

HERITAGE 2022 INTERNATIONAL CONFERENCE VERNACULAR HERITAGE: CULTURE, PEOPLE AND SUSTAINABILITY

Eds. C. Mileto, F. Vegas, V. Cristini, L. García-Soriano



Colección Congresos UPV

The contents of this publication have been approved by the Congress Scientific Committee and in accordance to the procedure set out in
<http://ocs.editorial.upv.es/index.php/HERITAGE/HERITAGE2022>

First edition, 2022

Scientific Editors

C. Mileto
F. Vegas
V. Cristini
L. García-Soriano

© of the contents: the authors

Publisher

Editorial Universitat Politècnica de València
www.lalibreria.upv.es / Ref.: 6117_01_01_01

DOI: <https://doi.org/10.4995/HERITAGE2022.2022.15942>

ISBN: 978-84-1396-020-3

Print on-demand

Printer

Byprint Percom, S.L.

Printed in Spain



HERITAGE 2022

International Conference on Vernacular Heritage: Culture, People and Sustainability

This book is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike-4.0 International license. Editorial Universitat Politècnica de València
<http://ocs.editorial.upv.es/index.php/HERITAGE/HERITAGE2022>

Preface

C.Mileto, F. Vegas, V. Cristini, L. García-Soriano

Research Centre for Architecture, Heritage and Management for Sustainable Development (PEGASO),
Universitat Politècnica de València, Valencia, Spain

“HERITAGE2022, International Conference on Vernacular Heritage: Culture, People and Sustainability” is organized in the framework of the “VerSus+ | Heritage for PEOPLE” project, co-funded by the Creative Europe Program of the European Union (grant 607593-CREA-1-2019-1-ES-CULT-COOP1) and led by Universitat Politècnica de València (Spain) in partnership with Università degli Studi di Firenze and Università degli Studi di Cagliari (Italy), CRATERre – ENSAG (France) and Universidade Portucalense - Departamento de Arquitetura e Multimédia Gallaecia (Portugal). The “VerSus+ | Heritage for PEOPLE” project focuses on the transmission of knowledge to communities and the general public. It pays special attention to the society of the future (children and young people), as well as local, regional and national authorities in charge of heritage management, and includes specialists and experts in the field of architecture (architects, engineers, cultural managers, historians, ethnographers, university students, etc.) together with craftsmen and companies in the construction and tourism sectors, cultural and social associations, and educational institutions.

Vernacular heritage is a tangible and intangible heritage of great importance to European and global culture. This architecture, born from the practical experience of local inhabitants, makes use of local materials to erect buildings taking into consideration the climate and geography, developing cultural, social and constructive traditions based on the conditions of the surrounding nature and habitat. Above all, it plays an essential role in contemporary society as it is able to teach us important principles and lessons for a respectful sustainable architecture. These lessons from vernacular heritage for contemporary architecture have been extensively studied in the “VerSus: Lessons from Vernacular Heritage in Sustainable Architecture (grant 2012-2792/001-001 CU7 COOP7)” project, co-funded by the European Union between 2012 and 2014, and the “VerSus+ | Heritage for PEOPLE” (2019-2023) project, which follows on from the previous project, focusing on the transmission of this knowledge to society, as seen earlier. The wisdom of vernacular architecture in the field of environmental, sociocultural and socioeconomic sustainability is increasing both in interest and significance in the world today. Climate change, depopulation and the pressure of tourism all pose major challenges, as do the increasingly rapid social changes and loss of traditional trades resulting from the industrialization of the construction process. These challenges alert us to the pressing and growing need for education and increased awareness in society and for the documentation and conservation of architecture within a framework of up-to-date integration into contemporary life, managing territory and heritage assets for the sustainable development of society in the future.

The second project involved in this conference is “RISK-Terra. Earthen architecture in the Iberian Peninsula: study of natural, social and anthropic risks and strategies to improve resilience” (RTI2018-095302-B-I00) (2019-2022), funded by MCIU (Ministerio de Ciencia, Innovación y Universidades), AEI (Agencia Estatal de Investigación), FEDER - UE (Fondo Europeo de Desarrollo Regional, Unión Europea). This project is geared towards the conservation of earthen architecture in the Iberian Peninsula, both monumental and vernacular, which continues to be undervalued and barely recognized. The RISK-Terra project aims to provide scientific coverage of the study of natural threats (floods, earthquakes, climate change), social threats (abandonment, social discredit, demographic pressure, tourist development), and anthropic threats (neglect, lack of protection and maintenance), as well as the mechanisms for deterioration

and dynamics and transformation (replacement, use of incompatible techniques and materials, etc.) to which architecture is exposed. The objective of the project is to establish strategies for conservation, intervention and rehabilitation which allow the prevention and mitigation of possible damage through compatible actions and/or actions to increase resilience.

As these two projects have major points of contact, particularly in relation to the challenges mentioned above, with potential for common reflection, their main themes have been combined in this Heritage2022 conference. The topics established for the conference are: 1. vernacular architecture: matter, culture and sustainability (study and cataloging of vernacular architecture; urban studies of vernacular architecture; studies of traditional techniques and materials; sustainability of vernacular architecture); 2. heritage education (research in heritage education; heritage education and social inclusion; heritage communities; creativity and heritage education); 3. artisans and crafts of traditional construction (intangible heritage: the management of know-how and local construction culture; training in traditional construction crafts; tradition and innovation in traditional construction crafts; plans and experiences for the recovery and maintenance of construction crafts); 4. conservation, restoration and enhancement of vernacular architecture (conservation and restoration projects of vernacular architecture; materials and intervention techniques for vernacular architecture; difficulties and possibilities of using traditional crafts in conservation; management and maintenance of vernacular architecture).

The scientific committee was made up of 102 outstanding researchers from 24 countries from the five continents, specialists in the subjects proposed. All the contributions to the conference, both the abstracts and the final texts, were subjected to a strict peer-review evaluation system by the members of the scientific committee. Out of the 200 proposals submitted, 134 papers by 254 authors from 25 countries from the four continents were chosen for publication. All the articles have been published in print and online in the two-volume book “Vernacular Heritage: Culture, People and Sustainability”.

“HERITAGE2022 (Versus+ | RISK-Terra), International Conference on Vernacular Heritage: Culture, People and Sustainability” was held from 15 to 17 September 2022 in in-person and online modality at the Universitat Politècnica de València. The conference was under the aegis of: ICOMOS-CIAV (International Scientific Committee of Vernacular Architecture); ICOMOS-ICICH (International Scientific Committee on Intangible Cultural Heritage); IEB (Instituto Español de la Baubiologie). The organization, publication and implementation of the conference have been made possible thanks to co-funding of the Creative Europe Programme of the European Union for the project “VerSus+ | Heritage for PEOPLE” (grant 607593-CREA-1-2019-1-ES-CULT-COOP1); and the MCIU, AEI and FEDER - UE for the research project “Risk-Terra. Earthen architecture in the Iberian Peninsula: study of natural, social and anthropic risks and strategies to improve resilience” (ref.: RTI2018-095302-B-I00). Furthermore, Escuela Técnica Superior de Arquitectura and PEGASO - Research Centre for Architecture, Heritage and Management for Sustainable Development of Universitat Politècnica de València have also contributed to the whole project.

Finally, we would like to thank all the authors who contributed to the quality, range, diversity and richness of these publications with their articles. We give special thanks to all the partners of the European project “VerSus+ | Heritage for PEOPLE” and the national research project “Risk-Terra” for participating in the conference and helping to spreading the word about it worldwide. We are grateful for the aid of all the members of the advisory committee and the scientific committee for their work throughout the process of revising the abstracts and papers. And, above all, we thank the organizing committee for the complex setting up of the whole conference, the style and language reviewers for their corrections, and all the collaborators for their invaluable work in the management and organization of all stages of the process.

Organization and Committees

ORGANIZING COMMITTEE

Camilla Mileto (Chair) – *Universitat Politècnica de València, Spain*
Fernando Vegas López-M. (Chair) – *Universitat Politècnica de València, Spain*
Lidia García Soriano – *Universitat Politècnica de València, Spain*
Valentina Cristini – *Universitat Politècnica de València, Spain*
María Lidón De Miguel – *Universitat Politècnica de València, Spain*
Alicia Hueto Escobar – *Universitat Politècnica de València, Spain*
Vincenzina La Spina – *Universidad Politécnica de Cartagena, Spain*
Sergio Manzano – *Universitat Politècnica de València, Spain*
Francesca Trizio – *Universitat Politècnica de València, Spain*
Matilde Caruso – *Universitat Politècnica de València, Spain*
Marina Elia – *Universitat Politècnica de València, Spain*
Stefania Farina – *Universitat Politècnica de València, Spain*
David Eduardo Morocho-Jaramillo – *Universitat Politècnica de València, Spain*
Eva Tortajada Montalva – *Universitat Politècnica de València, Spain*

ORGANIZED BY

UPV – *Universitat Politècnica de València*
UPT-DAMG – *Universidade Portucalense, Departamento de Arquitetura e Multimédia Gallaecia*
UNIFI – *Università degli Studi di Firenze*
UNICA – *Università degli Studi di Cagliari*
CRATERRE-ENSAG – *École Nationale Supérieure d'Architecture de Grenoble*
PEGASO – *Research Center Architecture, Heritage and Management for Sustainable Development, UPV, Spain*
Departamento de Composición Arquitectónica, Spain

CO-FUNDED BY

VERSUS+/Heritage for PEOPLE Project
Creative Europe – *Creative Europe Programme of European Union*
RISK – *terra Project*
MICIU – *Ministerio de Ciencia, Innovación y Universidades*
AEI – *Agencia Estatal de Investigación*
FEDER, UE – *Fondo Europeo de Desarrollo Regional, Unión Europea*

UNDER THE AEGIS OF

ICOMOS-CIAV – International Scientific Committee for Vernacular Architecture –

International Council on Monuments and Sites

ICICH – International Committee on Intangible Cultural Heritage

ICOMOS-ISCEAH – International Scientific Committee on Earthen Architectural Heritage

SCIENTIFIC COMMITTEE

Adolfo Alonso Durá – *Universitat Politècnica de València, Spain*; Ahmed Alaidaroos – *King Saud University, Riyadh, Saudi Arabia*; Alejandro García Hermida – *Universidad Alfonso X el Sabio, INTBAU-España, Spain*; Alessandro Merlo – *Università di Firenze, Italy*; Alessio Cardaci – *Università di Bergamo, Italy*; Alicia Hueto Escobar – *Universitat Politècnica de València, Spain*; Amparo Graciani García – *Universidad de Sevilla, Spain*; Ana González Serrano – *Universidad de Sevilla, Spain*; Ana Yañez Vega – *Universidad Complutense de Madrid, Spain*; Andrea Pane – *Università Federico II di Napoli, Italy*; Angela Squassina – *Istituto Universitario di Architettura di Venezia, Italy*; Antonella Versaci – *Università Kore di Enna, Italy*; Apolonia Begoña Serrano Lanzarote – *Universitat Politècnica de València, Spain*; Arianna Guardiola Villora – *Universitat Politècnica de València, Spain*; Arturo Zaragoza Catalán, Generalitat Valenciana, **Spain**; Bakonirina Rakotomamonjy – *CRATERRE-ENSAG, France*; Borut Juvanec – *University of Lubiana, Slovenia*; Camilla Mileto – *Universitat Politècnica de València, Spain*; Chiho Ohiai – *Kyoto National University, Japan*; Claudia Cancino – *The Getty Conservation Institute, USA*; Cristina Vidal Lorenzo – *Universitat de València, Spain*; Daniela Esposito – *Università La Sapienza Roma, Italy*; David Eduardo Morocho-Jaramillo – *Universitat Politècnica de València, Spain*; Donatella Fiorani – *Università La Sapienza Roma, Italy*; Eva Tortajada Montalva – *Universitat Politècnica de València, Spain*; Fabio Fatiguso – *Università di Bari, Italy*; Fabio Fratini – *CNR-ICVBC, Sesto Fiorentino (FI), Italy*; Faissal Cherradi – *Ministerio de Cultura, Morocco*; Félix Jové Sandoval – *Universidad de Valladolid, Spain*; Fernando Vegas López-M. – *Universitat Politècnica de València, Spain*; Fernando Vela Cossío – *Universidad Politècnica de Madrid, Spain*; Francisco Javier López Martínez – *Universidad Católica de Murcia, Spain*; Francisco Javier Torrijo Echarri – *Universitat Politècnica de València, Spain*; Francesca Trizio – *Universitat Politècnica de València, Spain*; Francesco Trovó – *Istituto Universitario di Architettura di Venezia, Italy*; Frank Matero, *University of Pennsylvania, USA*; Gaspar Muñoz Cosme – *Universitat Politècnica de València, Spain*; Gilberto Carlos – *Escola Superior Gallaecia, Vila Nova Cerveira, Portugal*; Gisle Jakhelln – *ICOMOS-CIAV, Norway*; Guillermo Guimaraens Igual, *Universitat Politècnica de València, Spain*; Hirohide Kobayashi – *Kyoto National University, Japan*; Hossam Mahdy – *ICOMOS-CIAV, Great Britain*; Hubert Guillaud – *CRATERRE-ENSAG, ISCEAH, France*; Humberto Varum – *Universidade de Porto, Portugal*; Isabel Kanan – *ICOMOS-ISCEAH, PROTERRA, Brazil*; Ivan Enev – *Arquitecto, ICOMOS-CIAV, Bulgaria*; Javier Ors Ausin – *World Monument Fund, United States*; Jorge Luis García

Valdecabres – *Universitat Politècnica de València, Spain*; Jorge Tomasi – *CONICET, Instituto Interdisciplinario Tilcara, Argentina*; José Luis Baró Zarzo – *Universitat Politècnica de València, Spain*; José Manuel López Osorio – *Universidad de Málaga, Spain*; Juan Bravo Bravo – *Universitat Politècnica de València, Spain*; Juan María Songel González – *Universitat Politècnica de València, Spain*; Juana Font Arellano – *Fundación Antonio Font de Bedoya, PROTERRA, Spain*; Julieta Barada – *CONICET, Instituto Interdisciplinario Tilcara, Argentina*; Letizia Dipasquale – *Università di Firenze, Italy*; Lidia García Soriano – *Universitat Politècnica de València, Spain*; Luis Fernando Guerrero Baca – *Universidad Metropolitana Autónoma, Mexico*; Luisa Basset Salóm – *Universitat Politècnica de València, Spain*; Maddalena Achenza – *Università di Cagliari, ICOMOS-ISCEAH, Italy*; Marcel Vellinga – *Oxford Brookes University, ICOMOS-CIAV, United Kingdom*; María Concepción López González – *Universitat Politècnica de València, Spain*; Maria Ines Subercaseaux – *Metropolitana de Santiago, ICOMOS-CIAV, Chile*; María José Viñals Blasco – *Universitat Politècnica de València, Spain*; María Lidón de Miguel – *Universitat Politècnica de València, Spain*; Mariana Correia – *Escola Superior Gallaecia, Vila Nova Cerveira, Portugal*; Marina Elia – *Universitat Politècnica de València, Spain*; Marwa Dabaieh – *Lund University, Lund, ICOMOS-CIAV, Sweden*; Matilde Caruso – *Universitat Politècnica de València, Spain*; Mikel Landa Esparza – *Arquitecto, ICOMOS-IIBC, Spain*; Min Hall – *architect, Unitec Institute of Technology, Auckland, Nueva Zelanda*; Mónica Luengo Añón – *Arquitecto paisajista, ICOMOS-IFLA, Spain*; Naima Benkari – *Sultan Qaboos University, Omán*; Natalia Jorquera – *Universidad de Chile, Santiago, Chile*; Ona Vileikis Tamayo – *University Collage London, Reino Unido*; Pamela Jerome – *Columbia University, ICOMOS-ISCEAH, United States*; Pablo Rodríguez Navarro – *Universitat Politècnica de València, Spain*; Paolo Vitti – *University of Notre Dame, United States*; Pasquale De Dato – *Universitat Politècnica de València, Spain*; Paulo B. Lourenço – *Universidade do Minho, ICOMOS-ISCARSAH, Portugal*; Pere Roca Fabregat – *Universitat Politècnica de Catalunya, ICOMOS-ISCARSAH, Spain*; Plácido González Martínez – *Tongji University Shanghai, China*; Rawiwan Oranratmanee – *Chiang Mai University, Thailand*; Renata Picone – *Università Federico II di Napoli, Italy*; Saverio Mecca – *Università di Firenze, Italy*; Sébastien Moriset – *CRATERRE-ENSAG, France*; Sergio Manzano – *Universitat Politècnica de València, Spain*; Sergio Ortín Molina – *Universitat Politècnica de València, Spain*; Shao Yong – *Tongji University Shanghai, China*; Simone Ricca – *WHITRAP, Shanghai, China*; Stefan Balici – *Ion Mincu University, Romania*; Stefania Farina – *Universitat Politècnica de València, Spain*; Teresa Gil Piqueras – *Universitat Politècnica de València, Spain*; Thierry Joffroy – *CRATERRE-ENSAG, France*; Valentina Cristini – *Universitat Politècnica de València, Spain*; Valentina Russo – *Università Federico II di Napoli, Italy*; Valeria Prieto – *Arquitecta, ICOMOS-CIAV, Mexico*; Vincenzina La Spina – *Universidad Politècnica de Cartagena, Spain*; Yolanda Hernández Navarro – *Universitat Politècnica de València, Spain*; Wenhao Ji – *China Academy of Art, Hangzhou*; Youcef Chennaoui – *École Polytechnique d'Architecture et d'Urbanisme d'Alger, Algeria*; Zuzana Syrová – *National Heritage Institute, Czech Republic*.

COLLABORATION IN THE PUBLICATION

Marina Elia (coordinator)

Stefania Farina

Lidia García Soriano

María Lidón De Miguel

Alicia Huetos Escobar

Sergio Manzano Fernández

Francesca Trizio

Matilde Caruso

David Eduardo Morocho-Jaramillo

Eva Tortajada Montalva

Conference support

ORGANIZED BY



UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA



UNIVERSIDADE PORTUCALENSE
DEPARTAMENTO ARQUITETURA E MULTIMÉDIA GALLAECIA



UNIVERSITÀ
DEGLI STUDI
FIRENZE



UNIVERSITÀ
DEGLI STUDI
DI CAGLIARI



NS/
AG



Centro de Investigación
Arquitectura, Patrimonio y Gestión
para el desarrollo Sostenible



DEPARTAMENTO DE
COMPOSICIÓN ARQUITECTÓNICA

CO-FUNDED BY



Co-funded by the
Creative Europe Programme
of the European Union

RISK_Terra



UNDER THE AEGIS OF



ICOMOS CIIV
International Committee
on Vernacular Architecture
International Council on
Monuments and Sites



ICOMOS - ISCEAH
International Scientific Committee
on Earthen Architectural Heritage

Table of contents

Preface.....	I
Organization and Committees	IV
Conference Support.....	VIII

PLENARY LECTURES

A Vision for CIAV. Addressing the challenges facing the ICOMOS International Scientific Committee on Vernacular Architecture	3
<i>H. Mahdy</i>	
The National Plan for Traditional Architecture as a safeguarding tool. Action programmes and projects	11
<i>M. P. Timón Tiemblo, E. Agromayor Navarrete</i>	

VERNACULAR ARCHITECTURE: MATTER, CULTURE AND SUSTAINABILITY

STUDY AND CATALOGING OF VERNACULAR ARCHITECTURE

The standardisation of vernacular architecture. Wine buildings in Andalusia	23
<i>J. Aladro-Prieto, F. J. Ostos-Prieto, M. Murillo-Romero</i>	
Vernacular architecture in Brazilian semiarid region: survey and memory in the state of Sergipe	31
<i>D. Felix Andrade, M. A. Penido de Rezende, S. Araújo Lima Bessa</i>	
Knowledge and conservation of Mediterranean spontaneous architecture: some of the villages of the northern Tyrrhenian coast of Calabria	39
<i>B. Canonaco, F. Bilotta</i>	
Architectural and constructive characteristics of vernacular settlements in southern Italy: the Esaro's valley and the popular identity of some exemplary cases.....	47
<i>B. Canonaco, F. Castiglione</i>	
Spanish traditional architecture abandonment and destruction: an initial analysis of social risks, phenomena, and effects in earthen architecture.....	55
<i>M. Caruso, C. Mileto, F. Vegas, V. Cristini</i>	
A taxonomy of vernacular heritage in the mid-Adriatic: Landscape relations and architectural characteristics of the farmhouses in Tronto Valley (Italy).....	63
<i>S. Cipolletti</i>	
Traditional houses in the South-Western Iberian Peninsula: Themes for a cross-border comparative typological study	71
<i>A. Costa Rosado, V. Gómez Martínez, M. Reimão Costa, M. T. Pérez Cano</i>	

The Hameau de la Reine at Versailles and the reproduction of vernacular architecture.....	79
<i>D. Crispino</i>	
Vernacular architecture of the Amalfi coast: a medieval domus in Villa Rufolo in Ravello (Italy)	87
<i>E. De Feo</i>	
Architectural survey, realized with integrated methodology, of the complex of Walser houses in Alagna Valsesia, Italy	95
<i>A. Di Paola, S. Vecchio, G. Frosini, B. Verona, S. Garuglieri</i>	
Modern attitudes towards vernacular architecture. Works by the Italians Luigi Angelini, Alberto Alpago Novello, Ottavio Cabiati, Alessandro Minali	103
<i>M. M. Grisoni</i>	
Wind and the villages in Rincón de Ademuz, Spain	111
<i>W. Ji, C. Mileto, F. Vegas</i>	
Vernacular features in eclectic architecture from the tropics. An analysis by means of architectural survey	119
<i>M. Leserri, G. Rossi, M. Chaverra Suarez, S. Gómez Mejía</i>	
Configuring, building and inhabiting the house from a gender perspective	125
<i>M. Lidón de Miguel, C. Mileto, F. Vegas, A. Hueto-Escobar</i>	
Rediscovering tradition through representation: the vaulted house of the Amalfi Coast.....	133
<i>B. Messina, S. Morena, C. Ferreyra</i>	
Traditional dwellings and techniques of the First Indigenous Peoples of South Africa in the Eastern Cape.....	141
<i>M. Minguzzi, Y. Hernández Navarro, L. Vosloo</i>	
Rediscovered earth heritage becomes motor for local change The Guérande Peninsula (France)	149
<i>M. Miranda Santos, A. Hilton, P. Poullain, E. Hamard, C. Mouraud</i>	
Tradition and semantics: the case of Aeolian architecture.....	157
<i>S. Mollica</i>	
The Italian case of Leopoldine in Tuscany: methods and issues for the cataloguing of rural building heritage	165
<i>I. Nocerino</i>	
Highlighting the Heritage of Meseta Ibérica.....	173
<i>J. Pinto, A. Paiva, D. Almeida, S. Pereira, A. Antunes, R. Bento</i>	
A heritage to reveal and protect. Historical water-based paper mills and ironworks in Campania (Italy)	181
<i>S. Pollone</i>	
Architecture and Proto Industry. Watermills in the historic peri-urban landscape of Benevento (Italy).....	189
<i>L. Romano</i>	

An architectural catalogue for the study of traditional building features from their seismic behaviour in the 2016 Central Italy earthquake	197
<i>L. Sbrogiò, Y. Saretta, M. R. Valluzzi</i>	
Earthen vernacular architecture in flood-prone areas: characteristics and typologies in the Ebro basin.....	205
<i>F. Trizio, F.J. Torrijo Echarri, C. Mileto, F. Vegas</i>	
New studies for the knowledge of the vernacular characters of the ancient water mills in central Sicily	213
<i>A. Versaci, A. Cardaci, L. R. Fauzia, M. Russo</i>	
Identification and safeguarding of Central Sicily's forgotten vernacular heritage: elements of identity and memory	221
<i>A. Versaci, A. Cardaci</i>	
The particular ensemble of Mas d'en Segures: Functional and constructive analysis of a house and a barn in Tinença de Benifassà (Castellón, Spain).....	229
<i>J. Villasante Claramonte</i>	
In the shadow of Vesuvius. Sustainable and bioclimatic lessons from a vernacular heritage	237
<i>E. Vitagliano</i>	
URBAN STUDIES OF VERNACULAR ARCHITECTURE	
The rural founding villages of the Italian Agrarian Reform in Basilicata (1950-1970): urban planning and 'modern' vernacular architecture to the test of contemporaneity. The case of Borgo Taccone (MT)	247
<i>C. Achille, S. Bortolotto, E. Ciocchini, M. C. Palo</i>	
Vernacular architecture and written sources: the case study of the Tronto Valley	255
<i>E. Facchi, A. Grimoldi, A. G. Landi</i>	
Urban vernacular architecture in the Middle Ages in Galicia, Spain.....	263
<i>A. Fernández Palicio</i>	
Binibeca Vell. Interpreting tradition	271
<i>J. J. Ferrer Forés</i>	
Mapping spatial social aspects of urban recovery in contested cities: a case of the historic commercial center of the ancient city of Aleppo	279
<i>S. Ibrahim</i>	
Contributions of the vernacular heritage in the current city. Case study: Santo Domingo Neighborhood, Tuxtla Gutiérrez, Chiapas, Mexico	287
<i>A. Parra Zebadúa, M. Genís Vinyals, L. Ocampo García, R. Villers Aispuro, M. A. Zenteno Hernández, L. F. Escamiroso Montalvo, S. N. Zebadúa Velasco</i>	
The town of Collodi: the vernacular heritage.....	293
<i>F. Pisani</i>	

Between landscape and fortified architecture: traces and memory of rural civilization in the territory of Pesche in Molise	301
<i>M. P. Testa</i>	
Light Touch on the land – continued conversations about architectural change, informality and sustainability.....	309
<i>D. Whelan</i>	
STUDIES OF TRADITIONAL TECHNIQUES AND MATERIALS	
The stone as constant presence: vernacular structure of the cultural heritage of Porcuna (Andalusia, Spain).....	319
<i>S. Belmondo, P. Millán Millán</i>	
From natural to artificial: vernacular housing in the Spanish Caribbean	327
<i>B. del Cueto</i>	
Designing with water for climate change adaptation and cultural heritage preservation.....	335
<i>A. Elnokaly, W. Pittungnapoo</i>	
La Vera´s vernacular architecture. Structural design and climate protection in timber frame wall houses using constructive systems and local materials.....	341
<i>E. Franco Rodríguez, M. Bujalance</i>	
Traditional buildings for tobacco processing in Val Tiberina (Tuscany-Italy)	349
<i>F. Fratini, S. Rescic, M. Camaiti, M. Mattone</i>	
The parish church of San Michele Arcangelo in Metelliano: the path of knowledge of a vernacular architecture	357
<i>G. Ghelfi</i>	
Indoor air quality for sustainability, occupational health and classroom environments through the application of earth plaster	363
<i>M. I. Gomes, T. Miranda</i>	
The importance of water in traditional gypsum works.....	369
<i>B. González-Sánchez, W. Salazar Chuquimarca, J. R. Rosell Amigó, A. Navarro Ezquerria</i>	
State of conservation of half-timbered walls in Burgos (Spain): Quantitative analysis of material and structural degradation.....	377
<i>A. Hueto-Escobar, F. Vegas, C. Mileto, M. Lidón de Miguel</i>	
Adobe Constructions – Colonial Chilean House.....	385
<i>M. G. Jofré Troncoso</i>	
Favignana bio-calcarenite: technological culture, knowledge and recovery.....	393
<i>A. Mami, E. Caleca, E. Nicolini</i>	
Examination of earthen construction in archaeological sites of the Iberian Peninsula for risk analysis	401
<i>S. Manzano Fernández, C. Mileto, F. Vegas, V. Cristini</i>	

Traditional mortars with chucum in Yucatan, Mexico, as biocultural heritage	409
<i>M. M. Martínez-Barreiro, L. F. Guerrero-Baca</i>	
Dry Stone Wall Relics as a Part of Cultural Landscapes: A Case Study from the Foot of Mt. Hira Region in Japan	417
<i>C. Ochiai, J. Wang</i>	
The paving of ancient paths, testimony of an ancient culture: recovery of a traditional route in Genoa (Liguria, Italy)	425
<i>D. Pittaluga, S. Rescic, F. Fratini</i>	
Constructive and earthquake-resistant aspects of modelled-earth, a technique in ancient Peru	433
<i>H. E. Torres Peceros</i>	
Research on technique “Banzhu” used in traditional dwellings in China from the perspective of formwork	441
<i>Q. Zhou</i>	
SUSTAINABILITY OF VERNACULAR ARCHITECTURE	
Traditional Bukharian Houses and Mahallas: a shared vernacular heritage at risk.....	451
<i>N. Aituganova, O. Vileikis, S. Babaev, J. Ors Ausin</i>	
A look on the intrinsic sustainability of Aeolian vernacular architecture	459
<i>R. Caponetto, G. Giuffrida</i>	
The Z Free Home – inspired by vernacular architecture	467
<i>M. Dabaieh</i>	
Proposals for the sustainable recovery of dry stone buildings in Puglia, Italy.....	475
<i>S. Farina</i>	
Casa Nautilus Solar – Organic contemporary Architecture based on Vernacular Heritage.....	483
<i>P. Jebens-Zirkel Imm, A. J. Zirkel Zirkel</i>	
Making our Rural Landscape visible. A way to defend Anonymous Cultural Heritage.....	491
<i>A. Martínez Duran, M. Villaverde Rey</i>	
Shuar architecture as a model of sustainability	499
<i>D. E. Morocho-Jaramillo</i>	
Dry stone architecture: the survey as a tool to safeguard the risk of morphological or formal homologation	507
<i>G. Rossi, M. Leserri, A. Benitez Calle</i>	
At the roots of sustainability: Mediterranean vernacular architecture	513
<i>S. Talenti, A. Teodosio</i>	
Lessons from the past, architecture for the future. Coupling historic preservation with sustainable architecture	521
<i>P. Vitti</i>	

HERITAGE EDUCATION

RESEARCH IN HERITAGE EDUCATION

Community School Museums as a tool for education.....	537
<i>P. Alonso-Monasterio, L. Uixer Cotano</i>	
The interpretation of the vernacular in the modern work of Gherardo Bosio: the Albanian experience.....	545
<i>C. Castagnaro</i>	
“For sale: empty Spain” Raising awareness on abandoned buildings and depopulated villages	553
<i>V. Cristini, J. L. Baró Zarzo, C. Mileto, F. Vegas, M. Caruso, E. Tortajada Montalva</i>	
Qualitative, historical, spatial, stylistic, and social assessment of heritage buildings in Arequipa for Cultural Heritage teaching in Schools of Architecture	559
<i>T. B. Medina-Sánchez, D. L. Mayta-Ponce, D. Málaga-Montoya, S. Coll-Pla, F. A. Cuzziramos-Gutiérrez, A. Costa Jover</i>	
Vernacular architecture and art. The representation of traditional buildings in Lorenzo Ghiberti's Gates of Paradise in the Baptistery of Florence.....	567
<i>A. Merlo, G. Lavoratti</i>	
Defensive architecture and heritage education: analysis of the National Park Service and Parks Canada actions	575
<i>J. A. Mira Rico</i>	

HERITAGE EDUCATION AND SOCIAL INCLUSION

<i>Gibellina and the identity of community. Brandi, Burri and the conservation of the 'ruins'</i>	585
<i>C. Accetta</i>	
The perceptive experience of the heritage landscape.....	593
<i>A. Barranco Donderis</i>	
The Role of University in Local Cultural Development Through Vernacular Architectural Conservation Education: The Case of Havran, Turkey.....	599
<i>D. U. Binan, H. İ. Alatli</i>	
The role of cultural heritage in urban reuse	607
<i>M. Domènech Rodríguez, D. López López, C. Cornadó Bardón</i>	
Involving society in the enhancement of old city centres	615
<i>A. Guardiola-Villora, L. Basset-Salom</i>	
3D Heritage as a catalyst for social participation in safeguarding cities in conflict. A Case study of Damascus in Syria	623
<i>S. Ibrahim</i>	

Heritage education as an effective approach to enhance community engagement: a model for classifying the level of engagement	631
<i>T. W. Lao</i>	
Preservation and promotion of the cultural heritage through University, public administration, and community engagement.....	639
<i>M. Mattone, N. Frullo</i>	
‘Acupuncture of Awareness’: a possible path for vernacular heritage preservation.....	647
<i>L. Rossato</i>	

HERITAGE COMMUNITIES

Overlooked heritage of Albania: chronicle of rescue, conservation and community involvement at Great Prespa Lake	657
<i>V. Cristini, B. Ludwig</i>	
The appropriation of traditional houses in Imbros/Gökçeada	663
<i>A. Dinççağ Kahveci</i>	
The SDGs as a useful tool in vernacular architecture management: The case of “17 objectives and a map”	671
<i>A. López Sabater, V. García López de Andújar, X. Laumain</i>	
An Odyssey to Heritage Education: The Inspiring Example of Bergama and Its Communities	679
<i>D. Ulusoy Binan, G. G. Okyay</i>	
The role of heritage communities in local development processes through the reuse of architectural heritage. Some examples in Italian rural areas	687
<i>C. Valiante, A. M. Oteri</i>	

CREATIVITY AND HERITAGE EDUCATION

Strategies for the recognition and the enhancement of the cultural heritage in Sant'Antioco	697
<i>M. Achenza, I. Blečić, L. Dipasquale, S. Mecca, A. Merlo</i>	
A collaborative Web App to foster a knowledge network on vernacular heritage, craftspeople, and sustainability	703
<i>J. Ammendola, L. Dipasquale, E. P. Ferrari, S. Mecca, L. Montoni, M. Zambelli</i>	
Cultural heritage: educating the next generation. Case study analysis of the Center of Preservation Research	711
<i>E. Vlahos</i>	

ARTISANS AND CRAFTS OF TRADITIONAL CONSTRUCTION

INTANGIBLE HERITAGE: THE MANAGEMENT OF KNOW-HOW AND LOCAL CONSTRUCTION CULTURE

The towns of the Popocateptl Volcano. Territorial symbolism, cultural identity and vernacular architecture	721
<i>B. Aguilar Prieto</i>	

Methodology for mapping Intangible Cultural Heritage through webGIS integral platforms. La Fontanalla neighbourhood as a case study	729
<i>F. Conejo-Arrabal, F. J. Chamizo-Nieto, N. Nebot-Gómez de Salazar, C. Rosa-Jiménez</i>	
The struggle for Stone-dry walling: the ambition to protect both processes and products.....	737
<i>M. M. Grisoni</i>	
From intangible to tangible. Artisan Skills and Traditional Crafts for Preserving Venice's Built Heritage	745
<i>A. Squassina</i>	
TRADITION AND INNOVATION IN TRADITIONAL CONSTRUCTION CRAFTS	
The Craft of Stucco Mihrab carving in Oman in the 13th to 17th AD.....	755
<i>N. Benkari</i>	
From prototypes to monotypes. Neo-craftsmanship in architecture and design	763
<i>J. Bravo Bravo</i>	
PLANS AND EXPERIENCES FOR THE RECOVERY AND MAINTENANCE OF CONSTRUCTION CRAFTS	
Vernacular architecture and seismic risk. The case of Mugello in Tuscany	773
<i>P. Bordoni</i>	
Pinnettas de pedra: a guide for the valorisation of dry-stone artifacts	781
<i>S. N. Cappai, A. V. Sotgiu</i>	
Vernacular architecture and traditional trades. Social innovation and cultural heritage in rural Andalusia.....	789
<i>G. Carrera Díaz, B. Del Espino Hidalgo, A. Delgado Méndez</i>	
The role of craftsmanship in the conservation of Venice. State of the art and perspective.....	797
<i>F. Trovò, E. Vettore</i>	
CONSERVATION, RESTORATION AND ENHANCEMENT OF VERNACULAR ARCHITECTURE	
CONSERVATION AND RESTORATION PROJECTS OF VERNACULAR ARCHITECTURE	
Is there a future for marginal communities?	807
<i>M. Bocci</i>	
Restoration of the stained glass windows of the British Cemetery of Valencia	815
<i>C. Burguete Gil</i>	
Studies and projects for the archaeological park of the Nuraghe s'Urachi (Sardinia, Italy). From knowledge for heritage conservation to project for the community	823
<i>G. M. Chiri, F. Novelli</i>	
Vernacular heritage protection by the Superintendence of the Aosta Valley	831
<i>C. De La Pierre, D. Martinet, B. Scala</i>	

Of earth, stone and wood: the restoration and conservation of a Buddhist temple in Ladakh, Indian Himalayas.....	839
<i>E. P. Ferrari</i>	
The <i>hórreos</i> in Riaño Mountain, León, Spain. Vernacular architecture between conservation and musealisation.....	847
<i>M. P. García Cuetos</i>	
Restoration project of vernacular architecture affected for ground subsidence: A case study in Juslibol Church (Zaragoza, Spain)	855
<i>A. Gracia, F. J. Torrijo, M. A. Pérez</i>	
Farmhouse interior restoration in bioconstruction	863
<i>V. Li-Puma Sforazzini</i>	
After the earthquake. Design processes for intervention on vernacular heritage in Central Italy.....	871
<i>G. Loffredo, F. Recla, N. Suraci, C. Tosco</i>	
Implementing the lesson of early 20th century traditional buildings for a real sustainability. The examples of Corviale (Rome) and ZEN (Palermo) districts.....	879
<i>E. M. Mazzola</i>	
From rural house to “villa of delights”: knowledge and conservation of Villa Murat in the Sorrento peninsula.....	889
<i>A. Pane, R. Catuogno, M. Parente</i>	
Vernacular earthen architecture. Construction techniques and restoration. From the international setting to some specific Italian regional cases	897
<i>E. Petrucci, R. Mancini, M. G. Putzu</i>	
Rigour, methodology and use, success in heritage conservation: the tower of the St. Mary Magdalene’s church.....	905
<i>P. Rodríguez Cantalapiedra</i>	
Strategies to value the dispersed heritage of rural Andalusia. Lagares, paseros and vineyards: the architecture of the raisin	913
<i>L. Royo Naranjo</i>	
Guidelines for the conservation of the ancient hydraulic mills of the Valle Sabbia, Brescia (Italy).....	921
<i>B. Scala, L. Aliverti</i>	
Bazaars between documentation and conservation. Case studies in Albania and Macedonia.....	929
<i>A. Trematerra, E. Mirra</i>	
Perspectives for the small historical centres at risk of abandonment. A pilot project for the Granfonte district in Leonforte (Italy).....	937
<i>M. R. Vitale, C. Circo, D. Sanzaro, S. Sebastián Franco, I. Cacciatore, M. Massimino</i>	
Repair grants for historic farm buildings in Dartmoor National Park.....	945
<i>N. White</i>	

MATERIALS AND INTERVENTION TECHNIQUES FOR VERNACULAR ARCHITECTURE

Syrian earthen villages: recovery of construction crafts to revive dome houses.....	955
<i>H. Asslan</i>	
Historic tuff masonry in Naples: different approaches to its conservation	963
<i>B. Balbi, R. Bosso, G. Russo Krauss</i>	
Vernacular architecture on archaeological remains. Conservation and enhancement of the “Villa San Limato” in Cellole	971
<i>L. Cappelli</i>	
Conservation and restoration of timber architecture in the Czech Republic.....	979
<i>M. Cernansky</i>	
Effects of the use of plant mucilage on the physico-mechanical properties of raw earth structures	987
<i>O. M. Medina Lorente, B. Carrascosa Moliner, L. Osete Cortina</i>	
Vernacular architecture and archaeological remains. Direct links in the Phlegraean Fields in Campania (Italy).....	995
<i>R. Picone</i>	

DIFFICULTIES AND POSSIBILITIES OF USING TRADITIONAL CRAFTS IN CONSERVATION

Impediments to Sustenance and Revival of Vernacular Architecture in Rural Madhya Pradesh, India.....	1005
<i>A. Tamhankar, V. Gupta</i>	

MANAGEMENT AND MAINTENANCE OF VERNACULAR ARCHITECTURE

Ghadames, Libya. A traditional earthen settlement, resilient to crises and environmental challenges.....	1015
<i>S. Abdulac</i>	
Architectural Heritage and seismic vulnerability: mapping the available knowledge to reduce damage during an emergency	1023
<i>E. Brusa, C. Chesi, S. Della Torre</i>	
Analysis and regeneration strategies for the abandoned villages of the Santerno valley in Tuscany	1031
<i>M. Coppola, L. Dipasquale, L. Mannucci, L. Rovero</i>	
Learning from the past. The loss of vernacular heritage in the interest of hydropower development in Spain.....	1039
<i>N. Fernández García</i>	
Post seismic intervention strategies over the last fifty years in Italy (1968 – 2016). Initial observations about the vernacular architecture’s conservation	1047
<i>V. Macca</i>	

Close to the volcan. Knowledge, conservation and enhancement of a Vesuvian vernacular heritage.....	1055
<i>B. G. Marino, A. Ragosta</i>	
Heritage and community centre in Matta Sur, Chile.....	1063
<i>A. Rivera Vidal, C. Gómez Maestro</i>	
Local materials and traditions in the conservation of vernacular buildings.....	1071
<i>C. Rodrigues</i>	
Vernacular earthen architectures. Institutionalisation and management models for its conservation in northern Argentina.....	1077
<i>J. Tomasi, J. Barada</i>	
Protection and reuse of a forgotten heritage: the Parmesan cheese buildings. Notes for a widespread museum in the lower Reggio Emilia plain	1085
<i>S. Varvaro</i>	

AUTHORS INDEX

VERNACULAR ARCHITECTURE: MATTER, CULTURE AND SUSTAINABILITY

**STUDY AND CATALOGING
OF VERNACULAR ARCHITECTURE**



Identification and safeguarding of Central Sicily's forgotten vernacular heritage: elements of identity and memory

Antonella Versaci¹, Alessio Cardaci²

¹Faculty of Engineering and Architecture, Kore University of Enna, Italy, antonella.versaci@unikore.it;

²Dept. Engineering and Science Applied, University of Bergamo, Italy, alessio.cardaci@unibg.it;

Topic: T1.1 Study and cataloguing of vernacular architecture

Abstract

The coronavirus pandemic has created new challenges for rural areas already affected by chronic economic, social, and environmental problems such as depopulation, reduced service provision, ageing, the decline of agriculture income, inhibited accessibility. These problems are very serious in Central Sicily. Here, the absence of adequate infrastructure, the limited presence of organizations for the promotion and marketing of agricultural products, and the effects of climate change have strongly affected the rural landscape. Numerous small towns, farms and extraordinary underground structures are on the verge of extinction, threatened by the ravages of time, forgetfulness, and vandalism. Although often unknown, these eloquent examples of the vernacular heritage of the interior of the island are no longer an integral part of the life of the region. However, if properly identified, studied, protected, re-used, and reconnected to the territory, they could help to reinforce the local cultural identities, and bring positive changes in the socio-economic conditions of the concerned peoples. This paper aims at exploring all these aspects, focusing on the territory of Enna. It also intends to present a pilot project aimed at identifying the most important elements of local rural architecture to promote sustainable methods of preservation and restoration.

Keywords: cultural and rural landscape; safeguarding; restoration; reuse; Sicily.

1. Introduction

In recent decades, there has been a consolidation of the collective interest in the safeguarding of the landscape and, even more specifically, of those legal categories of cultural and rural landscapes, still today in a process of continuous affirmation and deepening (Petrillo 2014). This may be due to both the mass of rules and regulations that have been promulgated over time in the field and the multiple meanings given to these notions. Concepts that are progressively moving away from an aesthetic and/or aestheticizing vision and from a static, sectorial, and local reading of existing reality, to be transformed into complex images, in constant evolution as resulting from dynamic interactions.

In Italy, landscape safeguarding is a primary duty of the Republic, as stated by the Constitution written in 1947. However, it is in article 131 of the Code of the Cultural and Landscape Heritage - the Legislative Decree 42/2004 with its 2006 and 2008 amendments - (Leone 2009), that the term is clearly defined as “an integral part of the territory whose characteristics are derived from nature, the history of humanity or from their reciprocal inter-relationships”, in compliance with the European Landscape Convention (ELC).

The landscape is considered a distinctive feature of a clearly demarcated territory. Its protection first requires the recognition and protection of the specific aspects that characterise it and distinguish it from the others. The ELC has affirmed

that landscape has strong cultural and economic value and, for the first time, highlighted the need for managing and planning it as a key element of individual and social well-being. Not limiting itself to expressing the need to safeguard areas that might be considered outstanding, it has also underlined the urgency to proceed with the recovery of everyday and degraded landscapes, and the peri-urban areas. He brought to the forefront the issue of the quality of their transformations. If this instrument undoubtedly represents a significant stage in a process aimed at the full awareness of the identity of the landscape, it is UNESCO that, many years earlier, introduced the category of 'cultural landscape' as a specific element to be saved (Jakob, 2009). Twenty years after its approval, the UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (1972) has become the first international legal instrument to identify and protect cultural landscapes. Following the revision of the *Operational Guidelines for its implementation* in 1992, cultural landscapes may be added to the World Heritage List. According to the document, they represent the "combined works of nature and man" and are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic, and cultural forces. Since then, the need to establish specific measures for the protection and enhancement of that specific category of cultural landscapes represented by the so-called 'rural landscapes' has been affirmed (Carmignani, 2009). In Italy, one of the main institutional steps was provided by the National Observatory for Rural Landscape, Agricultural Practices and Traditional Knowledge established in 2012 by the Ministry of Food, Agricultural and Forest Policies, following the results of a research project called National Catalogue of historical rural landscapes aimed at identifying and studying the most important rural landscapes (Agnoletti et al. 2019). The art. 2 of the National Observatory's founding decree gives a clear definition of the traditional rural landscape

of historical interest, by identifying it in those parts of the territory classified as rural and/or [in] linear or punctual elements, which while continuing their evolutionary process, retain clear evidence of their origin and history. The rural landscape is so characterised by physical and material features: cultures, settlements, and historical and traditional artefacts. At the same time, it reflects the evolution over time of the relationship between the community and this area. It is evident how it results from the interrelation between the human and anthropic elements on the one hand and the environmental element on the other hand and how its cultural value derives from their combination. The landscape, in a physical sense, "is like the great architecture, consisting of natural and artificial elements. It has three dimensions, shapes and functions; it is the work of man and nature and in constant transformation" (Scazzosi, 2011). However, the landscape is fragile: an asset 'at risk' as exposed to processes of physiological alteration and degradation of its components, capable of obscuring or cancelling peculiar traits, differences, characteristics. It is, at the same time, a 'changing' or 'unstable' good due to anthropic action that very often compromise its natural equilibrium through aggressive transformation processes characterized by a high level of precariousness. A good subject, in the latest decades, to dramatic threats connected to economic and social processes (poverty, inequality, ageing, mass migration, etc.), and, more recently, to sanitary problems at the global level, which are causing extensive challenges towards rural areas and their communities.

2. The Sicilian agricultural landscape: current and future issues

Resulted from both innumerable cultural contamination and stratifications and the millennial encounter with the most important agrarian civilizations and with their heritage of plants, animals, techniques, customs and social relationships, the Sicilian landscape today can show only pieces of that long history that, instead, characterizes it. The failure of the agrarian reform combined with



Fig. 1. The rural landscape of Enna, Sicily.

the start of industrial polarization policies has caused considerable imbalances in the structures of rural areas since the 1960s. Technological innovation in agriculture, the abandonment of polyculture in favour of intensive and specialized monocultures, the agricultural machinery and the intensive use of pesticides and herbicides, have caused a profound alteration of the agricultural, historical landscape as well as the erosion when not the destruction of many of its original features. A transformation that seems to have dissolved “that aromatic intrigue in which Phoenixes, Dorians and Ionians found it, when they landed in Sicily” referred to Tomasi di Lampedusa, so extinguishing “that seed of cultural expression that was the protagonist, for centuries, of human movements on the territory” (Barillaro, 2008). A landscape now largely lost, which seems to have become a real concern for European, national and, obviously, regional policies in the now widespread awareness that its protection and enhancement represent an opportunity to be seized for not only economic reasons but also for the social and cultural improvement of the community. This is the context in which the province of Enna

stands. An area that sees its peculiarity in its bar-centric position in the island (the Romans called it the *Umbilicus Siciliae*). Nevertheless, the historical events of the last century affected the relationship between the physical substrate and its settlement model and converted its geographical centrality into an element of marginality. Lacking infrastructures, terrestrial connection networks and skilled labour, penalized by the scarce presence of structures organized for the enhancement and marketing of agricultural products and a victim of climate change, Enna’s rural landscape, still suffers the consequences of a period of great unease in the sector that the development programs promoted by the EU have been trying for some time to fill through the implementation loans and recovery plans (Fig. 1).

The initiatives adopted for safeguarding and protecting natural and non-natural environments, albeit numerous, still struggle to show major results, certainly due to the complexity of the phenomena involved and/or, perhaps, because they were not yet sufficiently based on the necessary understanding of the culture of place, seen as spatial-temporal entities repositories of testimonies and relationships, from which every subsequent action should derive. Knowledge based on analyses of the signs impressed on the territory and their relations with their performers. That is, the result of a process of the signification of the landscape based on the analysis of its links with society since, according to the Charter of Cracovia 2000, “each community, through its collective memory and consciousness of its past, is responsible for the identification as well as the management of its heritage”.

The architectural heritage that characterises the countryside of Enna, the backbone of this system, is still little known to the community today. Having now lost its original function, it is globally affected by problems of neglect, degradation, poor accessibility. However, these are elements with a strong identity that show the existence of a local constructive logic that allows them to be traced back to the building typologies to which they belong (Fig. 2). Places and architectures which, if

recovered, could certainly be actively reintegrated into the life of the community, placing themselves as poles of development, based on local heritage, natural resources, creativity, and social inclusion as essential elements to regenerate rural areas and to rapidly support their transition towards sustainable future (De Luca et al., 2020).

3. The rural heritage of the area of Enna

Surrounded by a rocky setting formed to the north by the Madonie and by the last slopes of the Nebrodi and largely occupied by the Erei mountains, the territory of Enna (the only Sicilian landlocked) is characterized by an extremely varied natural heritage, rich in rivers, streams, lakes, and hills that slowly descend towards the vast plains of the Catania's area. This territory, which shares many characteristic features with the rest of the Sicilian hinterland, has very strong geographic and cultural dissimilarities with coastal Sicily, better known and, historically, more visited. The spontaneous vegetation, in the past very dense and heterogeneous, is today significantly impoverished due to the deforestation and the harvesting of tree crops already carried out by the feudal system since the 1600s, with serious damage to livestock breeding and the silvopastoral economy. The large estate, with its system of intensive land exploitation, has transformed the landscape, giving it the chromatic traits and the still pre-eminent characteristics of the extensive monoculture of wheat and a consequent uniformity that only changes with the seasons. Because of both its central position in the island and the geomorphological characteristics, Enna has played a strategic role in ancient times. Inhabited since the pre-Greek era, as evidenced by some stable settlements presumably dating back to a period between the 13th and 8th centuries BC, it was subject to a broad process of Hellenization starting from the 7th century. The shape of the rocks, with an abundant presence of limestone and sandstone subject to severe erosion by atmospheric agents, favoured the formation of underground housing structures, as evidenced by the number of necropolises found in the area with the typical *grotticella*

tombs (VI-V century BC, fig. 2a). A territory, therefore, in which the settlement by agro-pastoral communities was favoured by the presence of caves, cavities, underground complexes along the mountain slopes and the torrential valleys that surround Enna and the close cities of Assoro, Gagliano, Leonforte, Nicosia, as well as Calascibetta and Sperlinga where rupestrian dwellings arranged on superimposed terraces are still visible. The whole rural landscape is marked - especially in the northern area of the province, but also on the Enna urban territory, albeit residually - by numerous rock structures, very often used without solution of continuity up to the present day, first in the natural state to then become stable abodes for shepherds and shelter for the flocks. Their dimensions are variable according to the consistency of the rock and their intended use: generally, small for shelters or very large when used as a sheepfold, closed on the outside by a fence of stones and weeds (Gambino & Ursino, 1973). Limited, compared to the other rural areas of the island, is the scattered settlement, that is, the spread of housing and the distribution of the population along with the land and cultivated fields. This characteristic is closely linked to the socio-economic structure of the *latifondi* (large estates), whose forms of settlement are fundamentally articulated in the system of farms, rural constructions widely present in the territory of Enna, and which at the same time gave rise to the poorest forms of rural architecture: the *pagghiaro* (the straw hat) and the single-celled houses.

The *pagghiaro* was once the home of the peasants who worked in the big fiefdoms. The simpler type made of plant material has now completely disappeared, while there are still a few examples of a second type built according to a system composed of reeds resting on dry stone walls, along the road that connects Enna to the nearby town of Leonforte (Fig. 2b). The masonry base usually does not climb more than half the total height of the haystack (2.50 m). The entrance, surmounted by a rudimentary wooden architrave, is closed by a single-leaf wooden door or by bunches of twigs. The more advanced form compared to the haystack is

given in its simplest geometry by the *casedda*: a quadrangular construction with a single compartment, with a single rain pitch roof with tiles. Small stones bonded with mortar are the most used building materials. The inside, never plastered, sheltered a modest bed and heavier agricultural tools; leaning against a wall was the trough for the mule and the donkey. Beside this shelter-house, there were also permanent residences of rectangular plan divided into three sections: in the centre of the house, at its ends the stable and the warehouse.

The *masseria* (toponym of agricultural structure with functions of the fund management centre) is, on the other hand, the most eloquent expression of the feudal system, located mainly in the middle and lower hills. It constitutes the collection outpost of the agropastoral production of the large estates, entrusted by the baron (usually resident in large urban centres) to a tenant (*gabellotto*) in charge of managing on his behalf the most extensive and distant land and living, for this purpose, in the farm. This was established to prevent workers from still stay on the land and thus owning their flocks and tools, as was the case, precisely, in sharecropping and dispersed rural crops (Fig. 2c). They thus continued to reside in the villages perched on the hills, moving seasonally to offer work to the *massari*. Its layout is characterized by a massive quadrangle that revolves around a large central paved courtyard. The access to the courtyard, always unique and consisting of a two-leaf door surmounted by a round arch in which the owner's initials are engraved, seems to want to exclude any possible contact with the outside. Together with the bare surfaces, in which there are rare and small slits and grated windows, it highlights the defensive nature of the building. On it lies the mansion (inhabited only at certain times of the year, i.e. at the time of harvest), accessible via an interior staircase. Inside the building, large surfaces were intended to host warehouses for storing products and stalls, multiple and differentiated according to their destination. Special care and finishing characterized the stables for horses, of which this type of farm always had an important endowment. A little less cared for were

those of cattle, generally rectangular in plan, divided into two lanes, with a drain in the middle for waste. Next to the warehouses, there were the rooms used as storage for agricultural tools, the dormitory - where, on the straw beds, the adventitious manpower (*jurnatari*) that flowed to the farm during the harvest period was once housed -, and the *ribatteria* used for bread-making, the consumption of meals, characterized by a wood stove and an oven. In addition, the mill and the millstone were present, based on the company's production orientation. In the area of Enna, there are also forms of scattered settlement built by the State starting from the 1940s as part of the redevelopment program of the rural areas of the island and later by the Region. They were created to both combat the landowner type which was seen as the main cause of the backwardness of the island and spread the permanence of the peasant on the land with a consequent restructuring of the cultivation systems. Just as the issue of social housing for the urban worker, that of the agricultural worker began to be addressed, so extending "the concept of the city (as a human residence equipped for work, leisure, and rest) [...] to broader conglomeration territories, even what we commonly call rural building" (Caracciolo, 1949).

The first series of farmhouses was built at the initiative of the fascist Entity of Colonization of Sicilian Latifundia (*Ente di Colonizzazione del Latifondo Siciliano*, ECLS) but these, too distant from each other and completely devoid of civil services, did not favour colonization and the stable settlement of farmers in rural areas. The legacy of the ECLS was collected, starting from the 1950s, by the newly established Regional Government through the Institute for the Agrarian Reform in Sicily (*Ente per la Riforma Agraria in Sicilia*, ERAS, renamed ESA in 1965), which expropriated more than 12,000 hectares assigned to nearly 3,000 farmers and built more than 500 rural houses. Furthermore, to meet the needs of the agricultural community, traditionally reluctant to isolation, two villages were built with the services necessary for collective life: Borgo Antonino Cascino, near

Enna, designed by the architect Giuseppe Marletta and Borgo Baccarato, not far from Aidone (Fig. 2d), by the engineer Francesco S. Siragusa. The first has benefited from a partial recovery program thanks to a specific measure of EU structural funds (Rural Development program - 2007/2013) and today hosts almost 50 persons; the second is, today, a ghost town, despite having been identified by ESA as one of the villages to be recovered to allocate it to the promotion of typical food products. Due to the small size of the assigned parcels (from three to six hectares) and the often-mediocre quality of the divested land, unsuitable for crop conversion, the budget for the operation was found to be in deficit; consequently, the numerous rural houses built by ERAS in the countryside, most of them lacking in light and with insufficient water availability, were soon abandoned. Among the various types of rural houses introduced in the area under consideration by the agrarian reform, the most frequent has a covered porch in which the entrance and the house consisting of two rooms and the kitchen-living room open, as well as the warehouse and access to the stable; on the back, are the pigsty and the chicken coop. Finally, numerous watermills (Fig. 2e), fountains, washhouses, drinking-troughs dot the territory widely, placing themselves as milestones of a widespread and extensive water network, but built with total respect of the man/environment relationships. Goods that are characterized by an architectural and stylistic refinement that testifies to the feeling of deep attachment to a natural element so important for traditional society.

4. Development policies and strategies for enhancing the rural heritage of Enna

Today, this immense heritage, often considered almost useless, is suffering the consequences of a widespread state of abandonment or under-use, while preserving its identity. Placed in a state of suspension and relegated to the role of a picturesque element of the landscape, it awaits new

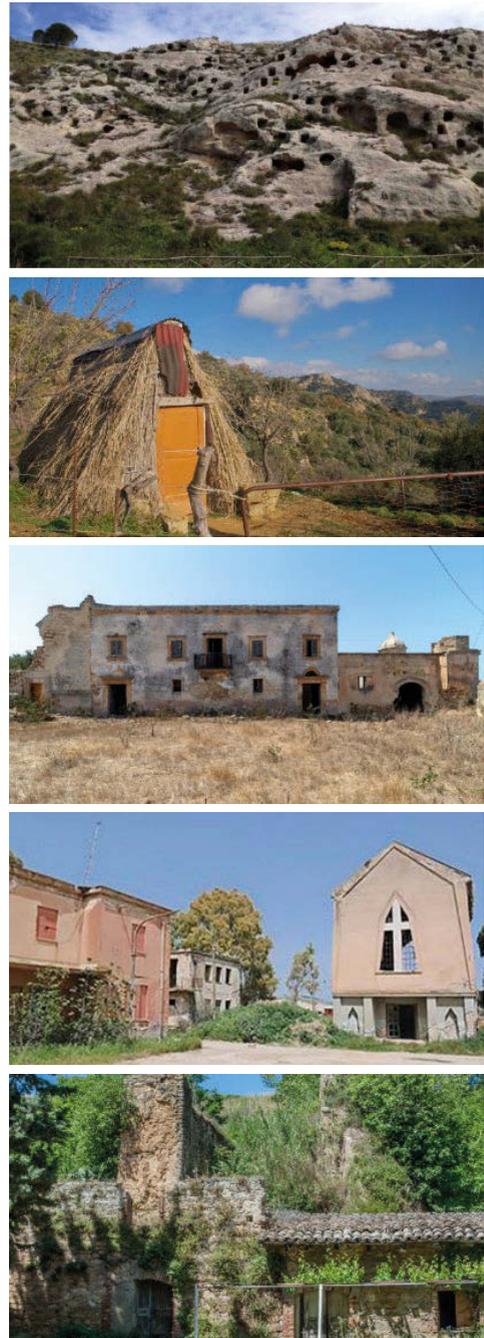


Fig. 2. Examples of vernacular heritage in the area of Enna: the Necropolis of Realmese with its *grotticella* tombs (a), a *pagghiaro* in Leonforte (b), a typical *masseria* today abandoned (c), the rural village of Borgo Baccarato in Aidone (d) and the Rasalgone watermill in Piazza Armerina (e).

functions while falling more and more into ruin, as exposed to degradation and decay phenomena. Yet, if subjected to appropriate actions of knowledge, recovery, and revitalization, it could prove to be a strategic development tool for a region with great patrimonial wealth (among the others the close Villa del Casale at Piazza Armerina, Unesco World Heritage Site since 1997, or the archaeological area of Morgantina). An area which still does not have sufficient tourist attractiveness and competitiveness, because of the low level of efficiency of transport infrastructures and accommodation structures.

Per the regulatory guidelines of the regional landscape plan, the Free Municipal Consortium of Enna (the body which, following changes in regional legislation in the years 2014-2015, replaced the Province of Enna) approved in 2018 the provincial-territorial plan which assumes the strategic and operational infrastructural contents, indicating and prescribing a series of mainly active interventions for the transformation of the territory, calibrated in a spirit of sustainability and environmental compatibility. As part of the plan, an inventory has been carried out on the vast cultural heritage of the area, which shows the wealth of its rural assets: a formidable articulation of landscapes, sites, vernacular architecture that are not fully exploited, but which could prove to be of great value in terms of development of organic agricultural policies, but also as accommodation facilities for the rural tourism.

Among the European Union initiatives to support rural development projects, the LEADER II (Links between actions for the development of the rural economy) program financed through the Local Action Group Rocca di Cerere, several activities aimed at the conservation and recovery of rural heritage: sites of high naturalistic and landscape value (ponds, crossroads, hedges, monumental trees, etc.) and other cultural elements of the traditional agricultural landscape (vernacular architecture, dry stone walls, terraces, drinking troughs and artefacts that bear witness to agricultural work and collective rural life).

As mentioned, if as part of the Rural Development program 2007/2013, the Sicily Region had drawn up a pilot project for the enhancement of the rural villages of the ESA called ‘the road of the villages’ unfortunately only little implemented, a harbinger of preparatory studies and research have been established and then implemented the knowledge of the construction techniques and morphotypological characteristics used (Cardaci & Versaci, 2017).

All these initiatives, certainly not listed in an exhaustive manner, represent important elements of an already highly advanced process of recognition of the rural landscape as a cultural asset also in terms of memory and collective identity of which it is a direct expression (Del Mastro, 2005), representing that “form that man, in the course and for his agricultural production activities, consciously and systematically imprints on the natural landscape” (Sereni, 1982). From this point of view, a fundamental role in the processes of conservation, improvement and development of the rural landscape is represented by the architectural patrimony that characterizes it. However, these actions lack worldwide coordination that should start from a thorough and detailed analysis of this heritage in its material, morphological and technological components, still not available.

In many situations, traditional rural architecture, generally characterized by its compact mass, has lost part of its recognisability, engulfed by larger farms, in which sheds and/or greenhouses prevail, or by impressive accommodation facilities that gradually erode the original building components. Only in-depth knowledge of rural architecture in its various declinations can lead to respectful restoration projects and, even in the combination of the new, to original interpretations deprived of mimesis or nostalgic approach. With this in mind, the research project initiated by the authors of this paper on the territory of Enna - starting from some of the most interesting subsystems, the mills of the Gela river valley and the rural villages built during the Fascist era - proposes the cataloguing and analyses of rural building morphotypes, the definition of the cultural matrix on which the local

construction technique was based, the evaluation of the characteristics and potential of the artefacts and their availability thanks to the application of the semantic web technologies and building information model. These elements are necessary for the definition of useful design guidelines for restoration and recovery planning consistent with the original and sustainable constructive lexicon. The aim is to provide guidance for the valorisation of Enna's rural architecture and landscape. A tool to support citizens and local communities, aimed at providing greater awareness in the formulation of the projects that, following the pandemic, Italy's recovery and resilience plan has expressly foreseen in the field (PNRR).

5. Conclusions

The rural landscape of Enna's area, if properly studied and enhanced, can be a key element for both the recovery of local identity and the activation of a new global attractiveness, which have been claimed by many as the indispensable conditions for generative and non-deceptive development (Carta, 2015). In this sense, it seems crucial to return to an in-depth dialogue with nature, respectfully 'recycling' the existing, the abandoned and the underutilized, so fighting oblivion and building degradation through the retrieval of ancient construction skills.

The ongoing health crisis, the incessant environmental and climatic decay, the increasingly pressing economic challenges have highlighted the fragility of our life contexts, putting the territory and inland areas, no longer considered, at the centre of the debate. They are backwards, but resilient, less contaminated places where to start a new, more sustainable life. That of going back to the land, to the vernacular tradition, to the use of local resources, to the rediscovery of old techniques is an opportunity to seize not as in an old-fogey vision but as a cornerstone of our future.

References

- Agnoletti, M., Emanuelli, F., Corrieri, F., Venturi, M., Santoro, A. (2019). Monitoring Traditional Rural Landscapes: the Case of Italy. *Sustainability*, 11, 6107, pp. 1-19.
- Barillaro, C. (2008). Il paesaggio agrario siciliano tra processi di trasformazione e ricerca di identità. In N. Castiello (Eds.). *Scritti in onore di Carmelo Formica*. Tipolitografia Scala Ed., pp. 103-114.
- Caracciolo, E. (1949). *Importanza dell'edilizia rurale nella attuale contingenza storica*. Ed. IRES.
- Cardaci, A., Versaci, A. (2017). The survey for the conservation and valorisation of rural villages of Central Sicily: the case study of Borgo Lupo in Mineo. In *DisegnareCon*, 10, pp. 8.1-8.18.
- Carmignani, S. (2009). Paesaggio, agricoltura e territorio. Profili pubblicitari. In E. Rook Basile, S. Carmignani, N. Lucifero (Eds.). *Strutture agrarie e metamorfosi del paesaggio*. Giuffrè Ed. pp. 1-97.
- Carta, M. (2015). Innovazione, circolarità e sviluppo locale: la sfida dei territori interni. In M. Carta, D. Ronsivalle (Eds.). *Territori interni: la pianificazione integrata per lo sviluppo circolare*. Aracne, pp. 23-35.
- De Luca, C., Tondelli, S., & Åberg, H. (2020). The Covid-19 pandemic effects in rural areas. *TeMA. Journal of Land Use, Mobility and Environment*. pp.119-132. <https://doi.org/10.6092/1970-9870/6844>
- Del Mastro, E. (2005). La tutela del paesaggio rurale: tendenze evolutive a livello nazionale e comunitario. *Aedon - Rivista di arti e diritto online*. 2.
- Gambino, J. C., Ursino G. (1973). Gli Erei e i rilievi contermini. In M.T. Alleruzzo di Maggio, C. Formica et al. (Eds.). *La casa rurale della Sicilia orientale: ricerche sulle dimore rurali in Italia*. Leo Olschki Ed., pp. 239-276.
- Jakob, M. (2009). *Il paesaggio*. Il Mulino Ed.
- Leone, A. (2009) *Riflessioni sul paesaggio*. Aracne.
- Petrillo, P. L. (2014). *Tutela giuridica del paesaggio culturale rurale tradizionale*. Ministero delle Politiche Agricole, Alimentari e Forestali.
- Scazzosi, L. (2011). Museo, museo diffuso, paesaggio. E. Gennaro (Eds.). *Musei e paesaggio: da tema di ricerca a prospettiva d'impegno*. Longo Angelo Ed., pp. 65-74.
- Sereni, E. (1982). *Storia del paesaggio agrario italiano*. Laterza.

AUTHORS INDEX



AUTHOR INDEX

- Abdulac, S., 1015
Accetta, C., 585
Achenza, M., 697
Achille, C., 247
Agromayor Navarrete, E., 11
Aguilar Prieto, B., 721
Aituganova, N., 451
Aladro-Prieto, J., 23
Alatli, H. İ., 599
Aliverti, L., 921
Almeida, D., 173
Alonso-Monasterio, P., 537
Ammendola, J., 703
Antunes, A., 173
Araújo Lima Bessa, S., 31
Asslan, H., 955
- Babaev, S., 451
Balbi, B., 963
Barada, J., 1077
Baró Zarzo, J. L., 553
Barranco Donderis, A., 593
Basset-Salom, L., 615
Belmondo, S., 319
Benitez Calle, A., 507
Benkari, N., 755
Bento, R., 173
Bilotta, F., 39
Binan, D. U., 599
Blečić, I., 697
Bocci, M., 807
Bordoni, P., 773
Bortolotto, S., 247
Bosso, R., 963
Bravo Bravo, J., 763
Brusa, E., 1023
Bujalance, M., 341
Burguete Gil, C., 815
- Cacciatore, I., 937
Caleca, E., 393
Camaiti, M., 349
Canonaco, B., 39, 47
Caponetto, R., 459
Cappai, S. N., 781
Cappelli, L., 971
- Cardaci, A., 213, 221
Carrascosa Moliner, B., 987
Carrera Díaz, G., 789
Caruso, M., 55, 553
Castagnaro, C., 545
Castiglione, F., 47
Catuogno, R., 889
Cernansky, M., 979
Chamizo-Nieto, F. J., 729
Chaverra Suarez, M., 119
Chesi, C., 1023
Chiri, G. M., 823
Ciocchini, E., 247
Cipolletti, S., 63
Circo, C., 937
Coll-Pla, S., 559
Conejo-Arrabal, F., 729
Coppola, M., 1031
Cornadó Bardón, C., 607
Costa Jover, A., 559
Costa Rosado, A., 71
Crispino, D., 79
Cristini, V., 55, 401, 553, 657
Cuzziramos-Gutiérrez, F. A., 559
- Dabaieh, M., 467
De Feo, E., 87
De La Pierre, C., 831
del Cueto, B., 327
Del Espino Hidalgo, B., 789
Delgado Méndez, A., 789
Della Torre, S., 1023
Di Paola, A., 95
Dinççağ Kahveci, 663
Dipasquale, L., 697, 703, 1031
Domènech Rodríguez, M., 607
- Elnokaly, A., 335
Escamirosa Montalvo, L. F., 287
- Facchi, E., 255
Farina, S., 475
Fauzia, L. R., 213
Felix Andrade, D., 31
Fernández García, N., 1039
Fernández Palicio, A., 263

- Ferrari, E. P., 703, 839
Ferrer Forés, J. J., 271
Ferreya, C., 133
Franco Rodríguez, E., 341
Fratini, F., 349, 425
Frosini, G., 95
Frullo, N., 639
- García Cuetos, M. P., 847
García López de Andújar, V., 671
Garuglieri, S., 95
Genís Vinyals, M., 287
Ghelfi, G., 357
Giuffrida, G., 459
Gomes, M. I., 363
Gómez Maestro, C., 1063
Gómez Martínez, V., 71
Gómez Mejía, S., 119
González-Sánchez, B., 369
Gracia, A., 855
Grimoldi, A., 255
Grisoni, M. M., 103, 737
Guardiola-Villora, A., 615
Guerrero-Baca, L. F., 409
Gupta, V., 1005
- Hamard, E., 149
Hernández Navarro, Y., 141
Hilton, A., 149
Huetto-Escobar, A., 125, 377
- Ibrahim, S., 279, 623
- Jebens-Zirkel Imm, P., 483
Ji, W., 111
Jofré Troncoso, M. G., 385
- Landi, A. G., 255
Lao, T. W., 631
Laumain, X., 671
Lavoratti, G., 567
Leserri, M., 119, 507
Lidón de Miguel, M., 125, 377
Li-Puma Sforazzini, V., 863
Loffredo, G., 871
López López, D., 607
López Sabater, A., 671
Ludwig, A. B., 657
- Macca, V., 1047
- Mahdy, H., 3
Málaga-Montoya, D., 559
Mami, A., 393
Mancini, R., 897
Mannucci, L., 1031
Manzano Fernández, S., 401
Marino, B. G., 1055
Martinet, D., 831
Martínez Duran, A., 491
Martínez-Barreiro, M. M., 409
Massimino, M., 937
Mattone, M., 349, 639
Mayta-Ponce, D. L., 559
Mazzola, E. M., 879
Mecca, S., 697, 703
Medina Lorente, O. M., 987
Medina-Sánchez, T. B., 559
Merlo, A., 567, 697
Messina, B., 133
Mileto, C., 55, 111, 125, 205, 377, 401, 553
Millán Millán, P., 319
Minguzzi, M., 141
Mira Rico, J. A., 575
Miranda Santos, M., 149
Miranda, T., 363
Mirra, E., 929
Mollica, S., 157
Montoni, L., 703
Morena, S., 133
Morocho-Jaramillo, D. E., 499
Mouraud, C., 149
Murillo-Romero, M., 23
- Navarro Ezquerria, A., 369
Nebot-Gómez de Salazar, N., 729
Nicolini, E., 393
Nocerino, I., 165
Novelli, F., 823
- Ocampo García, L., 287
Ochiai, C., 417
Okyay, G. G., 679
Ors Ausín, J., 451
Osete Cortina, L., 987
Ostos-Prieto, F. J., 23
Oteri, A. M., 687
- Paiva, A., 173
Palo, M. C., 247

- Pane, A., 889
Parente, M., 889
Parra Zebadúa, A., 287
Penido de Rezende, M. A., 31
Pereira, S., 173
Pérez Cano, M. T., 71
Pérez, M. A., 855
Petrucci, E., 897
Picone, R., 995
Pinto, J., 173
Pisani, F., 293
Pittaluga, D., 425
Pittungnapoo, W., 335
Pollone, S., 181
Poullain, P., 149
Putzu, M. G., 897
- Ragosta, A., 1055
Recla, F., 871
Reimão Costa, M., 71
Rescic, S., 349, 425
Rivera Vidal, A., 1063
Rodrigues, C., 1071
Rodríguez Cantalapedra, P., 905
Romano, L., 189
Rosa-Jiménez, C., 729
Rosell Amigó, J. R., 369
Rossato, L., 647
Rossi, G., 119, 507
Rovero, L., 1031
Royo Naranjo, L., 913
Russo Krauss, G., 963
Russo, M., 213
- Salazar Chuquimarca, W., 369
Sanzaro, D., 937
Saretta, Y., 197
Sbrogiò, L., 197
Scala, B., 831, 921
Sebastián Franco, S., 937
Sotgiu, A. V., 781
Squassina, A., 745
Suraci, N., 871
- Talenti, S., 513
Tamhankar, A., 1005
Teodosio, A., 513
Testa, M. P., 301
Timón Tiemblo, M. P., 11
- Tomasi, J., 1077
Torres Peceros, H. E., 433
Torrijo Echarri, F.J., 205, 855
Tortajada Montalva, E., 553
Tosco, C., 871
Trematerra, A., 929
Trizio, F., 205
Trovò, F., 797
- Uixer Cotano, L., 537
Ulusoy Binan, D., 679
- Valiante, C., 683
Valluzzi, M. R., 197
Varvaro, S., 1085
Vecchio, S., 95
Vegas, F., 55, 111, 125, 205, 377, 401, 553
Verona, B., 95
Versaci, A., 213, 221
Vettore, E., 797
Vileikis, O., 451
Villasante Claramonte, J., 229
Villaverde Rey, M., 491
Villers Aispuro, R., 287
Vitagliano, E., 237
Vitale, M. R., 937
Vitti, P., 521
Vlahos, E., 711
Vosloo, L., 141
- Wang, J., 417
Whelan, D., 309
White, N., 945
- Zambelli, M., 703
Zebadúa Velasco, S. N., 287
Zenteno Hernández, M. A., 287
Zhou, Q., 441
Zirkel Zirkel, A. J., 483

ISBN 978-84-1396-020-3



HERITAGE 2022 INTERNATIONAL CONFERENCE
VERNACULAR HERITAGE:
CULTURE, PEOPLE AND SUSTAINABILITY

Eds. C. Mileto, F. Vegas, V. Cristini, L. García-Soriano

Vernacular architecture, tangible and intangible heritage of great importance to European and global culture, represents the response of a society culturally linked to its territory, in terms of climate and landscape. Its construction features are born from the practical experience of the inhabitants, making use of local materials, taking into consideration geographical conditions and cultural, social and constructive traditions, based on the conditions of the surrounding nature and habitat. Above all, it plays an essential role in contemporary society as it is able to teach us important principles and lessons for a respectful sustainable architecture.

Vernacular Heritage: Culture, People and Sustainability will be a valuable source of information for academics and professionals in the fields of Environmental Science, Civil Engineering, Construction and Building Engineering and Architecture.

