

# **CREATING FIGURES: WHY RE-IMAGINING URBAN STRUCTURE SUPPORTS A REGENERATIVE URBAN MODEL**

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## **INTRODUCTION**

Some authors describe the contemporary metropolis like the field where co-exist simultaneous strategies of exploitation of fragmentary opportunities provided by the specific conditions of places (Florida<sup>1</sup>, Bagnasco<sup>2</sup>, Solá-Morales<sup>3</sup>): physical (geography, infrastructures, etc.), social (people, culture and local values, etc.) and economic conditions. In their opinion, the causes of the ‘lateral’ development of the city could be (i) the relationships between the different elements of the land mosaic (Forman<sup>4</sup>) and (ii) the fragmentary logics of the current urban realities. This important process of transformation would integrate the classic ‘lineal’ growth, more related to the urban rising along infrastructures. The result of these interactions is the change of scales in the performing of contemporary urban phenomena. Several authors have been interested in studying this new reality, called ‘exopolis’ (Soja<sup>5</sup>), city-region (De las Rivas<sup>6</sup>, Portas & al.<sup>7</sup>) or metropolized territory (Indovina<sup>8</sup>, Monclús<sup>9</sup>). Those not-conventional approaches are necessary to understand the contemporary urban condition and its complex, unstable, transient dynamics. Nowadays, several traditional concepts and ideas have become less useful and too rigid to achieve this target. This lack of effectiveness regards the discipline as a whole, divided between sectorial analysis and fragmentary solutions. In our opinion, using figures as ‘images with the potential to represent new territorial realities’ is one of the most important steps to produce an innovative and non-conventional understanding of post-metropolitan (Soja<sup>10</sup>) urban space.

This paper is aimed at explaining why figures are more useful than images to understand the complex urban pattern of current territory (see 1.), as well as demonstrating this idea with the case studies of Valladolid and its emerging urban area (see 2.). The result is a way to show the structure of this territory, which is more coherent with a contemporary narrative of space, and closer to its spatial and temporal dimensions. This is something not completely original but in this paper we present our views on it.

## **1. TOWARDS A COHERENT TERRITORIAL – LAND, LANDSCAPE, URBAN REALM-REPRESENTATIONS**

Nowadays the debate about the representation and understanding of complex contemporary space in planning is based on three trends, which generate three specific results, often:

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- Maps reflect the traditional research of an all-encompassing and more and more precise – but static-description of current reality.
- Overlay mapping breaks up and composes dataset and different information. This process produces several sectorial indicators, which are a useful support for decision-making and evaluating regional and urban planning. Often these representations mix conventional scales and describe the spatial situation as a collection of fixed frames (as a diorama).
- Figures are the most important form of expression for the designer and the planner. They are something more than the combinations between maps and sectorial diagrams, because they are ‘representations’ that take into account reality and ‘projects’ that look to the future.

According to Secchi<sup>11</sup>, in our planning works we rethink the material reality and structure of territory and we rediscover their potential. In this process, figures are not a new form of drawing the reality: they are an innovative way to understand territory (a result of the combination of traditional forms of representation).

### 1.A. Mapping exopolis: from images to figures

From geometry, a ‘figure’ is a continuous set of points and the existing relations between them. It is an entity, characterized for a specific identity. In painting and sculpture figure is the medium that embodies the reality that represents, in both analytical and synthetic ways. A figure is deeply related to the background and those two concepts are somehow inseparable. If we translate this idea into the planning, figures will be maps that contain a process of selection, interpretation and assessment. Passing from figurative arts to rhetoric, figure is an expedient to strengthen some elements of the discourse. Therefore, according to the studies in literature of Génette<sup>12</sup>, studying figures of the territory could be a useful knowledge tool and this work is the key to exceed the hiatus between real and potential space. Consequently, this approach could be useful to improve the traditional methodology of planning and achieve a better understanding of territory.

This is possible because our figures represent a territorial pattern formed by the existing reality and open to those that ‘could be’ - like ‘transduction’<sup>13</sup>. For this reason, figures in planning are not simple descriptions but a re-combination of information (objects, orders and sequences, relations and overlaps, process and dynamics). The purpose of this frame is to find opportunities and create an interpretative field, the only one effective in design projects. With figures, we would avoid the representation of territory as a catalog, and produce a complex representation of the urban structure, closer to functional models of space. Then, for us, a figure is an idea and a set of figures is an interpretation of the territory.

According to Capestro<sup>14</sup>, figures are the only way to understand discontinuous and changeable topics, away from the continuity, the order and the rationality. Hence, they are the tool to assimilate, manage and encode the contemporary transformations of the territory, something that the traditional planning approach cannot achieve. In our figures, we consider the urban geography and the society that lives in it. This double presence is the base to understand the relationship between territory and local processes, whereby the society uses, organizes and inhabits the space. With figures, we understand

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every specific morpho-typological structure because they are produced by the interaction between humans and their environment (the habitat constituted by the urban-rural mosaic). However, our research is not a morphological-based study. Our interest in figures comes from their polyhedral nature: they are the key to strengthen and re-compose an imaginary about the spatial reality. Figures present an urban pattern with its opportunities and all the opportunities that 'could take part' in its evolution process. We will try to demonstrate the evocative power of figures in the case study of Valladolid and its emerging urban area.

### **1.B. An innovative representation of Valladolid urban structure**

The shift from images (maps and diagrams) to figures (a combination of them) allows perceiving the potential adaptability of every concrete place. For this reason, in each case, we face off the conventional representation (a map that describes the reality) and the new one (a visual, graphical, and synthetic diagram based on a hierarchy interpretation). The strength of these figures depends on their evocative power, which involves the concrete starting reality (with its own codes) and its possible evolution alternatives. Valladolid (Fig. 1) is the largest city in Castile and Leon (2.5m hab., 2011), a vast region (94,225 km<sup>2</sup>) located in the centre of the continental Spanish plateau. Several factors characterize the location of the city (315,000 hab. in 2013) and its metropolitan area (450,000 hab. in 2013).

The city has two clear profiles: on the one hand, Valladolid is a Regional Capital and, on the other hand, it is a modern industrial centre. The city reflects these two characters, because of its size and the nature of local economy, where a solid industrial sector (Renault, Michelin, agro-industrial activities, etc.) coexists with an important university and several research centres (De las Rivas<sup>15</sup>, EU<sup>16</sup>). That is, Valladolid occupies a strategic position in the North-West of Spain, and is one of the largest interior cities in the country. Both these factors, one-dimensional and the other one positional are the key to comprehend and develop the city potential.

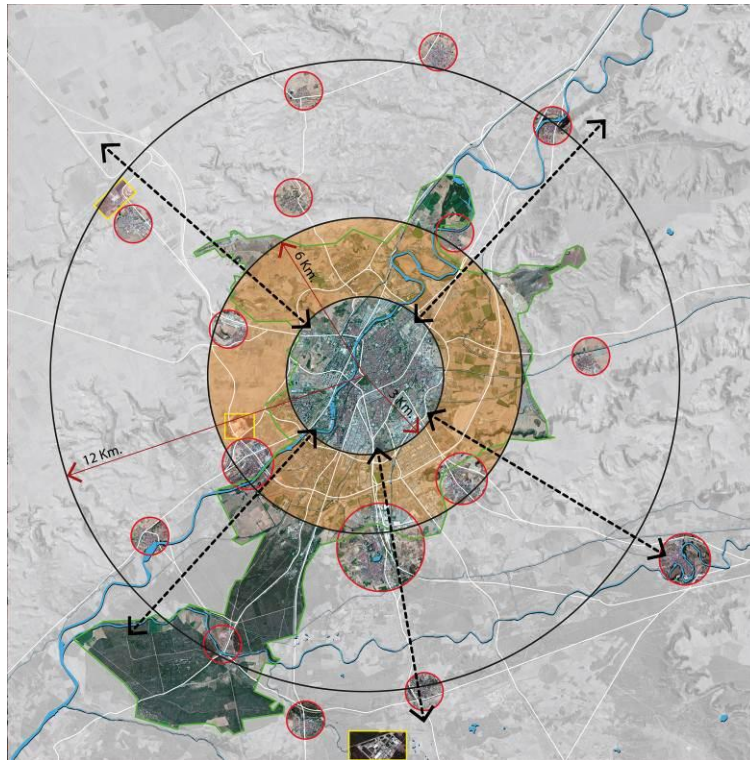


Figure 1. The polinuclear structure of the emerging urban area (1<sup>st</sup> Figure)

## 2. SET OF FIGURES - CITY STRUCTURE – GROUP OF RELATIONSHIPS

We understand/read Valladolid structure as the physical support – formal, functional and symbolic – of its emerging urban area, and we break down the ‘articulated geometry’ of this global system into three basic and complementary (couples of) figures: (2.A.) mobility, (2.B.) centres and places, and (2.C.) open spaces. These figures are an *unconventional* representation of three interconnected sub-systems. They correspond to major ‘groups of relationships’ that articulate the manifold and mediated urban reality: flows, activities, and local ecologies.

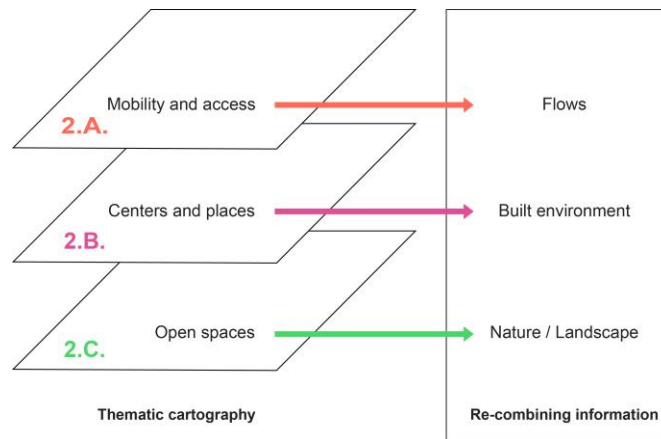


Figure 2. A re-combination of information

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We can simplify these three layers in their main spatial components: Mobility system (the roads), this is not the whole urban structure, but an important part of it, because it determines the level of accessibility to the different territory fragments. Road network is the skeleton articulating both (i) the ‘full’ – the system of centers and places adds ‘the built’ to that plot, and (ii) the empty – open space system, the physical environment, the ‘natural’ site.

The ‘extraordinary/unusual’ thing of every figure (couple) itself is not the thread seemingly sectorial that formulates it and directs the selection of elements for composing it, but rather that selection – especially in the second figure of every couple – exceeds the strictly associable thing to the group of sectorial relationships that identify the system for reporting, deforming and imaging on what in another of the systems can help to compose.

### 2.A. Mobility and Access: from truck to pedestrian.

Possibilities of connectivity and accessibility can be foreseen through the drawing of neutral road geometry. In this first system of triad structure, a second more in-depth vision narrows these possibilities by attributing of hierarchies and typologies according to their sections and/or the mobilities they host. From those diagrams and their readability, we can evidence fractures, barriers and imbalances in the system and in its historical generation gaps, and we can also show/reveal its potential transformation into a system more efficient and compatible with the structuring of the city from public space. In it, public transport and alternative mobilities (pedestrian areas and cycle lanes) play an important role, as well as the interfaces between them, places conceived for exchanging. Therefore, there appear elements that will also necessarily build the other two skeleton/framework systems.

In case of Valladolid:

The first map (Fig. 3 a.) is defined by the basic geometry of the road network. This allows us to visualize, without interferences, the degree of accessibility of every part of the urban territory, its degree of urbanization and the regularity-irregularity of its geometry. Some relationships from figure 1 (Territorial model) occur in form of radial and ring routes. Among them, the presence of the E80 reinforce even more the NE-SO direction, parallel to the Pisuegra river, as a principal axis in the urban development.

The second figure highlights the continuities, the radial system, the ring-shaped pattern, and those patterns formed by natural or artificial/infrastructural axes (the railway route will be underground and the released space will be transformed into a green corridor). Those axes begin and end at the intersections between the local and the supra-scale. Thus, those spaces become ‘city gates’ which *could* connect the city core to the territory, and some interstitial could become a new element of identity (intermodal *centers* or doors).

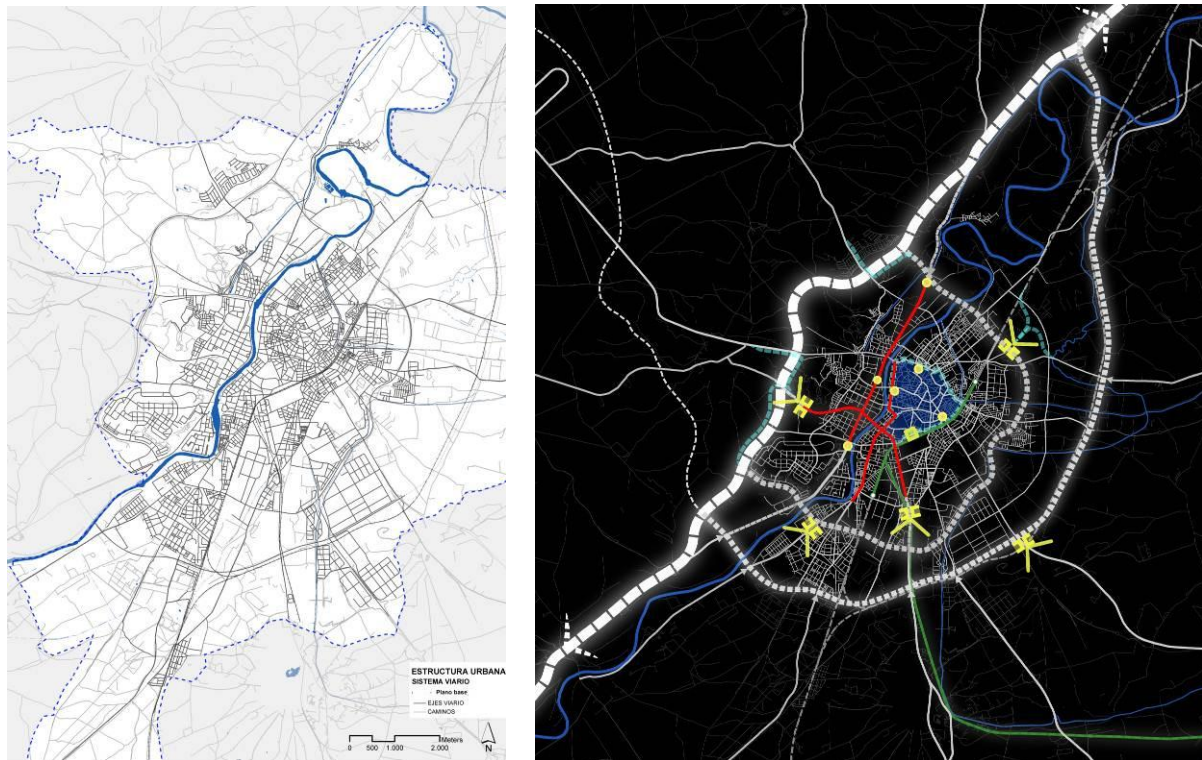


Figure 3.a. Road networks map and Figure 3.b. Mobility and City gates

In this dynamic and incisive vision, every layer or system of the structure, moves part of its projective load to the others, precisely to the figures that represent them. Thus, the neutral representation ‘a.’ of the mobility system, has moved to the others, that is to say, they take implicit this selective decision in its background.

## 2.B. Centers and places (neighbourhoods, sectors with homogeneous urban fabric and with specific identity)

Recognition and location of different urban uses and the singling out of those, among them, that bring people together – be it in their pure diversity or in their segregation as identifiable groups, in timetables or ages, in social classes, in work groups, or in the activity to which the congregation responds. It allows us to map diagrams of more or less hot and extensive points that warn about where the stresses occurs and where the ingredients for city life are combined or can do it. Access to equipments and services informs us on the degree of compaction and mixture of uses in the city. Identification of broad spatial areas, mainly as ‘neighborhoods’, the ultimate substratum of every urban reality (from parish and guild to segregated residential development, the public housing or to the ‘campus’ of a given activity), this recognition makes the detection of such access and mixture easy: what is the goal of each service and how many people serve those equipments to?

The road system also allows defining the Valladolid’s neighbourhood shape and distribution. The base map of services in neighbourhoods (Fig. 4.a.) is a reading of the fragments created by the road

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geometry. The white space of the first figure is now the ‘built realm’ and this material composes and materializes the different neighbourhoods. In this heterogeneous set we catalogue all those elements that are expression of an ‘equipped city,’ and product of the ‘welfare state’ policy developed in the last 20-30 years in Spain. At the same time, we mark the commercial functions, presences that are part of the deeper roots of the city. They are organized in big areas or in diffused systems.

The second figure emphasizes this order, gathers uses and gives them names. Both among and inside them, lines from first system recur and are reinforced: There are commercial streets, belonging to historic areas or the central core; there are medium or large areas or campuses – parks, industry, university, etc. – that explain some of the gaps identified in the above-mentioned road system; and there are several services, with more or less size, spread out in the territory, linked to infrastructures.

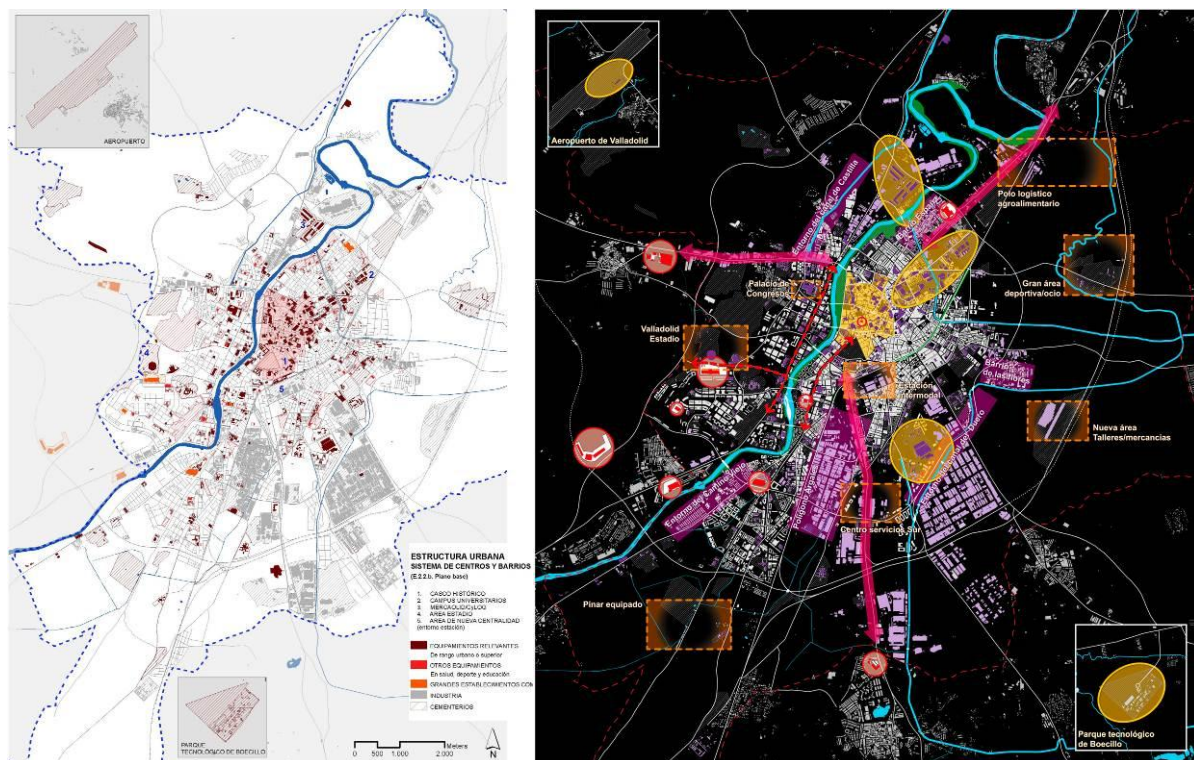


Figure 4.a. Services in neighbourhoods map and Figure 4.b. Centrality Areas

This figure also permits the definition of the ‘centrality areas’ related to urban roles founded in directional activities, ranges of equipment and their relationship with the mobility network, especially in those areas where these two systems interact (the city gates). At the same time, we try to physically link those ‘extracorporeal’ elements to the city that they mostly depend on, sheltered (and feedback) on lines of forces that the above system discovered.

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### 2.C. Lattice of open spaces

This system is about to detect the open spaces and the real elements where biodiversity and/or multiculturalism of the city reside (the biotope and *sociotope*), or where they may do it: from the square to the walk, to hydrological network at all scales, to agriculture space, to wooded slopes... The precise articulation of these pieces that contribute to the 'natural' and social quality, will multiply their own potential. It has to try to program a human scale city, in harmony with nature, and has to know what to ask the other two systems for getting it.

The initial figure (Fig. 5.a.) marks the most important public open spaces of the city, emphasizing the most consolidated ones. We also refer to the initial figure of mobility (Fig. 3.a.) as background. It allows focusing on whether some of those axes contain consolidated 'green lines' – from wooded canopies to pedestrian routes, and, of course, the 'blue lines' (rivers, canals and their edges). In a city between water courses, these offer the vital advantage of any green-blue network that is trying to consolidate itself and today is more or less hidden.

The final figure reflects planning strategies; it condenses local ecologies and their aptitudes to concentrate, in a defined physical and environmental reality, the sustainable future (our 'hope' for the city), rooted in the local memory. Thus, the base map we use in this story-telling is an orthophotograph, *a priori* one of the most objective reality representations, for capturing the '*genius loci*' of what has been constructed, and what that system could build: the capacity for preserving and/or regenerating our spaces of identity, natural and built, park and square, the urban scene par excellence, concerning the 'emptiness/urban voids/open places.'

We rely on that base, on the initial image of this series (Fig. 5.a.), and on that one considered useful in the other two systems, for formalizing in this final figure (Fig. 5.b.) two possible 'Green Rings,' one on urban scale and another on a large/territorial scale. They connect the territory and the city across the large ecological corridor, the fluvial riverbeds, and other green lines, or historical paths that still exist, hidden, in the regional landscape. We try to rediscover them. This green double structure is a network of spaces that reinterprets the elements of edge, valuing the border effects and recovering opportunities of connectivity in the banks, the slopes and the former cattle routes.



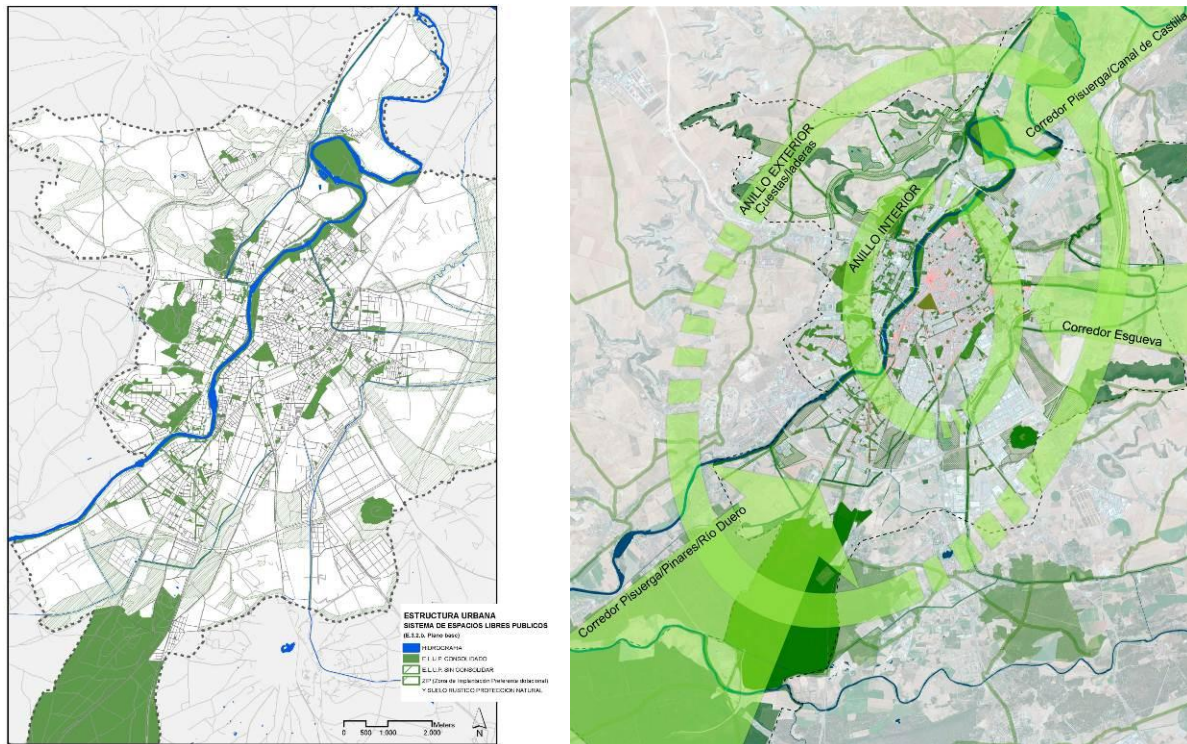


Figure 4. a. Public open spaces map and Figure 4. b. Two green rings

The result is a vision where we place or emphasize hidden relationships between differentiated parts of this **rus-urbe** territory (land mosaic, Forman). These relationships are landscaping, visual, and **potentially walkable**. The first system reappears in its nicest version. We close the circle.

## CONCLUSIONS: FIGURES FOR A REGENERATIVE URBAN MODEL

Is it possible to create a new ‘cognitive cartography’ useful for planning? Lynch<sup>17</sup> detected the difficulties of our cities to generate a ‘structured image’ in people who live in them. Conventional maps are not able to propose comprehensive or significant data in this regard. We have to draw the future city in a different way, like a set of new built realities because city of the future is a result of the dynamics of the existing city. Like situationists and other establish – including Jameson<sup>18</sup> – our urbanity needs new perspective for mapping its complexity. Creating figures, not only images, is an attempt to work in this direction.

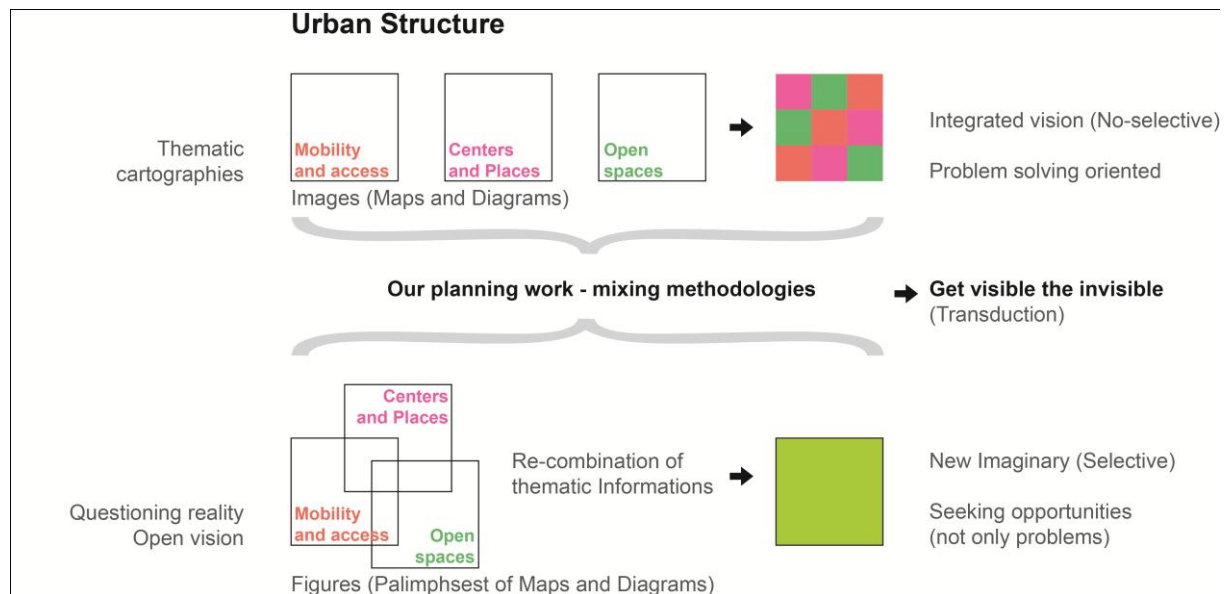


Figure 6. Figures as vectors for a better understanding

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The first step is to combine scales – regional, urban, local, singular places – through the performing of the local landscape features. In this sense, landscape is both a tool and a design target. The second one, on our proposal, is related to the understanding of ‘urban structure,’ like a combination of three factors: mobility, urban centralities and open spaces. With a design-oriented reading of the city morphology, these three systems allow working on different urban strategies and places by standing out their links or connections. For instance, the natural constraints of place are not a restriction but an opportunity for built environment. For this reason, urban structure needs to enhance the role of spaces. The connection of every system with a clear image (figure) offers a reference in the uncertain path of urban understanding.

## ENDNOTES

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