WELCOME TO GCH23

The 21st Eurographics Workshop on Graphics and Cultural Heritage (GCH 2023) takes place in the astonishing location of Salento (Lecce, Italy) from the 4th to the 6th of September 2023.

The Eurographics Workshop on Graphics and Cultural Heritage (GCH) aims to foster an international dialogue between ICT experts and CH scientists to have a better understanding of the critical requirements for processing, managing, and delivering cultural information to a broader audience.

General Chairs
Holger Graf, Fraunhofer IGD
Sofia Pescarin, CNR ISPC Florence

Local Chair
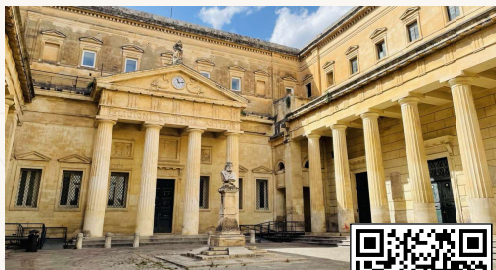Alberto Bucciero, CNR ISPC Lecce
Lucio De Paolis, Univ. Salento

Program Chair
Selma Rizvic, University of Sarajevo

Poster and Demo Chair
Bruno Fanini, CNR ISPC Rome

CONFERENCE LOCATION

Convitto Palmieri
Piazzetta Giosuè Carducci
73100 LECCE, Italy

Conference location

GALA DINNER LOCATION

Agriturismo Tenuta Sant'Emiliano
SP87, 73028 Otranto LE

Gala dinner location

FOR MORE INFORMATION

Full GCH2023 program
and events in SCHED

GCH23
Salento

Eurographics Workshop on Graphics and Cultural Heritage 2023

September 4-6 2023 | Lecce - ITALY

04th SEPTEMBER 2023

08:30 - 09:30 Registration GCH

09:30 - 10:00 Opening session GCH + FFWD

10:00 - 11:00 AI+3D Reconstruction
- **HerMeS: HERitage sMart social mEdia aSsistant: Data modeling to Artificial Intelligence model** - Alberto Bucciero, Alessandra Chirivì, Irene Muci, Mohamed Ali Jaziri, Andrea Orlandini, Alessandro Umbrico
- **High Resolution 2D-/3D-Scanning and Deep Learning Segmentation for Digitization of Fragmented Wall Paintings** - Ole Kroeger, Oliver Krumpek

Coffee break / Posters and Demo

11:30 - 12:30 Keynote by Sarah Kenderdine "Computational Museology: Interfaces to Cultural (Big) Data"

12:30 - 13:30 Enhancing Digitial Cultural Heritage
- **Interaction design as catalyzer of creative and interpretative praxes in museum context** - Manuele Veggi
- **Improving authenticity in interactive experiences with Cultural Heritage: a conceptual framework** - Sofia Pescarin, Samuele Spotti, Giuseppe Città
- **Interactive Digital Narrative Authoring Tools and Hybrid Experiences in Cultural Heritage: a review** - Marcello Massidda, Laura Travaglini, Sofia Pescarin

Lunch break / Posters and Demo

14:30-15:30 AI methods for Manuscripts & Documents
- **Estimating the number of chases used for printing books with movable metal types** - Dongkeun Kim
- **R-CNN based Polygonal Wedge Detection Learned from Annotated 3D Renderings and Mapped Photographs of Open Data Cuneiform Tablets** - Ernst Stötzner, Timo Homburg, Jan Philipp Bullenkamp, Hubert Mara

Coffee Break / Posters and Demo

16:00 - 17:00 AI and 3D Reconstruction
- **Effective interactive visualization of neural relightable images in a web-based multi-layered framework** - Leonardo Righetto, Fabio Bettio, Federico Ponchio, Andrea Giachetti, Enrico Gobbetti
- **Portrait2Bust: DualStyleGAN-based portrait image stylization based on bust sculptures** - Saptarshi Neil Sinha, Michael Weinmann

20:00 - 21:00 Guided Tour of Lecce

05th SEPTEMBER 2023

09:30 - 10:00 PRESESSION: Fastforward (FFWD) of the day

10:00 - 11:00 AI and 3D Reconstruction
- **Using Spatial Augmented Reality to Increase Perceived Translucency of Real 3D Objects** - Giorgio Trumpy, Davit Gigilashvili
- **AI Based Image Segmentation of Cultural Heritage Objects used for Multi-View Stereo 3D Reconstructions** - Hasan Kutlu, Felix Brucker, Ben Kallendrusch, Pedro Santos, Dieter Fellner
- **One-to-many Reconstruction of 3D Geometry of cultural Artifacts using a synthetically trained Generative Model** - Thomas Pöllabauer, Julius Kühn, Jiayi Li, Arjan Kuijper

Coffee Break / Posters and Demo

11:30 - 12:30 Simulation in CH
- **Inferring the routes of prehistoric humans** - Adrien Ramanana Rahary, Mylène Lorre, Sophie Grégoire, Marie-Paule Cani
- **Automatic detection of windows reflection or transparency pollution in TLS acquisitions** - Edgar Badalyan, Arnaud Schenkel, Olivier Debeir
- **Exploring Expert and Non-Expert Perception of 3D Digital Models of Museum Objects** - Kira Zumkley, Karina Rodriguez, Tim Weyrich

12:30 - 13:30 Digital Libraries and Infrastructures
- **The role of project M.A.G.I.C. (Manuscript of Girolamini In Cloud) in the context of the European strategies for the digitization of the library and archival heritage** - Stefania Conte, Andrea Mazzucchi, Leonardo Merola, Guido Russo, Guido Trombetti
- **DataSpace-ISPC: a semantic platform for Heritage Science** - Alberto Bucciero, Alessandra Chirivì, Gerardo Anglada, Emanuel Demetrescu, Bruno Fanini, Nicolò Paraciani

Lunch break / Posters and Demo

14:30-15:30 Acquisition Methodologies
- **4D Termo-reflectography of Cultural Heritage** - Fulvio Mercuri, Eva Pietroni, Enzo D'Annibale, Stefano Paoloni, Noemi Orazi, Daniele Ferdani, Ugo Zammit, Diego Ronchi
- **A Digital Data Curation-Based Photogrammetric Acquisition Methodology for Cultural Heritage, expanded with CIDOC CRM Compatibility: protocol BeA-PG** - Vittorio Lauro, Vincenzo Lombardo

Coffee Break / Posters and Demo

16:00 - 17:00 Steering Board GCH (members only)

17:00 Departure for the Guided Tour to Otranto

21:00 Gala Dinner at Agriturismo Sant'Emiliano near Otranto

06th SEPTEMBER 2023

08:30 - 09:30 Registration

09:30 - 10:00 Opening XRSalento and Launch of GCH+XRSalento special session

10:00 - 11:00 GCH/XR Methods and Applications (part 1)
- **Augmenting Local and Remote Cultural Visits with Mixed Reality** - Pedro Lourenço, Nuno Correia, Armanda Rodrigues
- **Hybrid XR collaborative and guided experiences in Cultural Heritage: Brancacci POV prototype** - Sofia Pescarin, Ivana Cerato, Enzo D'Annibale, Bruno Fanini, Daniele Ferdani, Rachele Manganelli Del Fà, Alessandra Marasco, Marcello Massidda, Augusto Palombini, Diego Ronchi
- **Large Room Scale Augmented Reality in an Unaltered World Heritage Site** - Manuel Olbrich, Andreas Zapf, Christoph Stiegemann, Annika Pröbe

Coffee Break / Posters and Demo

11:30 - 12:30 Keynote by Antonella Guidazzoli – CINECA, Italy "Transforming Cultural Heritage Preservation and Valorization"

12:30 - 13:30 GCH/XR Methods and Applications (part 2) + End of GCH/Best Paper
- **Advanced Interactive Digital Storytelling in Virtual Reality presentation of Austrian** - Hungarian fortresses around Trebinje - Selma Rizvic, Dusanka Boskovic, Bojan Mijatovic
- **Developing a VR Game Featuring Optical Illusion Challenges to Support Cultural Heritage - A Progress Report** - Louis Nisiotis, Konstantinos Elia
- **Interacting with Ancient Egypt Remains in High-Fidelity Virtual Reality Experiences** - Simone Restivo, Martina Terzoli, Davide Mezzino, Roberta Spallone, Fabrizio Lamberti, Alberto Cannavò

Lunch break

14:30-16:15 Session 1A: Serious Games and Extended Reality in Learning, Education and Cultural Heritage
Session 1B: Serious Games and Extended Reality in Learning, Education and Cultural Heritage

Coffee Break / Posters and Demo

16:30-18:15 Session 1C: Serious Games and Extended Reality in Learning, Education and Cultural Heritage
Session 2: Phygital World & Extended Reality: New frontiers in Cultural Heritage

Full XR Salento 2023 Program
September 6-9, 2023