

# Handbook of Research on Emerging Technologies for Architectural and Archaeological Heritage

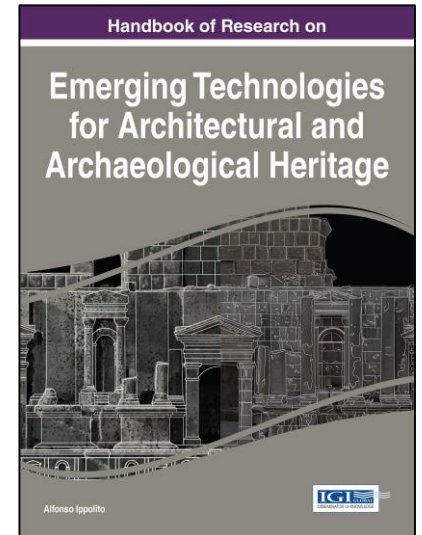
Part of the Advances in Religious and Cultural Studies Book Series

Alfonso Ippolito (Sapienza University of Rome, Italy)

## Description:

Cultural heritage is a vital, multifaceted component of modern society. To better protect and promote the integrity of a culture, certain technologies have become essential tools.

The **Handbook of Research on Emerging Technologies for Architectural and Archaeological Heritage** is an authoritative reference source for the latest scholarly research on the use of technological assistance for the preservation of architecture and archaeology in a global context. Focuses on various surveying technologies for the study, analysis, and protection of historical buildings.



## Readers:

This book is ideally designed for professionals, researchers, upper-level students, and practitioners.

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## Topics Covered:

- 3D Virtual Models
- Ancient Mayan Architecture
- Laser Scanners
- Morphological Analysis
- Residential Architecture
- Roman Sacred Architecture
- Seismic Assessment

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**Preface**

Alfonso Ippolito

**Introduction**

*From Architecture and Archaeology Surveying Towards 3D Virtual Models: The role of 3D Models for Preserving and Valorizing Architecture and Archaeology*

Mario Docci, Sapienza University of Rome, Italy

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Alfonso Ippolito, Sapienza University of Rome, Italy

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Marco Gaiani, University of Bologna, Italy

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Stefano Brusaporci, L'Aquila University, USA

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Fawzi Doumaz, INGV (Istituto Nazionale di Geofisica e Vulcanologia, Rome)

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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 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).