EuroMed 2024
The 10th International Euro-Mediterranean
Conference on Digital Cultural Heritage
2nd-4th December 2024, Cyprus University of Technology, Limassol, Cyprus

EUROMED
International Conference on Digital Heritage

Schedule Wednesday 4th December 2024

Workshop 3: CoVHer Multiplier Event on Hypothetical 3D Reconstructions & Documentation in Cultural Heritage

Wednesday 4th December 09:00-16:00

CoVHer stands for "Computer-based Visualization of Architectural Cultural Heritage" and is an Erasmus Plus Project (2021-1-IT02-KA220-HED-000031190, CoVHer Project), started in February 2021 and ending in January 2025.

The use of 3D models for the virtual reconstruction of past architectures, whether unbuilt or lost, has become widespread among both scientific and amateur communities. Despite this growth, the field still lacks standardized practices for processing and evaluating these virtual reconstructions.

Key gaps include the absence of a shared glossary for specific terms, including a shared classification of digital representation methods and 3D modelling techniques, as well as a scholarly approved, ready-to-use methodology for computer-aided hypothetical 3D reconstruction and documentation.

This Multiplier Event will address several unresolved issues in the field, particularly:

- Documentation of uncertainty in hypothetical reconstructions
- Publication of 3D models as scientific products
- Quality assurance and assessment of 3D models
- Accessibility and reusability of results

In this Multiplier Event, we aim to delve deeper into these critical points by presenting and discussing some results developed in the context of the CoVHer project. Specifically, we will illustrate the CoVHer MOOC course that will be published in January 2025; we will present the methodology to assess and visualize the uncertainty of hypothetical virtual reconstructions, as well as CoVHer developed to share 3D models as open scientific research outputs. Among the aims of this Event we will explore the potential of creating a digital archive of 3D models of virtual reconstructions, such as the CoVHer 3D Repository, and we will aim to promote the use of a shared terminology and methodology for the documentation of the reconstruction process and the assessment and quantification of the uncertainty in virtual hypothetical reconstructions.

You are invited to discuss ongoing or past European projects and international initiatives related to these topics, and the issues raised by the European Union concerning the preservation and sharing of European cultural heritage. Join us to contribute to and discuss about the advancement of standards and methodologies in the field of 3D virtual reconstruction of architectural heritage.

The Erasmus+ CoVHer Project

Workshop Organisers

Fabrizio Ivan Apollonio, Federico Fallavollita, Riccardo Foschi
- Alma Mater Studiorum – Università di Bologna, Italy

Igor Piotr Bajena, Piotr Kuroczyński
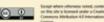- Hochschule Mainz – University of Applied Sciences, Germany

Workshop
Wednesday 4th December
09:00-13:00

Abstracts

Time	Paper Title & Speaker
09:00-09:10	Introduction about the topics *Fabrizio Apollonio, Alma Mater Studiorum – Università di Bologna, Italy* *Piotr Kuroczyński, Hochschule Mainz – University of Applied Sciences, Germany*
09:10-09:30	Empowering Digital Heritage: CoVHer MOOC on 3D Reconstruction of Lost and Unbuilt Architectural Heritage *Federico Fallavollita, Alma Mater Studiorum – Università di Bologna, Italy*
09:30-09:50	Hands-On: The Uncertainty Assessment *Riccardo Foschi, Alma Mater Studiorum – Università di Bologna, Italy*
09:50-10:10	The Visualisation of Uncertainty in Virtual Reconstructions as a Dynamic Tool for Discussing about the Prehistoric Past *Evdoxia Tzerpou, Universitat Autònoma de Barcelona, Spain*
10:10-10:30	Virtual Reconstructions in the Age of Generative AI *Sander Münster, Friedrich-Schiller-Universität Jena, Germany*
10:30-11:00	Coffee Break (30 minutes)
11:00-11:20	Hands-On: The 3D Repository *Igor Piotr Bajena, Hochschule Mainz – University of Applied Sciences, Germany*
11:20-11:40	Abbreviated Workflows for 3D Reconstructions in Art and Architectural History *Fabrizio Nevola, & Luca Brunke University of Exeter, The United Kingdom*
11:40-13:00	*CoVHer Discussion on 3D Digital Cultural Heritage in Higher Education*
13:00-14:00	Lunch Break (60 minutes)
14:00-15:30	*All Conference Participants: Discussion & Brain Storming Session* *Rapporteur: TBC.*
15:30-16:00	Closing Comments