



Report for the CAA National Chapter of Greece

Reporting Period: March 2023 – March 2024

Submitted by: Emeri Farinetti

Date Submitted: 15/03/2024

Update on the National Chapter Activities:* *(Please insert additional pages, if needed)*

CAA-GR Session in CHNT28

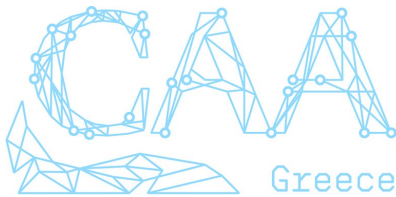
CAA-GR organised a session at the Cultural Heritage and New Technologies (CHNT) Annual Conference held in Vienna, Austria between November 15th – 17th 2023. CHNT28 was dedicated to the theme “*Cultural Heritage as a Resource – Technologies for the Paradigm Shift in Archaeology, Conservation and Education*”. In this context, CAA-GR proposed a session entitled “*Cultural Heritage Under Climate Change Threat: Innovation, mitigation, adaptation and education for resilience*”, calling researchers in this challenging topic to submit their works. Here below you can find the session proposal:

Session Title: Cultural Heritage Under Climate Change Threat: Innovation, mitigation, adaptation and education for resilience

Session organisers: Theodora Moutsiou, Emeri Farinetti, George Pavlidis, Dorina Moullou, Pinar Özgüner, Stella Sylaiou (CAA-GR committee)

Session abstract:

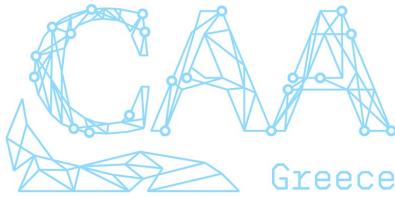
Climate change has recently emerged as a key threat to cultural heritage with a marked impact on archaeological sites, historical landscapes, artifacts, heritage buildings, landmarks and intangible traditions, further posing challenges for the research, preservation and dissemination of our shared legacy. The impact of climate threats to cultural heritage is especially relevant to coastal regions, where substantial reconfiguration is taking place due to sea-level rise and inundation. The CAA-GR invites scholars to an open discussion on the impact of climate change on heritage, adding to a growing body of multidisciplinary research that tackles our changing world in preparation for future challenges. We welcome archaeologists, Earth scientists, material scientists, geospatial experts, digital humanities researchers, etc., to bring forth their research and innovation, and highlight challenges in: (a) data collection, mapping and modeling of potential climate change impacts; (b) facilitating continuous long-term monitoring of cultural and natural heritage to document the evolution of changes; (c) developing appropriate mitigation and adaptation measures to counter risks and threats, while avoiding maladaptation; (d) identifying innovative practices for a dynamic,



inclusive and participatory cultural response to risks; (e) investigating ways in which communities could be actively involved in safeguarding cultural heritage.

According to the UN, "Climate change refers to long-term shifts in temperatures and weather patterns." Pattern shifts have only been occurring due to natural causes, until the 1800s, when intense human activities, primarily due to burning fossil fuels like coal, oil and gas, became a major contributing factor. Since that time, the Earth has become about 1.1°C warmer, with the decade 2011-2020 being the warmest on record. Although a limit of 1.5°C rise has been suggested by many scientists as an upper bound for containing the impact, the current policies in place are estimated to lead to a 2.8°C rise by the end of the 21st century. Practically, climate change is manifested as a percentage rise of carbon dioxide and methane in the atmosphere with direct impact on the global temperature that accelerates ice melting and sea level rise, and ignites more frequent severe weather events. In addition, the relative increase in humidity near water bodies provokes changes in the biosphere resulting in extreme biological contamination. This change affects all types of heritage assets, including (a) monuments, sites, and (b) artifacts in sites, like frescoes and mosaics, threatened with submerging, degradation, collapse, etc., in various time scales, as well as (c) artifacts in collections, that will need intensified efforts for micro-climatic control potentially resulting in less-green museums and further accelerating climate change.

In total 12 presentations were given, making the CAA-GR session one of the most productive and successful of the conference. The titles of the talks and names of presenters are these:



CHNT ICOMOS AUSTRIA | Stadt Wien

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- Information Integration of FAIR Data for New Discoveries of Past Mining Activities - *Brigit Danthine & Gerals Hiebel & Julian Haas & Roman Lamprecht & Milena Peralta Friedburg & Manuel Scherer-Windsch* (Download)
- Heritage under climate change threat: Innovation, mitigation, adaptation and education for resilience** (Download)
Theodora Moutsiou, George Pavlidis CAA-GR CAA-GR | Greece
 - CHA-ile-NGES in an upland rural landscape. Cultural responses to the impact of natural and anthropogenic risks on tangible and intangible CH features. - *Emeri Farinetti & Sara Carallo* (Download)
 - Adaptative responses to climate change: Lessons from Mediterranean prehistory - *Theodora Moutsiou*
 - Appraising cultural heritage values in a changing climate - *George Halkos & Phoebe Koundouri*
 - Evaluating the ECITO Project: Assessing the effectiveness of Aug-mented Reality in bridging the gap between scientific data, public per-ception, and climate change concerns - *Dorina Moullou & LEMONIA RAGIA*
 - Assessment of Impact due to 2022 Floods on Mohenjo Daro UNESCO World Heritage Site based on Satellite Imagery and Derived Mapping Products - *Federico Zaina & Deodato Tapete & Muhammad Younis Khan & Sher Muhammad*
 - Recording flood damage. Results from the "Flood Damage Register 2021" project on the archaeological heritage of the Rhineland region - *Hannah Witte & Isabell Schmidt & Claudia Koppmann*
 - Climate Change Impact on endangered cultural heritage in Afghanistan - *Tayebeh Nazarian & Asadullah Movahedi* (Download)
 - Harnessing Digital Strategies for Resilient Heritage | Small Museums' Response to the Climate Change Threat - *George Pavlidis & Stella Markantonatou & Chairi Kiourt, Vasileios Sevettlidis & Vasileios Arampatzakis & Dimitrios Karamatskos & Helena Theodoropoulou & Kyriakos Pantoglou* (Download)
 - In Pursuit of Understanding Vulnerability: Assessing Cultural Heritage Risks from Climate Change and Natural Hazards. Are we Following the Right Path? - *Apostolos Sarris & Maria Katiri & Enrico De Benedictis & Eleni Vallianatou & Victor Klinkenberg & Miltiadis Polidorou* (Download)
 - Museum Pests and Climate Change in Austria - Parallel monitoring of fungi, insects and microclimate in historic collections to assess future risks of biodeterioration - *Katharina Derksen & Peter Brimblecombe* (Download)
 - Climate change as a threat for cultural heritage: learning from the past and protecting the future - *Sophia Zoumbaki*
 - SMARTMUS-E, managing energy in museums under climate change | The need of knowledge on materials degradation related to building hygrothermal behaviour - *Paola Lucero Gomez & Karel Lemr & Susan-Diana Braovac & Linn Kristin Solheim & Kaja Kollandsrud & Silvia Salvini*

CAA-GR Session in EAA 2024

A session proposal was also submitted and successfully accepted in the programme of the European Association of Archaeologists (EAA) Annual Meeting to be held in Rome, Italy, between 28-31 August 2024. The session is entitled "*Current Status and the Future of Digital Archaeology in the Eastern Mediterranean*" (Session #818) and it aims to discuss:

Session: #818

Conference Theme:

2. Archaeological Sciences, Humanities and the Digital era: Bridging the Gaps

Session format:

Regular session

Title:

Current Status and the Future of Digital Archaeology in the Eastern Mediterranean

Content:

The Greek Chapter of the Computer Applications & Quantitative Methods in Archaeology (CAA-GR), which involves a wider research community from the Eastern Mediterranean area, invites scholars, researchers,



academics, and professionals to explore the current and future state of digital archaeology in the Eastern Mediterranean.

Speakers and participants will have the opportunity to exchange knowledge and experiences on digital archaeology in the Eastern Mediterranean and will envision future directions. A strong focal point in the discussion will be on how the digital practice can cross boundaries and facilitate international collaboration. The intention is to establish a cross-border collegial environment where scholars share their experiences, highlight problems and offer potential solutions, knowledge transfer and know-how.

Participants from Greece, Cyprus, Turkey, and neighboring regions will share experiences and discuss digital scholarship levels in educational institutes, challenges in adopting curricula, managerial issues, and resource allocation strategies.

Colleagues from foreign archaeological missions will highlight their experiences managing digital projects in the Eastern Mediterranean, addressing integration challenges and unforeseen issues.

Presentations by scholars from the state sector will delve into the impact of digital transformation on archaeological projects, focusing on national policies, project evaluation, and the adoption/rejection of digital tools by archaeological services.

Ethical and legal concerns, surrounding digital archaeology in the Eastern Mediterranean including data creation and ownership, cultural heritage preservation, and responsible data-sharing practices, will be addressed.

The discussion extends to how digital archaeology projects engage the public, and promote cultural heritage preservation, by means of virtual exhibits, interactive educational resources, and community involvement in digital initiatives.

Please submit your proposals for presentations, papers, or case studies that align with the themes outlined above. Your insights and experiences will contribute to a robust discussion and the advancement of digital archaeology in this culturally rich and historically significant region.

Keywords:

Digital archaeology, Eastern Mediterranean, Cross-border collaboration, Knowledge exchange, Digital policies, Future directions

Organisers:

Dorina Moullou (Greece), Emeri Farinetti (Italy), Theodora Moutsiou (Cyprus), Nimet Pinar Ozguner Gulhan (Poland), Lukasz Misk (Poland)

-----The Session is associated with CAA international. The first 4 organisers are members of the CAA-gr committee-----



Nine talks have so far been accepted to take place in the session; see relevant list below:

You are the main organizer for the following session(s).

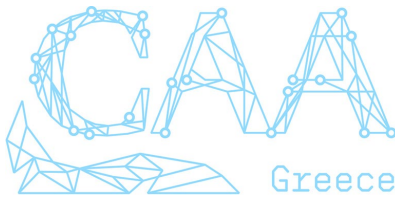
Session #818	Total number of contributions: 9	Show session overview
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Current Status and the Future of Digital Archaeology in the Eastern Mediterranean

[Download abstracts](#) [Review abstracts](#)

Accepted abstracts

Title	Type	Download
Introduction slot		
A Review of the Application of GIS in Cypriot Archaeology and the Gap of the Prehistoric Bronze Age	Oral	PDF
Erimi-Pitharka Archaeological Project: application of digital technologies	Oral	PDF
Locating the Battlefield of Dara: Digital Archaeology Project	Oral	PDF
Applications of Digital Archaeology in Documenting and Understanding of Gerçin Höyük, Gaziantep	Oral	PDF
Advancing Excavation Mapping: Integrating Terrestrial Photogrammetry, Lidar, and UAV Data for the Roman Bath Complex in Rafina, Attica, Greece	Oral	PDF
Towards a Digital Archipelagos: from the Liber Insularum to the Isolaria.	Oral	PDF
Discussion slot		
Coffee / lunch break		
A Virtual Journey to Ancient Ephesus using XR and AI	Oral	PDF
GameTable Network: unveiling the Past, embracing the future through AI-driven archaeological research	Oral	PDF
Hands-On Classroom and Field Approaches to Digital Archaeology: From a Special Topics Course to Technology-Focused Fieldwork	Oral	PDF
Discussion slot		



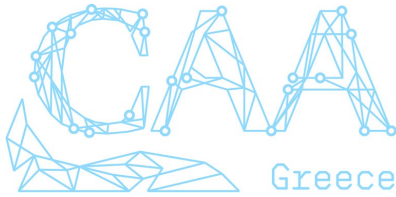
CAA-GR Conference 2024

In addition, the 5th CAA-GR Conference is scheduled to take place in spring 2024 in Serres, Greece, between 16-17th April. The title of the 2024 conference is “*Transforming heritage research in a transforming world*”. 74 participants have so far registered.



The world we live in is marked by challenging and often intimidating changes, as well as significant opportunities for growth. Throughout history, change has been an inevitable aspect of every era. For example, climate change is widely recognized as one of the most pressing global challenges of our time, with far-reaching impacts on the environment, societies, and economies worldwide, posing a severe threat to cultural heritage. These changes are transforming our world, threatening food security, human health, and social stability. At the same time, the world is rapidly moving towards an era of artificial intelligence (AI). While AI has the potential to revolutionise industries, improve efficiency, and create new opportunities, it also poses significant challenges for society, like the impact on the workforce, the ethical implications of AI, the perpetuation and even amplification of social and economic biases, the questions about accountability and responsibility, the safety and security from weaponized AI.

Digital technologies are changing the way we live, work, and communicate, while climate change and globalisation are transforming our social, economic, and environmental systems. In this context, cultural heritage has an essential role in shaping this transforming society. Cultural heritage can provide a sense of identity, continuity, and community and can help to preserve history and encourage intercultural understanding. Moreover, cultural heritage institutions can leverage digital technologies to enhance the accessibility and visibility of their collections, engage with diverse audiences, and promote cultural exchange. However, cultural heritage faces new challenges in this transforming world, such as the need to address climate change and its impact on heritage sites, the risks associated with globalisation, and the ethical implications of digital



technologies. Therefore, cultural heritage must actively engage with these challenges to ensure its relevance and sustainability in a rapidly changing world. This requires cross-disciplinary/sectoral/border collaborations, as well as a commitment to preserving and promoting cultural diversity and heritage for future generations. It is a time to critically analyse the relationship between cultural heritage and the effects of the coming changes, whether economic, social, demographic, technological, cultural, or a complex combination of various forces. Considering the rapid pace at which dynamic influences shape change, cultural heritage has a crucial role in this context.

Organising Committee

Stella Sylaiou, International Hellenic University, Serres, Greece

George Pavlidis, Athena Research Centre, Xanthi, Greece



The programme of the conference is as follows:

09.00-09.30 Registration				
09.30-10.00 Welcome				
10.00-10.30 Keynote speaker #1 – Alan Dix				
11.00-11.30 Coffee break				
11.00-17.00 POSTER SESSION				
Special Session: Archaeology at the Crossroads-Addressing Modern Challenges and Opportunities				
1	11.30-12.45	11.30-12.45	Session 1: 3D documentation and reconstruction	
1	11.30-11.45	6	11.30-11.45	3D Documentation of the Monument "Metochi of Agia Anastasia in Kritsiana of Epanomi" - Motas, D., Bellos K., Karolos I.-A., Pikridas, C., Tsioukas V.
2	11.45-12.00	7	11.45-12.00	3D Documentation of a Byzantine Church in Kalampaka - Karolos I.-A., Bellos K., Bitharis S., Aggelidou A., Tsoumpekou D., Tsioukas V.
3	12.00-12.15	8	12.00-12.15	3D Reconstruction of Thessaloniki's Modern Public Baths - Karolos, I.-A., Bellos K., Pikridas C., Doitsinis P., Tsioukas V.
4	12.15-12.30	9	12.15-12.30	Application of UAV oblique photography 3D modeling in historical heritage protection – Q. Yan, Wang S., Lang L, Liu J.
5	12.30-12.45	10	12.30-12.45	Challenges in 3D Modeling of Archaeological Excavations: Assessing Limitations of SFM Techniques with UAV Images -Moullou D, Ragia L.
12.45-13.00 Coffee break		13.00-14.00 Session 2: Archaeological Research and Modeling		
11	13.00-13.15	15	13.00-13.15	Visualization techniques through photogrammetry in paintings - Kesidis S., Kazolias A., Panagiotidi V., Zacharias N.
12	13.15-13.30	16	13.15-13.30	3D geometric recording and 3D printing of Georgios Schwarz mansion in Ampelakia, Larissa - Bellos, K., Karolos I.-A., Panagiotou N., Emmanouilidis E., Tsioukas V.
13	13.30-13.45	17	13.30-13.45	Comparison of 3D Capturing Techniques for Monument and Archaeological Site Documentation: A Case Study of post-Byzantine Public Baths in Thessaloniki-Bellos, K., Karolos I.-A., Petridis N., Bitharis S., Tsioukas V.
14	13.45-14.00	18	13.45-14.00	Material Insights: Exploring 3D Digital Methodologies on Minoan and Mycenaean Seals and Sealings - Andreovits T.
14.00-14.45 Lunch break		14.45-15.45 Session 5: Digital storytelling		
19	14.45-15.00	23	14.45-15.00	Every good search tells a story: Creating virtual exhibitions on the Greek national cultural aggregator through query-based curation - Papanoti A., Angelaki G., Lagoudi E., Georgiadi H.
20	15.00-15.15	24	15.00-15.15	Digital cultural apps and sustainability: Digistoryteller and its potential - Kamara A., Antoniou A., Lampada D., Papakonstantinou M.
21	15.15-15.30	25	15.15-15.30	Digital Stories for the Biri collections: Methods, limitations and challenges - Giakidou E., Kalissis A.
22	15.30-15.45	26	15.30-15.45	DigiCult: Digital Storytelling of Aitolokarmania's Fortifications - Evaluation of Interactive Apps - Tsoukalos, D., Kotsopoulos K. I., Papastamatiou N., Giannaros, A., Triantafyllou, V., Tzolis T.
15.45-16.00 Coffee break		16.00-17.15 Session 7: Future perspectives		
27	16.00-16.15	32	16.00-16.15	From archives to dark tourism: routes in Athens and Attica – Antoniou A., Liapi M., Kyprianos K., Eftimiou F.
28	16.15-16.30	33	16.15-16.30	Elevating Cultural Tourism Recommendations: Exploring the Design and Evaluation of ACUX-R's Mobile Graphical User Interface - Konstantakis M., Aliprantis J., Alexandridis G., Caridakis G.
29	16.30-16.45	34	16.30-16.45	Cultural Metaverse experiences in archaeological sites - Koukopoulos Z., Koukopoulos D., Fidas C.
30	16.45-17.00	35	16.45-17.00	Older Adults Requirements in XR Cultural Heritage Exploration – Sylaïou S., Antoniou A., Pavlidis G., Dumi Sigalas D.
31	17.00-17.15	36	17.00-17.15	First results from a survey concerning older adults' engagement with Digital Heritage through XR – Sylaïou S., Antoniou A., Pavlidis G., Dumi Sigalas D.
17.15-17.30 CAAGR plenary meeting				
20.00-23.00 Conference Dinner				



Wed 17 April 2024

09.00-09.30 Registration

09.30-10.00 Keynote speaker #2 – Angeliki Antoniou

10.00-10.30 Coffee break

10.00-17.00 POSTER SESSION

10.30-11.45 Session 8: Geographical information and informatics

1	10.30-10.45	The Collection Unit as the Integral Component in Development of a Data Atlas of Complex Cultural Heritage Landscapes - Vlachidis A., Valeonti F., Macdonald I., Nyhan J.
2	10.45-11.00	Unraveling the geographical maze: extracting Place information for enhanced metadata enrichment at SearchCulture-gr - Lagoudi E., Papanoti A., Geogiadis H., Angelaki G.
3	11.00-11.15	Geodetic benchmarks: A topic for scientific legacy in the future- Ampatzidis D., Konstantinidis A. P., Ntoulos K., Demirtzoglou N.
4	11.15-11.30	Web map, geoinformatics tools and cultural heritage -Konstantinidis A. P., Ampatzidis D., Ntoulos K., Papathanasiou C., Bourtzou G.
5	11.30-11.45	From Place to Space: Mapping Ancient Athens - Sofianos G.

10.30-11.45 Session 9: Classification and Data Analysis

6	10.30-10.45	The potential of tabletop role playing games for the education of history - Petousi D., Katifori A., Sakellariadis P., Servi K., Boile M., Roussou M., Ioannidis Y.
7	10.45-11.00	PAHA Creating a Digital Archive of Pune's Architectural History – Dodd M.
8	11.00-11.15	Advancing Digital Documentation of Ecclesiastical Treasures - Framework, Objectives, Innovation, and Preliminary Findings of NARRATE Project – Stylianidis E., Sylaïou S., Fr. Nassis Chr.
9	11.15-11.30	Exploration and digitization of the Pomak linguistic Corpus- Kokkas N. T., Arampatzakis V., Markantonatou S.
10	11.30-11.45	Modern Approaches in Museum Social Media Data Analysis – Bakogianni S.

11.45-12.00 Coffee break

12.00-13.00 Session 10: Artificial Intelligence #1

11	12.00-12.15	Archaeological Classification of Small Dataset Using Meta- and Transfer methods of Machine Learning Approach: An example using Hittite Stele Fragments - Kayikci D., Barcelo, J. A.
12	12.15-12.30	Deep Learning-based Monocular Depth Estimation in Cultural Heritage-Arampatzakis V., Arnaoutoglou F., Koutsoudis A., Pavlidis G.
13	12.30-12.45	Machine Learning Approaches for Categorizing Microstructures and Predicting Thermo-mechanical Performance of Historical and Traditional Building Materials – Hein A., Karatasios I.
14	12.45-13.00	Exploring active learning approaches in treebank development- Arampatzakis V., Stamou V., Markantonatou S., Pavlidis G.

12.00-13.00 Session 11: Artificial Intelligence #2

15	12.00-12.15	Art and Artificial Intelligence: Exploring authenticity, creativity and originality through theoretical reflections and legal approaches – Paschou S., Micheli A.
16	12.15-12.30	Communicating contested heritage: from censorship to AI - Galasso C.
17	12.30-12.45	Human-centric emotion recognition in VR for Humanities research - Sevettidis V., Arampatzakis V., Pavlidis G., Sylaïou S.
18	12.45-13.00	Detection of archaeological surface ceramics using very high-resolution remotely sensed data – Argyrou A., Papakonstantinou A., Christoforou M., Alexakis D., Agapiou A.

13.00-13.45 Lunch break

13.45-14.45 Session 12: Research and Innovation for Heritage

19	13.45-14.00	Introducing the CONNECTING Alliance: A Small-Scale Infrastructure Project for Supporting Research and Innovation for Heritage – Argyrou A., Agapiou, A.Sarris A., Demesticha S., Skarlatos D., Kyriakidis P., Papakonstantinou A., Lysandrou V., Hadjipetrou S., Demetriou D., Kyriakides N., Votsis R., Gravanis E., Vlachos M., Filippopoulos, I., Noussi, E., Kounnou C.
20	14.00-14.15	Open Source as a Humanity Cultural Heritage – Ribeiro F.
21	14.15-14.30	Être à la temps! The use of mobile applications during field surveys in Yambol district, Bulgaria – Valchev T.
22	14.30-14.45	iOS Insights: Crafting and Assessing a Cutting-Edge Mobile Application for Daily News – Konstantakis, M., Theodoridis, N.

13.45-14.45 Session 13: Heritage and Natural Hazards

23	13.45-14.00	Evaluation of Natural Hazard Risk on Monumental Structures: The case of the Rafina's Roman Bath Complex in Attica, Greece - Tzannidakis E., Egglezos D., Moulou D.
24	14.00-14.15	Monitoring Environmental Degradation of Archaeological Monuments Using Remotely Sensed Environmental Observations: Insights from Delphi, Epidaurus, Olympia, and Aigai - Kouremadas G., Christodoulakis I., Apostolaki S., Papageorgiou M., Varotsos, C.
25	14.15-14.30	Are we Simply Marie Kondo-ing Cultural Heritage? A Closer Look at the Use of Digital Technologies in the Preservation of Urban Asia's Threatened Spaces – Ocon D.
26	14.30-14.45	"This place is not what it used to be". The Everchanging Road Networks Through the Ages on the Mount Nif and its Surroundings - Peker, M., Özbalaban, O.S.

14.45-15.00 Coffee break

15.00-15.45 Session 14: Heritage Innovation

27	15.00-15.15	On digital folklore: Traditional music instruments and their performing worlds today – Sirakouli V.
28	15.15-15.30	Connecting Dots, Combining Methods: A manifold approach for investigating Neolithic Thrace – Chrysafakoglou P.
29	15.30-15.45	The role of scientific-technical museums in the profession of designer - Rovida E., Zafferi G., Beretta L.

15.00-15.45 Session 15: Heritage Innovation & Community Cohesion

30	15.30-15.45	The concept of cultural heritage in the local communities of Greece: Its relationship with the law and human values- Georgoula E.
31	15.45-16.00	From Darkroom into Light: Photographic heritage for community cohesion - Jordan-Turner P.
32	16.00-16.15	Integrating Technology in Cultural Heritage Preservation: A Comprehensive Platform for Documentation, Education, and Public Engagement (PROSAIC)- Syrimpeis Y.

15.45-16.30 Closing remarks