Handbook of Research on

Emerging Technologies for Digital Preservation and Information Modeling

Alfonso Ippolito and Michela Cigola
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Description:

The effective use of technology offers numerous benefits in protecting cultural heritage. With the proper implementation of these tools, the management and conservation of artifacts and knowledge are better attained.

The Handbook of Research on Emerging Technologies for Digital Preservation and Information Modeling is an authoritative resource for the latest research on the application of current innovations in the fields of architecture and archaeology to promote the conservation of cultural heritage. Highlights a range of real-world applications and digital tools.

Readers:

This book is ideally designed for upper-level students, professionals, researchers, and academics interested in the preservation of cultures.

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Topics Covered:

- 3D Modeling
- Augmented Reality
- Digital Archives
- Digital Surveying
- Multimedia Tools
- Robotics Applications
- Virtual Restoration

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Alfonso Ippolito is an Architect, in 2006 degree of Ph.D. Since 2008 is assistant professor and researcher ICAR 17, at “Sapienza” University of Rome, in disciplinary project: innovative survey methodologies and techniques, modelling and methodologies of representation. Works on and with new surveying techniques taking advantage of the 3D laser, both of short and long range, on the elaboration of data, on the successive modelling of surface from point clouds, on the optimization of the latter in relation to architectural and archaeological surveying and in relation to designing. Works actively on the problems concerning prototyping, managing and optimizing surveying procedures. Among the cultural heritage objects researched mention must be made of the San Pietro Dome, the wooden model of San Pietro made by Antonio da Sangallo the Younger, the Claudio’s Temple and the Giano’s Arch in Rome; the Roman theatre and amphitheatre in Merida, Spain; the El Khaseneh theatre and the royal tombs at Petra, the theatre in Jarash, Jordania. Participated in the PRIN and Firb financed research and in the European Project entitled Higher Education Curricula Development Project (HECDP – the Tempus CARDS Programme). He was Technical Manager for the ATHENA Project (in Euromed Heritage IV Programme), Assistant Professor at the courses of higher education and courses for the the degree of Ph.D. in research. Maintains contacts with and acted as chairman at international and national conferences in such cities as: Canton in China; San Francisco, Las Vegas, Washington in the USA; La Plata in Argentina; Amman in Jordania, in Madrid and various other cities. Since 2007 sits on the editorial board of the periodical „DISEGNARE. IDEE IMMAGINI“. Since 2012 sits on the scientific committee of the MAVNA Museum (Virtual Archaeological Museum of Narce) in Mazzano Romano (Rome).

Michela Cigola is Full Professor and Director of DART, Laboratory of Documentation, Analysis, Survey of Architecture and Territory at University of Cassino. She received the architectural degree at Sapienza University of Rome. At the same University also obtained a Master (with honours) in “Study and Restoration of Monuments“. She is a member of University Board of Lecturers for the Doctorate in History, Drawing and Restoration of Architecture in Sapienza University of Rome. She has served as reviewer for several international conferences and journals and for national and international projects. She participated at organization of well-established conferences as member of Scientific Committee and/or chairperson. She is the winner of some scientific awards and is a member in well-regarded organizations. She is author of more than one and half hundred number of papers which have been presented at Conferences or published in national and international journals. She authored ten books. More information at the web page: http://webuser.unicas.it/cigola.