Innovative Digital Solutions for Heritage

INTERNATIONAL WORKSHOP
by Italy's Centre of Excellence
DTC Lazio

DENKMAL 2024 / Leipziger Messe
Vortragsraum 10
7th November 2024, h. 14.30 – 17.30

DTC LAZIO

ITKAM CAMERA DI COMMERCIO ITALIANA PER LA GERMANIA
ITALIENISCHE HANDELSKAMMER FÜR DEUTSCHLAND

LEIPZIGER MESSE

30 YEARS denkmal
Europe's Leading Trade Fair for Conservation, Restoration and Old Building Renovation

Innovative Digital Solutions for Heritage
Programme of the Workshop

14.30 – 15.00
Opening and Introduction

Simone Bozzato – President, Centre of Excellence DTC Lazio
Alessandra De Santis – Deputy Secretary General + COO, ITKAM

15.00 – 15.20
Keynote

Digital Documentation in Heritage as New Skills Profile
Mona Hess – Full Professor, University of Bamberg

15.20 – 17.00
Workshop: *Digital Object-Based Learning for Well-being and Inclusion: the case of ARTISTIC (AI and Robotics for Inclusive Heritage Education Experiences)*

Antonella Poce – Scientific Coordinator
Maria Tolaini
Carlo De Medio

17.00 – 17.30
Conclusive Remarks – Centre of Excellence DTC Lazio Researchers

@Gradi. Senses of place
Agnese Bertolotti – University of Tuscia

Virtual Museum of Movable Books (ViMMoB)
Arianna Papale – University of Rome La Sapienza

Edoardo Lampis – Lazioinnova

A coffee area will be available directly in the room throughout the event.

Innovative Digital Solutions for Heritage

Opening and Introduction

Simone Bozzato – President, Centre of Excellence DTC Lazio

Full Professor of Geography at the University of Rome Tor Vergata, within the Department of History, Cultural Heritage, Education, and Society. Coordinator of the TUREG degree (Food and Wine Tourism) and the "Landscape and Territory" curriculum in the Ph.D. program. Starting November 2023, president of the DTC Lazio consortium. Director of the «Tourism and Territories of Hospitality» series (Armando Editore) and member of the editorial board of the scientific journal «documenti geografici». Member of the ITS Turismo Foundation, member of the Pa.Ter. research center (Landscape and Territory), and head of the geo-cartographic laboratory at Tor Vergata University. His research centers on cultural geography, landscape, sustainability, and community-based tourism.

Alessandra De Santis – Deputy Secretary General + COO, ITKAM

She represents ITKAM to its stakeholders as Deputy Secretary General and COO. In these roles, she also supervises all operational activities and coordinates the work teams. Furthermore, she developed tailor-made innovative formats and projects for the internationalization of public and private companies from Germany and Italy

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Keynote: Digital Documentation in Heritage as New Skills Profile

Dr. Mona Hess

Dr. Mona Hess is a Full Professor and Lead of the chair for Digital Technologies in Heritage Conservation. She holds graduate degrees in architecture from the Munich University of Technology and heritage conservation from the University of Bamberg and a PhD in 3D imaging metrology for cultural heritage from University College London (UK). With 20 years of experience in interdisciplinary research projects in 3D imaging and digital documentation, she has worked in Montreal, Los Angeles, London, and Germany. She has been a full professor since 2017 and is course director for the M.Sc. in Digital Technologies in Heritage Conservation at the University of Bamberg, Germany.

Workshop: Digital Object-Based Learning for Well-being and Inclusion: the case of ARTISTIC (AI and Robotics for Inclusive Heritage Education Experiences)

Abstract:
Object-Based Learning (OBL) is a methodology that develops deep and active knowledge from chosen artistic and cultural heritage objects. It involves direct interaction with objects to enhance transversal skills, including creativity, communication, collaboration, and critical thinking. The workshop will present hands-on practices based on OBL and its digital development within the ARTISTIC project, focusing on educational robotics and AI technologies. Participants will explore how OBL, VR, and generative AI can be applied to heritage education, fostering critical reflection, creativity, and social inclusion.

Speakers:

Antonella Poce – Scientific Coordinator
Antonella Poce is a Full Professor in Experimental Pedagogy at the Department of History, Heritage, and Humanities, Tor Vergata University of Rome. She teaches Experimental Pedagogy, Educational Research Methodology, and Museum Education. She coordinates postgraduate degrees in Museum Education at both the University of Tor Vergata and Roma Tre. Her research focuses on innovative teaching practices in higher education.

Maria Tolaini
Maria Tolaini is a PhD candidate in Digital Humanities at the University of Genoa. She holds a master's degree in history of art from the Courtauld Institute of Art and a master's degree in Advanced Studies in Museum Education from the University of Roma Tre. Her research interests include museum education and the use of teaching and learning technologies.

Carlo De Medio
Carlo De Medio is a research fellow at the Department of Electronic Engineering at the University of Tor Vergata and has been collaborating with the Museum Education Center (Univ. Roma Tre) since 2019. His work focuses on museum education, digital skills development, and innovative teaching methodologies supported by VR, AR, and AI-based technologies.

Conclusive Remarks
Center of Excellence – DTC LAZIO Researchers

@Gradi. Senses of place

Abstract:
The @Gradi project focuses on the sustainable development and cultural enhancement of the Monumental Complex of Santa Maria in Gradi in Viterbo, home to Tuscia University. By utilizing innovative digital tools, the project creates a shared, accessible sense of place through immersive experiences. A central feature is an exhibition on the SPATIAL platform, which reconstructs Viterbo during World War II through historical photographs, aerial footage, and 3D models. Visitors can explore the impact of the bombings on the city's cultural heritage and urban landscape. Additionally, interactive totems, QR markers, and a holographic interface of Fra' Martino da Viterbo offer an engaging, multilingual storytelling experience that narrates the complex's history—from Dominican Convent to Prison Institute to its current academic role—creating an inclusive and educational cultural journey.
This project demonstrates how digital narratives can foster community participation and promote responsible tourism through immersive and barrier-free environments.

Speaker:
Agnese Bertolotti – University of Tuscia
Doctor Europaeus in "History of Europe: Political Society, Institutions (19th - 20th Centuries)" at the University of Tuscia and Senior CdE DTC Lazio researcher. Her research focuses on the use of audiovisual sources and the impact of new technologies on the historian's profession, with an interest in Public History and territorial valorization.

The Virtual Museum of Movable Books (ViMMoB)

Abstract:
The Virtual Museum of Movable Books (ViMMoB) focuses on the 2D and 3D digitization of the Panizzi Library's extensive collection of pop-up and animated books in Reggio Emilia. These unique volumes, incorporating mechanical elements such as volvelles, flaps, and intricate paper engineering, have only recently garnered scholarly attention. The collection, comprising 165 volumes from the late 19th century to 1970, primarily of American and English origin, includes a range of animated book types: pop-ups, panorama pictures, scenic books, and harlequinades, among others. Using structured light, laser 3D scanners, and photogrammetry, the project aims to establish a replicable methodology to preserve the interactive nature of these fragile artifacts. The complete digital scans will be accessible through a dedicated website with metadata and an interactive interface, providing an immersive and barrier-free exploration of this rare and valuable collection.
This initiative not only aims to protect the collection but also to make it accessible for both scholars and the public, offering a new dimension to the study and enjoyment of mobile and interactive books.

Speaker:

Arianna Papale– University of Rome La Sapienza

Arianna Papale is an art historian specializing in contemporary art. She holds a PhD in Contemporary Art History, completed as a joint program between the University of Rome La Sapienza and the University of Barcelona. Her research focuses on the representation of the ecological crisis in aerial photography. She is a junior researcher at the Center of Excellence DTC Lazio, working on the digitization of movable books.

Edoardo Lampis– LazioInnova

Edoardo Lampis is an economist and is responsible for culture and tourism at LazioInnova. He manages the Center of Excellence of the Technological District of Culture in the Lazio Region in partnership with the Ministry of University and Research and the Ministry of Culture.