

# HERITAGE 2020

3DPast | RISK-Terra

INTERNATIONAL CONFERENCE ON VERNACULAR ARCHITECTURE  
IN WORLD HERITAGE SITES. RISKS AND NEW TECHNOLOGIES

Organized by



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## HERITAGE2020 PROGRAMME

### Wednesday 9<sup>th</sup> September 2020

13:00 - 13:30 h (CEST)

Opening ceremony (Microsoft Teams)

Francisco J. Mora Mas, Ana Cabrera Lafuente, Iván Cabrera Fausto, Camilla Mileto, Fernando Vegas López-M.

13:30 - 14:00 h (CEST)

Opening lecture I (Microsoft Teams)

"Heritage 2020. New 3D technologies applied to architectural and archaeological heritage"

*Fabio Remondino*

#### ORAL PRESENTATIONS **RELEASE**

Topic 1  
Topic 2  
Topic 3

### Thursday 10<sup>th</sup> September 2020

13:30 - 14:00h (CEST)

Central lecture I (Microsoft Teams)

"Vulnerability and World Heritage. Social Challenges in the 21st century"

*Alicia Castillo Mena*

14:00 - 14:30h (CEST)

Central lecture II (Microsoft Teams)

"Earthquake risk and traditional masonry buildings: Recent developments and the digital age"

*Paulo Lourenço*

#### ORAL PRESENTATIONS **RELEASE**

Topic 4  
Topic 5

### Friday 11<sup>th</sup> September 2020

13:00 - 13:45h (CEST)

Closing lecture I (Microsoft Teams)

"Visible and multispectral sensors for documenting cultural heritage. Are experts using the right imaging sensors?"

*José Luis Lerma García*

13:45 - 14:30h (CEST)

Closing ceremony (Microsoft Teams)

Saverio Mecca, Mariana Correia, Camilla Mileto, Fernando Vegas López-M.

#### ORAL PRESENTATIONS

All topics available

#### POSTER PRESENTATION

All topics available from 9th September 2020

#### VIRTUAL EXHIBITIONS

All exhibitions available from 9th September 2020

All contents will be available until 30th September 2020 *Todos los contenidos estarán disponibles hasta el 30 Septiembre 2020*

## GUIDELINES Online events in Microsoft Teams

When connecting to the meeting, please ensure the webcam and microphone are switched off.



*Al conectarse a la reunión, por favor, compruebe que la cámara web y micrófono están apagados.*

Request your turn to speak by clicking "Raise your hand" on the lower menu.



*Antes de hablar, por favor, haga click sobre el icono "Levantar la mano", en el menú inferior.*

When the moderator signals your turn, please switch on the microphone and optionally the camera before proceeding.



*Cuando el moderador le pase la palabra, encienda el micrófono y opcionalmente la cámara antes de proceder.*

When asking questions by chat please remember to mention the person to whom the question is addressed.



*Al realizar consultas en el chat, por favor, recuerde citar a la persona a la que va dirigida la pregunta.*

If you write @ before the name the person in question will receive a notification.

*Si escribes @ antes del nombre, le llegará una notificación a esa persona.*

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### Wednesday 9th September 2020

13:00 - 13:30 h (CEST)

Opening ceremony (Microsoft Teams)

Francisco J. Mora Mas. Excmo. Rector of the Universitat Politècnica de València (UPV)  
Ana Cabrera Lafuente. Subdirectora General Adjunta. Spanish Cultural Heritage Institute (IPCE)  
Iván Cabrera Fausto. Director of the School of Architecture, UPV, Valencia  
Camilla Mileto. Full Professor. Dept. of Architectural Composition, UPV  
Fernando Vegas López-M. Full Professor. Dept. of Architectural Composition, UPV

13:30 - 14:00 h (CEST)

Opening lecture I (Microsoft Teams)

"Heritage 2020. New 3D technologies applied to architectural and archaeological heritage"  
*Fabio Remondino. Head. 3DOM research unit. Bruno Kessler Foundation, Trento (Italy)*

### ORAL PRESENTATIONS RELEASE Topic 1, 2 & 3

#### TOPIC 1. VERNACULAR ARCHITECTURE

##### T1.1. Study and cataloguing of vernacular architecture

- Masonry in Parallel. A Knowledge Based Strategy Post Central Italy Earthquake 2016  
*Ch. Braucher, E. Currà*
- Old Rauma (Finland): Living and Researching Vernacular Architecture  
*M. Caruso, L. Garcia Soriano*
- Inherent wisdoms and the roles of sacred spaces in spatial organization of vernacular houses  
*C. Chiranthanur*
- The Reasons of the Vernacular Architecture for the Regulation of Contemporary Interventions. Two Examples of Rural Architecture on Danube Delta and the Vesuvius  
*P. De Joanna, A. M. Dabija, A. Passaro, G. Vaccaro, R. Sfinteş*
- Study and Cataloguing of Indigenous Vernacular Architecture in Western Panamá  
*M. A. Hervás Herrera, J. González Quiel*
- Another Traditional Architecture in Canada and the USA: Exploring some Unique Constructive Techniques  
*V. La Spina*
- Study on the Characteristics of Hmong Minority's Vernacular Dwellings at Huayuan County in Xiangxi Area (China)  
*L. Long, Z. Gan, D. Zhang, G. Semprebon*
- Typological Study and Cataloguing of Late Medieval Manor Houses of the Basque Country (Spain)  
*D. Luengas-Carreño, M. Crespo de Antonio, S. Sanchez-Beitia*
- Castalla (Alicante, Spain) Vernacular Architecture: Use, Loos, Oblivion and Memory  
*J. A. Mira Rico, M. Bevià i Garcia, J. Giner*
- Recovery of the Formal and Spatial Characteristics of Nono's Vernacular Dwellings (Ecuador) in Contemporary Contexts  
*A. Rodríguez Rico*
- Wine Cultural Landscape and Vernacular Typologies in South-Western Iberia: Three Case Studies in Alentejo and Andalusia  
*A. Costa Rosado, J. M. Aladro Prieto, M. T. Pérez Cano*
- Symbolic Use of Domestic Space in the Upper Svanetian (Georgia) Vernacular House  
*G. Sousa, M. Alcindor*



## T1.2. Conservation and restoration of vernacular architecture

- Characterization and Proposals for Recovery of Traditional Tamang Construction in Northern Nepal  
*F. J. Castilla Pascual, J. Agulló de Rueda, J. Castellote del Olmo*
- Intervention on Vernacular Architecture: The Lessons of Fernando Távora  
*D. Ordóñez Castañón, T. Cunha Ferreira, S. Sánchez Beitia*
- The Memory of Places: The Survey, Reinvention and Reconstruction of a Small Agricultural Artefact in the Mountain Village of Quota, Casentino, Italy  
*G. Pancani, A. Ricci*
- Architectural Renovation using Traditional Technologies, Local Materials and Artisan's Labor in Catalonia  
*O. Roselló*

## T1.3. Urban studies on vernacular architecture

- The Stone Houses of Pino Pizzigoni: A Rare Case of Vernacular Architecture in the Upper Town of Bergamo (Italy)  
*A. Cardaci, M. Resmini, A. Versaci*
- Vernacular Architecture and Traditional Urbanism in the World Heritage Cultural Landscape Property of Pico, in Azores (Portugal)  
*R. Florentino, M. Correia, G. Sousa, G. Carlos*
- Armenian City of Gyumri as a Phenomenon of Living Vernacular Urban Environment  
*A. Ivanov*
- Vernacular Architecture and Cultural Landscapes in the Sondondo Valley (Peru)  
*E. Sáez, J. Canziani*
- Vernacular Architecture as a Form of Resilience in Chinese Countryside Transition. Evidences from a Rural Settlement in the Fujian Province  
*G. Semprebon, L. M. Francesco Fabris, W. Ma, L. Long*
- Multidisciplinary Analysis of the Vernacular Settlements in Ushguli (Upper Svaneti, Georgia) (138)  
*G. Sousa, G. Carlos, R. Florentino, T. Bermudez*

## T1.4. Sustainability in vernacular architecture

- Documentation of Traditional Housing in Mayangna Communities. Bosawás Biosphere Reserve, Nicaragua  
*G. Cimadomo, N. González Meixueiro, J. L. Jamauca, C. Castaño Gil, M. Martín Sánchez*
- Danish Vernacular Architecture: Sustainability as a Preservation Value  
*B. T. Eybye*
- How to Cope with Heat and Combined with Hot and Dry Climate in Chahar- Sofe (four-sided) Houses of the Zoroastrian Village of Mazraeh Kalantar, Yazd, Iran  
*A. Farzaneh*
- Sustainability Lessons from Vernacular Architecture in Frei Otto's Work: Tents and Gridshells  
*J. M. Songel*

## TOPIC 2. NEW TECHNOLOGIES APPLIED TO ARCHITECTURAL AND ARCHAEOLOGICAL HERITAGE

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### T2.1. Digital documentation and state-of-the-art developments

- Architectural Heritage Building in the State of São Paulo: Survey and Digital Documentation of a Jesuit Mission  
*S. Bertocci, M. Bigongiari, P. Becherini, A. Cottini*
- Decision-making Methodology between Revitalisation and Rehabilitation of World Heritage City Centers. Case study: The Ancient City of Aleppo (Syria)  
*S. Ibrahim*
- Making Sites and Objects Talk: Experiences in Academic Research, New Technologies and Community Engagement  
*L. Medeiros, J. García Fernández*



- Methodological Approach to Integrate Gis-based Analysis into the Design of Cultural Itineraries in the Framework of an Integrated Plan for Territory  
*R. Merino del Río, M. Linares Gómez del Pulgar, A. Tejedor Cabrera*
- Multiscale Gis-Bim Methodological Approaches and Digital Systems for the Knowledge of the Modern Architectural Heritage in Italy. The Rural Village "La Martella" in Matera  
*R. Pontrandolfi*
- The Documentation and Protection of Cultural Heritage during Emergencies  
*F. J. Rufián Fernández, M. Fernández Díaz, I. Sabrine, J. J. Ibáñez, B. Claramunt-López, A. Escobar, J. A. González Zarandona*
- Construction History and Digital Heritage. Experimentations on Renaissance Domes in Campania (Italy)  
*V. Russo*
- Vaulted Structures in the Archaeological Park of Pompeii: 3D Survey and Monitoring  
*D. Verde*
- Studies for the Conservation and Valorisation of the Archaeological Rock Heritage of Calascibetta in Sicily, Italy  
*A. Versaci, A. Lo Cascio, L. R. Fauzia, A. Cardaci*

## T2.2. Digital analysis in heritage

- The Desert Rose Domes of the Souf Region (Algeria). Preliminary Evaluations on the Vulnerability of a Unique vernacular heritage  
*C. Azil, L. Rovero, B. Djebri, F. Fratini, G. Misseri, U. Tonietti*
- Digital Analysis with 3D Scanning and Three-Dimensional Modelling of the Main Church of St. Mary - The Old Cathedral, Cartagena (Region of Murcia, Spain)  
*P. E. Collado Espejo, J. García León, F. J. Jiménez González, C. M. Sánchez Yepes*
- The Multi-Tech Protective Monitoring of the Lion Forest Garden Stony Artificial Hills (Suzhou, China)  
*F. Fu, J. Zhang, F. Shen, C. Zhao*
- 3D Modelling of the Negro Tower for its Comprehensive Analysis and a Conservation Proposal  
*J. García León, P. E. Collado Espejo, F. Fantini, F. J. Jiménez González*
- The Influence of Dosage and Production Process on the Physical and Mechanical Properties of air Lime Mortars  
*L. Garijo Alonso, X. Zhang, G. Ruiz López, J. J. Ortega Parreño*
- Constructive Analysis of Maya Vaulted Architecture from Photogrammetric Survey  
*L. Gilabert Sansalvador, R. Montuori, A. L. Rosado Torres*
- Simulation-based Analysis of Earthen Heritage Architecture as Responsive Refugee Shelters (Case study: Domes of northern Syria)  
*S. Ibrahim, M. Ali, B. Baranyai, I. Kistelegdi*
- 3D Scanning Methodology: Bell tower of the Santa María de Daroca's Church (Spain)  
*C. López González, P. Germes Valls*
- The Role of 3D Documentation for Restoration Interventions. The Case Study of Valflores in Loures, Portugal  
*L. Mateus, J. Aguiar, P. Pacheco, V. Ferreira, J. Ferreira, C. Mendes, A. Silva*
- Preliminary Studies to Value Enhancement of the Old Citadel in Oria, Almeria, Spain  
*J. Moya-Muñoz, A. Gonzalez-Serrano, F. Pinto Puerto*
- New Technologies for the Preservation of Maya Cultural Heritage. The Palace of the Governor at Uxmal (Yucatán, México)  
*G. Muñoz Cosme, C. Vidal Lorenzo*
- A Fortress between Artifice and Nature: The Laser Scanning Survey of the Castle of Pescopagano as an Instrument of Knowledge, Conservation and Enhancement  
*A. Pane, R. Catuogno, M. Facchini, L. Morano*
- New Technologies Applied to the Documentation and Analysis of Earthen Architecture: the Specific Case of the Tartessian Buildings of the Central Guadiana Valley (Spain)  
*E. Rodríguez González, S. Celestino Pérez, C. Lapuente Martín*



- Digital Energy Simulation of Buildings Protected by Municipal Heritage Policies in the Framework of Energy Renovation Projects  
*B. Serrano Lanzarote, P. Carnero Melero, V. Valero Escribano, L. Ramírez Pareja*
- The "Gabinetto of Gilded Stucco" in the Royal Palace of Portici: Survey and Diagnostics for Conservation  
*D. Treccozi, A. Pane, A. Sansonetti, R. Catuogno*

### T2.3. Digital heritage related to social context

- Seismic Vulnerability Assessment of the Triumphal Arch of Caracalla in Volubilis (Morocco): Past Events and Provisions for the Future  
*G. Pancani, S. Galassi, L. Rovero, L. Dipasquale, E. Fazzi, G. Tempesta*
- Potential of HBIM to Improve the Efficiency of Visitor Flow Management in Heritage Sites. Towards Smart Heritage Management  
*E. Salvador Garcia, M. J. Viñals, J. Garcia Valldecabres*
- The City Walls of Florence, a Method to Manage Information of a Complex System  
*J. G. Vitale*

### T2.4. Digital heritage solutions and best practices for dissemination

- Virtual Reality to Support Technical Knowledge in Cultural Heritage. The Case Study of Cryptoporticus in the Archaeological Site of Egnatia (Italy)  
*E. Cantatore, M. Lasorella, F. Fatiguso*
- Virtual Tours and Informational Models for Improving Territorial Attractiveness and the Smart Management of Architectural Heritage: The 3D-Imp-Act Project  
*M. De Fino, C. Ceppi, F. Fatiguso*
- 3D Printing for Dissemination of Maya Architectural Heritage: The Acropolis of La Blanca (Guatemala)  
*R. Montuori, L. Gilabert Sansalvador, A. L. Rosado Torres*
- The Suburban Baths in Pompeii: Innovative Strategies of Restoration and Digital Humanities for an Improved Use and Perception  
*R. Picone, L. Cappelli*
- Validation of the BCH-Ontology  
*O. P. Zalamea Patino, G. Garcia*

## TOPIC 3. ARCHITECTURAL HERITAGE MANAGEMENT

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### T3.1. Management and protection of UNESCO World Heritage Sites

- Territorial Exploration to Implement the Recommendation on Historic Urban Landscapes for the Development area of El Ejido in Cuenca, Ecuador  
*S. Auquilla Zambrano, M. Sigüencia Avila*
- How to Manage and Enhance Archeology and Landscape at the Royal Mausoleum of Mauretania (Tipasa, Algeria)  
*L. Benali Aoudia, D. Belkacemi Zebda*
- The Chorá of Patmos (Greece): Analysis of Architectural Heritage, Identification of Risks and Assessment of Impacts  
*L. Dipasquale, S. Mecca*
- Recovering Valparaiso's Urban Elevators: The Restoration of the Cordillera Funicular  
*C. Giribas Contreras, G. Paredes, A. Riquelme*
- Consolidation and Restoration of Historical Heritage: The Flavian Amphitheater in Rome  
*S. Podestà, F. Romis, L. Scandolo*
- Diagnosis of Tourism Enhancement of the UNESCO World Heritage Ensemble of Apostolic Churches of Armenia  
*A. Sanasaryan, M. J. Viñals Blasco*

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- The UNESCO Site Venice and its Lagoon. Use of the City and Technical Decisions of the Cultural Heritage Protection Offices  
*F. Trovò*
- The Outstanding Universal Value of the Colonial Historic Centre of the City of Gracias (Honduras)  
*M. José Viñals, L. Teruel, P. Alonso-Monasterio*

## T3.2. Social participation in heritage management

- Culture-Led Urban Development Initiative in a World Heritage City: The Case Study of the Old City of Damascus in Syria  
*R. Aboukhater*
- Architectural Evaluation through Stakeholders' Participation on the Development of Conservation Conceptual Framework for Phra That Tha Uthen Temple Site in the Northeast of Thailand  
*P. Don-onsa, N. Thungsakul*
- Re-activate the Internal Areas: Classification, Restoration, Guidelines and Participatory Planning as Tools for the Regeneration of the Vernacular Heritage  
*B. Scala*
- Experiences of Social Participation in the Recovery of Vernacular Heritage in Southern Ecuador  
*A. Tenze, F. Cardoso Martinez, M. C. Achig*

## T3.3. Regulations and policies in heritage management

- Challenges and Opportunities in Restoration Work Management in Cultural Heritage. The Case of the Churches of San Manuel Colohete and San Sebastián (Honduras)  
*A. Ferrando Ortiz*

## T3.4. Intangible Heritage: the management of know-how and local building culture

- An Experience Aimed at Promoting Vernacular Building Culture in Susudel-Ecuador  
*G. Barsallo Chávez, F. Cardoso Martinez, L. Vásquez Torres*
- Don Victor and the Maintenance Booklets: A Strategy to Stimulate the Resilience of the Vernacular Heritage of Southern Ecuador  
*F. Cardoso Martínez, G. Barsallo Chávez, S. Astudillo Cordero*
- Phimai Sanctuary (Thailand) and Nostalgia in World Heritage  
*S. Gaphimai, S. Weerataweemas*
- The European Project "Versus + / Heritage for People". Objectives and Methodology  
*C. Mileto, F. Vegas, M. Correia, G. Carlos, L. Dipasquale, S. Mecca, M. Achenza, B. Rakotomamonjy, N. Sánchez*

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*Alicia Castillo Mena. ICOMOS Spain President. Professor at Univ. Complutense Madrid*

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Central lecture II (Microsoft Teams)

"Earthquake risk and traditional masonry buildings: Recent developments and the digital age"

*Paulo Lourenço. Professor. ISISE. University of Minho (Portugal)*

### ORAL PRESENTATIONS RELEASE Topic 4 & 5

#### TOPIC 4. RISKS IN ARCHITECTURAL HERITAGE

##### T4.1. Studies of natural risks in architectural heritage

- Simulating to Evaluate, Manage and Improve Earthquake Resilience in Historical City Centers: Application to an Emergency Simulation-based Method to the Historic Centre of Coimbra  
*G. Bernardini, T. M. Ferreira*
- The Effects of Rising Sea Levels on the Conservation of Roman Fish Tanks in the Western Mediterranean Basin  
*F. J. Caballero Rubio, M. J. Viñals Blasco, S. Tormo Esteve*
- An Interdisciplinary Approach for the Seismic Vulnerability Assessment of Historical Centers in Masonry Building Aggregates: Application to the City of Scarperia, Italy  
*V. Cardinali, M. T. Cristofaro, M. Ferrini, R. Nudo, B. Paoletti, M. Tanganelli*
- Vernacular Language within the Traditional Bell Towers: Between Stairs, Landings and Floors  
*A. Mondello, A. Salemi*
- Water-Risk Management in Tchogha Zanbil World Heritage Site in Iran, with a Focus on the Ancient Management System  
*M. Nakhaei Ashtari, M. Correia*
- Temporary Emergency Shelter "Agariyas": A Case Study from the Flood Prone Site of Kumano, Japan  
*C. Ochiai*
- Seismic Vulnerability Assessment of Fes Medina in Morocco  
*S. Stefanini, L. Rovero, U. Tonietti*
- Identification and Mitigation of Sinkhole Hazards in an Evaporite Karst Area (Perdiguera, Spain)  
*F.J. Torrijo, R. Fuentes, A. Boix, P. Bracchi*

##### T4.2. Studies of social and anthropic risks in architectural heritage

- Tourism Architecture as a Threat to Heritage Identity in the Valleys of the High Atlas in Morocco  
*J. Asencio Juncal, J. M. López Osorio, C. J. Rosa Jiménez*
- Earthen heritage, conservation practices and commodification in a World Heritage Site (Quebrada de Humahuaca, Jujuy, Argentina)  
*J. Barada, J. Tomasi*
- Danger in Heritage by Forgetfulness. Vicente Sancho Fuster  
*C. Burguete Gil*
- Analysis of the Ongoing Transformation of Vernacular Architecture in La Sagra Region, Toledo, Spain  
*A. García Hermida*



- Beyond Vernacular Architecture  
*K. Kovács*
- Threats to Normal Vernacular Architectural Heritage of Historical Cities in China: A Case Study of Historical Cities and Towns in Liaoning Province  
*L. Bing, X. Zhenpeng, M. Li, L. Shunjing*
- Urban-Rural: "Tiburtino" District in Rome and Rural Village "La Martella" in Matera as Emblematic Cases of Settlements during the Italian Reconstruction  
*R. Pontrandolfi*
- The Study of Depopulated Historical Ensembles in the Province of Teruel: A Tool to Map, Protect and Conserve their Vernacular Heritage and Identity  
*C. Villalba Montaner*
- Revitalization of the Sense of Place and the Protection of Normality for Local Temples in the Context of In-Situ in the Northeast, Thailand  
*W. Wang, H. Wang*

#### T4.3. Preventive actions in order to improve resilience in architectural heritage

- Preventive Conservation Plan for the Chapel of Susudel, Ecuador  
*M. G. Barsallo Chávez, M. C. Achig Balarezo*
- Mapping an Urban City Centre for Seismic Risk Assessment: Application to Valencia (Spain)  
*L. Basset-Salom, A. Guardiola-Villora*
- Urban and Hydrogeological Alert on The Morphoclimatic Risk Affecting Quito's World Heritage  
*P. Bracchi, F. J. Torrijo Echarri, A. Boix Bornay, M. Cruz Cabrera, D. Giordanelli*
- Learning from the Past Toward Energy Resilient Strategies in Historic Districts. A Case Study in Apulia Region (Italy)  
*E. Cantatore, F. Fiorito, F. Fatiguso*
- Architectural Heritage at Risk: The Case of the Magnano Hamlet (Piedmont, Italy)  
*F. Fratini, M. Mattone, S. Rescic*
- The Reuse of Industrial Tanneries. Architectural Heritage in Guimarães, Portugal  
*K. González Vargas*
- Preventive Conservation of Vernacular Adobe Heritage Located in Seismic-Prone Regions  
*N. Haji Sadeghi, M. Correia, D. V. Oliveira, H. Azizi-Bondarabadi*
- Conservation Management Plan Cheste Workers University Auditorium (Spain). A Getty Foundation Keeping it Modern Grant  
*C. Jordá, M. T. Palomares, F. Iborra, C. Gradoli, P. Herrero, F. Usó*
- The Research Project "Earthen Architecture in the Iberian Peninsula: Study of Natural, Social and Anthropogenic Risks and Strategies to Improve Resilience (Risk-Terra)". Objectives and First Methodology  
*C. Mileto, F. Vegas, V. Cristini, L. García Soriano*
- Actions for the Enhancement of Heritage. The Case of the Town Walls of Morella (Castellón, Spain)  
*S. Portela i Valls, M. J. Viñals, G. Muñoz Cosme*
- Seismic Vulnerability Assessment of Historical Urban Centers: The Case Study of Campi Alto di Norcia, Italia  
*F. Romis, S. Caprioli, W. Salvatore, T. M. Ferreira, P. B. Lourenço*
- The Integrated Fast Survey for the Risk Assessment. A Proposal for the Safeguarding of the Medieval Castles in Central Sicily  
*A. Versaci, L. R. Fauzia, M. Russo, A. Cardaci*

#### T4.4. Actions and strategies in post-disaster situations

- Vernacular Rehabilitation and Rebuilding for Post-Conflict Migration and Resettling  
*M. Dabaieh, M. Andriasyan*





- Lessons Learnt from the Reconstruction of the Destroyed Mausoleums of Timbuktu  
*T. Joffroy, B. Essayouti*
- Improving Resilience in Architectural Heritage? The Reconstruction of the Vaulting Systems after the 1805 Earthquake in Molise (Italy)  
*L. Romano*
- The Archaeological Park of Navelli (Italy) in the Reconstruction Plan: Hypothesis of Adaptive Reuse  
*I. Trizio, M. De Vita, A. Ruggieri, A. Giannangeli*

## TOPIC 5. EARTHEN ARCHITECTURAL HERITAGE

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### T5.1. Study and cataloguing of earthen architectures

- Tulou: The Rammed Earth Dwellings of Fujian (China). Functional, Typological and Constructive Features  
*E. Colafranceschi, E. Pallottino, P. Porretta*
- The Typology of Historical Houses in Muzaffarid Era: Case Study of Ardakan City, Yazd, Iran  
*M. Dormohamadi*
- Transforming Earth into Houses: A Methodology for Documenting Construction Processes as an Apprentice in the Iranian Desert  
*E. P. Ferrari*
- The Ksour of the Mdagra Oasis (Er-Rachidia, Morocco): An Inventory  
*T. Gil Piqueras, P. Rodríguez Navarro*
- Exploring Frameworks for a History of Earth Building in Aotearoa New Zealand  
*M. Hall*
- Is the Loss of Vernacular Architecture Reversible? The Case of Lahun Village in Egypt  
*M. M. Korachy*
- The Metamorphosis of the Puertas de Tierra of Cádiz in the 18th Century Towards a Paradigm of Modern Fortification  
*F. R. Lozano Martínez, F. Arévalo Rodríguez, J. Aguilar Camacho*

### T5.2. Construction techniques that employ earth

- Ensemble of Constructive Techniques From the Castle of Ricote (Murcia, Spain)  
*I. Almela Legorburu, L. Martínez Bernal*
- Like for Like and Compatible Mortars for the Repair of Traditional Building - Earth-Lime and Hot Mixed Air or Feebly Hydraulic Limes  
*N. Copsey*
- When Santiago de Compostela and Mondoñedo were Built in Wood: Half Timber with Earth Constructions in the Cities of Galicia  
*A. Fernández Palicio*
- Roof Typology and Constructive Method for the Houses in Banadkook-Dize (Iran) throughout Time  
*M. Pakcheshm*
- Mortars and Plasters Produced with Earth-Based Sustainable Mixes: A Methodology Proposal for Recovery of Vernacular Architecture in Roero, Piedmont (Italy)  
*M. Vignola, D. Bosia, R. Pennacchio, M. Zerbinatti*

### T5.3. Sustainability mechanisms in vernacular earthen architectures

- Furnaces of Salamanca: Vernacular Building Techniques Applied to the Semi-Industrial Tobacco Production in Chile between 1960 y 1990  
*M. C. Gómez Maestro, A. Rivera, I. Olivares Miranda*
- Towards a Better Knowledge of Traditional Environmental Devices: Comparison between two Traditional Algerian Houses  
*A. Racha, K. Sabrina*

# HERITAGE 2020

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INTERNATIONAL CONFERENCE ON VERNACULAR ARCHITECTURE  
IN WORLD HERITAGE SITES. RISKS AND NEW TECHNOLOGIES

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## T5.4. Restoration and conservation of earthen architecture

- The Use of Traditional Mud-Based Masonry in the Restoration of the Iron Age Site of Salut (Oman). A Way towards Mutual Preservation  
*S. Bizzarri, M. Degli Esposti, C. Careccia, T. De Gennaro, E. Tangheroni, N. Avanzini*
- Towards a Sustainable and Context-Based Approach to Anti-Seismic Retrofitting Techniques for Vernacular Adobe Buildings in Colombia  
*F. De Filippi, R. Pennacchio, L. Restuccia, S. Torres Dueñas*
- Study on Conservation and Restoration of Liugou Ancient Town Earthen Sites in Beijing (China)  
*Z. Gan, L. Long, D. Zhang*
- A Look at the Erroneous Restoration of the Historical Kasbah of Agadir, Morocco  
*M. Nassir*
- Experimental Consolidation Works in Rammed Earth Walls: The Case of the Bañuelo in Granada  
*J. M. López Osorio, Bel-Anzué, Pedro*
- Historical Earthen Walls: From Knowledge to Conscious Conservation  
*D. Pittaluga, A. Di Rocco, C. Casagrande, S. Guerinoni, G. Pellegri*
- Tools for Local Governments to Protect and Favor Sustainable Conservation and (Re-)Use of Earthen Heritage in Auvergne Rhône Alpes Region, France  
*B. Rakotomamonjy, T. Joffroy*

## HERITAGE2020 PROGRAMME

### Friday 11<sup>th</sup> September 2020

13:00 - 13:45h (CEST)

Closing lecture I (Microsoft Teams)

“Visible and multispectral sensors for documenting cultural heritage. Are experts using the right imaging sensors?”

*José Luis Lerma García. Catedrático de Ingeniería Cartográfica, Geodesia y Fotogrametría*

13:45 - 14:30h (CEST)

Closing ceremony (Microsoft Teams)

Saverio Mecca. Director of the Department of Architecture at Firenze University  
Mariana Correia. President of Gallaecia University School of Architecture  
Camilla Mileto. Full Professor at the Dept. of Architectural Composition  
Fernando Vegas López-M. Full Professor at the Dept. of Architectural Composition

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## POSTER PRESENTATIONS Available from 9<sup>th</sup> September 2020

### TOPIC 1. VERNACULAR ARCHITECTURE

- The Vernacular Heritage of Gjirokastra (Albania): Analysis of Urban and Constructive Features, Threats and Conservation Strategies  
*L. Dipasquale, M. Carta, S. Galassi, A. Merlo*
- The 'Masseria Rota' in Nales (Italy). A Vernacular Heritage to Preserve  
*R. Amore, L. Veronese*
- Considerations on the Joint Recovery of the Monument and its Environment: The Town Walls of Albarracín (Spain)  
*J. L. Baró Zarzo, J. Díaz Morlán, F. J. Gómez-Patrocínio*
- An Historically-Informed Approach to the Conservation of Vernacular Architecture: The Case of the Phlegrean Farmhouses  
*S. Iaccarino, E. Fiore*
- CO<sub>2</sub> Emissions in Own Materials from Vernacular Architecture  
*C. Arguedas Garro, B. Serrano Lanzarote, M. Navarro Escudero*
- Parameters of Sociocultural Sustainability in Vernacular Architecture  
*M. Rosaleny Gamón*
- Architectural Renovation using Traditional Technologies, Local Materials and Artisan's Labor in Catalonia  
*O. Roselló*

### TOPIC 2. NEW TECHNOLOGIES APPLIED TO ARCHITECTURAL AND ARCHAEOLOGICAL HERITAGE

- Villages with Fortified Churches in Transylvania: Architecture, History and Intangible Culture  
*V. Cristini, L. García Soriano, F. Vegas*
- Digital Models for the Analysis and Enhancement of Hybrid Spaces: Architecture of the Mattanza  
*L. Repola, J. Leidwanger, E. S. Greene*

### TOPIC 3. ARCHITECTURAL HERITAGE MANAGEMENT

- Cuenca (Spain), World Heritage City. Analysis of Vernacular Architecture and Management Strategies  
*L. García Soriano, V. Cristini, M. Diodato*
- Consolidation and Restoration of Historical Heritage: The Flavian Amphitheater in Rome  
*S. Podestà, F. Romis, L. Scandolo*
- Experiences of Social Participation in Recovery to Reconnect a Community to its Heritage  
*P. de Dato, Y. Hernández Navarro*
- Management of a Restored Architectural Heritage: The Villa Ficana Ecomuseum  
*A. P. Conti*

### TOPIC 4. RISKS IN ARCHITECTURAL HERITAGE

- Preliminary Analysis of Earthen Architecture Response to Floods: The Case of Alzira (Spain)  
*F. Trizio, C. Mileto, F. J. Torrijo Echari, M. Lidón de Miguel*
- "House Nepal" Project: Initial Results and Perspectives for an Anti-Seismic Cooperation Project  
*F. Vegas, C. Mileto, L. García Soriano, V. Cristini*
- When the Risk is Urban Planning. A Case Study in Valencia (Spain)  
*A. Guardiola-Villora, L. Basset-Salom*
- Disturbances in Vernacular Architecture of Togo's Rural Settlements  
*Y. Hernández Navarro, P. de Dato, A. Langa Lahoz*

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- Balancing Tradition and Development? Early Trials of a Methodology for Studying Vernacular Architecture and its Transformations  
*M. Lidón de Miguel, L. García Soriano, C. Mileto, F. Trizio*
- Seismic Vulnerability Assessment of Historical Urban Centers: The Case Study of Campi Alto di Norcia, Italia  
*F. Romis, S. Caprili, W. Salvatore, T. M. Ferreira, P. B. Lourenço*
- Conservation after Earthquake of Minimal Urban Framework Historical Heritage  
*S. D'Avino*

## TOPIC 5. EARTHEN ARCHITECTURAL HERITAGE

- Residential Earthen Architecture in Mula (Spain): Study and Cataloguing of its Construction Technique  
*F. J. López Martínez, V. La Spina, J. Fernández del Toro*
- A Burial Grave at Tell Keila, Palestine  
*S. Manzano Fernández, F. Vegas, V. Cristini, A. Hueto Escobar*
- Adobe Vernacular Housing Typological Analysis in Calimaya de Díaz Gonzalez, State of Mexico  
*D. S. Romero Olguin, L. F. Guerrero Baca*
- Approximation to the Use of Half-Timbered Walls with Earth Infill in Spanish Traditional Architecture  
*A. Hueto Escobar, M. Diodato, F. Vegas, S. Manzano Fernández*
- Earthen Architecture in Latin America – Valorization and Underestimation  
*N. Barbacci*
- Analysis and Characterisation of Adobe Blocks in Jojutla de Juárez, México. Seismic Vulnerability and Loss of the Earthen Architecture after the 2017 Puebla Earthquake  
*A. Sánchez Calvillo, D. Preciado Villicaña, E. G. Navarro Mendoza, E. M. Alonso Guzmán, E. A. Núñez Guzmán, H. L. Chávez García, M. Ruiz Mendoza, W. Martínez Molina*

## VIRTUAL EXHIBITIONS Available from 9<sup>th</sup> September 2020

- 3DPast Living & Virtual Visiting European World Heritage
- Arquitectura Vernácula de Tierra en la Península Ibérica: Riesgos Naturales y Vulnerabilidad
- Patrimonio Excavado: El Conjunto de Bodegas de Baltanás, Bien de Interés Cultural
- Arquitectura de tierra en el sur de Marruecos: 10 años – 10 proyectos