Preface: Proceedings of the Workshop on Advanced Visual Interfaces for Cultural Heritage (AVI-CH 2026)

The Workshop on Advanced Visual Interfaces for Cultural Heritage (AVI-CH 2026) was held in conjunction with AVI 2026, the International Conference on Advanced Visual Interfaces, in Venice, Italy, on June 8–12, 2026. AVI-CH is the sixth edition of a series of workshops co-located with AVI since 2016, continuing the PATCH workshop series, which has been running since 2007. The workshop brings together researchers and practitioners interested in presenting and discussing the potential of state-of-the-art visual interfaces to enhance our daily cultural heritage experience, whether on-site or online. Cultural Heritage (CH) is a challenging domain for novel Information and Communication Technologies (ICT): the range of visualization devices — from tiny smartwatch screens through wall-size situated public displays to immersive Head-Mounted Displays — together with real-time 3D rendering, Internet of Things (IoT) approaches, and Social Robotics, opens new opportunities that are still far from being fully explored.

This year, the workshop theme was *Hybrid Reasoning Methods behind Interactive Cultural Heritage Applications*, reflecting the growing interest in combining symbolic and neural approaches — such as knowledge graphs with large language models, or explicit engagement models with generative AI — to support richer, more explainable, and more adaptive interactive systems for cultural heritage. The workshop invited contributions on a wide range of topics, including Adaptive and Context-Aware Interfaces, Personalized User Interfaces, Information Visualization, Interface Metaphors, Interfaces for e-Culture and e-Tourism, Mobile Interaction, Multimodal and Conversational Interfaces, Augmented and Virtual Reality, Head-Mounted Displays, Human-Robot Interaction, Natural Interaction with IoT, GenAI Applications in AVI-CH, and Hybrid Reasoning Methods behind Interactive Cultural Heritage Applications, to mention a few.

The submission deadline was March 29th, 2026. We received 8 submissions, of which 7 were accepted for publication following a rigorous peer-review process in which each paper was evaluated by three members of the Program Committee, resulting in an acceptance rate of 87.5%. The accepted papers address a wide spectrum of topics at the intersection of advanced visual interfaces and cultural heritage. Unkelos-Shpigel and Haddad present *Acre's Legacy — Memory Revival*, a mobile Android AR application for outdoor heritage engagement in the UNESCO World Heritage city of Acre (Akko), combining GPS navigation, Vuforia AR animations, multilingual narration, and a gamification system, with an architecture migrated to fully local storage to cope with real-world connectivity constraints. Unkelos-Shpigel et al. complement this with a closed-loop adaptive VR museum system deployed on a Meta Quest 3 headset that personalizes exhibit descriptions in real time by fusing four behavioral signals — head stability, gaze dwell, locomotion velocity, and reading context — into an engagement score, then calling GPT-4o asynchronously to generate content of appropriate length and complexity. Shikhri et al. investigated how the rendered horizontal field of view (hFOV) shapes visitor behavior in 360° virtual museum tours across devices, disentangling the effects of rendered FOV from device form factor through a controlled between-subjects design. Draetta et al. present *TalkingGraphs*, a domain-independent framework for interactive Knowledge Graph exploration built on human-centered principles, with a modular client-server architecture validated through a multi-method user study across two distinct heritage domains. Coppola et al. describe a modular, containerized Conversational AI architecture that drives a virtual human for cultural heritage presentation, integrating ASR, LLM question answering, semantic retrieval over a Neo4j knowledge graph, TTS, and LangGraph orchestration, decoupled via Apache Kafka. Pitteri et al. present the *MDP-m App*, a tool for collecting and managing metadata of multimedia art installations through Digital Preservation Objects (DPOs), demonstrated on Salvatore Sciarrino's opera *Perseo e Andromeda*. Finally, Pretto et al. present a web interface for analyzing and annotating digitized historical audio

CEUR Workshop Proceedings ceur-ws.org ISSN 1613-0073
published 2026-08-31

tape recordings, integrating synchronized audio-video playback and a computer vision module, which was validated on 43 recordings from the Luigi Nono archive.

Taken together, the accepted papers reflect two complementary tendencies. On one hand, several contributions explicitly combine structured knowledge representations with large language models, embedding-based retrieval, and agentic orchestration, exemplifying hybrid architectures where different modules handle the tasks they are best suited for — the conversational AI system by Coppola et al. and the adaptive VR museum by Unkelos-Shpigel et al. are clear illustrations of this trend. On the other hand, established topics such as augmented reality, gamification, digital preservation, and visitor behavior analysis continue to mature: the Acre AR system demonstrates the practical challenges of deploying heritage technology in real-world urban environments, TalkingGraphs lowers the barrier for heritage professionals to explore complex interconnected datasets, and the audio tape annotation interface highlights the ongoing need for standards-based tools supporting time-based media art. The FOV study by Shikhri et al. serves as a reminder that low-level perceptual parameters, often overlooked in cross-device comparisons, can significantly shape the quality of virtual heritage experiences.

The Organizing Committee would like to sincerely thank the authors for their contributions and their willingness to share their latest research with the community. We would also like to express our gratitude to the members of the Program Committee, whose careful and constructive reviews were essential to ensuring the quality of these proceedings. Without their efforts and commitment, AVI-CH 2026 would not have been possible.

Antonio Origlia, Julia Sheidin, Tsvi Kuflik, Niccolò Pretto
On behalf of the editors

PROGRAM COMMITTEE

Rossana Damiano, University of Turin, Italy
Francesco Cutugno, University of Naples Federico II, Italy
Antonio Rodà, University of Padua, Italy
Sergio Canazza, University of Padua, Italy
Alessandro Russo, Národní filmový archiv (NFA), Prague, Czech Republic
Naomi Unkelos-Shpigel, Braude Academic College of Engineering, Karmiel, Israel