

PREFACE

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Without a doubt 2020 will be remembered worldwide as the year of risk and emergency, in this case a health emergency, and of new communication technologies. When work began in 2018 on the organisation of “HERITAGE2020 (3DPast | RISK-Terra), International Conference on Vernacular Architecture in World Heritage Sites. Risks and New Technologies”, the new technologies applied to vernacular heritage and risk were on the rise, although nobody could have foreseen how central they would become to everyday life in 2020. “HERITAGE2020 (3DPast | RISK-Terra), International Conference on Vernacular Architecture in World Heritage Sites. Risks and New Technologies” is organised within the framework of two research projects. The first, “3D Past – Living and visiting European World Heritage” (2017-2020), was co-funded by the European Union as part of the Creative Europe Programme, led by Escola Superior Gallaecia (Portugal) in partnership with Universitat Politècnica de València (Spain) and Università degli Studi di Firenze (Italy). The main aim of this project has been to promote the inhabited vernacular heritage declared as World Heritage Sites in Europe by trying to promote its valorization through new technologies, both for local residents and potential visitors. Vernacular heritage, new communication technologies and heritage management for valorization and sustainable tourism are the central themes of this European project. In 2020, these issues have become even more important for the survival, understanding and valorization of heritage, particularly vernacular heritage, which today provides a solid opportunity for cultural and sustainable tourism, where these new technologies make it possible to reach a wider public in search of locations better suited to social distancing. 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) (2019-2021), funded by the Spanish Ministry of Science, Innovation and Universities. 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 make it possible to prevent and mitigate possible damage through compatible actions and/or actions to increase resilience.

As these two projects have major points of contact with potential for common reflection, their main themes have been combined in this Heritage2020 conference. The topics established for the conference are: vernacular architecture (study and cataloguing of vernacular architecture; conservation and restoration of vernacular architecture; urban studies on vernacular architecture; sustainability in vernacular architecture); new technologies applied to architectural and archaeological heritage (digital documentation and state-of-the-art developments; digital analysis in heritage; digital heritage related to social context; digital heritage solutions and best practices for dissemination); architectural heritage management (management and protection of UNESCO World Heritage Sites; social participation in heritage management; regulations and policies in heritage management; intangible heritage: the management of know-how and local building culture); risks in architectural heritage (studies of natural risks in architectural heritage; studies of social and anthropic risks in architectural heritage, preventive actions in order to improve resilience in architectural heritage; actions and strategies in post-disaster situations); earthen architectural heritage (study and cataloguing of earthen architectures; construction techniques that employ earth; sustainability mechanisms in vernacular earthen architectures; restoration and conservation of earthen architecture).

The scientific committee was made up of 98 outstanding researchers from 29 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 over 300 proposals submitted, over 150 papers by 325 authors from 27 countries from the five continents were chosen for publication.

All the articles were published online in the *International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences (ISPRS Archives)* and edited in two printed volumes. The first of these, *Architectural and Archaeological Heritage - Management and New Technologies*, contains texts on the study of vernacular architecture, new technologies applied to architectural and archaeological heritage, and architectural heritage management, while the second volume, *Earthen and Architectural Heritage at risk*, contains texts on risk in architectural heritage and earthen architectural heritage.

Due to the global health emergency “HERITAGE2020 (3DPast | RISK-Terra), International Conference on Vernacular Architecture in World Heritage Sites. Risks and New Technologies” was held virtually from 9 to 12 September 2020. The conference, organised online and remotely by Universitat Politècnica de València, was under the aegis of: ICOMOS-ISCEAH (International Council on Monuments and Sites – International Scientific Committee on Earthen Architectural Heritage; UNESCO Chair – Earthen Architecture, Building Cultures & Sustainable Development; WHEAP Program (UNESCO World Heritage Earthen Architecture Programme); ICOMOS-ClAV (International Scientific Committee for Vernacular Architecture); ICOMOS-IWC (International Council on Monuments and Sites – International Wood Committee); ICOMOS-CIPA (International Committee for Documentation of Cultural Heritage); ICOMOS-ISCARSAH (International Scientific Committee on the Analysis and Restoration of Structures of Architectural Heritage); WHITRAP (World Heritage Institute of Training and Research for the Asia and Pacific Region under the auspices of UNESCO);

ICOMOS-España (Spanish Committee of the International Council of Monuments and Sites); CRAterre Association – Centre International de la Construction en Terre (France). It also received the institutional support of: IPCE – Spanish Cultural Heritage Institute, of the Ministry of Education, Culture & Sport of the Government of Spain; INTBAU-Spain (International Network for Traditional Building, Architecture & Urbanism – Spain); Fundación Antonio Font de Bedoya; RehabiMed Association; EcoHabitat (Bioarquitectura, Bioconstrucción, Biología del Hábitat, Permacultura); IEB (Instituto Español de Baubiologie. Biología del hábitat); EEA-CSIC (Escuela de Estudios Árabes – Consejo Superior de Investigaciones Científicas); Fundación Altiplano; ARGUMENTUM (Edições, Estudos e Realizações, Lda.); Arquitectura y Empresa (News and Services Platform for Architecture).

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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 “3dPast” 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 long process of revising the abstracts and papers. And, above all, we thank the organising 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 organisation of all stages of the process.