models, but the reconstitution/pooling/readjustment models were found to dominate at the regional (sub-national) level. Besides, the 'fit for purpose' design of these models aids the State endorsed spirit of competitive federalism, subscribing to entrepreneurial and speculative models of urban growth. These models are not limited to the process of land assembly, but the regional governments propose to integrate them with the spatial planning tools adding a new language and interpretation to the socialist land use planning discourse in India, raising questions about their implications for socially and environmentally sustainable cities.

We demonstrate the "land policy race" through a comprehensive analysis of policy documents, national and state acts, scheme reports available in the public domain. In this light our paper maps the temporal changes to land regulations from the 1990s and till date. Our paper identifies a significant gap in existing studies on land in Indian context. It seeks to extend debates on urban land development in India through illustrating the interplay of national and sub-national dynamics on the evolution so urban land and planning policies and strategies.

Revitalizing Non-Motorized Transportation: A Case Study Of Wujiaochang, Shanghai

Qing Ai , Mingqi Shu , Yanting Shen , Longxu Yan

In recent years, bicycle transportation has gained wide recognition for its irreplaceable role in fostering low-carbon construction, providing health support (particularly during the pandemic), and facilitating convenient travel (for the last mile). China was famous as a "kingdom of bicycles," where bicycle constituted a crucial component within urban transportation modes. However, during the rapid motorization of Chinese cities, the demand for slow-speed transportation was neglected in the early stages of road construction. The status of non-motorized vehicles in road rights allocation diminished, the sweeping "prohibition and transformation" policy led to the contraction of non-motorized spaces, contributing to environmental degradation. With the rise of the sharing economy and the imperative for carbon reduction, the prevalence of non-motorized vehicles has experienced a notable increase. Meanwhile, as land resources became increasingly scarce, the mere expansion of roadways proved insufficient to alleviate the growing conflict between motorized and non-motorized transportation. The contradiction between them has intensified, presenting a significant challenge to archiving sustainable transportation. This paper focuses on the "Wujiaochang" area situated in the deputy center of Shanghai, conducting research and analysis on the "prohibition of non-motorized vehicles" policy and traffic conditions around 2005. The study first analyzes the evolution of Shanghai's cycling ban policy. After its implementation in 2005, the policy endured for an eleven-year period, with a gradual opening of certain roads starting in 2021. In the same year, cycling was reinstated on the Handan Road (from Guoshun Road to Guonian Road) in the Wujiaochang area. During the policy implementation period, facing the prohibition of cycling on the five main roads and near the ring road, the surrounding secondary roads almost entirely undertook the responsibility of accommodating non-motorized vehicles. However, the question arises regarding whether the surrounding roads can effectively and safely accommodate this diversion. To address this concern, we designed a set of non-motorized utility indicators using a combination of sensors and street view images. The indicators include road smoothness and light intensity, measured by sensor loggers. Additionally, non-motorized segmentation bands, green visibility, sky visibility, and street building occupancy were derived through the application of machine learning techniques to street view segmentation. Since the pivotal periods for daily bicycle travel occurs during morning and evening peaks, we conducted two stated-preference (SP) questionnaires during daytime and nighttime. The SP analysis results in a heat map depicting the efficacy of secondary roads in diverting non-motorized vehicles. Upon comparing the results between day and night, we found notable distinctions in cyclists' preferences for the same environmental indicators. Specifically, green visibility proved to be more influential in fostering daytime cycling willingness than at night. Moreover, a comparative analysis of comprehensive utility between different road sections confirmed the disparity in road cycling quality. In contrast to the main roads subject to the "prohibition of non-motorized vehicles," the secondary roads exhibited significant shortcomings in terms of cycling safety and efficiency, proving inefficiency in accommodating the substantial demand for non-motorized cycling. To achieve low-carbon development and sustain the operation of urban economies, indiscriminately reducing non-motorized vehicle capacity is an inappropriate course of action. The segregation of motorized and non-motorized road networks not only infringes the public rights of cyclists but also poses a threat to life and health. This study aims to underscore the inefficacy of the current "prohibition of non-motorized vehicles" policy. It also proposes objective physical indicators to measure the effectiveness of non-motorized lanes. These indicators can assist in facilitating targeted adjustments to cycling policies improving cycling environments, ensuring equitable access to road usage rights for cyclists, promoting traffic fairness, and promoting the transformation of cities towards a sustainable development model that prioritizes human well-being.

***Keywords** : Bicycle transportation, Prohibition of non-motorized vehicles, Non-motorized utility indicators*

How Public Spaces Accessibility Affects Its Vitality In Tod Area：a Case Study Of Shanghai, China

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There is growing recognition that providing public spaces with high accessibility in TOD area can effectively promote the urban vitality, and maximize the efficiency of urban space utilization. Previous studies have used several methods to measure the accessibility of public space in city area, however, there still lack studies exploring the association between public space accessibility and vitality in TOD areas.

Therefore, in this study, public space was categorized into 4 types: plaza, green space, commercial street and atrium. 18 typical TOD areas in Shanghai were selected as the study area, and about 300 public spaces in the area were selected as the research objects to explore the correlation between the accessibility and vitality of different types of public spaces. This study focuses on two aspects of accessibility: the accessibility to surrounding facility which including metro station, commercial building, office building, residential building and the accessibility in the pedestrian network. The accessibility to facility includes shortest distance to metro station(DTM), average distance to commercial building (DTC), average distance to office buildings (DTO) and average distance to residential buildings (DTR), and the pedestrian network accessibility includes "Betweenness" (BET) and "Closeness" (MED), the distance to facilities are calculated based on GIS software, and pedestrian network accessibility indicators are calculated by sDNA. In addition, in terms of measuring the vitality of public space, the number of people and types of activities in each public space were recorded through field research and behaviour mapping, and using the activity density and activity diversity indicators illustrate the vitality of public space. Finally, based on SPSS software, correlation analysis and multiple regression analysis were used to quantitatively analyse the influence of different accessibility indicators to different types of public space vitality.

The results show that there are differences in the impact of different accessibility indicators on the vitality of public space. Firstly, the vitality of green space has a significant correlation with DTR, but there has no correlation with DTM, indicating that in order to improve the vitality of green space in the rail transit station area, it is necessary to arrange the green space in a convenient location which near the residential area, and the distance between the green space and the metro station is sometimes not important. Secondly, a variety of accessibility indicators have a positive impact on the vitality of the square, including DTM, DTC, BTE, etc., indicating that the influencing factors of the vitality of the square are relatively comprehensive, and the overall connection with a variety of facilities needs to be considered when organizing the square location. Finally, DTM has significant correlation with the vitality of commercial street and atrium, but DTR didn't affect the vitality of commercial street and atrium, indicating that the vitality of commercial public space is mainly contributed by metro stations, and residents in the TOD area have less use of commercial street and atrium

Keywords : Public Space Vitality, Accessibility, Transit-Oriented Development (TOD)

Social Media Text Mining And Flood Disaster Analysis Of Small Towns In Southern Shaanxi Qinba Mountain Area Based On Deep Learning

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The advent of the dataization era has made social media a new trend and tool for analyzing and managing flood risk(Rosser, Leibovici, and Jackson 2017). This paper aims to use the BERT-BiLSTM-CRF method(Wilby and Keenan 2012) to analyze the information on social media such as Weibo, and extract the content related to the flood of small towns in the southern Shaanxi Qinba mountain area. Firstly, we use python crawler to crawl the text data on social media such as Weibo, and then preprocess the data, including removing stop words, punctuation marks, emoticons, etc. Secondly, we use the BERT-BiLSTM-CRF method to perform named entity recognition on the text data, identify entities such as place names, person names, organization names, etc., and annotate them in BIO format. Then, we use methods such as geodetector(Lyu et al. 2018) to geocode the identified place name entities, obtain their latitude and longitude coordinates, and match them with the flood data of small towns in the southern Shaanxi Qinba mountain area, and analyze their flood distribution and flood relationship. Finally, we use flood risk analysis methods, such as flood frequency analysis(Li et al. 2018), flood depth analysis(de Bruijn et al. 2019), flood loss analysis, etc., to evaluate the similarity and difference of Weibo information and small town flood risk, and explore the impact and reflection of Weibo information on small town flood risk. In addition, using the high-precision risk analysis method of social media analysis, the flood risk and danger of small towns in the southern Shaanxi Qinba mountain area are evaluated, and the potential impact of flood disaster on the spatial characteristics of small towns is analyzed. The innovation of this paper lies in the combination of deep learning methods and flood analysis methods, extracting the information related to small town floods from large-scale social media data, providing new data sources and analysis methods for small town flood prevention and disaster reduction, and considering the impact factors of flood disaster, providing reference for small town planning and development.

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Keywords : *Social Media Text Mining, Flood Risk Assessment, BERT-BiLSTM-CRF, Small Town Planning*

Sustainable Performance Differences And Formation Mechanisms Of Different Implementation Modes Of Industrial Heritage Regeneration

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In recent years, it has shown the demand for rapid regeneration of a large number of industrial heritage in China's high-density cities, while facing challenges in terms of funding, management, and social relationships, and a large number of industrial heritage regeneration (IHR) has emerged with a variety of different response approaches and implementation modes. With the increasing demand for sustainable development, the sustainability of IHR is receiving more and more attention, so how should the sustainability performance of industrial heritage be evaluated? Is it directly related to the implementation modes? This paper establishes an analysis framework of Industrial Heritage Context, Actors' Relationship and Policy System to interpret the implementation modes, and constructs a five-dimensional evaluation framework and indicator system to assess sustainable performance (SP). Then, we select three typical implementation modes of IHR, " Multi-actor Collaboration Mode", "Market-led Mode", and "Government-led Mode", and select representative cases in high-density city in China. Through actors' interviews, decision-making documents, and the establishment and application of indicator systems, the following research questions are explored: 1) What are the differences in the actors' relationship, policy context, and SP between different implementation modes of IHR; 2) Whether there is any correlation between implementation modes and SP, and what is the influence mechanism; 3) How to choose a suitable implementation mode for IHR.

Measurement And Optimization Of Human-Centered Perception Of Public Space Quality In Metro Stations—- Based On Virtual Reality And Wearable Biosensor Technology

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In the process of urban construction in China, there has been a shift from emphasizing the "quantity" of urban space supply to enhancing the "quality" of the urban spatial environment. This has spurred a wave of human-centered and quality-oriented trends in urban construction. At present, urban design is transitioning from macro-growth designs that respond to urban spatial expansion to built environment creation and refined management led by the enhancement of internal quality. While a significant amount of research has focused on neighborhood-scale land development patterns around metro stations, most studies on the interiors of metro stations remain limited to access efficiency and connectivity circumstances. Only a few studies have begun to explore the quality of the internal environment of these stations, and these studies are still in their early stages, with a singular perspective and a relatively weak research framework.

Therefore, this study takes the underpass of metro stations as the research object, measuring and optimizing them from four dimensions: lighting, wall, scale, and passage connectivity. The goal is to achieve a good spatial perception for commuters in the public spaces within metro stations. To achieve this research goal, the study is divided into two research questions: first, how to identify the spatial elements that affect the comfort of use within metro stations and measure their impact performances; second, how to measure the optimal threshold range of high-performance influencing elements.

For the first question, this study first summarizes the key dimensions and element levels of the research based on literature studies and sites surveys related to metro stations. Experimental virtual scenarios are constructed using Sketch Up and MARS software, and participants are recruited for the experiment. Combined with the stated preference method virtual reality technology, and the discrete choice model established by Nlogit5, the performances of each element are calculated. The stated preference method and discrete choice model provide a scientific and quantitative approach to perception analysis in virtual reality environments, enabling the measurement of the influencing performances of related spatial elements with the support of statistical models, rather than a superficial analysis. For the second question, the high-performance elements from the previous experiment are selected, and considering the quantifiability of the elements, the element range is deduced in combination with existing codes and current related studies. The smallest range that the human eye can recognize is taken as the grading gradient of the elements. Based on virtual reality and wearable biosensor technology, and using the single variable method to do experiments, based on the physiological data changes, deducing the optimal threshold ranges for elements. Virtual reality(Motamedi et al., 2017) and wearable biosensor technology(Nemati et al., 2012) accurately collect the feelings of participants in a laboratory environment, and the discrete choice model is used to analyze the threshold range impact of various urban design feature elements, which is expected to provide a new entry point for the study of user experience in metro station from a subjective perspective.

This study uses new methods and technologies to measure the perceived quality that was difficult to accurately evaluate in the past. By combining subjective and objective perspectives, a systematic correlation model of the public space with interior metro stations is constructed, which helps to answer how to adopt which guidance methods to maximize the spatial experience of metro stations with minimal input under different morphological characteristics and limited spatial conditions, a question that is difficult to answer accurately based on the experience of designers alone. In addition, this study can also provide refined and evidence-based responses for other urban designs, supporting the iteration and optimization of human-centered spatial perception design.

Integrated Data-Driven Analysis Of Urban Waterlogging Under Multiple Scenarios In High-Density Areas: A Case Study In Shenzhen, China

Weiyi Jia (Tongji University)

In the context of escalating climate variability and unprecedented urban expansion, cities worldwide are grappling with the escalating challenge of urban pluvial flooding. This phenomenon underscores the critical need for accurately characterizing spatial variability in flood susceptibility and deciphering the complex interplay of factors driving such vulnerability. Traditional methodologies, however, often falled short in their ability to precisely assess flood risk within densely populated urban environments, primarily due to the spatial heterogeneity and the multifaceted dynamics of urban flooding. Addressing this gap, our research introduced an innovative analytical framework designed to holistically assess urban flood susceptibility. This framework employed a sophisticated cascade modeling chain that integrates Extreme Gradient Boosting (XGBoost), SHapley Additive exPlanations (SHAP), and Partial Dependence Plots (PDP), alongside K-means clustering. This combination was pivotal in delineating the nuanced influence of urban form on flooding risk patterns, particularly under varying rainfall conditions. The core of our analysis, the XGBoost model, exhibits superior performance in accuracy and robustness when benchmarked against other prevalent models such as Random Forest (RF), Support Vector Regression (SVR), and Back Propagation Deep Neural Network (BPDNN). This superiority was rigorously affirmed through comprehensive training sessions and independent validation exercises conducted within the urban confines of Shenzhen, highlighting the model's efficacy. Our findings revealed that characteristics of urban 3D morphology play a pivotal role in determining the extent of waterlogging, accounting for a significant 46.02% of the relative contribution to flood susceptibility. Through nuanced PDP analysis, we identified multi-stage trends that underscore critical thresholds and interactions among key indicators, notably the building congestion degree (BCD) and the floor area ratio (FAR). It emerged that specific ranges for these indicators, such as a BCD of 0 to 0.075 and FAR values between 0.5 and 1, can significantly curtail flood risks, thereby guiding strategic urban planning and architectural design towards flood mitigation. Spatial and temporal assessments within our study highlighted a pronounced aggregation effect of high-risk areas, particularly vulnerable to scenarios of prolonged or intense rainfall, predominantly within older urban districts. This spatial-temporal dimension of flood risk underscored the importance of integrating adaptive strategies into urban planning and design to enhance resilience against waterlogging. By offering quantitative insights into the mechanisms of urban flooding and the efficacy of potential adaptation strategies, this study contributed to the broader discourse on sustainable urban planning. It underscored the imperative of adopting innovative, data-driven approaches to mitigate the adverse impacts of urban flooding, paving the way for the development of resilient, climate-adaptive urban environments.

Integrating Equitable Climate Adaptation Into Urban Regeneration Through Nature-Based Solutions.: A Research By Design Approach On Infrastructural Spaces As New Commons

Ina Macaione (University Of Basilicata), **Alessandro Raffa** (University Of Basilicata), **Bianca Andaloro** (University Of Basilicata)

Cities and their communities are experiencing the effects of climate change over different climates and geographies. Its impacts are asymmetrical, thus affecting especially those that are already vulnerable and have less resources to adapt. Nevertheless, cities are also at the forefront of climate adaptation, showing how we can plan and design to be more prepared and proactively adjust to present or expected future climate impacts, through an equity lens. Extreme heat, drought and flooding become opportunities to experiment design and planning processes, innovative strategies and actions, able to cope with previous urban inequalities and expanding multifaceted benefits for all.

Within this frame, the concept of urban regeneration is becoming comprehensive and malleable, characterized by an integrative and holistic approach thus becoming an opportunity to deal with urban problems through space, especially in vulnerable contexts and communities, and toward global challenges, i.e., sustainable development and climate change. Aiming at defining possible multi-scalar solutions, Nature-based Solutions (NbS) had been mainstreamed as a strategy for addressing urban regeneration, providing ecological, economic and social co-benefits, but sometimes also enhancing inequalities. More recently their role inside climate-adaptive urban planning and design has been recognized, thus acting as a bridging concept between equitable climate adaptation and urban regeneration.

Although many points of connections among equitable climate adaptation and urban regeneration exist, the literature review on the nexus between equitable climate adaptation and urban regeneration show that (i) contributions addressing this topic are limited; (ii) there is also a lack of principles and procedures to operationalize equitable climate adaptation into green regeneration through the implementation of NbS. Addressing this nexus through an integrative perspective can contribute to fill present gaps, to shade light on this issue and stimulate future research in order to innovate consolidated green regenerative processes and practices.

The contribution aims to demonstrate that integrating equitable climate adaptation inside urban regeneration through the implementation of NbS is crucial to enhance resilience, by leveraging social, ecological, economic benefits for all in an integrative, comprehensive and enduring way.

Inside this theoretical-operational framework, the contribution adopts a research by design approach, made by three integrative phases. (a) Research for design: taking knowledge from other disciplines like ecology, climate justice, etc.; (b) Research of design: the study of current design approaches through a comparative analysis of case studies; (c) Research-driven design: applying design principles inside experimental design processes.

According to the identified selection criteria, a set of nature-based regeneration projects which address equitable climate adaptation will be introduced. These projects transform abandoned, underused or degraded infrastructural spaces inside vulnerable neighborhoods into new urban commons, distributing social, ecological and economic benefits while enhancing space quality and wellbeing for all. By analyzing and comparing the selected case studies, a set of principles will emerge to support an equitable, climate-adaptive nature-based regeneration. Furthermore, those principles have informed and had been tested inside a research-driven design Framework, with the objective to build up a circularity between principles, procedures and outcomes.

The contribution will be structured into the following sections: (a) Conceptual framework, where the entanglements between equitable climate adaptation, urban regeneration and NbS are explored from a theoretical and operational perspective; (b) Methodology, where the research by design approach will be described; (c) Case studies, where selection criteria will be introduced and projects analyzed and compared; (d) Results, where equitable, climate-adaptive nature-based regeneration's planning and design principles are deducted and tested inside experimental projects (e) Discussion, where the result will be discussed and validated; (f) Conclusions will be presented.

Planning For Proximity In A Fragile Urban Context. The Case Of Tirana

Giulia Spadafina (Politecnico Di Bari)

Tirana is the only city in Albania to have experienced a steady demographic increase over the last thirty years, due to strong internal migration and its attractiveness due to its great economic, social, and cultural development. It is a city in transformation that is confronted on the one hand with the Berlin process for entry into the European Union and on the other hand with the challenges of a new Urban Master Plan. Tirana is also a place with strong social inequalities, in fact more than 40 per cent of residents are at risk of poverty and social exclusion, with an even higher percentage in families with children. Its urban and social history is recent, beginning with the fall of the regime in the early 1990s. However, what Tirana shares with many European cities is a common destiny that, starting with the advent of the private cars, has been to see the dynamics of urban development and growth change with a strong impact on biodiversity and quality of life, all in the name of increasing efficiency. Against this backdrop, the theme of urban proximity has returned to the forefront of urban thinking, not least because of increased sensitivity to environmental issues and the effects of the pandemic on cities. This proximity must therefore be planned in the context of the existing city, and, above all, in contexts that are often socially fragile. The 2030 Agenda drafted in Quito in 2016 during the UN-Habitat 3 Conference emphasises the primary objective of social inclusion and the right to the city for all, highlighting above all access to essential needs and participatory democracy. But what can be the tools to govern this urban transition towards proximity? The challenge is even more complex given the need, for the success of the interventions, for the involvement of the communities affected by the transformations taking place. The need, therefore, is for integrated policies on an urban and local scale that start from the activation and reconstruction of a social infrastructure. The paper uses the method of analysing a case study, in particular that of the City of Tirana, investigated within the framework of a PhD research carried out together with the Urban Planning sector of the Municipality of Tirana. The objective of the paper is to reflect on the theme of urban proximity, governance tools and strategies useful for reconstructing a dimension of physical and social neighbourhood, emphasising the importance of schools as proximity activators and the importance of spatial mapping and data analysis for better future planning. The Administration, in implementation of Strategic Project 07 "A new and wide network of schools" of the TR030 Plan, is carrying out a series of combined strategic actions that aim to start from schools to generate the public city, also with the tool of partnership with the third sector. In particular, the actions underway and that will be analysed in the contribution are: the implementation of the school network, opening outside school hours and diversifying the functions carried out inside, the urban arrangement of the spaces near the schools, the activation of communities through participation projects.

Keywords : *urban proximity, planning, schools, community engagement*

Budget Management In Governance Of Transportation Investment: A Comprehensive Perspective For Sustainability

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Urban areas are experiencing rapid urbanization, with great pressure on existing services and resources. The need for efficient allocation of resources towards sustainable transportation solutions becomes imperative (Sharav & Shiftan, 2017). The main responsibility for managing and planning the budget falls on local governments. However, in the case of multi-level governance, budget plans regarding urban transportation investments may be both at national and local levels—the perspective of multi-level governance. Actions undertaken at one level can alter the condition of other levels, creating a complex and challenging dynamic that is difficult to control (Hoffman et al., 2017; Jaimurzina, 2018). Local governments have difficulties integrating sustainability and decision-making preferences into their budget planning processes(Sharav & Shiftan, 2017).

This research presents a comprehensive analysis of the governance of urban transportation investments within the context of budget planning in Istanbul. Transportation investments in Istanbul, the most crowded city in Turkey, are driven by the Central Government and Local Government. The aim of the central government is to support economic growth, improve quality of life and promote urban development. On the other hand, the local government aims to improve the existing transportation system as a public service. Within the scope of this research, central and local government budget reports for Istanbul will be examined. The annual budgets allocated for urban transportation investments will be analyzed within the framework of sustainability.

Additionally, the impacts of urban transportation investments on urban macro form will be evaluated spatially. Particularly, the impact of road transportation investments on urban sprawl and the loss of green areas will be analyzed spatially and evaluated from a sustainability perspective.

Through a detailed examination of central and local government budget reports, the research will offer insights into the annual budgets designated for urban transportation investments, assessing their alignment with sustainability objectives. The results will contribute to the development of a multi-level governance model for metropolitan cities by highlighting the deficiencies in the governance of transportation investments in Istanbul.

Keywords : urban transportation investment, governance, budget management, sustainability

Digital Smugglers: Facilitators Or Exploiters? Navigating The Role Of Icts In Irregular Migration

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Information and communication technologies (ICTs) are playing an increasingly prominent role in human smuggling, particularly among digital smugglers who utilize cloud-based messaging apps like Telegram to facilitate irregular crossings. These crossings, often advertised as "games" on social networking applications, pose significant risks to migrants, including exploitation and dangerous journeys. Despite these risks, the demand for these services remains high.

Using qualitative data and digital ethnography methods drawn from one of the most popular Iranian Telegram channels managed by former irregular migrants who have become digital smugglers, this study examines the role of digital smugglers in the context of irregular migration from Iran and Afghanistan to Europe, analyzing the experiences of migrants who have "successfully" crossed the border. The study also explores the dual nature of digital smugglers, considering their potential roles as both facilitators and exploiters of a broken border management system. The lack of enough accountability from European institutions, combined with a national push for border enforcement without proper planning and in an unsystematic manner through different types of intersectional human rights violations, has created a demand for unregulated services. This has created a vacuum in which digital smugglers have emerged as intermediaries, offering access to information, arranging transportation, and providing logistical support to migrants seeking to cross borders irregularly.

Addressing the challenges posed by digital smugglers requires a multi-pronged approach that tackles both the supply and demand sides of the issue. The study concludes by emphasizing the need for policymakers, law enforcement agencies, and international organizations to address the challenges and develop effective strategies to regulate these activities. By harnessing the power of ICTs in a responsible and ethical manner, they can help mitigate the risks posed by digital smugglers while also promoting orderly migration and protecting the rights and safety of migrants.

Keywords *: Digital Smuggling, Irregular Migration, Information and Communication Technologies, Cloud-Based Messaging Apps*

Predictive 'Devices' For Planners: A Critical Review From Morphogenetic Models To Ai

Irene Cazzaro (Università Iuav Di Venezia), **Luca Nicoletto** (Università Iuav Di Venezia)

From the end of the 1970s, a range of studies dealing with city and infrastructure modelling was explored from the point of view of morphogenetic principles, often leading to simpler discretizations through cellular automata, multi-agent systems and fractal geometry (Allen & Sanglier, 1979). These are reductive approaches, as it should be: we know that a model only makes sense if it is a reduction and therefore, to some extent, a falsification. Anyway, the utility of these tools has been recognised in many fields and, in urban studies, the goal of their application has often been the description of the growth of a city by segmentation and/or extension of the street network (Courtat et al., 2011).At the same time, as early as the 1980s, some urbanists paid attention to the risk of oversimplification of deterministic predictive models in urban studies. City planning and design processes work as "non-trivial machines"' (Von Forester, 1981). A "non-trivial machine" would be one in which the output cannot be predicted from its input, constituting a machine endowed with agency and autonomy. City design involves 'intelligence', ability to deal with the unpredictable and with what happens while the process is running (Secchi, 2000). Nevertheless, data tools and mathematical models can help designers to better understand their actions, stimulate their imaginations through visualisations and interact with new resolutions and sizes of acquired data.

For this reason we propose, as a "game changer", a review of some experiences dealing with a more sustainable approach especially based on networks of data, in order to study how to solve or limit specific environmental problems. An example can be the heat island effect, which is being studied, among other research groups, by the MIT Concrete Sustainability Hub.We can therefore study the implications of these approaches in urban design: these are almost "unique" cases, which should be studied one by one by adjusting the rules of a customisable model, evolving and reshaping itself based on constant training.

In this framework, the role of Artificial Intelligence (AI) becomes vital, since it can inform a system with huge amounts of data continuously collected in the field, for instance by means of sensors connected to a neural network (As et al., 2022). On the one hand, the role of AI could be relevant in order to find 'patterns' in the datascape and help define 'laws' and perhaps models for understanding environmental phenomena in urban contexts. In this sense, through a machine learning process thanks to the machine's ability to digest a large amount of data from the past, it could help understand the degree of effectiveness of recent urban transformations in relation to environmental emergencies (for example: starting from satellite imagery studying heat island effect, the impact of very recent urban forestation projects, the results of depaving, etcetera, could be verified) and, in this sense, build more sophisticated models for understanding the impact of these changes in cities.On the other hand, from a generative point of view, AI might allow the comparison of different scenarios, as well as encourage "absurd reasoning", in a way that changes, sometimes enhances and never excludes the role of the planner.

***Keywords** : algorithm and data, morphogenetic models, Artificial Intelligence (AI)*

How Urban Morphology Affects Wind-Heat Environment: From Ancient Cities To Modern Cities

Jiankun Lou (Tongji University), **Lan Wang** (Tongji University), **Jiayu Li** (Tongji University), **Yinghui Jia** (Tongji University)

Climate change is one of the most important global environmental phenomena that human beings face in this century. The urban wind-heat environment is an important part of the urban climate, and it affects the health of residents to a large extent. The urban wind environment can affect the air quality, and thus affect the risk of respiratory and cardiovascular diseases of residents. The urban heat island effect and heat waves can easily cause heat stroke, heat-related diseases, and even death among the population. The structure and morphology of the city are important factors that affect the urban microclimate. How to optimize the urban spatial morphology and improve the urban wind-heat environment has increasingly attracted the attention of relevant scholars and managers. At present, most of the studies on the outdoor wind-heat environment are conducted in modern cities, and there are few studies on the traditional urban morphology. Traditional buildings and settlements often reflect the concept of human adaptation to the climate, and related studies can inspire us to design more livable and healthier cities in the future.

The urban thermal environment and wind environment are important factors that affect the health and quality of life of urban residents, and they are also affected by the urban spatial morphology. This research selects three residential blocks in Beijing that were built at different times, representing ancient cities, modern cities, and historical blocks in modern cities, and uses ENVI-met and WindPerfectDX to simulate the thermal environment and wind environment of the three types of blocks respectively. In the simulation, the ancient and modern climate information are used respectively, and the thermal environment and wind environment parameters under the summer and winter scenarios are simulated. By comparing the average radiant temperature, physiological equivalent temperature, universal thermal climate index, wind speed and wind direction indicators under different seasons and scenarios, the differences and advantages and disadvantages of the three blocks in terms of thermal comfort are analyzed. We found that the ancient city and historical block have the characteristics of low building height, narrow street width, high aspect ratio, diverse building orientation and shape, low reflectivity and high heat capacity; while the modern city has high building height and density, and the urban morphology is more uniform. Under different climate conditions and different seasons, the ancient city and modern city are expected to have significant differences in the thermal environment and wind environment, while the historical block has both ancient and modern characteristics. The thermal environment and wind environment of the ancient city and historical block are better than those of the modern city block, mainly because their spatial morphology is more reasonable and diversified, conducive to ventilation and shading. Based on this, this paper puts forward some suggestions for urban planning and design based on spatial morphology, including increasing the green space area and complexity of the morphology, reducing the building density and height, adjusting the building orientation and staggered degree, etc., in order to provide reference for the improvement of the urban thermal environment and wind environment. The significance of this paper is that it discusses the urban thermal environment and wind environment from the perspective of spatial morphology, and provides reference and inspiration for the protection and development of historical blocks and the construction of climate-adaptive cities.

Keywords *: Wind-heat environment, Urban morphology, Ancient cities, Residential block, Climate change*

Destination Image Of Chinese Cities Through The Lens Of International Social Media Users: A Case Study Of Suzhou Historic City On Youtube

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Social media exerts a profound influence on shaping the destination image of tourist locales. While China has developed its social media landscape independently of English-speaking countries, a noticeable void exists in the understanding of international visitors' perceptions, expectations, experiences, and satisfaction regarding trips to China. Particularly, lesser-known Chinese cities, unlike their more prominent counterparts such as Beijing, Shanghai, and Xi'an, face limited exposure beyond China's great firewall, hindering global access to information about these lesser-trodden locales with hidden gems.

This research aims to unveil the perceptions of Chinese historic cities as tourist destinations from the viewpoints of international visitors and social media users, with a focus on assisting less advantaged Chinese cities to untap the potential of international social media for promoting inbound tourism. Specifically, the study delves into user comments on YouTube videos related to Suzhou Historic City in Jiangsu Province, renowned as the "Venice of the East" for its historic waterways, cultural heritage, and meticulous preservation efforts. While the city is arguably one of the most highly esteemed historic cities in China that draw a significant annual influx of domestic tourists, all the concerted efforted invested to raise its international profile and boost inbound tourism revenue have proven relatively futile. The research taps into the city's sizable expatriate and English-speaking population, as well as the local Destination Management Organizations' (DMOs) marketing efforts through the VisitSuzhou YouTube account.

Employing a mixed-methodology approach, the research assesses the relationship between the destination image crafted by local DMOs and the cognitive constructs of social media users regarding Suzhou. Through text mining analysis and Partial Least Squares Structural Equation Modelling (PLS-SEM), the study explores the relationship between 1) Suzhou's cultural signifiers, as chosen and crafted by DMOs (destination image);2) visitor experiences and social media users' virtual perceptions of Suzhou (behavioural response);3) social media users' understanding about the city (cognitive construct). Additionally, the study examines how visitors' and users' feelings about Suzhou (affective responses) mediate positively or negatively in the three above-mentioned components.

The findings of this research will yield new insights into the destination image of Suzhou as perceived by international visitors and social media, thereby providing a foundation for less advantaged Chinese cities to strategically leverage international social media platforms in promoting inbound tourism and enhancing the overall understanding of destination image dynamics.

Exploring Drivers And Barriers Behind New Models For Circular Transition In Urban Food Systems: The Case Of Karşıyaka, Izmir

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The world is struggling through a period of "multiple crises" encompassing ecological and climate crises and economic and social crises along with them. Cities, as the places of consumption, are places where the multiple crises deeply manifest themselves. Among these crises, the food crisis manifests itself deeply in cities, especially on the issue of sufficient food provision and equal food access. The unsustainable production and supply structure of the food system intensifies the challenge of access to clean, healthy, nutritious, and affordable food products. The market-driven restructuring of the agri-food system, increasing commercialized retail chains in food provisioning also increased these inequalities in food access. Coupled with economic stagnation, high inflation and decreased purchasing power, food inequalities, inability to access food and malnutrition become inevitable in urban settings.

Addressing these crises necessitates a holistic approach beyond production, incorporating issues of food access, food justice, and equal distribution. This study argues that the circular food system helps to build a more sustainable, resource-efficient and socially just and equitable approach. Circular model requires reconsideration of urban consumption to accelerate transition as consumption have great importance on the (re)constructing of the complex social practice of consuming food and the downstream practices it connected to. Novel consumption models are needed to foster sustainability and circularity within food systems, ensuring food safety, social justice, and ecological harmony. In this manner, a public model that brought alternative models for consumption while supporting local producers and building bridge between production and consumption is indispensable. Focusing on urban consumption requires the implementation of local retail structures that redefine the production-consumption relationship and restructure access to food.

The detailed exploration on the case of Karşıyaka, Izmir, shed light on the public model providing alternatives to existing food provision and urban consumption mechanisms. Karşıyaka represents an urban sub-section with limited local self-sufficiency in food supply, resulting in limited public access to local, clean and ecologically produced food. Moreover, the distance between food production and consumption is considerably evident, as the local food supply is limited within the borders of the district. Yet, Karşıyaka hosts consumption practices with alternatives to commercialized forms and maintain alternative markets and food consumption culture in the public sphere. However, despite the ambitious studies on food sustainability, the initiatives remain fragmentary, lacking widespread adoption. Therefore, these initiatives fall short in the implementation of a holistic, sustainable, and circular food system. Consequently, this underscores the need to explore the possible drivers for new models that support circularity and sustainability as well as the barriers that prevent their proliferation. The aim of this study is to uncover shifts in traditional technologies, lifestyles, consumption patterns, food provisioning, retail strategies, supply chains, as a driver of change, while assessing obstacles within organizational, regulatory, institutional, and political structures as barriers for circular transition. Essentially, based on qualitative and exploratory research methodology with a case study on Karşıyaka, this research aims to examine the barriers and drivers in reference to the changes in existing patterns of food supply, retail and consumption and highlights the role of new models in advancing or hindering the transition to a circular food system. The aim is to look for ways of a more coherent, collaborative effort towards the realization of a sustainable and circular food system in Karşıyaka, by examining the strategies, limitations, and successes within the existing practices in relation to the local food system.

***Keywords** : Urban Food Systems, Circular Food System, Circular Transition, Urban Consumption, Karşıyaka-Izmir*

Insights Into The Evolution Of Airbnb Accommodations: Beyoğlu Beyond Borders

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In the final decades, sharing economy has mediated urban tourism to shift from traditional hotel vacation to an amenity-based house stay. The ubiquitous nature of Internet has benefitted peer-to peer exchange platforms between hosts and guests for house accommodations. From its inception in 2008, Airbnb has become one of most important online house rental marketplace platforms with its booking number over 1 billion in 2023. Istanbul is the most crowded city in Türkiye with approximately 16 million residents. Due to official data, annually 16 million visitors come to the city. According to Insideairbnb.com, there are approximately 38.000 Airbnb rental house listings in Istanbul. Almost one-fourth of the listings are in Beyoğlu district in Istanbul.

This research investigates the intricate dynamics of Airbnb's influence on urban tourism within the context of Istanbul, with a specific focus on the Beyoğlu district. Synthesizing insights from various scholarly perspectives, the study aims to provide a comprehensive understanding of the socio-cultural, economic, and spatial dimensions of Airbnb's role in shaping tourism in this vibrant district.

Building upon prior research, our investigation focuses on the spatial characteristics of Airbnb rentals in Beyoğlu, emphasizing their proximity to tourist attractions and city centers. The uneven development of Airbnb within the district is explored, considering a myriad of socioeconomic and environmental factors. These include distance to city centers and tourist attractions, population demographics, income levels, housing prices, residential areas, industrial activities, and environmental features.

Employing a spatial analysis methodology, the research further scrutinizes the evolutionary trajectory of Airbnb within Istanbul's urban tourism landscape. Through the examination of trends and the incorporation of additional variables, the study seeks to furnish valuable observations into the dynamic nature of Airbnb within the city. In amalgamating these diverse perspectives and methodologies, our exhaustive investigation aspires to furnish a comprehensive understanding of the spatial intricacies of Airbnb within Istanbul's Beyoğlu district. The resultant findings aim to provide valuable results for local policymakers, urban planners, and stakeholders in the tourism industry, offering nuanced perspectives on the transformative role of Airbnb within the distinctive cultural and economic milieu of Beyoğlu.

Keywords *: Airbnb, peer-to-peer accommodations, Sharing Economy, Urban Tourism, Istanbul*

Assessment And Rational Allocation Of Group Differentiated Needs For Urban Waterfront Greenway Public Spaces From A Multi-Source Data Perspective: A Case Study Of The Core Section Of The Huangpu River In Shanghai

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As the shoreline of the core section of the Huangpu River in Shanghai becomes interconnected, the waterfront public space has undergone a transformation from an early focus on continuity to a current emphasis on "people-oriented" shareability and coordination. Traditional waterfront greenway public space planning lacks a precise assessment of the characteristics and needs of different population groups, resulting in issues such as homogenization of space, low usage efficiency, and unbalanced allocation of public resources.

To address the current problem, recognizing the diverse needs of different user groups and specifically coordinating the configuration of waterfront public spaces is an important indicator of the rationality of urban spatial layout. Therefore, this study takes the spatial layout and configuration needs of the core section of the Huangpu River in Shanghai as an example, utilizing multi-source urban data and urban design analysis techniques. It conducts an in-depth study of the spatial needs of user groups of different age compositions in three aspects: overall spatial accessibility, functional integration, and convenience of activities.

At the level of user diversity, this study bases its analysis on mobile phone signaling data, examining the demographic composition and spatiotemporal distribution of activities in waterfront greenway public spaces, and subsequently constructs a map of crowd activities. In terms of spatial needs, based on spatial syntax and spatial Design Network Analysis(sDNA) technology, the study analyzes overall spatial accessibility, identifying potential segments of vibrancy concentration along the waterfront greenway. Utilizing Points of Interest (POI) data, it refines the layout of waterfront spaces and analyzes the distribution of functional elements in detail. Based on social media data, it assesses the current use of public service facilities and identifies service blind spots. Ultimately, using ArcGIS tools, the study overlays the intensity of different group activities, service intensity, and spatial demand intensity, aiming to locate high-pressure areas in the service of waterfront greenway public spaces. This clarifies the demand focal points of the waterfront greenway public spaces to ensure individuals' equitable sharing of public space.

In summary, this research focuses on the activity characteristics and spatial needs among different groups, and successfully constructs an evaluation framework based on group differences, providing key support for the equitable allocation of public space resources. Through such detailed assessments, it aims to preemptively gauge the public space attraction and needs of waterfront greenways, contributing to creating more inclusive spaces that cater to diverse needs. Consequently, it provides valuable decision support for optimizing the overall planning and subsequent management of urban waterfront greenways.

Keywords : Waterfront Greenway, Group Differences, Equitable Resource Allocation, Multi-Source Urban Data

Socio-Environmental Inequalities And Socio-Spatial Fragmentation In São Paulo Metropolitan Area, Brazil

Gustavo Nagib (São Paulo State University (Unesp), Grant #2022/08290-7, São Paulo Research Foundation (Fapesp))

In the wake of the socio-environmental challenges of the Anthropocene (Lussault, 2022; Paddeu, 2021) and the disruptions in the core-periphery logic of production of the cities (Chetry, 2013), one sees the privatization of green areas (Ernwein, 2015) and the proliferation of enclosed and segmented housing, leisure and consumer spaces (Navez-Bouchanine, 2002; Salgueiro, 2001), signaling the emergence of the current fragmentary socio-spatial logic (Sposito, Sposito, 2020).

In this sense, our aim is to analyze day-to-day practices indicative of the relation between the socio-environmental inequalities (Chancel, 2020) and the process of socio-spatial fragmentation in the São Paulo Metropolitan Area – RMSP (Nagib, 2023), setting out from the hypothesis that this relation interferes with a) the access and frequency of visits to green urban areas as well as their spatial distribution; b) the involvement of the city residents in ecological activities and their access to unprocessed and organic food. To this end, the assessment relies on the combined findings of ongoing research on the socio-spatial fragmentation in RMSP, with systematic observations made in central and peripheral districts and more than sixty interviews conducted with residents of various age and income groups, in different habitats, and data from the author's PhD work (Nagib, 2020).

Preliminary indicative highlights include: a) visitation of the green urban areas is contingent on their proximity to residents' homes, the relationship between time and cost of transportation to reach them, and residents' personal interest in being closer to nature; b) the distribution of green areas is spatially unequal and the intraurban landscape of low-income districts tends to be more arid as a result of higher parceling of land allotted for housing developments; c) privatization and real estate value appreciation in different kinds of green urban areas are on the rise; d) involvement in ecological activities requires available free time; e) ecological activities, such as community gardens, are associated with environmental awareness, the formation of local collectives or institutional support; f) access to unprocessed and organic food tends to be a privilege of medium- and high-income classes, even if the larger areas dedicated to agroecological production are located in peripheral districts.

Keywords : Socio-environmental inequalities, socio-spatial fragmentation, green urban areas, ecological activities, unprocessed and organic food, São Paulo

From Formality To Informality: Streetscape Analysis In The Old City Core Of Xiamen

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The arcade street, as a unique feature in the urban landscape of Xiamen, plays a pivotal role in offering a versatile public space that caters to the daily needs of the city's dwellers. This research embarked on a diachronic exploration of the spatial form of arcade streets within the old city core of Xiamen, with the primary objective of unraveling the intricate interplay between spatial form and socioeconomic, political, and cultural factors. To achieve this, the research adopted a typo-morphology approach, utilizing historical maps, satellite imagery, relevant documents, and other resources to analyze the morphological characteristics of arcade streets. This comprehensive analysis enabled the understanding of the transformation of arcade streets in Xiamen from the early 20th century to the contemporary era. The findings indicate that despite the varying degrees of damage to their original spatial configuration, the streetscape of arcade streets in Xiamen's old city core has astonishingly retained its historical appearance since the beginning of the last century. On the other hand, the arcade streets within informal settlements have been excellently preserved in terms of usage, typology, and scale due to the micro-regeneration efforts. This research highlights the indispensable interconnectedness between spatial form and everyday life, concurrently demonstrating how top-down interventions can significantly shape the livability of built environments. In conclusion, it emphasizes the paramount importance of social production of space and interactions between public and private sectors in creating a more livable and sustainable built environment for cities.

Keywords : Streetscape, Urban Morphology, Densification

Regenerating The University System. Toward An Urban Model For Mediterranean Student Housing.

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In the university system, enhancing the offer of student housing is important to guarantee an equal right to study and to prevent the lack of housing solutions from becoming a discriminating element for access to university education (Mangialardi et al., 2023).

However, today in Italy, student housing represents a marginal area in the university system, traditionally focused on teaching, research, third mission, and public engagement and less on the right to study issues (Laudisa, 2024).

In fact, only 5% of university students in Italy live in student housing (for a total of 54 000 beds), compared to a European average of 17%, with peaks of 31% and 24% in countries such as Sweden and Slovenia, respectively. This percentage is also concerned with the hospitality required to encourage international exchange programs, which are useful for increasing the competitiveness of the university system.

The general increase in prices has complicated the situation between high energy prices and inflation, characterising the private university market to which students who cannot find accommodation in public student housing are forced to resort. Property owners choose more tourist rental formulas as they are more remunerative. Consequently, student housing has become an obstacle for the right to study.

The first attempt to fill the gap was made with Law No. 338 on 14 November 2000 a regulatory framework that allows the public co-financing of new student housing (Piferi, 2022); this framework is innovating over time, even offering new margins for experimentation (for example, opening up to widespread student housing).

In this context, this study aims to understand whether and to what extent the Apulian student housing system can meet the current needs of the eligible student population by investigating the possible urban models to be adopted in Apulia's university cities to regenerate the university system, starting with the reuse of the existing patrimony to be reconverted into student housing. This study is part of a larger research project, PRIN RUSH "Responsive Responsive_University_Student_Housing: innovative solutions for socio-economic and urban regeneration of neighborhoods in Southern Italy" financed through the PRIN 2022 Call for Proposals. PRIN research aims to define a model of responsive support to create an innovative urban ecosystem for urban and socio-economic regeneration in Southern Italy, which is replicable and adaptable in other similar contexts. The model will be developed using an inter-scalar approach, that includes urban, local, and building scales.

This contribution will adopt the multiple case study method (Yin, 2009). In detail, we will analyse in depth the university residential system of the five university cities of Apulia (Bari, Lecce, Taranto, Brindisi, and Foggia), looking contextually at other urban systems (mobility, culture, entertainment, etc.) as a network for the service of the student citizen, with the purpose of extrapolating, by means of a swot analysis, strengths, weaknesses, threats, and opportunities. The results will question the current models, attempting to define urban models for Mediterranean student housing, starting from the analysis of the potential and criticalities of the cases analysed. The results, although preliminary, as PRIN RUSH is an ongoing project, will be part of a series of reflections that the authors are carrying out. Examples include the structuring of an Observatory of the Right to Study based on Indicator Databases and Territorial Information Systems as a decision-support tool, in strong relation to the Apulia Region.

***Keywords** : Student Housing, Regeneration, Urban model, Mediterranean culture*

Fostering Climate-Conscious Action: The Use Of Nature In Spatial Planning

Alessandra Longo (Università Iuav Di Venezia), **Linda Zardo** (Università Iuav Di Venezia)

At the local level, nature-based strategies and measures allow for addressing the environmental and social challenges caused by climate change and urbanization. Through the sustainable management of ecosystem services, nature-based solutions have gained recognition for being no-regrets, multi-objective, cost-effective and resource-efficient. They yield more significant benefits when promoted in an integrated and cross-sectoral manner in cities, which experience higher impacts and thus urgently need to increase their adaptive capacity. Despite a growing awareness of the benefits this approach provides, there remains a gap at the science-policy interface that limits the use of this knowledge in spatial planning. This study aims to guide policy-makers in selecting appropriate nature-based solutions in response to locally recognized climate impacts. The methodology, applied to the case study of the Friuli Venezia Giulia Autonomous Region in Italy, is grounded on the deficit areas previously obtained through a spatial comparison of demand and supply of a set of ecosystem services that can potentially support climate change adaptation. A deficit area arises when demand does not benefit from the supply of these ecosystem services. The demand originates from the spatial definition of 16 thematic sectors in which present and future climate impacts are recognized. The supply, on the other hand, refers to the provision of 13 ecosystem services for climate adaptation by nine ecosystem classes, which include urban, cropland, grassland, forest and woodland, heathland and shrub, sparsely vegetated land, inland wetlands, rivers and lakes, marine inlets and transitional waters. Based on these deficit areas, this study analyses which ecosystem classes cause the deficit in each sector. Subsequently, it identifies a bundle of missing ecosystem services for climate adaptation for each class and proposes a list of nature-based solutions that can help deliver the required benefits. The results are structured in summary sheets by deficit ecosystem class and contain (i) the bundle of missing ecosystem services for climate adaptation, (ii) the sectors affected by the deficit, and (iii) a list of nature-based solutions, each of which indicates the ecosystem services it contributes to providing and the sectors it would satisfy. Only a sample sheet on urban ecosystems is presented in this study. The novelty of this approach lies in accompanying policy-makers in understanding local challenges and consequently identifying the most appropriate climate adaptation policies and actions. Therefore, it is not limited to knowledge transfer but promotes climate-conscious action.

***Keywords** : Nature-based solutions, Ecosystem services, Climate change adaptation, Spatial planning, Science-policy interface*

Vitality Assessment And Issue Identification Of Station-City Integration Supported By Multi-Source Data: A Case Study Of Shanghai Hongqiao Railway Station.

Zhiwei Li (College Of Architecture And Urban Planning Tongji University)

As urbanization enters a phase of rapid development, there is an increased demand for higher quality urban spaces. Creating vibrant urban spaces from a human-centric perspective has become a key issue in urban planning and design. With the emergence of Station-City Integration concepts, railway hubs and their surrounding areas have become significant open spaces, playing an essential role in promoting urban activities, enhancing the functionality of urban spaces, and building livable urban environments(Jie, 2023). However, field research reveals that many railway hub cases have a lack of urban vitality. Planners and designers often provide varied open spaces for both travelers and residents, yet, they frequently suffer from low actual usage due to various unsuitable factors such as environmental conditions and facility functionalities, leading to a noticeable lack of vibrancy.

Station-city hub areas need to thoroughly consider the actual needs of people, enhancing the vitality of the surrounding urban spaces from a human-centric perspective. However, traditional experiential planning and design methods fail to meet these requirements. The rise of multi-source big data, exemplified by OSM (Open Street Map), LBS (Location-Based Services), and POI (Point of Interest), offers robust technical support for refined station-city spatial design(Yu, 2019). OSM can rapidly obtain physical information of built environment and identify multi-layered spatial structures(Yixuan et al., 2024). LBS provide spatial heatmaps by capturing pedestrian commute times and distances, reflecting the vitality of people(Meiduo and Yan, 2020). POI data allows for a detailed reflection of the urban functional layout, highlighting the vitality characteristics of urban functions(Xinyun and Ruhai, 2024).

Supported by the big data, this study takes Shanghai Hongqiao Railway Station as a case to deeply explore the issue of insufficient vitality in railway hubs and their surrounding spaces from the aspect of functional distribution and actual use. Initially, the study will obtain OSM data on road networks buildings to construct a space morphology map of Hongqiao Railway Station. Based on POI data, the research will integrate the distribution of functional facilities across six dimensions, namely catering services, shopping services, leisure services, transport services, residential services, and public facilities. This study will combine the kernel density analysis results of the aforementioned data with space morphology maps to conduct a preliminary assessment of the vitality. Subsequently, the study will obtain LBS pedestrian heatmap data for different time periods to reflect the actual usage by both travelers and residents. Through the overlay analysis of LBS pedestrian heatmap and POI data, the study will assess the station-city integration vitality and identify two types of spaces with insufficient vitality: 1. Spaces with adequate facilities but weak pedestrian usage inclination, 2. Spaces with high pedestrian potential but inadequate facilities. For these identified spaces, the study will propose corresponding optimization strategies based on the data analysis results.

This study innovatively employs multi-source data to conduct an in-depth exploration of the insufficient vitality in station hub areas. The spatial optimization strategies offer insights for the design and transformation of station-city spaces. And the process of vitality assessment and issue identification based on multi-source data serve as a methodological reference for future refined designs. With the continuous development of big data technology, the foundational data and research methods of this study need ongoing refinement and optimization in practice, to provide more robust support for station-city integration design.

***Keywords** : Multi-Source Data, Station-City Integration, Railway Hub Area, Vitality Assessment, Issue Identification*

Vitality Assessment And Issue Identification Of Station-City Integration Supported By Multi-Source Data: A Case Study Of Shanghai Hongqiao Railway Station.

Zhiwei Li (College Of Architecture And Urban Planning Tongji University)

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Keywords *: Multi-Source Data, Station-City Integration, Railway Hub Area, Vitality Assessment, Issue Identification*

Critical Urban Infrastructure Within Concept Of Chrono Urbanism

Hazal Ertem (Izmir Institute Of Technology), **Zeynep Elburz** (Izmir Institute Of Technology), **Koray Velibeyoğlu** (Izmir Institute Of Technology)

The process of urbanization's acceleration leads to a multiplicity of consequences, making cities vulnerable to chronic stresses and unpredictable shocks. Global problems, such as climate change and pandemics, are directly and negatively influenced by urbanization, thereby intensifying crises in cities. Nowadays, new solutions and approaches are discussed to find solutions. Among these solutions, the concept of 15-minute cities and critical urban infrastructures have gained prominence.

The 15-minute city proposes the argument that the quality of urban life is inversely proportional to the duration spent on transportation, particularly automobiles, in accordance with chrono-urbanism (Logan et al., 2022). On the other hand, the purpose of this urban planning framework is to establish self-sufficient communities. Therefore, people can access most of necessary goods and services in 15-minute walk or bike distance. Furthermore, critical infrastructures are assets or systems that are "vital" to maintaining the social and economic functions of society (UNISDR, 2017). They include physical structures as well as digital networks, social and green infrastructures. They enhance the welfare and resilience of a city in response to diverse stresses and shocks. According to Steele et al. (2017), the criticality of infrastructure is determined by the essential connections between critical infrastructure and the equity and integrity of human and environmental systems in the context of urbanization.

The main objective of this research is to assess the accessibility of critical infrastructure in İzmir and determine the equity in the distribution of particular critical services throughout the city and perception of people to the concept. Reaching critical services is vital during a crisis or ensuring citizens' quality of life. The study examines the conceptualization and operation of critical urban infrastructure in the context of 15-minute cities, and whether critical infrastructures were accessible in 15 minutes by walk and bike. İzmir is characterized by several strategies and policies aimed at sustainable development, resilience, and ecological approaches, which make the city unique. Therefore, case area is determined as Karşıyaka district in İzmir. Karşıyaka is one of the dense urban areas in the city. The study has two phases. Firstly, spatial network analysis is conducted to figure out distribution of critical infrastructures. Among critical infrastructure sectors, transportation and green infrastructures are selected to analysis because the core idea of 15-minute city is based on accessibility to essential services. The distribution of transportation and green infrastructures in 15-minute perimeters in Karşıyaka district will be analyzed. In the scope of this, public transportation stops, and green areas are evaluated in detail. The perimeters will be produced by network analysis, and as a visualization tool GIS software will be used. Secondly, a survey study will be conducted in a selected neighborhood in Karşıyaka to figure out perception of citizens to the idea of accessibility of critical infrastructures within 15-minute walk and bike distance. The neighborhood will be selected according to results of spatial analysis. İzmir does not have an official 15-minute city concept implementation. Therefore, it is important to figure out people's perceptions to the concept.

As a result, combining site surveys and GIS based network analysis provide a comprehensive understanding of critical infrastructure aligned with 15-minute city. Therefore, the findings can contribute to urban development in terms of resilient, accessible, sustainable cities and community well-being. The study aims to contribute urban planners and policymakers.

***Keywords** : critical infrastructure, 15-Minute Cities, chrono-urbanism, spatial analysis*

Public Green Zones As New Climate-Resistant Public Spaces In The City: Case Of Izmir

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Urban green space implementations are on the rise, particularly in densely populated urban cores, as a response to the challenges posed by rapid urbanization and climate change. The potential benefits of these green spaces for cities and their inhabitants have become key issues in urban planning. Botkin and Beveridge (1997) emphasise the role of green spaces for improving quality of life and promoting biological conservation in urban environments, while Gómez et al. (2001) discusses the optimal sizes of green zones to improve local climatic conditions. Sandstro¨m (2002) underscores the importance of green spaces in realizing the implementation of nature-based solutions and green infrastructures. Although studies demonstrating how the use of urban green spaces mitigates the urban heat island effect and other climate related risks are regularly covered in the literature, there is a need for more research focusing on the design processes for public green zones in densely populated urban areas.

To combat the heat island effect and address water impermeability in Izmir, as a waterfront district located in the Mediterranean basin, this study concentrates on guiding principles of a public green zone by utilizing GIS-based methodology, integrating urban greening into a climate-resistant urban planning approach. For this, the study delves into the existing literature on urban green spaces, discusses the processes involved in public green zone design, and outlines the development of an innovative GIS-based approach for identifying and implementing public green zones at the heart of urban areas. The synthesis of data to identify urban public green zones encompasses factors such as green open spaces, existing urban vegetation, temperature, precipitation, wind data, transportation networks, and public mobility data, along with urban land use. These data sets are combined using GIS software to define public green zones. In conclusion, this article aims to explain the underlying ideas for public green zones, to describe feasibility of such novel ideas in densely populated urban areas. By integrating climatic and physical data, this study aims to contribute to the existing urban planning and design literature by developing a methodological framework for the identification and design principles of public green zones.

Keywords : Urban Green Spaces, Public Green Zones, Climate-resistant places, GIS-based methodology, Izmir

"Axes" In São Paulo, Brasil: Travelling Ideas And New Urban Design Methods In An Incomplete Incorporation Of Transit Oriented Developments (Dots) Agenda

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The year was 2013, the context was June's Journeys, a movement triggered by the increase in transport fares that stopped São Paulo city, in Brazil, pushing for better travel conditions and public transport services. The relationship between urban planning and mobility gained the political scene and was materialized with the strategy of concentrating densification – constructive and, in theory, of population – along high-capacity public transport infrastructures — subways, trains and bus lanes —, creating the "axes" of the Strategic Master Plan for São Paulo City in 2014, which became zones in 2016.

But what was the conceptual and theoretical origin of the idea of "axes"? The proposal to densify where there is transport isn't new, it could be noticed in the last three regulatory sets – 1971/1972, 2002/2004 and 2014/2016. But is there an "evolution" of this debate reflected in the "axes" proposal?

The hypothesis was that "axes" inspiration came from the concept of Transit Oriented Development (DOT), disseminated through manuals from international organizations in Latin America. But a bibliometric analysis of scientific articles and international manuals, in addition to interviews with the creators of the "axes", denied the initial hypothesis.

The conception of the axes seems to result from a mixture of: (i) experiences of managers, who participated in previous public administrations that tested some models – such as the "Curitiba model" or other bus rapid transit (BRTs) initiatives; (ii) institutional changes, which united urban and mobility planning in the same institution; and (iii) of new methods for urban proposals, such as economic-legal-financial modeling. The urban regulation in previous decades oscillated between zones and local planes, and "axes" are zoning, which ended up not incorporating urban design guidelines, or improving active mobility, nor the climate change agenda and the reduction in transport pollution, in an incomplete incorporation of DOTs agenda.

Keywords : Transit Oriented Development, urban planning, zoning, urban design

Landscape Of Ethnic Economy: The Turkish Kebab Restaurants In Milano

Selale Balambar (Mrs)

The ethnic/cultural landscape embodies the visible cultural traits of ethnic groups, encompassing both tangible and intangible aspects such as architectural styles and the names of places, streets, and towns. It is through the contributions of ethnic groups that the cultural landscape emerges, serving as a medium for social expression of symbols, icons, and metaphors, as described by McDowell (1994). The landscape assumes significance as a platform for ethnic and local groups to exercise power within the socio-cultural and political spheres (Mills, 2010). In the context of ethnic businesses often choose to sell existing products due to the familiarity and acceptance of these products in the market. This leads many ethnic businesses to follow and replicate economic processes established by earlier waves of immigrants (Waldinger, Aldrich, & Ward, 1990). Ethnic groups tend to strategically establish and control specific zones within cities, employing spatial strategies such as the establishment of restaurants. With changing patterns of immigration, the landscape undergoes transformations influenced by socio-cultural factors.

Although the rate of Turkish immigrants in Italy is very low (0.03%), the impact of the kebab sector run by Turkish immigrants is significant for Italian society. Kebab shops became an integral part of Turkish immigrants' relations with Italians and of Turkish identities in Italy. Through these fast-food shops, Turkish immigrants have developed a group identity and social groups among themselves. Besides these, these shops have a symbolic function to integrate and communicate with Italian society. In a similar way, the kebab economy is on the road to becoming a part of local heritage in Italy. To become a part of the mainstream national food heritage, openness to change in the market is important (Sirkeci, 2016, p. 153).

Turkish kebab restaurants are an example of ethnic representation. The focus of my research is to delve into the landscape of the ethnic economy through an exploration of Turkish kebab restaurants in Milano. The self-identification by ethnic restaurants' impact on the Italian multi-ethnic landscape will be evaluated. By doing so, I aim to analyze the distinctive features that contribute to the Turkish kebab restaurants' role within the broader landscape. Additionally, I seek to understand how Turkish identity is constructed within these ethnic businesses. Turkish restaurants' visual language enables us to analyze the significance of Turkish kebab restaurants' concept in determining the image of the restaurants in Milano society. The foundation of my research is based on personal observations made within these ethnic restaurants and interviews conducted with self-employed and employees of Turkish kebab restaurants in Milano.

Spatial Agglomeration And Evolution Trend Of Emerging Industries In Metropolises: Spatial Response Mechanism Of Re-Industrialization Under Policy Guidance In China

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After the post-industrial development, more and more metropolises gradually enter the phase of re-industrialization in many countries. In order to promote industrial upgrading in megacities, the implement of innovation and entrepreneurship policies that encompass not only fiscal, financial, and industrial tools but also supportive land and space policies are positive response countermeasures in China. This study tries to reveal the spatial and temporal differentiation characteristic of the agglomeration and distribution of strategic emerging industries in metropolis of Shanghai, uncovering the policy driving mechanism behind these disparities additionally. Initially, we acquire data on industrial and commercial registration information as well as geographical details such as location and area scale of strategic emerging industry enterprises in Shanghai from 2014 to 2023 based on the National Industrial Directory through official channels. Meanwhile, the development process of emerging industries in the process of reindustrialization is divided into stages combining with the industrial policies. Subsequently, this study conducts quantitative analysis along with spatial analysis and trend evolution analysis to reveal the spatial distribution patterns and surrounding environmental factors associated with various emerging industries at different stages, by employing GIS software platforms alongside other analytical tools. Furthermore, this paper summarizes the location choice preference, spatial demand characteristics of strategic emerging industry enterprises across different sectors while considering their range of spatial influence, through on-site questionnaires and interviews which aims at understanding their specific enterprise needs as well as those of their employees. Finally, based on the identification of the functional influence area, this paper proposes the spatial model known as "industrial community", such as TBC model including technology, business, culture elements on line with the development trajectory of emerging industries. The results shows that a ring-shaped cluster of emerging industries enterprises is gradually occurs linking the north and the south peri-urban area of Shanghai, such as Songjiang, Minhang, Fengxian and Pudong Districts. Meanwhile, the strategic emerging industries accumulating in inner-city are quite different from the peripheral areas, and they are more closely connected with the urban high-end service industry, such as in Huangpu, Jing'an and Hongqiao business districts. This paper points out that the spatial re-embedding of strategic emerging industries in the metropolitan area of Shanghai is conducive to the reshaping of economic vitality, the diversification of functions and the social-culture composition. The industrial communities with multifaceted functions are a catalyst for urban economic and social revival. This study provides a valuable reference for industrial spatial planning in the context of transformation of urban development.

Keywords : Strategic Emerging Industry, Spatial Distribution, Spatial Effects, Industrial Community, Shanghai Metropolis

Integrated Community Facilities Programming Based On Multi-Agent Participation——A Case Study In Shanghai, China

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Shanghai is the most aging city in China, where the degree of aging in the central area is over 40%. To help the elderly aging in community while providing services to residents of other ages, Shanghai has embedded several integrated facilities in communities through the renovation of existing buildings. These facilities are mainly funded and built by the government and are co-run by the authorities, social organizations, investors, and residents. The communities are responsible for the management, and services such as health care and processing are vertically managed by their authorities. Services such as canteens and daycare are authorized by professional social organizations or enterprises with qualifications for operation and responsibility for their profits and losses. The government evaluates the operation effect and establishes an incentive and withdrawal mechanism. Some retired residents also participate as volunteers in the management of the facility.

To find effective balances of divergent positions and interests, the investigation invited multiple participants in the programming including the government, experts, stakeholders (including investors, facility staff, volunteers, residents, etc.), and the public which were selected based on the principles of information, responsibility, and influence according to group decision theory. The programming was conducted with the questionnaire and was quantified with the group decision method, where the opinions of different participants are weighted by their involvement and importance.

The results show a divergence of opinion among the different participants. Most participants especially experts believed that elderly care services should be integrated with other services, while facility staff with the lowest assessment, which shows the divergent positions between managers and designers. Regarding the planning of the location, the weighted results showed that accessibility and environment are the most important factors. At the same time, the street pedestrian amount is the least important factor on which investors had the highest assessment, and distance and walkability are the most important factors for residents considering they are the main users of the facility. The highest needs of the service are for daily medical services, health care, leisure, and recreation. Yet, there is a divergence: the government assessed the most necessary services as are public affairs offices and community kitchens on which residents had the highest evaluation. In contrast, the public had the lowest, considering that the majority of the resident participants are the elderly while the public participants are 18-44 years old. Regarding the surrounding environment, the weighted results showed that outdoor space and greenery are most necessary, while the government assessed parking as most necessary which is the least necessary with residents' and experts' assessment.

Due to the differences in social attributes, social positions, and self-consciousness, there are objective divergences in the needs and preferences of different participants, which cannot be ignored in planning. Traditional programming is led by experts or the government, which makes it difficult to comprehensively collect the opinions of other groups, and traditional public participation focuses more on the process of participation which also has shortcomings of opinion quantification. With the participation of multiple agents and group decision methods, the divergences can be measured, an effective balance is possible to realize for further planning of the facilities.

Keywords : *Group decision, Multi-agent participation, Community facilities*

Machine Learning-Based Analysis For Predicting Urban Waterlogging And Decoupling Risk Composition In High-Density Urban Settings: A Case Study Of Shenzhen , China

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The intensification of extreme meteorological events coupled with rapid urbanization has precipitated acute urban flooding challenges. This underscores the critical need for accurate prediction of urban waterlogging risks and a thorough understanding of their causal factors, particularly in high-density urban settings, to avert flooding disasters. Traditional methodologies have been constrained by the spatial diversity and complex dynamics inherent in urban flooding, leading to imprecise predictions of waterlogging scenarios. Based on a multivariate data-driven approach, machine learning methods can be used to accurately predict urban waterlogging and analyzing the influencing factors. A multi-factor database consisting of hydro-meteorological, urban surfaces, building configurations, and inundation depths was established initially in this study. Four machine learning algorithms (LightGBM, RF, SVR, and BPDNN) were compared for predicting the risk levels of urban flooding in Shenzhen under various design storms. LightGBM was identified as the most effective, owing to its superior predictive accuracy and robustness. A distinctive element of our analysis involved employing the Shapley additive explanations for a decoupling analysis to elucidate the specific relationships between individual risk factors and flooding events. We discovered that severe flooding predominantly impacts older metropolitan regions during extreme storm events (i.e., greater than a 20y return period) or long-duration rainfall (i.e., exceeds 12h duration). It has prominent coercive effects on urban flooding when precipitation and duration exceed 125mm and 55h, respectively. Key determinants of flood risk included the Percentage of Impervious Surface (PIS), Building Congestion Degree (BCD), and Density of Buildings (DB), with regional flood exposure escalating significantly when these factors exceed thresholds of 15%, 0.08 and 15 n/ha, respectively. We recommend the adoption of adaptation strategies, including low-impact development practices and nature-based solutions, particularly in high-density urban settings, to enhance their resilience to flooding. This research not only introduced innovative methods for predicting urban waterlogging but also illuminated the influential determinants and their mechanisms within the built environment, thereby making a substantial contribution to bolstering resilience in high-density urban settings.

Keywords : Urban waterlogging, Machine learning, Building configuration, Risk assessment, Climate change

Evaluating Urban Biodiversity: Unraveling The Ecological Impact Of Historic Centers

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Historic centers play a crucial role in shaping the identity and well-being of their inhabitants. While scholarly attention has traditionally focused on the conservation of the built environment within these centers, recent years have witnessed a growing emphasis on assessing the environmental aspects of these areas. This shift is prompted by the escalating challenges posed by rapid population growth, urban development, and the overarching climate crisis. Notably, the ecological dimensions of historic centers, including issues related to ecosystem services and biodiversity, have come under scrutiny.

This article delves into the intricate relationship between the built environment and avian biodiversity in two case studies conducted in Castellón de la Plana, Spain. Employing a systematic four-phase approach, the study first conducts a comprehensive literature review to select relevant biodiversity indicators. Subsequently, open data analysis and integration into Geographic Information System (GIS) software form the second phase. The third phase involves on-site data collection and the mapping of biodiversity indicators, while the fourth phase encompasses the generation of thematic maps to visualize behavioral patterns linking bird colonies with the morphological aspects of the built environment.

The study demonstrates that the relationship between birds and building characteristics varies depending on the location. The associations in the historic center differ from those observed in the Grao neighborhood, possibly due to the distribution of green areas, the size of urban cores, or socio-spatial dynamics. Fieldwork data confirms clear nesting requirements for birds like swifts and sparrows, which need cavities and crevices, predominantly found in older buildings. This observation aligns with findings in Indonesia, where swifts breed in specific structures with thick walls and small openings, providing a cooler environment inside.

Despite these valuable findings, it is important to acknowledge certain limitations in the study methodology. The use of the line transect method, while insightful, is constrained by potential structural biases inherent to the distinctive nature of the assessed districts. Acknowledging these limitations, this study contributes essential knowledge to the intricate interplay between historic urban structures and avian biodiversity, paving the way for informed interventions aimed at enhancing ecological sustainability within historic centers.

Keywords : urban habitats, avian biodiversity, green heritage

Renewing The City Towards A Linear Attractors Frame. Four Cases In Iraq.

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Iraq hosts some of the oldest continuously inhabited cities in the world. This territory has been recently subjected to large-scale destructions that fully display the complexity involved in the reconstruction of large contemporary metropolises. This urgency must necessarily deal with Climate Change issues, proposing series of challenges to be faced with multiple strategies tailored on the specific needs of each city. The article aims to propose a replicable planning approach, based on a modelling strategy capable of adapting to different needs from time to time, allowing local administration to implement the plan independently. The strategy proposed is also progressive, allowing the cities transformation masterplan to be developed in stages through an evolutionary model, and tailored to each city, taking into account its specific needs and characteristics. This approach will operate through the application of three main tools that have a specific role within the overall strategy: the settlement block, the matrix, and the indicators. Firstly, the settlement block as a tool is related to a very common feature that characterises most urban areas, a settlement scheme formed by recognisable blocks. For this reason, the scale of the urban block should be taken as a starting point for the development of the transformation strategy. The main goals of a strategy based on a settlement block concerns the relation between public and private spaces, between open and build spaces and their possible evolution. A recurring size of blocks allows us to think of a limited number of repeatable solutions that can be combined with each other to meet, whenever, different needs. This possibility is strongly related to the second tool, a matrix that combines the most common urban types with the main linear elements. The urban types selected are: the historical core, industrial areas and new residential areas (low density and high density). These sites are related to a number of rules proposed with the plan, that involved a maximum of construction for the total volume of the lot, to guarantee a variety and complexity of forms, a minimum of surface that must be designed as green space, and a minimum of cyclo-pedestrian street in the neighbourhood. The linear elements selected are: commercial axes, main roads and rivers. These elements are, as the sites, related to a number of rules that must be applied, that concern, for example, a percentage of ground floor commercial use, a maximum for the width of the streets and a minimum of public green spaces related to the linear element. The combination of these rules brings, as a result, the design of an abacus of solution. At the end, the expected impact will be expressed with measurable and verifiable indicators assessing the environmental, social, economical and policy development. This proposed approach has taken as test sites four cities in the northern part of Iraq, seeking to conceive and foster positive transformations within urban areas and, at the same time, to react to the impacts of Climate Change. Concluding, the article aims to put forward a possible scenario for a resilient and climate-responsive urban environments that can thrive amidst the evolving climate conditions and ensure the well-being of the communities inhabiting the Iraq's urban landscape.

Keywords *: climate change adaptation, settlement scheme, climate justice , resilience*

Optimization Of Pedestrian Systems In Tod Station Areas In High-Density Built Environments-A Case Study Of Shanghai, China

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The emergence of Transit-Oriented Development (TOD) models in the context of high-density urban environments, a predominant characteristic of urban development in China, has accelerated the dense development of surrounding land. However, this has exacerbated environmental quality issues, including mismatches between accessibility and functional organization, disorganized pedestrian flow, and irrational traffic arrangements. Consequently, optimizing the pedestrian system environment has become a primary necessity in design practices, necessitating a more human-centered and quality-focused approach in TOD development. While extensive research exists on station area spaces, both domestically and internationally, with a focus on land development patterns, traffic interchanges, and commercial spatial elements, most studies tend to quantitatively analyze single-scenario sectional elements. There is a relative scarcity of research from the perspective of human-centric perception and the quality of public space experience.

Addressing these concerns, this study focuses on optimizing the pedestrian system of station area spaces from a human-centric viewpoint, examining the influence of elements in multiple scenarios and cross-section combinations. The pedestrian system of the station area refers to the different scenarios pedestrians encounter while walking from a starting point to a metro station entrance. Initially, the study deconstructs and categorizes elements, selecting eight indicators with the greatest impact on pedestrian path selection in urban design for analysis – crossing time, walking duration, number of intersections, street interface characteristics, Streetscape greenery, sidewalk width, overpasses, and underpasses. These were chosen through a combination of case studies and literature review, balancing theoretical research with practical conditions. In real life, there are only four combinations of paths leading to subway stations: street only, street with overpass, street with underground passage, and street with both overpass and underground passage. These eight elements are assigned to the four types of path combinations, and orthogonal design is used to select representative experimental combination scenarios. Subsequently, representative and visually consistent element illustrations are created using hand-drawing and Photoshop, based on actual, representative spaces. These serve as the basis for a visualized SP questionnaire. The questionnaire compares scenarios between the four combinations using tools like tablets for data collection and analysis. Finally, a discrete choice model is used to compare the weights. Based on Nlogit5, the weights of the influencing factors are calculated. This allows for the quantification of the impact of characteristic elements in urban design on user experience, using both the weights and a visual scale. It is expected to measure the user experience under different combinations of conditions and provide a subjective perspective for urban design and planning.

This study takes Shanghai, China as an example to explore the impact of high-quality pedestrian path elements on the user experience within the TOD station area. It quantifies the weight of these elements and forms a toolbox for urban design. This research addresses subjective perception issues that designers find difficult to answer based on experience in urban design and planning. Utilizing a visual SP questionnaire, which is universally applicable, the questionnaire presents multiple scene combinations with clear differences in elements. The visualization of the questionnaire facilitates research and communication across countries and cultures. By selecting common and distinctive elements based on the actual conditions of different countries, it quantitatively compares the weight of different elements in the station area pedestrian systems of China and European countries. This study provides an effective approach for evaluating and improving the quality of urban planning, emphasizing high-quality, user-friendly, and refined urban design. Furthermore, this research framework is applicable universally and can be quickly applied to the fine-grained quantification, assessment, and analysis of various urban planning projects.

Keywords *: Visualized SP Questionnaire, Urban Planning Quality Assessment, Transit-Oriented Development, Pedestrian System Optimization*

Dynamic Visual Assessment Of Urban Streetscapes: Hengshan Street In Shanghai As A Case Study

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Objectives: By investigating the relationship between the urban street environment and human perception under "dynamic" walking situations, this study seeks to improve the urban street landscape and maximize the walking experience for the public. Using a combination of qualitative and quantitative research methods, a dynamic visual assessment system with subjective, objective, and interactive components is created. In order to examine the dynamic visual perception mechanism, system is quantified by using scientific and professional techniques.

Methods: Based on previous research on the subjective and objective evaluation of urban streets, a dynamic landscape visual objective evaluation system is chosen and built, including spatial elements (sky view factor, architectural visual proportion, green view index), spatial configuration (mean horizontal visual depth), and spatial vision (color richness). The following are the definitions of subjective indicators: clarity (vague-clear), transparency (enclosed-open), richness (monotonous-rich), and relaxation (suppressed-relaxed). Based on the subject-object interaction principle, dynamic visual subjective and objective evaluation indicators have been developed, including dynamic viewing frequency, landscape preference offset degree, and spatial vitality index. Data on surface elevation, building elevation, and road elevation are gathered from open-source platform OpenStreetMap and the geographic spatial data cloud, with an emphasis on Shanghai's Hengshan Road. In addition, 80 example photos are taken using fixed-point photography on the spot. The green view index, building area percentage, and sky area proportion of the sample sites are computed using image semantic segmentation algorithms. The mean horizontal visual depth is calculated using GIS spatial analysis. Color richness is calculated by analyzing the RGB values of the image colors using Colorimpact software. Subjective assessment indicators of the sample points are computed on the basis of these results and the subject-object linear regression equations that are currently available. In order to ascertain dynamic viewing frequency based on 40 sets of two-step path trajectory data, landscape preference offset degree based on 21 two-step path positioning photographs, and spatial vitality index based on 26 Baidu heatmap data, the study also employs GIS overlay analysis and inductive statistics methods.

Results: The study examines correlation between the dynamic visual perception mechanism and visual assessment system using the Partial Least Squares Regression in SPSS. Moreover, a scatter plot in three dimensions is created. According to the study, "dynamic viewing" behavior influences how people perceive their surroundings while they are in cities significantly. Reduced desire for space and pedestrian flow are caused by a decrease in dynamic viewing frequency. The public's impression of street space is enhanced in terms of clarity, transparency, ease of use, and richness when there is a greater range of spatial hues within the field of view, a smaller building area, and more translucent and clear spaces.

Conclusion: These results emphasize the significance of subject-object interaction, or "dynamic viewing" behavior indicators, in enhancing street scene perception and visual quality. Planning and designing urban streetscapes should focus on elements including viewing frequency, viewing preferences, and spatial vitality in dynamic visual environments.

The Definition Of Ecosystem Vulnerabilities For The Design Of The Contemporary City: The Case Of Varese

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In recent years, the mapping and assessment of Ecosystem Services (ES) have become relevant for ecological-environmental analysis, playing a pivotal role in shaping the development of green and blue infrastructure strategies integrated into urban planning and Strategic Environmental Assessment (SEA) processes (Albert et al., 2014). This paradigm shift is geared towards enhancing the decision-making process by incorporating a comprehensive understanding of the intricate biophysical value of ES and their support for human well-being and health. The research proposal is embedded within the framework of the scientific activities carried out by the Department of Architecture and Urban Studies (DAStU), which is related to the revision of the Municipality of Varese's General Territorial Plan (PGT). The core objective of the proposed research is to define a robust framework for urban interpretation and territorial analysis that actively supports transformative processes and regeneration opportunities. At the heart of this endeavour lies adopting an ES-based approach to designing contemporary cities by recognising vulnerabilities. ES provision is fundamental for setting ecologically oriented strategies to increase the city's resilience. Within this comprehensive framework, the research develops an in-depth analysis dedicated to identifying the performance of the city to cope with climate change effects and investigating its vulnerability to intense rain phenomena (Rosenzweig et al., 2019).

The analysis was developed considering the combination of three different mapping, i.e., i) the annual stormwater management, which allows to evaluate the degree of retention of the surface flow of rainwater; ii) the capacity to avoid soil erosion, considering that it can have severe consequences for the environment, agricultural productivity, and slope stability, particularly in morphologically complex contexts such as those Varese; iii) and the surface run-off that occurs when excess water can no longer sufficiently rapidly infiltrate in the soil.

The combination of these three analyses defines the vulnerability degree of the city to extreme weather events, which helps deploy a resilient green and blue infrastructure (GBI) strategy that is aware of the critical territorial issues that need specific attention in the activation of the urban regeneration process and for the definition of Nature-Based Solutions (NBS) intervention (Matthews et al., 2015).

In the case of Varese, the vulnerability analysis allows the selection of site-specific and tailored NBS adequate to mitigate the effects of extreme weather events (Watkin et al., 2019), identifying the more effective typology of NBS to achieve excellent results concerning the critical issues encountered.

The activation of urban regeneration processes, as well as new urban transformations, must encompass these analyses functional for the design of the contemporary city and, especially, of public spaces that cater to the evolving needs of urban communities and the promotion of ES provision for enhancing the quality of life and well-being conditions.

The research illustrates the efficacy of an adaptive urban planning strategy for climate change, deeply rooted in an 'ecologically oriented' approach. The case study of Varese was an opportunity to practically explore, promote and implement innovative urban transformation and regeneration strategies precisely tailored to respond to specific vulnerabilities and current environmental challenges. The integration of research findings within the broader context of urban planning enriches our understanding of the intricate relationship between ES, climate change effects and urban planning, aligning the research with global efforts to create resilient, ecologically conscious cities that prioritise the well-being of both inhabitants and the natural environment.

Keywords : *Extreme weather events, Urban Planning, Nature-based Solutions, Resilience, Green and blue infrastructures*

Sensing An Indigenous Culture In City: Abdals Of Kırşehir (Türkiye)

Albeniz Tugce Ezme Gurlek (Ahi Evran University)

Kirsehir in the Middle Anatolian part of Turkey is known as a representative of "Bozlak Music." The city can be seen as a music hub with countless Abdal musicians who lived in the past and are alive today. The term of "Abdal" refers to a unique group of local folk musicians in Middle Anatolia. They are one of the most significant communities in terms of Anatolian Musical Heritage. Not only their unique music style but also their distinctive lifestyles, special social relations, religious views, cultural values and ideas created in their spiritual realms are the main sources of their authentic art and vernacular lifestyle. They have a unique way of passing the music knowledge; it is inherited from grandfathers to fathers and father to son, master to apprentice without any formal education or musical note. The most known representative of this music culture is Neset Ertas. He was designated as a Living Human Treasure by UNESCO National Committee in 2008, accepted as a genius of art with his products and reed-vocal techniques. He was born in Kirsehir and grown up in Bagbasi Neigboorhood where Abdals mostly live, learned local music called bozlak from his father, Muharrem Ertas who was one of the creators of bozlak music in Turkey. In Kırşehir, bozlak music is well adapted to social life and public space. It can be seen in most of the social activities such as dinner gatherings, wedding ceremonies, national and international events. Also you feel this music style and Abdal culture in many public space in the city. In light of all this information, Kırşehir was entitled to become a UNESCO City of Music in 2019, and then Abdal culture became more sensible in the public spaces.

This study aims to present a map where people can sense the Bozlak music style and Abdal culture in the city of Kirsehir. Beyond this, it is also discusses what should be the position of an indigenous culture in a city' public spaces based on the Abdals in Kırşehir and how this culture should be protected by making it visible in public space.

Keywords : UNECO Cities of Music, Bozlak Music Genre, Kırşehir, Abdals, Public Space

Socio-Environmental Inequalities And Socio-Spatial Fragmentation In São Paulo Metropolitan Area, Brazil

Gustavo Nagib (São Paulo State University (Unesp), Grant #2022/08290-7, São Paulo Research Foundation (Fapesp))

In the wake of the socio-environmental challenges of the Anthropocene (Lussault, 2022; Paddeu, 2021) and the disruptions in the core-periphery logic of production of the cities (Chetry, 2013), one sees the privatization of green areas (Ernwein, 2015) and the proliferation of enclosed and segmented housing, leisure and consumer spaces (Navez-Bouchanine, 2002; Salgueiro, 2001), signaling the emergence of the current fragmentary socio-spatial logic (Sposito, Sposito, 2020).

In this sense, our aim is to analyze day-to-day practices indicative of the relation between the socio-environmental inequalities (Chancel, 2020) and the process of socio-spatial fragmentation in the São Paulo Metropolitan Area – RMSP (Nagib, 2023), setting out from the hypothesis that this relation interferes with a) the access and frequency of visits to green urban areas as well as their spatial distribution; b) the involvement of the city residents in ecological activities and their access to unprocessed and organic food. To this end, the assessment relies on the combined findings of ongoing research on the socio-spatial fragmentation in RMSP, with systematic observations made in central and peripheral districts and more than sixty interviews conducted with residents of various age and income groups, in different habitats, and data from the author's PhD work (Nagib, 2020).

Preliminary indicative highlights include: a) visitation of the green urban areas is contingent on their proximity to residents' homes, the relationship between time and cost of transportation to reach them, and residents' personal interest in being closer to nature; b) the distribution of green areas is spatially unequal and the intraurban landscape of low-income districts tends to be more arid as a result of higher parceling of land allotted for housing developments; c) privatization and real estate value appreciation in different kinds of green urban areas are on the rise; d) involvement in ecological activities requires available free time; e) ecological activities, such as community gardens, are associated with environmental awareness, the formation of local collectives or institutional support; f) access to unprocessed and organic food tends to be a privilege of medium- and high-income classes, even if the larger areas dedicated to agroecological production are located in peripheral districts.

Keywords *: Socio-environmental inequalities, socio-spatial fragmentation, green urban areas, ecological activities, unprocessed and organic food, São Paulo*

Women's Participation In The Context Of Urban Renewal In China: A Case Study Of Yulin Community In Chengdu

Hongyu Liu

As one of the main concerns of global urban studies, participatory planning plays a crucial role in the development of urban diversification and equity. More and more scholars have paid attention to the interaction of the government, community, residents and other stakeholders in the process of urban renewal, as well as the significance of participatory planning for the sustainable development of cities (Tan and Altrock, 2016, Zhai and Ng, 2013, Zhang and Li, 2016). Strikingly, however, there are few studies on the gender dimensions of participants. In fact, in the urban renewal project launched by the Ministry of Housing and Urban-Rural Development of the People's Republic of China in Yulin Community of Chengdu, which I participated in as an urban planner, I observed that women were the major participants in the process. Therefore, this study uses the theory of intersectionality to analyze the three different female groups in this urban renewal project, including professional women, female community workers and female resident activists, so as to fill the research gap of the gender dimension in the participation process. The diverse rights, knowledge, ethics and other backgrounds held by different female groups led to complex participation motivations, processes and outcomes. The results show that professional women in the working group were oppressed by gender inequality in the workplace and had no choice but to participate, while others were more actively involved in various activities organized by the working group in response to social moral norms and gained the spatial power they deserved. While female participation strives for spatial power for women, achieves spatial empowerment and gender-equal urban development, it also has certain limitations. In the context of China's "top-down" planning model, the impact of public participation is always limited, even partly reinforcing the stereotype of gender roles. Therefore, in order to realize real gender-equal urban renewal, it is necessary to change the unequal workplace power structure and social structure dominated by men, and increase the influence of public participation. Through critical reflection on female participation in the urban renewal practice in Yulin, this study is not only a conscious and purposeful questioning of the male-dominated planning industry and participatory planning, but also provides a gender perspective reference for the sustainable and equitable development of cities.

Keywords : urban renewal, women's participation, intersectionality, feminism, power relation

Achieving Proximity In Public Space: Inclusion, Flexibility And Accessibility

Marichela Sepe (Dicea-Sapienza Università Di Roma)

The city of proximity can be defined as a city able to offer to all its inhabitants everything they need to live, work and have fun to be reached on foot or bike in no more than 20 minutes.

Proximity - as Jane Jacobs (1961) states - allows people to exchange knowledge, ideas, ways of thinking to generate diversity. It is necessary to create the right conditions to make a place accessible to everyone as each place is different from the other; the diversity of the city is also based on the fact that so many people with different tastes, needs and abilities are close to each other. The conditions for diversity are: the different parts of a district must perform more than one primary function and must ensure the presence of people with different hours who can use many facilities in common; roads need to be well connected to each other in order to generate interest and further uses; the district must provide services, activities and goods with a different range of prices, especially accessible; there must be a dense concentration of people who are in that place for different purposes. The combination of these conditions results in vibrant districts and cities with - at the same time - good economic effects.

In continuity with these ideas, 15-minutes city (Moreno, 2021), 20-minutes and so on arisen to offer more and new possibilities of use within the same place: a cinema can become a laboratory of ideas in the morning or a nightclub can act as a gym in the afternoon. Residents must have ease of access to goods and services, each neighbourhood must have a variety of housing types in terms of size and accessibility levels, including economic ones, and be close to the workplace. To achieve proximity, city plans, regulations and zoning need to be updated to ensure public services, infrastructures and public spaces accessible to all, as well as schools, small health facilities and retail including fresh product shops and pharmacies (Moreno 2020).

An important factor is that the city of proximity has to be created with the support of a wide process of participation with the actors involved and interested in its realization.

Starting from these premises, this study - carried out in the framework of the research project PRIN 2020 SUMMA #20209F3A37, within the ISMed-CNR Unit (with the author's responsibility) and the relative agreement between Sapienza Università di Roma and ISMed-CNR, that has among the objects to create guide lines for resilient, healthy and flexible places, – aims to present the process of participation for the regeneration of the former fair of Rome realized in the framework of the 2022-23 Urban Planning Course at DICEA Sapienza University of Rome by the author of this study and her students with the associations of citizens of that area using the world-cafè method and the Charter of the Proximity.

Four tables of discussion were carried out, namely: uses of built environment, users of the area, public spaces and mobility in relation to potentialities, criticalities, projects in development and observations.

As a result, the author has ideated the 21 principles Charter of Proximity, that consists in a tool for design or verify proximity in an area. The Charter is a flexible, inclusive and updatable tool that can be adaptable to any kind of sites to assure a proximity with both equitable accessibility and attention to place identity (Sepe, 2013, 2023).

50th Years Of The Portuguese Experience Of The Saal Housing Program

alexandra saraiva (Dinamia'cet, Iscte-Iul)

This article corresponds to the main objective of the SAAL4ALL research proposal, submitted to FCT, in Portugal. At the same time as we remember and celebrate the 50th anniversary of the Revolution of April 25, 1974, we propose to explore and discuss knowledge and strategies, and once again highlight the importance of Democracy for the future of these communities.

It is expected that the results of SAAL4ALL can help increase knowledge and literacy in four fundamental aspects: Citizenship (social relations); Built Environment (housing and public space); Policies/Practices (participatory actions); Memory.

We intend to investigate by revisiting four SAAL interventions, from a multi and interdisciplinary perspective, in different areas, including architecture, history, sociology, anthropology, among others.The study proposes a new approach to SAAL interventions, analyzing four neighborhoods, located in Portugal in different territories: 1) In Lisbon, the Bairro das Fonsecas e da Calçada, designed by the architect Hestnes Ferreira (1931-2018), a project started in October 1974 and construction in September 1976; 2) In Porto, Bairro da Lapa, by Matos Ferreira (1928-2015) project started in November 1974 and construction in April 1976; 3) Also in Porto, Bairro do Acácio, later called Bairro de Maceda, by Soutinho (1930-2013), started in October 1974 and completed after 1977; and 4) in Sintra, Bairro do Pego Longo, by Costa Cabral (b.1929), project started in August 1975 and construction in August 1977.

We intend to reflect on the fragility of SAAL, in part this process was shorter than proposed: i) consequence of its short useful life; ii) due to obstacles and political opposition encountered throughout the implementation process; iii) due to the limitation of intervention areas: degraded and with precarious housing; iv) due to the inability to establish itself in the new political framework dominated by political parties (Lobato, 2019). SAAL ended up achieving almost exemplary goals, but far short of the response and housing coverage initially intended.

Through a historical, social and cultural approach, the objective of this research is to analyze and illustrate the evolution of participatory architecture in Portugal and its relationship with critical thinking and international practices. Furthermore, the study intends to return to the neighborhoods and propose the participation of inhabitants in solving problems, helping to define a political brief to guarantee the continuity of these communities and their living conditions. The objective is not only to remember and celebrate SAAL's interventions, but also to repeat the strategies of this model to promote a more promising future for these inhabitants, some of them second generation.

What are SAAL interventions like today? How will inhabitants organize their lives and activities? What resources will be needed and how will they be used for housing 50 years later? What are the impacts of the proposals presented in the policy document? Will it be possible to promote participatory interventions, currently and in the future? These are some of the questions to be explored in this research project, chronologically considering 3 times: past, present and future.

Keywords : Participatory architecture; , Housing, Local Support Ambulatory Service (SAAL)

Digital Twin For Governance Of Urban And Landscape Processes. The Case Of Gravine Park.

Giovanna Mangialardi (Politecnico Di Bari), **Valentina Cavallo** (Università Degli Studi Della Basilicata)

Today, the city has undergone considerable changes as a result of technological development, the pandemic, and new human needs, changing the way we observe, experience, and perceive the urban environment. During the pandemic, technology was put at the service of everyone to cope with daily problems and to ensure continuity in necessary activities, such as work and school. In this context, shorter times are required to act and seek the best solutions. In this context, a technological twin city can represent opportunities to overcome critical issues and better manage the complexities of contemporary cities. Urban spaces should not only be smart but should also be increasingly responsive and able to anticipate change (Martino et al., 2010). Citizens become active by contributing functionally to city planning.

The concept of Digital Twin (DT) in the urban and landscape sectors is currently not widely used. The various existing definitions stem from different fields of use that employ the Digital Twin concept. Kaur et al. (2020) define the Urban Digital Twin as "the living model of a physical system that continually adapts to operational changes in the city based on data provided in real time by various IoT sensors and predicts behaviors with the help of machine learning and artificial intelligence" (Barresi, 2023). Although there is no official definition, multiple terminologies that represent its meaning–Digital Twin Smart Cities Model (DTSCM), Digital Twin City (DTC), City Digital Twin (CDT), smart city digital twin (SCDT), and Urban Digital Twin (UDT)) simultaneously increase at the same time entropy and deployment possibilities.

The implementation of the Digital Twin in urban planning is possible through the combination of advanced technologies, such as GIS, BIM, IoT and Big Data. BIM methodology enables the process management of the entire life cycle of urban, infrastructural, and building assets, while GIS provides geospatial data on cities and spatial analysis, and IoT sensors enable real-time data acquisition by broadening the field to the management of the entire city. Large amounts of managed data are defined as Big Data, and they make it possible to manage transformations or even anticipate situations by means of simulations. The concurrence of different technologies enables DT creation.

In this context, this paper aims to show the results of a study focused on the application of DT to Gravine Park. The objective is to establish a program of knowledge, preservation, development and management of protected areas as natural resources under protection, by means of the use of an Urban Digital Twin. DT could be useful as it is a natural area of high extent and with a wide availability of natural and cultural heritage to be administered. In addition, such a system would help promote enjoyment of natural heritage. This model provides for the cooperation of administrators, urban planners, and citizens in the protection and enhancement of these areas. Specifically, the work involved the construction of the model by use means of preliminary cataloguing of the tree species present, the analysis of land by means of georeferenced information systems, and the construction of the BIM model containing the information collected in the different stages. Finally, the model was assumed to be connected to the real by means of sensors located in the Gravine Park. The system is thought to be open to different figures, technical and non-technical. Specifically, data could be entered by planners and other professional figures in the preliminary stages, and then updated in real time by both the management body and the citizen, who becomes both user and sentinel by means of the cell phone, a new gateway for urban sensing.

Keywords : Urban Digital Twin, GIS, BIM, Landascape process

Study On The Evolution Characteristies And Collaborative Governance Strategies Of "Production-Living-Ecological&Quot; Space At County Level In Loess Hills And Gully Areas–Taking Huangling County As An Example

Enze Zhang , **Jiaying Huang**

With China's rapid economic development and continued urbanisation, the contradiction between urban expansion and land resource use has become increasingly prominent. The study site is located in the gully area of the Loess Plateau, where soil erosion is a prominent problem. The acceleration of urbanisation further complicates the spatial contradiction between production, life and ecology. In the context of ecological civilisation construction, it is crucial to study the spatial evolution of production-life-ecology in the county. The study indicates that the production space in Huangling County is fragmented, the living space is inefficient and the ecological space is fragile. Consequently, a comprehensive management strategy to protect the production space, optimise the living space and regulate the ecological space is proposed.

Research On Urban Mobility Space Design Based On Walking Experience

Mengying Tang (Tongji University)

As urbanization accelerates, the question of how urban spaces can meet the basic walking experience needs of citizens is becoming more and more crucial in urban planning and urban design. The design of walkable urban mobility spaces not only enhances the overall image of the city, the quality of life of urban residents and the vitality of neighborhoods, but also promotes the sustainability of the urban environment. This paper studies the spatial elements and design practices of urban mobility spaces from the perspective of walking experience, taking some linear spaces in Shanghai, China, as case studies, and investigates how to optimize urban continuous spaces and improve the walking experience by controlling the spatial elements through design, in order to promote the accessibility, affordability, and sustainability of urban spaces.

The study firstly explains the importance of urban continuity space in improving the quality of urban life, and emphasizes the central role of walking experience in urban space design. Then, it clarifies the reasons for choosing Shanghai as the study object, including its rapid urbanization, complex urban structure, long history and culture, as well as advanced practices in promoting the design of urban mobility spaces.

The study synthesizes relevant theories from Urban Design principles, Environmental Behavior and Morphological Typology to establish a multi-dimensional analysis model. The study adopts a mixed methodology for data collection and analysis, including GIS spatial analysis, field research, and questionnaires with interviews.

Through the above methods, the study researches certain cases of mobility space in Shanghai, and analyzes the spatial elements of urban continuity space, including the connectivity of the path network, the rationality of the functional layout, the attractiveness of the landscape nodes, the humanization of the spatial scale, and the using of social interaction. By analyzing the above spatial elements, the study proposes to establish an evaluation system for urban continuity walking space and a design methodology system.

The article also discusses the main problems and challenges encountered in the design of urban mobility spaces in Shanghai. It is found that although Shanghai has realized a good walking environment in some areas, there are still problems of spatial disconnection, lack of accessibility and insufficient environmental integration in other areas. These problems not only affect people's daily traveling experience, but also limit the potential of social interaction and accessibility of urban space, and weaken the overall coherence and functional diversity of urban space.

To address these challenges, this paper proposes a series of improvement recommendations and strategies. These recommendations cover design approaches such as optimizing pathway network design, enhancing landscape continuity, upgrading humanistic design at the spatial scale, increasing safety measures, and strengthening humanistic and environmentally friendly elements in urban design. In addition, this study emphasizes the importance of community participation in the design of urban continuous spaces and advocates the consideration of residents' needs and suggestions in the planning process.

The study found that urban planners should pay more attention to the walking experience as a core guiding principle of urban design. In addition, by promoting community participation and the establishment of feedback mechanisms, residents' needs and preferences can be better understood to guide the design of urban mobility spaces.

Finally, the study suggests that improving citizens' walking experience by considering and optimizing spatial elements related to the walking experience can significantly enhance the accessibility, affordability, and sustainability of urban spaces, thereby promoting healthier, active, and inclusive urban environments. This study provides an empirical framework on how to optimize the walking experience through the design of spatial elements of the urban mobility, as well as practical insights and strategies for urban planners to improve urban environments.

Keywords *: Mobility Space, Walking Experience, Spatial Elements, Urban Planning, Sustainable Development*

Study Of Planning Incentives For Allocated Public Goods From A Spatial Justice Perspective

Cai Yuxin

The research background of this paper mainly stems from three major issues. First, in terms of public product allocation, there is a large demand for urban public product allocation oriented to 15-minute community living circles, and the traditional allocation method of the government's single construction main body has brought pressure on the supply of public products, so there is a need to guide the market to intervene in the construction of urban public product allocation. Second, as China's urbanisation progresses, urban planning in the period of incremental development is transforming into urban planning with intensive and efficient characteristics in the period of stock development, urban spatial expansion is constrained, and the original land finance model is diminishing. Third, the current incentives for a single means, incentives set unreasonable, too low incentives to suppress the enthusiasm of market players; too high incentives and make the distribution of land value-added income imbalance; at the same time, vague incentives may lead to "rent-seeking problem" occurs, and therefore the need to explore new incentives for the construction of public goods planning.

At present, China has developed a preliminary theoretical exploration of public product supply and incentive system, but has not yet formed a unified "public product", and there is no systematic research on "incentive approach". Therefore, in this paper, we firstly systematically and extensively sort out the practice and theoretical research on the production of public goods at home and abroad, and fully supplement the data base of relevant practice and theoretical research. Secondly, it defines the connotation of "building public goods" and borrows the concepts of "property rights", "transaction costs" and "public choice theory" from the theory of new institutional economics, as well as from the theory of new political economy. The theory of "property rights", "transaction costs" and "public choice theory" in the theory of new institutional economics and "public goods theory" in the theory of new political economy are used as analytical tools to build a theoretical framework for "guiding market players to actively allocate urban public goods" in conjunction with specific practical projects.

Two scientific and technological issues are expected to be studied(1) The connotation of urban "allocation of public goods" is unclear.The most important attribute of urban allotment public products is "publicity", and the definition of public products is not based on property ownership, but on the right of use, access and sense of belonging shared by the public, so it is necessary to study whether "public space with a certain business nature" can be included in "allotment public products". Therefore, it is necessary to study whether "public space with a certain business nature" can be included in the system of "allocated public goods". Secondly, according to "allocation", the scale of public goods supply should be allocated to the land that has been granted the right to use by way of concession according to the demand gap of public goods, and the main body of the allocation should be a non-public investment body. Therefore, this study needs to clarify the specific connotation of the urban "allocation of public goods", and to clarify the list and type of allocation of public goods.(2) Incentive methods are not well definedFrom a macro perspective, incentives mainly include financial, land and policy aspects; from a planning perspective, incentives are mainly embodied in the nature of land use and development intensity. This study needs to define various types of planning incentives based on the theories of new institutional economics and microeconomics to enhance the motivation and efficiency of market players in allotting public products in the context of complex urban renewal.

Keywords *: urban renewal, Incentives for Allocated Public Goods, Spatial Justice, public-private*

Proximity Within Urban Planning. European Approaches

Candida Cuturi (National Research Council-Institute For Studies On The Mediterranean (Cnr-Ismed), Naples)

In the last decade, and following COVID-19 pandemic emergency, a strong focus has re-emerged on the city of proximity, with relative great expectations.
A reorganisation of the urban texture according to the concept of proximity (the "x-minute city") allows residents to carry out basic ordinary activities within a short time period, walking or cycling from their residence: education, work, welfare, shopping, leisure.
In the light of reduced travel time, residents would enjoy a higher quality of life and a renewed time-space relationship, benefiting from extra time and opportunities for physical activity and social interaction.
On the background of activities begun at "Federico II" University of Naples and deepened within a CNR research fellowship (PRIN 2020 20209F3A37 "SUMMA", Marichela Sepe as scientific supervisor), the present proposal focuses on European experiences related to proximity within urban planning, among which Italian cities, stressing peculiarities, similarities and differences.
Polycentric urban space, mixed-use regeneration, efficient public transport system, diverse modal choice, public facilities, green spaces, and stakeholders involvement will be taken into consideration, in order to understand environmental, social and economic impacts.
Finally, the research will explore evaluation methods able to support a better integration of proximity into spatial planning strategies.

Keywords : Healthy City; X-Minute City; Sustainable Mobility; Accessibility; Mixed-Use Regeneration

Accessibility To Sport Facilities In Hong Kong From A Socio-Economic Perspective Based On Gis

Xinyuan Cui (Tianjin University)

Under the background of high mobility, high density, high intensity, and the stock-based development, to meet the needs of a wider range of people, it is important to consider additional aspects of sports facilities. Hong Kong, as a typical region, is unique in the way sports facilities are titled and installed to serve more people in a very small land area. Previous studies have primarily focused on the link between purely spatial elements and accessibility. However, this study incorporates socio-economic elements, such as income levels, as well as incorporate the characteristics of facilities in addition to spatial elements. The aim of this paper is to construct a horizontal and vertical system as well as evaluate accessibility of sports facilities. Besides, the study investigated the correlation between the quality and capacity of sports facilities, the development of the surrounding community, and the accessibility and usage of the facilities. Finally, it would provide a reference point for the construction of sports facilities in the future.

Keywords : accessibility, sport facilities, geographical information system

Stepping Towards A Sustainable Future With Tod: Evaluating The Potential Of The Lahore City For A Regional Policy Reform

AYESHA ANWAR (Harbin Institute Of Technology), **Leng Hong** (Harbin Institute Of Technology)

Today rapid urbanizing world is facing various challenges including, urban sprawl, automobile dependency, congestion, long trip length, social inequality, poor health, and pollution concerns. Transit-Oriented Development (TOD) has earned growing recognition from scholars and professionals to blend the transport industry and development, spatial planning, and urban design for giving all-inclusive answers to current urban issues worldwide. It aims to inspire people to walk, cycle, and use public transit rather than cars, which is accomplished by creating a mixed-use neighborhood near transit hubs with medium to high densities and pedestrian friendly environment. Idea of TOD is similar to 15-minute city concept, aiming to create vibrant and inclusive neighborhoods. Their objective is to address urban planning challenges, so that cities can become more livable, resilient, and environmentally friendly. So, most researches showing practical implementation of TOD are from developed countries like by (Singh et al., 2017; Hamid and Saadi, 2018; Li et al., 2019; Teklemariam and Shen, 2020). While there is little prior experience and evidence to support the applicability of TOD for developing cities who need context-specific strategic action plans.

That is why this study attempts to fill the gap through particular studies about TOD application in Lahore, Pakistan, a developing city in South Asia, majorly suffering from the transport sector and consequent environmental and urban issues. Lahore city is in global spotlights as the "World's most polluted city", battling smog for years(IQAir, 2022). Although, it took its first step toward sustainability by implementing a mass transit system but yet in search of appropriate planning approaches to covert these services into an instrument for the city's urban regeneration. Additionally, the new Master Plan for Lahore Division (MPLD-2050) also proposes transit-oriented development (TOD) principles for major transit corridors, but lacks proactive steps for implementation. In this vein, the aim of this research is to provide a framework for sustainable urban planning and to enhance emerging economies through the effective utilization of transit services (BRT & LRT).

It uses GIS and Spatial Multicriteria Analysis Approach (SMCA) to evaluate the city's potential for TOD application. Which involves the development of 95 transit stations along four transit lines and providing a comprehensive policy to regenerate the urban center. Research findings can assist planners in informing urban or regional level planning, funding, and investment policies for Transit-Oriented Development (TOD).

Keywords : *Transit-Oriented Development (TOD), Sustainable Urban Planning, Developing Cities, South Asia*

Exploiting Gps-Based Travel Behavior Surveys To Determine Who Is Served Poorly By The Transport System

Diana Saadi (Technion - Israel Institute Of Technology), **Karel Martens** (Technion - Israel Institute Of Technology)

This paper presents an approach to use GPS-based travel behavior surveys to determine who is being served well and who is being served poorly by the transport system. We draw on the extensive literature on transport disadvantage, which has shown that travel behavior patterns of disadvantaged population segments differ in multiple dimensions from more advantaged members of society (Currie 2011; Lucas 2012; Murphy, McDonald-Lopez et al. 2022; Pritchard and Martens 2023; Singer and Martens 2023). Drawing on this literature, we defined 13 travel parameters or indicator variables that may highlight relative ease of movement. These include, among others, trip frequency (overall, in evening hours, and in night hours), number of motorized trips, trips made as a car passenger, trip speeds (for all motorized trips and public transport trips only), trip detour ratio, and number of extensively long walking trips (over 2 km). None of these parameters by themselves is sufficient to determine whether someone is served well or poorly by the transport system, as behaviors may be the result of choice as well constraint. However, we argue that jointly the parameters are likely to differentiate well-served from poorly-served people.

We apply our approach to data from four GPS-based travel behavior surveys conducted in Israel's four main metropolitan areas (N = 27,571). We calculate z-scores for all travel parameters, with negative values potentially indicating mobility problems and positive values relative ease of movement compared to the entire sample. We subsequently conduct known-group analysis, comparing mean z-scores across four population segments differing in their level of access to private motorized vehicles (car or motorbike).

For all travel parameters, we find that z-scores systematically increase as access to private motorized vehicles improves. Carless respondents score poorest on all travel parameters on average. Among others, they conduct much more long walking trips, less overall trips and less trips at night, make more trips as a car passenger, and travel at lower speeds when using public transport. In further analysis combining car ownership with age, we find a significant decrease in mobility score at older age for all respondents irrespective of car-ownership level, but with a particularly strong decrease among elderly without access to a car. Combining car ownership level and urban density, we find an improvement in mobility score for all groups as density goes up, suggesting that living at higher density enhances people' ease of movement. Like in the case of age, the effect was strongest for people without access to a motor vehicle, with carless respondents living at the highest urban densities showing mobility scores comparable to respondents who share a car with two or more adults and are living in neighborhoods with substantially lower densities. Regression analysis confirms the importance of car ownership, population density and employment density in explaining mobility scores, along with household size.

Taken together, these findings provide some first evidence that revealed travel behavior patterns can indeed be used to identify population segments poorly served by the transport system. While more research is needed, the approach holds promise to determine the impacts of transport investments on people's ease of movement.

***Keywords** : mobility probems, GPS, travel behavior survey, accessibility*

Rising Seas, Towering Challenges: A Review Of The Barriers And Opportunities To Sea Level Rise Adaptation

Ömür Damla Kuru (University Of Massachusetts, Amherst), **Nazife Emel Ganapati** (Florida International University)

Sea level rise (SLR) poses significant risks for coastal communities all across the globe. The coastal areas, where nearly half of the population resides, have already been suffering from an exponential increase in sea level rise and nuisance flooding as well as other increasing impacts of coastal disasters (e.g., hurricanes). Although scholars have been documenting the types of responses to coastal risks and SLR (i.e., protection, accommodation, retreat, and attack) (see for example, Dedekorkut-Howes, Torabi, and Howes, 2020), our understanding of the factors that affect these responses remains limited. While the need for coastal adaptation strategies has been increasing with the changes in sea levels, only a few studies (e.g., Moser and Ekstrom, 2010) have identified some of the barriers (e.g., lack of information, difficulties in developing, accessing, and selecting options) to climate adaptation planning. The literature lacks a comprehensive documentation of the factors that enable or hinder planning and policymaking efforts to adopt and implement the strategies to address SLR. This study fills this gap by expanding our knowledge on the barriers and opportunities faced in coastal adaptation. It provides a systematic review of the interdisciplinary literature, focusing on the international literature that examine coastal planning and policymaking processes. This review investigates the research question: What are the factors that hinder or enable public sector organizations' responses to adopt and implement SLR adaptation strategies? Based on the findings presented in the the literature, acquired from various databases, the authors outline the trends in the literature and identify barriers and opportunities to planning and policymaking processes addressing sea level rise. The findings present that there are: 1) institutional (e.g., a lack of/poor governance frameworks), 2) community-related (e.g., social networks), 3) actor-related (e.g., risk perceptions of public officials), and 4) problem-related (e.g., slow nature of the problem) factors that affect public sector's responses to SLR - related risks. The findings draw future directions for research on SLR adaptation and offer guidance to planners and policymakers on how they can attend to the vulnerabilities and build on their capabilities for effective coastal adaptation to sea level rise.

***Keywords** : sea level rise, Adaptation measures, public sector*

Optimization Of Pedestrian Systems In Tod Station Areas In High-Density Built Environments-A Case Study Of Shanghai, China

Hanting Yu (College Of Architecture And Urban Planning,Tongji University), **Huali Zhang** (College Of Architecture And Urban Planning,Tongji University), **Yuxuan Liu** , **Yu Ye** (College Of Architecture And Urban Planning,Tongji University)

The emergence of Transit-Oriented Development (TOD) models in the context of high-density urban environments, a predominant characteristic of urban development in China, has accelerated the dense development of surrounding land. However, this has exacerbated environmental quality issues, including mismatches between accessibility and functional organization, disorganized pedestrian flow, and irrational traffic arrangements. Consequently, optimizing the pedestrian system environment has become a primary necessity in design practices, necessitating a more human-centered and quality-focused approach in TOD development. While extensive research exists on station area spaces, both domestically and internationally, with a focus on land development patterns, traffic interchanges, and commercial spatial elements, most studies tend to quantitatively analyze single-scenario sectional elements. There is a relative scarcity of research from the perspective of human-centric perception and the quality of public space experience.

Addressing these concerns, this study focuses on optimizing the pedestrian system of station area spaces from a human-centric viewpoint, examining the influence of elements in multiple scenarios and cross-section combinations. The pedestrian system of the station area refers to the different scenarios pedestrians encounter while walking from a starting point to a metro station entrance. Initially, the study deconstructs and categorizes elements, selecting eight indicators with the greatest impact on pedestrian path selection in urban design for analysis – crossing time, walking duration, number of intersections, street interface characteristics, Streetscape greenery, sidewalk width, overpasses, and underpasses. These were chosen through a combination of case studies and literature review, balancing theoretical research with practical conditions. In real life, there are only four combinations of paths leading to subway stations: street only, street with overpass, street with underground passage, and street with both overpass and underground passage. These eight elements are assigned to the four types of path combinations, and orthogonal design is used to select representative experimental combination scenarios. Subsequently, representative and visually consistent element illustrations are created using hand-drawing and Photoshop, based on actual, representative spaces. These serve as the basis for a visualized SP questionnaire. The questionnaire compares scenarios between the four combinations using tools like tablets for data collection and analysis. Finally, a discrete choice model is used to compare the weights. Based on Nlogit5, the weights of the influencing factors are calculated. This allows for the quantification of the impact of characteristic elements in urban design on user experience, using both the weights and a visual scale. It is expected to measure the user experience under different combinations of conditions and provide a subjective perspective for urban design and planning.

This study takes Shanghai, China as an example to explore the impact of high-quality pedestrian path elements on the user experience within the TOD station area. It quantifies the weight of these elements and forms a toolbox for urban design. This research addresses subjective perception issues that designers find difficult to answer based on experience in urban design and planning. Utilizing a visual SP questionnaire, which is universally applicable, the questionnaire presents multiple scene combinations with clear differences in elements. The visualization of the questionnaire facilitates research and communication across countries and cultures. By selecting common and distinctive elements based on the actual conditions of different countries, it quantitatively compares the weight of different elements in the station area pedestrian systems of China and European countries. This study provides an effective approach for evaluating and improving the quality of urban planning, emphasizing high-quality, user-friendly, and refined urban design. Furthermore, this research framework is applicable universally and can be quickly applied to the fine-grained quantification, assessment, and analysis of various urban planning projects.

***Keywords** : Visualized SP Questionnaire, Urban Planning Quality Assessment, Transit-Oriented Development, Pedestrian System Optimization*

Neighborhood-Scale Urban Form And Energy Consumption: A Comparative Study Of Compact And Dispersed Neighborhood

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 Urban form has a significant impact on building energy consumption, playing a crucial role in sustainable urban development. The influence of urban form on energy consumption emphasizes the necessity to consider how to balance these two aspects when designing new residential areas. The question of whether the commonly advocated compact forms show a better energy performance at the neighborhood scale is also a matter of concern. This study focuses on the relationship between neighborhood-scale urban form and building energy consumption, rethinking the meaning of compactness at the residential scale in the context of sustainable urban design. It proposes an alternative to the commonly used floor area ratio and building coverage ratio: a compact spatial indicator that represents the external building spaces situation to describe the compactness. Taking Shanghai in China as an example, an energy consumption simulation experiment was conducted among different form prototypes with the same floor area ration and building coverage ratio. It illustrates the correlation between the energy performance of different form prototypes and the compact spatial indicator. The results provide a prototype-oriented reference for low-energy-oriented urban design practices, aiding urban designers in making decisions during the early development stages.

Keywords : urban form, compactness, neighborhood energy consumption

Study On The Response Of Local Legislation To Coordinate The Interests Of Multiple Subjects In Urban Renewal From The Perspective Of Property Rights

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This article analyses the challenges of coordinating the interests of multiple parties in urban renewal and the institutional response through the development of local legislation on urban renewal in Beijing, using the policy mechanisms and practices of urban renewal projects in Beijing as an example. The article is divided into three main chapters: (1)defining the connotation of property rights in urban renewal and identifying the key points of legislation, (2)constructing a framework for analysing the interests of multiple parties in urban renewal, (3)and analysing the response of local legislation.

The article begins by defining the connotation of property rights in urban renewal. It highlights that the definition and interpretation of property rights are the core legislative points of urban renewal. Reducing the institutional costs related to property rights transactions is the key to urban renewal legislation, which helps to optimize the allocation of urban resources through urban renewal.

Then, a framework is constructed for analysing the interests of multiple parties in urban renewal. This framework analyses the current situation, problems, and policy responses to reconcile the interests of multiple parties through three stages: subject identification, interest expression, and interest coordination. The 'subject identification' stage analyses the assets and their associated property rights relationship from the perspective of four dimensions: owners (i.e. property rights holders), implementation subjects, state-owned assets, and neighbouring rights. Due to the complexity and diversity of renewal objects, such as shantytowns, residential communities, commercial buildings, industrial facilities, roads, waterfront areas, etc., and the varying property right holders and relationships, it is essential to analyse each renewal object and its corresponding property right holders based on the attributes of the assets and the holders.The 'Expression of Interests' stage analyses the negotiation process and identifies potential problems that may arise when dealing with multiple parties. In the 'Coordination of Interests' stage, the current policy mechanism for resolving conflicts in Beijing is examined, along with the practical challenges that may be encountered. Balancing the interests of multiple actors in urban renewal is a core dilemma influenced by three main factors: unclear property rights boundaries, complex property rights relationships of stock assets, unequal rights and responsibilities of property rights actors, and the difficulty of reconstructing property rights. By analysing the intrinsic causes, the core concerns of urban renewal legislation in terms of interest adjustment are illustrated, including clear property rights boundaries, emphasis on equal rights and responsibilities, optimised property rights circulation, flexible restructuring of rights and interests, and a dispute resolution mechanism that prioritises the public interest.

Finally, this paper analyses the main aspects of urban renewal, including the implementation process, negotiation of interests, and dispute resolution procedures outlined in the Beijing Urban Renewal Regulations, which is implemented in 2023. The aim is to demonstrate how local legislation responds to the needs of disputing and coordinating interests in reality. The Regulations address the solutions in several areas. Firstly, the concept of property rights holders and their rights and obligations is defined clearly. Secondly, the process of determining the implementation subjects and their duties is clarified. Thirdly, specifying the rights and obligations of neighbouring rights. Lastly, providing procedures for disposing of objections. The current regulations are based on a principled framework but may not be sufficient to guide the process of coordinating conflicts of specific interests and addressing current problems. This article proposes to discuss proposals for optimizing future laws and policies.

***Keywords** : urban renewal, legislative research, coordination of interests, property rights system*

Making Children's Walks Greener: The Role Of Informal Green Spaces In Home–School Routes

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Urban green spaces are usually associated with parks, forests and street greenery. However important and noticeable they may be, these flagship green spaces do not dominate urban landscapes. What makes cities green is mainly informal green space – vegetated areas not formally recognised or protected, such as recultivated landfills, brownfields or semi-private and even private greenery. While there is no doubt about the importance of informal green spaces for urban sustainability and resilience, little is known about the extent to which they contribute to active transportation, for example making pedestrian walks greener and thus more attractive. Our study fills this gap by focusing on the role of informal green spaces in ensuring visual exposure to greenery during the walks.

We used the children's home–school routes as an example to assess the visual exposure to different categories of informal green spaces during children's walks. We conducted network and viewshed analyses for multiple spatially explicit data on primary school children, pedestrian street networks, and high-resolution urban green space maps using Lodz (Poland) as the case study city.

We found that informal green spaces leverage visual exposure to greenery during children's home–school walks. The shortcuts through informal green spaces are an important part of children's home–school routes. While street greenery and parks make the children's routes greener in the city's centre, informal green spaces play a particularly important role in enabling children to see the greenery in the city's suburbia. This further shows the necessity of integrating different categories of green spaces into urban planning. Specifically, securing and formalizing informal green spaces is essential and could broadly support making urban transportation more sustainable. In particular, green corridors support non-motorised mobility by providing an attractive, healthy and safe opportunity to move around the city.

Keywords : Green space planning, walkability, child-friendly cities, sustainable transportation

Integrated Data-Driven Analysis Of Urban Waterlogging Under Multiple Scenarios In High-Density Areas: A Case Study In Shenzhen, China

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In the context of escalating climate variability and unprecedented urban expansion, cities worldwide are grappling with the escalating challenge of urban pluvial flooding. This phenomenon underscores the critical need for accurately characterizing spatial variability in flood susceptibility and deciphering the complex interplay of factors driving such vulnerability. Traditional methodologies, however, often falled short in their ability to precisely assess flood risk within densely populated urban environments, primarily due to the spatial heterogeneity and the multifaceted dynamics of urban flooding. Addressing this gap, our research introduced an innovative analytical framework designed to holistically assess urban flood susceptibility. This framework employed a sophisticated cascade modeling chain that integrates Extreme Gradient Boosting (XGBoost), SHapley Additive exPlanations (SHAP), and Partial Dependence Plots (PDP), alongside K-means clustering. This combination was pivotal in delineating the nuanced influence of urban form on flooding risk patterns, particularly under varying rainfall conditions. The core of our analysis, the XGBoost model, exhibits superior performance in accuracy and robustness when benchmarked against other prevalent models such as Random Forest (RF), Support Vector Regression (SVR), and Back Propagation Deep Neural Network (BPDNN). This superiority was rigorously affirmed through comprehensive training sessions and independent validation exercises conducted within the urban confines of Shenzhen, highlighting the model's efficacy. Our findings revealed that characteristics of urban 3D morphology play a pivotal role in determining the extent of waterlogging, accounting for a significant 46.02% of the relative contribution to flood susceptibility. Through nuanced PDP analysis, we identified multi-stage trends that underscore critical thresholds and interactions among key indicators, notably the building congestion degree (BCD) and the floor area ratio (FAR). It emerged that specific ranges for these indicators, such as a BCD of 0 to 0.075 and FAR values between 0.5 and 1, can significantly curtail flood risks, thereby guiding strategic urban planning and architectural design towards flood mitigation. Spatial and temporal assessments within our study highlighted a pronounced aggregation effect of high-risk areas, particularly vulnerable to scenarios of prolonged or intense rainfall, predominantly within older urban districts. This spatial-temporal dimension of flood risk underscored the importance of integrating adaptive strategies into urban planning and design to enhance resilience against waterlogging. By offering quantitative insights into the mechanisms of urban flooding and the efficacy of potential adaptation strategies, this study contributed to the broader discourse on sustainable urban planning. It underscored the imperative of adopting innovative, data-driven approaches to mitigate the adverse impacts of urban flooding, paving the way for the development of resilient, climate-adaptive urban environments.

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