

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

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



# **VERNACULAR HERITAGE: CULTURE, PEOPLE AND SUSTAINABILITY**

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



Universitat Politècnica de València

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# 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>	
<b>URBAN STUDIES OF VERNACULAR ARCHITECTURE</b>	
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>	
<b>STUDIES OF TRADITIONAL TECHNIQUES AND MATERIALS</b>	
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>	
<b>SUSTAINABILITY OF VERNACULAR ARCHITECTURE</b>	
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. Alatlı</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>	
<b>TRADITION AND INNOVATION IN TRADITIONAL CONSTRUCTION CRAFTS</b>	
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>	
<b>PLANS AND EXPERIENCES FOR THE RECOVERY AND MAINTENANCE OF CONSTRUCTION CRAFTS</b>	
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>	
<b>CONSERVATION, RESTORATION AND ENHANCEMENT OF VERNACULAR ARCHITECTURE</b>	
<b>CONSERVATION AND RESTORATION PROJECTS OF VERNACULAR ARCHITECTURE</b>	
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

## ‘Acupuncture of Awareness’: a possible path for vernacular heritage preservation

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**Topic:** T2.2. Heritage education and social inclusion

### **Abstract**

*This article describes an approach developed by the author in various international contexts (India, Iran and Brazil) to raise awareness in the community of the importance of documenting and preserving historic areas, comprising mainly vernacular architecture with a very high sociocultural value. Over the last two–three decades, contemporary architectural interventions have undermined the urban setting of many vernacular sites, disfiguring them with out-of-scale projects of questionable quality, transforming traditional spaces and hybridizing historic materials. This article discusses ideas that arose from several years of research and educational projects in extremely dynamic and changing environments such as those of the historic centres of various developing countries. It presents the effects of awareness-raising projects conducted collaboratively in several historic centres by professors, researchers, local authorities, professionals, young scholars and residents. The research underlined the importance of different perspectives on the documentation and representation of cultural heritage—the meaning of which depends on local culture and traditions—in identifying future developments, low-cost methodologies and working tools in the field of education for preserving and enhancing vernacular heritage. Digitization techniques, which were also shared with a less specialized public, played an essential role in establishing a methodology capable of meeting the main knowledge and understanding needs at different levels of depth. The activities conducted and experimental methods applied identified operational processes for analysing, representing and diagnosing vernacular contexts, demonstrating the potential of interdisciplinary activities, including through the use of digital tools. The involvement of the local community proved to be a crucial issue in developing a more shared and conscious approach to preserving vernacular heritage.*

**Keywords:** Awareness, Documentation, Acupuncture, Historic cities

### **1. Introduction**

In recent decades, contemporary architectural interventions, especially in developing countries, have hybridized the urban landscape to the detriment of historic cities, affecting both the tangible and intangible aspects of cultural heritage. Historic cities are pervaded by the histories of the communities that have inhabited and managed them. This intangible aspect is the probably the most difficult to adequately preserve and transmit to future generations. Mean-

while around the world, national and local governments, as well as United Nations agencies, the World Bank and regional development banks, have been seeking a sustainable urban development process that integrates environmental, social and sociocultural concerns into the planning, design and implementation of urban management. It is important to stress that this was the context within which, after a first draft in 2010, UNESCO Recommendation on the Historic Urban Landscape came into action in 2011. The Recommendation is contained in a

'soft law' to be implemented by individual UNESCO Member states on a voluntary basis. The recommended activities proposed by UNESCO and its consultants derive from different experiences around the world. Rather than replacing existing conservation doctrines or approaches, they are an additional tool that provides a broader vision for integrating built-environment conservation policies and practices into broader urban development objectives, while respecting the values of different cultural contexts (UNESCO, 2011). The Recommendation summarizes discussions among experts over the previous five years by outlining (and encouraging the use of) six main intervention activities (UNESCO, 2011) defined as crucial for the effectiveness of preservation plans in historic city centres (Fig.1). The Recommendation notes that in light of urban developments, especially rapid growth, both social and physical, we now need a better language for discussing and defining urban settings, analysing problems and proposing solutions that are meaningful and can be measured and monitored (Turner, 2013).

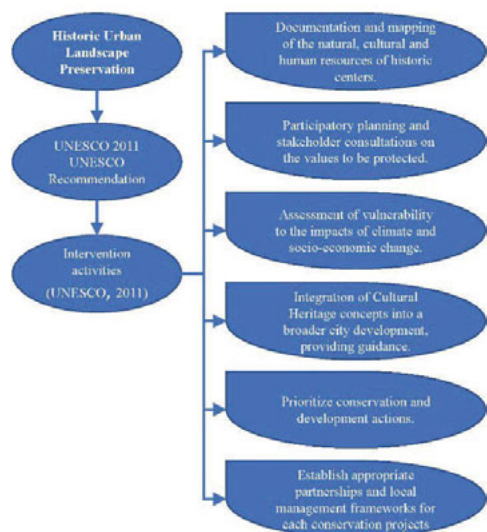


Fig. 1. The activities suggested by the 2011 UNESCO Recommendation on the Historic Urban Landscape (Source: UNESCO 2011).

The six main intervention activities could be summarized as follows:

- 1-Undertake comprehensive surveys and mapping of the natural, cultural and human resources of historic centres
- 2-Reach consensus using participatory planning and stakeholder consultations on the values to be protected for transmission to future generations and determine the attributes that carry these values
- 3-Assess the vulnerability of these attributes to socioeconomic stresses and the impacts of climate and socioeconomic change
- 4-Integrate urban heritage values and their state of vulnerability into a broader city development framework, providing guidance on sensitive areas that require careful planning in the implementation of development projects
- 5-Prioritize conservation and development actions
- 6-Establish appropriate partnerships and local management frameworks for each of the identified conservation projects, and develop mechanisms for coordinating various activities between different actors, both public and private

The concept of historic urban landscape includes the whole local context and therefore goes well beyond the simple definition of a given historic centre. Rather it is composed of characteristic elements such as patterns, spatial organization, visual relationships, soil morphology, present vegetation, including even the smallest urban-scale details such as drainage channels, pavements and public lighting systems. For this reason, specially scaled and targeted digital documentation and heritage protection strategies are required (Barazzetti et al., 2016), especially in countries with an awareness gap regarding the importance of basic historic buildings.

## 2. Research framework

Tools directed at addressing the protection of this heritage through effective 'capacity-building' campaigns aimed at local actors can

open up avenues of redevelopment that do not alter the historical character of a place and direct new interventions in these contexts towards urban sustainability and the protection of pre-existing structures (Bopp et al., 2000). Among the most important initiatives from this point of view is the crucial involvement of young architecture students, who, if adequately stimulated and educated, can approach conservation issues with renewed interest and curiosity, even in countries where the academic syllabus does not include the disciplines of surveying, documentation and restoration. If these future professionals can be made more aware of the potential and importance of preserving cultural heritage, this could certainly facilitate its protection. From these considerations emerges the need for new control methodologies for integrating contemporary architecture into the historical fabric and for effective (sustainable) strategies for preserving older areas, especially in developing countries where conservation issues take a back seat among the countries' priorities, and architectural change is often governed by tourism development (AREF et al, 2009). In their investigations, researchers such as Moore and Graefe (1994) and D. Williams, Anderson, McDonald and Patterson (1995) used attachment, place dependence and place identity as the main concepts on which to base their research. These analyses showed that the functional and emotional experiences of the environment are the most influential in creating a sense of place and place identity. Place attachment is in fact a sense of connection with the historical environment that encompasses both emotional and functional ties. Although one person may appreciate a place because of the physical elements that make it exceptional, other people may not feel strongly attached to the area because they cannot identify with it. According to D. R. Williams and Roggenbuck (1989), the emotional experience of the environment is closely related to the

level of attachment a person develops to the place and to what the environment symbolizes. In contrast, functional meanings are mostly associated with how well the place fits a user's needs. As D. R. Williams and Roggenbuck state (1989), functional meanings associated with a place are mostly related to how well the place accommodates a user's needs for specific activities. In practice, users identify a place as most suitable for achieving their behavioural goals. However, especially in more developed emerging economies, the loss of functional and emotional meaning attached to places is facilitated by economic globalization leading to less consideration of local context, culture and history (Wheeler, 2017). Despite this important sociocultural substratum, local institutions have often simply applied market rules to the preservation of buildings. It is time to identify the different actors involved and understand their interests and how they work and interact with each other; all the forces at play must be identified. Legislation is in place in almost all countries but is not enforced by the authorities and, worst of all, nobody knows how to enforce it. The monitoring activities of the inspectors must be strengthened and, at the same time, staff training must be carried out at the different management levels.

### 3. Research design

From the process of analysing and documenting the historic centres of developing countries and the treasures scattered within their territories, we can learn an important lesson about how cultural heritage in these contexts, both tangible and intangible, is subject to dynamics and phenomena that can slip through the nets of the most traditional management models. The involvement of local communities and construction professionals in the conservation process of historic buildings is of primary importance. For this reason, the inclusive approach proposed in this text aims for all stakeholders to consolidate con-

cepts and knowledge (including through various digital tools at different technological levels) that can contribute to handing down built heritage to future generations, in one of the highest forms of sustainability. It could be figuratively compared to acupuncture, aiming to enhance global awareness of vernacular architectures at worldwide level (Fig. 2). This awareness campaign strategy is based on the use of both low and high levels of technology integration, depending on the main target of each task and the final objective of the project in question. For instance, with the help of private investors, a number of good restoration interventions have been successfully carried out within several historic centres throughout the world (Bjønness, 1992). All that is required it to enhance them, including through targeted technology-transfer initiatives (Rossato et al., 2018). On the one hand, the understanding of the importance of cultural-heritage preservation at different levels and the identification of possible future job opportunities in the cultural-heritage sector should be transferred to high school and university students to increase their engagement in the field. This implies a low level of technology integration i.e. low-cost and affordable activities (such as workshops or small seminars). On the other hand, stakeholders can also be drawn towards the cultural-heritage field through activities based on a higher integration of technology. To this end, the identification of agile and flexible methodologies and low-cost tools (Napolitano et al., 2018) through PhD-level research projects and the engagement of young enterprises could provide great impetus for the creation of international cooperation networks to support the preservation of historic centres. The training of professionals also plays a pivotal role in the conservation of vernacular architecture.

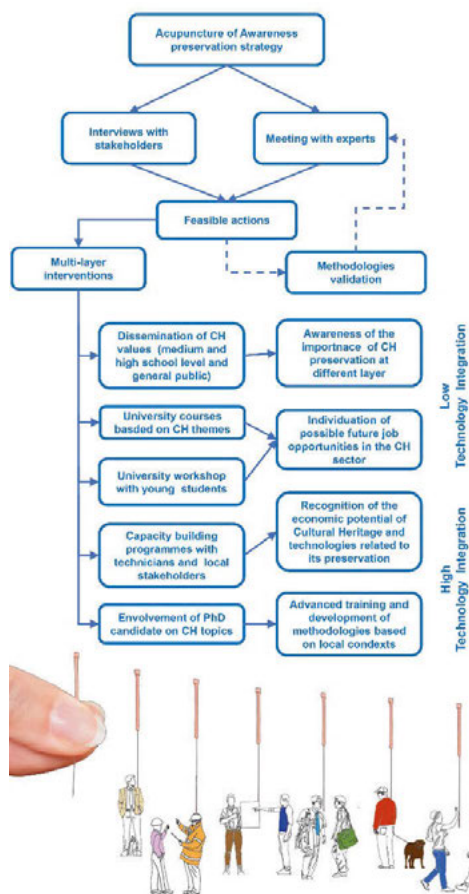


Fig. 2. 'Acupuncture of Awareness', an intervention scheme for an inclusive approach to the documentation and preservation of vernacular architecture in historic centres conceived by identifying possible ways to mitigate challenges posed by the lack of awareness, knowledge and socio-economic vision. Each action is linked to a technological integration aspect that is divided into low and high level depending on the 'target' of the project (developed by the author).

The skills of freelance professionals and enterprises willing to work on vernacular buildings must be boosted through technology-transfer activities carried out locally in the field and not simply by examining existing literature and best practices.

### 3.1. Low technology integration

International educational activities (seminars and workshops) on documentation and representation for preserving vernacular heritage demonstrate the value of dialogue between international young students. This is mainly due to their attitude towards representing the layering processes that characterize historic buildings and sites, and to a lesser degree, because of their role as intelligent investigators of the cultural values of existing structures, often forgotten by the general public. These documentation, representation, and evaluation tasks in historic city centres are difficult processes that require a comprehensive approach capable of grasping and incorporating geometrical and spatial qualities, construction technologies and architectural values from both a historical and critical standpoint (Giandebiaggi, 2018).

The author has focused many years of teaching activity on constructing a methodical trail of detailed knowledge to depict both tangible and intangible qualities of vernacular architecture and historic city centre transformation processes, including at several editions of particular workshops. For example, in international teams, the author used low-cost survey approaches and digital tools for representation, exhibition design and urban analysis to enrich and preserve the cultural heritage of Global South countries on an international scale. International workshops such as ‘Along the Silk Road’ (organized in Iran by the University of Wien in Austria) and ‘Historic City Centres’ (organized by the CEPT University in India) have shown that cultural heritage can even captivate young university students if properly presented and promoted (Fig. 3).

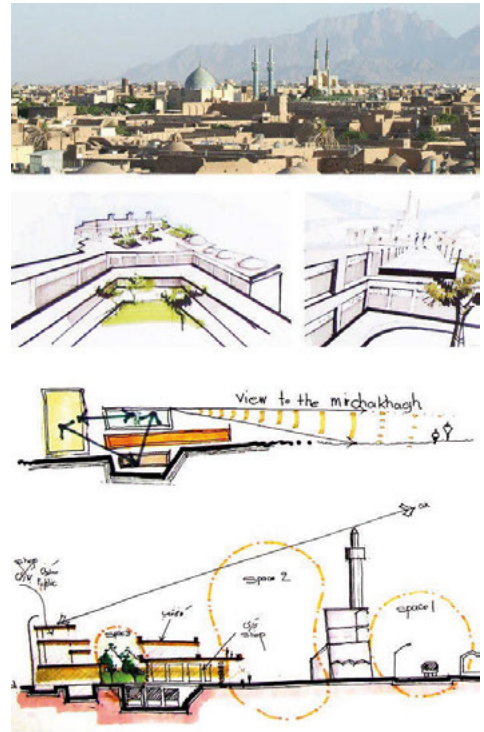


Fig. 3. Isfahan, Iran. Analyses of the historic city centre carried out by Italian and Iranian students, who shared their knowledge and skills to identify possible contemporary interventions in cultural-heritage sites (drawings from the 2009 edition of the international workshop ‘Along the Silk Road’).

There is an urgent need for projects that encourage residents to participate in protecting their cultural heritage, both intangible and tangible, through an approach that could be defined as minimal participation but considered a starting point for further capacity-building and awareness-raising among local people regarding their cultural heritage. The Jodhpur Box, for example, is a basic but effective exhibition based on a 4m×4m structure for displaying documentation gathered over five years by Italian and Indian students at the CEPT University Campus in Ahmedabad. Held in the main courtyard of Mehrangarh Fort (India’s second most visited fort), the exhibition aimed to highlight the beautiful historic residences of Jodhpur’s city centre through the analyses carried out during the in-



ternational workshops 'Historic City Centres' (Fig. 4). Geometric memory, material data and colours are just a few of the aspects that the Jodhpur Box documented and transmitted, in some cases using 3D models (Fig. 5).



Fig. 4. The Jodhpur Box, an adaptable exhibition staged at Jodhpur's Mehrangarh Fort by Italian and Indian students on the documentation of vernacular heritage. Inside the wooden space, a short documentary film was projected to show the public the intangible aspects as well (rituals, lifestyles, sense of community, etc.).

### 3.2. High technology integration

The strategy aimed at enhancing traditional management tools by integrating them with digital tools addresses intangible cultural heritage, such as local traditions, cultural behaviours and design processes, which are frequently linked to local cultures and needs (especially in India). The addition of digital or new media to traditional approaches of cultural-heritage management has increased the range of complementary methods that can be used alongside existing ones. Digital media may be used for much more than just recreating or presenting objects. It has the potential to capture the tangible and intangible essence of cultural assets, as well as the society that built or used the sites (Bonnes et al. 2007).

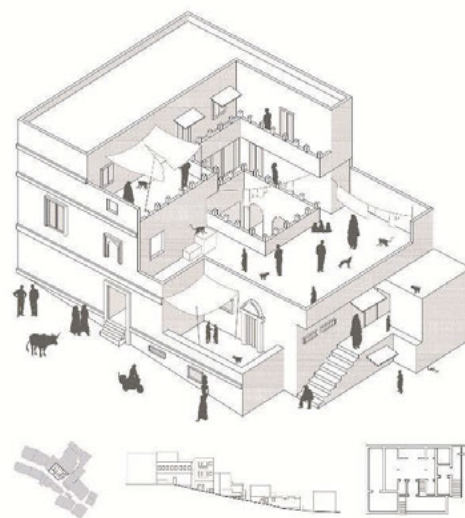


Fig. 5. One of the 3D representations presented on the wall of the Jodhpur Box, depicting a vernacular house in the beautiful 'Blue City' (images developed by students at the 'Historic City Centres' workshop series).

Over recent years, sensitivity and awareness regarding preservation have been raised by the training of local personnel and associated officials in maintenance practices. Staff of universities and enterprises were familiarized with the protection of modern heritage through a combination of classroom activities and on-site demonstrations. In Brazil, for example, the workshop's target audience has expanded to include students, professionals, university lecturers and private conservation firms. These approaches have made substantial gains in the area of architectural restoration, not only in terms of measurement precision and survey time reduction, but also of the ability to depict and visualize historic structures in their surroundings (Bevilaqua et al., 2017).

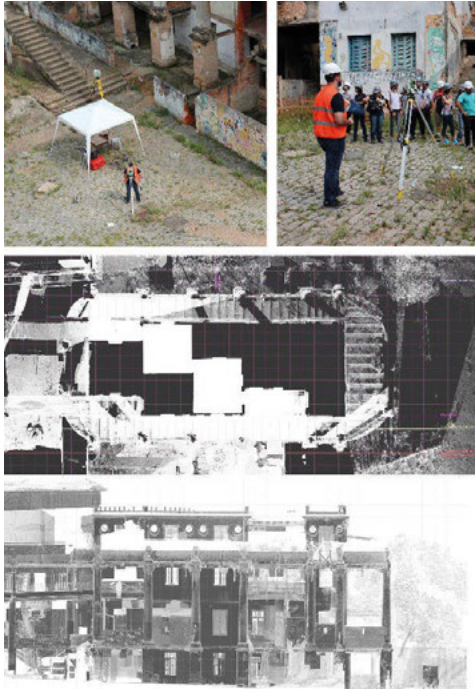


Fig. 6. Workshop on 3D technologies for documenting vernacular heritage at Vila Itororò in São Paulo, Brazil. The audience, primarily professionals and PhD students, had the chance to see how digital documentation could be used for building restoration and maintenance (Images by the author).

Vernacular building such as Vila Itororò, an eclectic house built at the beginning of the twentieth century in São Paulo, could be thought of as an important location for technology-transfer seminars. Here, academics, professionals and students met to discuss the use of digital tools for preserving cultural heritage (Fig. 6). The involvement of Italian private companies in such experiences was a key factor in enabling the technology transfer: all the activities were carried out under the supervision of local staff, and methodological seminars were held during each campaign. In some activities, for instance during the digital documentation of Casa do Anhanguera, an important museum of the small historic village of Santana de Parnaíba in Brazil, a group of local stakeholders went on-site and attended all stages of the project in order to improve their knowledges of the tech-

nologies used. In this case study, the survey was carried out over a few days and collected data on the morphology of the building, a seventeenth-century vernacular house and historical-heritage site. It was restored and listed by the National Historic and Artistic Heritage Institute (IPHAN) in 1958. It is typical example of an urban residence and the only one of its kind in the state of São Paulo to have retained its architectural features (Fig. 7).

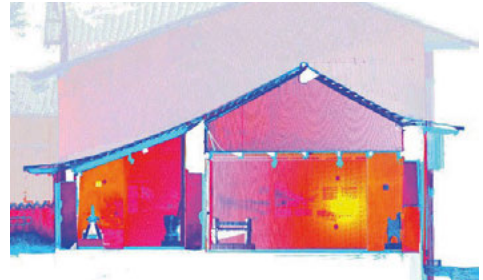


Fig. 7. Point-cloud image from the 3D database of Casa do Anhanguera in Brazil, highlighting the typical Portuguese colonial roof shape. The short digitization project involved local technicians and professionals to familiarize them with the technology and evaluate possible digital surveys on the most important vernacular buildings of the state of São Paulo (Image by the author).

#### 4. Conclusion

Without a doubt, all other actors involved in the field must interact with local cultures in the best possible way if we are to protect priceless sites in these countries. The populations must be aware of the value of their houses and, above all, that restoration is possible and will not cost more than total reconstruction using modern techniques. At the same time, the technicians of the future (today's architecture and engineering students primarily) must be prepared to act with the most effective tools (Spiridon et al., 2015). Without recognizing the value of vernacular heritage within historic city centres, we cannot protect it: the replacement of ancient heritage by contemporary interventions will be unstoppable, with only the main monuments likely to resist the blows inflicted by progress and new lifestyles. Finally, we must work on conserving

buildings in such a way that citizens can use them, rather than focusing on conservation for its own sake. The establishment of rigid and economically unsustainable museum sites would lead to the loss of this world heritage forever. The ancient buildings in these agglomerations are like sponges that have absorbed the cultural traditions of populations distinguished by their craftsmanship. As a testimony to their splendid past, these extensive cultural-heritage sites should be upheld as stimuli for new generations to look to the future with pride and hope.

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

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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.

