

# Handbook of Research on Emerging Technologies for Digital Preservation and Information Modeling

Part of the Advances in Library and Information Science Book Series

Alfonso Ippolito (Sapienza University of Rome, Italy) and Michela Cigola (University of Cassino and South Latium, Italy)

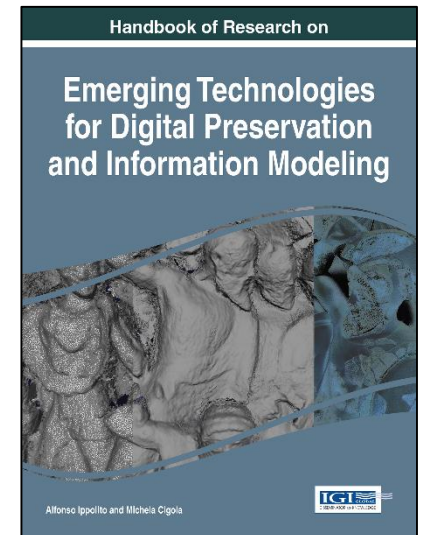
## Description:

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.



**ISBN:** 9781522506805

**Release Date:** September, 2016

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**Pages:** 450

## Topics Covered:

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

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## Table of Contents

### Preface

Alfonso Ippolito, Michela Cigola

### Introduction

An introduction to a different point of view about emerging technologies for digital preservation and information modelling

Marco Gaiani

### Chapter 1: Communicating Architectural Heritage – CAH

Alfonso Ippolito, Sapienza University of Rome, Italy

### Chapter 2: Fasti Congressuum, A Useful Online Tool for Congress and Call for Papers

María Cristina de la Escosura Balbás, Universidad Complutense de Madrid, Spain

Elena Duce Pastor, Universidad Autónoma de Madrid, Spain

Diego Mateo Escámez de Vera, Universidad Complutense de Madrid, Spain

María del Mar Rodríguez Alcocer, Universidad Complutense de Madrid, Spain

David Serrano Lozano, Universidad Complutense de Madrid, Spain

### Chapter 3: The MuseBot Project: Robotics, Informatic and Economics Strategies for Museums

Arturo Gallozzi, DICeM, University of Cassino and Southern Lazio, Italy

Giuseppe Carbone, DICeM, University of Cassino and Southern Lazio, Italy

Marco Ceccarelli, DICeM, University of Cassino and Southern Lazio, Italy

Claudio De Stefano, DICeM, University of Cassino and Southern Lazio, Italy

Alessandra Scotto di Freca, DICeM, University of Cassino and Southern Lazio, Italy

Marina Bianchi, DICeM, University of Cassino and Southern Lazio, Italy

Daniela Federici, DICeM, University of Cassino and Southern Lazio, Italy

Francesco Ferrante, DICeM, University of Cassino and Southern Lazio, Italy

Michela Cigola DICeM, University of Cassino and Southern Lazio, Italy

### Chapter 4: Building Information Modeling (BIM) Processes: Great Misunderstanding or Potential Opportunities for Design Disciplines?

Carlo Bianchini, Sapienza University of Rome, Italy

Carlo Inglese, Sapienza University of Rome, Italy

Alfonso Ippolito, Sapienza University of Rome, Italy

Daniele Maiorino, Sapienza University of Rome, Italy

Luca J. Senatore, Sapienza University of Rome, Italy

### Chapter 5: Thermographic Survey for the Preservation and Restoration of Architectural Cultural Heritage

Emiliano Della Bella, Sapienza University of Rome, Italy

### Chapter 6: Digital Surveying in Cultural Heritage: The Image-Based Recording and Documentation Approaches

Estratos Stylianidis, Aristotle University of Thessaloniki, Greece

Andrea Georgopoulos, National Technical University of Athens, Greece

### Chapter 7: The Decreasing Fortune of the Drawing in the Architectural Processes: From Control and Development to Verification

Marco Carpiceci, Sapienza University of Rome, Italy

Fabio Colonnese Sapienza University of Rome, Italy

### Chapter 8: Going Further. (Re)Discovering Rock Art Carvings with Photogrammetric Techniques in Galicia: (North-Western of Iberian Peninsula)

Benito Vilaz-Estevez, University of Wales Trinity Saint David, UK

Alia Vazquez Martínez, Univeridade de Santiago de Compostela, Spain

Miguel Carrero Pazos, Univeridade de Santiago de Compostela, Spain

### Chapter 9: Real/Not Real. Pseudo-Holography and Augmented Reality Applications for Cultural Heritage

Paolo Clini, Università Politecnica delle Marche, Italy

Ramona Quattrini, Polytechnic University of Marche, Italy

Emanuele Frontoni, Università Politecnica delle Marche, Italy

Roberto Pierdicca, Università Politecnica delle Marche, Italy

Romina Nespeca, Polytechnic University of Marche, Italy

### Chapter 10: “The Past is Never Dead. It’s not Even Past”. Virtual Archaeological Promenade

María Pompeiana Iarossi, Politecnico di Milano, Italy

Luisa Ferro, Politecnico di Milano, Italy

### Chapter 11: Expanded Cultural Heritage Representation: Digital Applications for Mixed Reality Experiences

Alessandra Meschini, University of Camerino, Italy

Daniele Rossi, University of Camerino, Italy

Enrica Petrucci, University of Camerino, Italy

Filippo Sicuranza, University of Camerino, Italy

### Chapter 12: Virtuality and Multimedia for Digital Heritage: Schifanoia Palace and Its Hall of Months

Manuela Incerti, Università degli Studi di Ferrara, Italy

Stefania Iurilli, Università degli Studi di Ferrara, Italy

### Chapter 13: Enhancing the Cultural Heritage Between Visual Technologies and Virtual Restoration: Case Studies to Experiment with Models for Visual Communication

Elena Ippoliti, Sapienza University of Rome, Italy

Michele Calvano, Sapienza University of Rome, Italy

### Chapter 14: Digital Representation Techniques to Interpret, Communicate and Share 20th c. Architectural Archives: The Case Study: Rosani's Archive

Roberta Spallone, Politecnico di Torino, Italy

Francesca Paluan, Politecnico di Torino, Italy

### Chapter 15: Representation and Elaboration of Examples of Painted Architecture

Cristina Candito, Università di Genova, Italy

### Chapter 16: Integrated Survey of “Quadrature” Aimed at the Graphical Analysis of Painted Perspective: Trompe l’Oeil Architecture, Palazzo Arese Borromeo

Giorgia Bianchi, Università Degli Studi di Parma, Italy

Donatella Bontempi, Università Degli Studi di Parma, Italy

### Chapter 17: U.I.R.D.A. - Unbuilt Italian Rationalism Digital Archive: Piero Bottoni and Luigi Vietti

Francesco Maggio, University of Palermo, Italy

Starlight Vattano, University of Palermo, Italy

### Chapter 18: Palatium Vetus in Alessandria: From Tradition to Digital History

Anna Marotta, Politecnico di Torino, Italy

Rossana Netti, Politecnico di Torino, Italy

Marco Vitali, Politecnico di Torino, Italy

### Chapter 19: Digital Technologies for “Minor” Cultural Landscapes Knowledge: Sharing Values in Heritage and Tourism Perspective

Rossella Salerno, Politecnico di Milano, Italy

### Chapter 20: Città Invisibili of Teatro Potlach: A Journey to Rediscover Our Cultural Heritage Through Videomapping, Architecture, Theatre, Music and Visual Arts

Vincenzo Sansone, Università Degli Studi di Palermo, Italy

### Chapter 21: Model 3D in Service of Preservation, Restoration, Structural Analyses of the Architectural Heritage

Elena Teresa Clotilde Marchis, Politecnico Di Torino, Italy

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 Furb 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>.

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