

Preface

Welcome to the proceedings of EuromedMed 2016, the biennial scientific event which this year was held in the capital city of Cyprus, the island that has always been a bridge to three continents in the world going back to the origins of civilization. It is a place where the fingerprints of several ancient cultures and civilizations on earth can be found, with a wealth of historical sites recognized and protected by UNESCO.

Several organizations and current EU projects (such as the Marie Skłodowska-Curie Fellowship project on Digital Heritage Marie Skłodowska-Curie FP7-PEOPLE ITN-DCH, the Marie Skłodowska-Curie FP7-IAPP 4D-CH-WORLD, the FP7-CIP ICT-PSP EuropeanaSpace, the H2020 Reflective 7 - INCEPTION, the H2020 CSA Virtual Museums ViMM, the Research Infrastructure DARIAH-EU ERIC and DARIAH-CY) as well as the Innovation in Intelligent Management of Heritage Buildings (i2MHB) decided to join EuroMed2016 and continue cooperating together in order to create an optimal environment for the discussion and explanation of new technologies, the exchange of modern innovative ideas, and in general to allow the transfer of knowledge between a large number of professionals and academics during one common event.

The main goal of the event is to illustrate the programs underway, whether organized by public bodies (e.g., UNESCO, European Union, National States, etc.) or by private foundations (e.g., Getty Foundation, World Heritage Foundation, etc.) in order to promote a common approach to the tasks of recording, documenting, protecting, and managing world cultural heritage. The 6th European-Mediterranean Conference (EuroMed 2016) was definitely a forum for sharing views and experiences, discussing proposals for the optimum approach as well as the best practice and the ideal technical tools to preserve, document, manage, present/visualize and disseminate the rich and diverse cultural heritage of mankind.

This conference was held during the mid-term of the new Framework Programme, Horizon 2020, which is the largest in the world in terms of financial support on research, innovation, technological development, and demonstration activities. The awareness of the value and importance of heritage assets has been reflected in the financing of projects since the first Framework Programme for Research & Technological Development (FP1, 1984–87) and continues into current HORIZON 2020 that follows FP7 (2007–13). In the past 30 years, a large community of researchers, experts, and specialists have had the chance to learn and develop the transferable knowledge and skills needed to inform stakeholders, scholars, and students. Europe has become a leader in heritage documentation, preservation, and protection science, with COST Actions adding value to projects financed within the FP and EUREKA programme and transferring knowledge to practice and supporting the development of SMEs.

The EuroMed 2016 agenda focused on enhancing and strengthening of international and regional cooperation and promoting awareness and tools for future innovative research, development, and applications to protect, preserve, and document the

European and world cultural heritage. Our ambition was to host an exceptional conference by mobilizing also policy makers from different EU countries, institutions (European Commission, European Parliament, Council of Europe, UNESCO, International Committee for Monuments and Sites ICOMOS, the International Committee for Documentation of Cultural Heritage CIPA, the International Society for Photogrammetry and Remote Sensing ISPRS, the International Centre for the study of the Preservation and Restoration of Cultural Property ICCROM, and the International Committee for Museums ICOM), professionals, as well as participants from all over the world and from different scientific areas of cultural heritage.

Protecting, preserving, and presenting our cultural heritage are actions that are frequently interpreted as change management and/or changing the behavior of society. Joint European and international research produce the scientific background and support for such a change. We are living in a period characterized by rapid and remarkable changes in the environment, in society, and in technology. Natural changes, war conflicts, and man-made changes, including climate, as well as technological and societal changes, form an ever-moving and colorful stage and a challenge for our society. Close cooperation between professionals, policy makers, and authorities internationally is necessary for research, development, and technological advancements in the field of cultural heritage.

Scientific projects in the area of cultural heritage have received national, European Union, or UNESCO funding for more than 30 years. Through financial support and cooperation, major results have been achieved and published in peer-reviewed journals and conference proceedings with the support of professionals from many countries. The European Conferences on Cultural Heritage research and development and in particular the biennial EuroMed conference have become regular milestones on the never-ending journey in the search for new knowledge of our common history and its protection and preservation for the generations to come. EuroMed also provides a unique opportunity to present and review results as well as to draw new inspiration.

To reach this ambitious goal, the topics covered include experiences in the use of innovative technologies and methods and how to take best advantage to integrate the results obtained to build up new tools and/or experiences as well as to improve methodologies for documenting, managing, preserving, and communicating cultural heritage.

In these proceedings we present 105 papers, selected from 504 submissions, which focus on interdisciplinary and multidisciplinary research concerning cutting-edge cultural heritage informatics, physics, chemistry, and engineering and the use of technology for the representation, documentation, archiving, protection, preservation, and communication of cultural heritage knowledge.

Our Keynote speakers, Prof. Dr. Antonia Moropoulou (NTUA and Technical Chamber of Greece), Prof. Dr. Dieter Fellner (Director of FhD/IGD and TU Darmstadt, Germany), Prof. Dr. Wolfgang Kippes (University for Applied Arts Vienna and Donau University Krems, Austria), Prof. Dr. Sarah Whatley (Director of Centre for Dance Research, UK), Prof. Dr. Mustafa Erdik (Bogazici University of Istanbul, Turkey), Mr. Jean-Pierre Massué (Senate Member of the European Academy of Sciences and Arts/COPRNM, France), Mr. Axel Ermer (Institute for Museum Research SMB/PK of Berlin, Germany), Mrs. Rosella Caffo (Director of the Central Institute for the Union

Catalogue of the Italian Libraries (ICCU), Italy), Mr. Vasco Fassina (President of the European Standardization Commission CEN/TC 346: Conservation of Cultural Heritage, Italy), Mrs. Maria P. Kouroupas (Director Cultural Heritage Center, US Department of State), Mrs. France Desmarais (ICOM), Dr. Thomas R. Klein (Counsel, Andrews Kurth LLP), Françoise Bortolotti (Criminal Intelligence Officer, Works of Art Unit, Interpol) and Prof. Dr. Markus Hilgert (Director, Vorderasiatisches Museum im Pergamonmuseum Staatliche Museen zu Berlin - Preußischer Kulturbesitz and Project Leader, ILLICID) are not only experts in their fields, but also visionaries for the future of cultural heritage protection and preservation. They promote the e-documentation and protection of the past in such a way for its preservation for the generations to come.

We extend our thanks to all authors, speakers, and those persons whose labor, financial support, and encouragement made the EuroMed 2016 event possible. The International Program Committee—whose members represent a cross-section of archaeology, physics, chemistry, civil engineering, computer science, graphics and design, library, archive and information science, architecture, surveying, history and museology—worked tenaciously and finished their work on time. The staff of the IT department at the Cyprus University of Technology helped with their local ICT and audio visual support, especially Mr. Filippou Filippou, Mr. Costas Christodoulou, and Mr. Stephanos Mallouris. We would also like to express our gratitude to all the organizations supporting this event and our co-organizers, the European Commission scientific and policy officers of the H2020 Marie Skłodowska-Curie Programme, the director general of Europeana, Mrs. Jill Cousins, the Getty Conservation Institute and World Monuments Fund, the Cyprus University of Technology, the Ministry of Energy, Commerce, Industry, and Tourism. Especially the permanent secretary and Digital Champion Dr. Stelios Himonas and Mr. Nikos Argyris, the Ministry of Education and Culture and particularly Minister Dr. Costas Kadis, the director of Cultural Services Mr. Pavlos Paraskevas, the Department of Antiquities in Cyprus, all the members of the Cypriot National Committee for E-Documentation and E-Preservation in Cultural Heritage, and finally our corporate sponsors, CableNet Ltd., the Cyprus Tourism Organization, the Cyprus Postal Services, the Cyprus Handicraft Center, and Dr. Kyriacos Themistocleous from the Cyprus Remote Sensing Society, who provided services and gifts in kind that made the conference possible.

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