



PROGRAM

Virtual Panel

HERITAGE AT HIGH TIDE: *Archaeology and Climate Crisis in the Eastern Mediterranean A Deep Dive into Cyprus and Greece's Imperiled Treasures*

April 6-7, 2024

*8:30 a.m.-11:30 a.m. PST
6:30 p.m.-9:30 p.m. EET (Cyprus/Greece)
5:30 p.m.-8:30 p.m. CET (Central Europe)*

PROGRAM AT A GLANCE: Heritage at High Tide 2024

TIME ZONE: PST (Los Angeles)

April 6: Understanding the Risks and Showcasing Data

8:30 a.m. Opening Remarks

- Welcome
- Introductions
- Heritage at High Tide: An Overview

9:00 a.m. Panel Discussion I: The Present Danger/Data Showcase

- Rising Sea Levels and Mediterranean Coastal World Heritage Sites - Trends, Potential Impacts and Challenges for Adaptation
- Safeguarding Cultural Heritage from Climate Change Induced Hazards

10:00 a.m.: Break

10:10 a.m. Panel Discussion II: On the Brink - Cyprus and Greece's Heritage Sites

- TBD
- Enhancing Resilience of cultural heritage against the impacts of climate change: the strategies and practices undertaken by the Department of Antiquities

11:10 a.m. Panel Discussion and Q&A

- An opportunity for the audience to engage with the panelists, ask questions, and share insights

April 7: Towards a Resilient Future

8:30 a.m. Opening Remarks

- Brief introduction: Sharing insights and key takeaways

8:40 a.m. Keynote Address

- Integrating Climate Data in Heritage Conservation: A Roadmap for Decision-Making

9:20 a.m.: Break

9:30 a.m. Panel Discussion III: Bridging Awareness and Charting the Course

- Climate Threats to our Past: Assessing Risks and Mitigating Impacts in the Eastern Mediterranean

10:30 a.m. Closing Session: Roundtable Discussion and Q&A

- Synthesizing knowledge and strategies for heritage resilience. Engaging conversation on actionable solutions, including education, public awareness, and community involvement

Overview

The Eastern Mediterranean, a cradle of ancient civilizations, stands at the precipice of an unprecedented challenge. Coastal areas, including the island of Cyprus and Greece, like other regions in the Mediterranean are witnessing the relentless advance of the sea due to climate change. Rising sea levels, heightened temperatures, extreme weather events, and marine erosion are endangering archaeological sites, Byzantine relics, and other critical historic landmarks. With climate data projecting a rise of 90 cm in sea level by 2100 in the Mediterranean, the risk to our global heritage is immediate and undeniable.

Our panel endeavors to serve as a pivotal platform for igniting dialogue and catalyzing action in safeguarding the rich cultural heritage of the Eastern Mediterranean amidst the mounting threat of climate change. By shedding light on the imminent risks posed by rising sea levels, temperature extremes, ocean acidification and other climate phenomena to iconic archaeological sites and historic landmarks in Cyprus and Greece, we aim to raise awareness and galvanize concerted efforts towards climate-resilient heritage preservation.

Through the integration of climate data into decision-making processes within the cultural heritage sector, we aspire to bridge the awareness gap and empower stakeholders with the knowledge and tools necessary to confront these pressing challenges head-on.

Our overarching goal is to foster collaboration, inspire innovation, and pave the way for tangible solutions that ensure the enduring legacy of our global heritage for generations to come. By transforming knowledge into action and prioritizing education and outreach, we strive to mobilize a diverse array of stakeholders and communities in the shared endeavor of preserving our cultural heritage in the face of a changing climate.





Mural painting fragment of a figurative painting (top) and spectral signature mapping (bottom), House of Aion, Archaeological Park, Paphos, Cyprus.

PROGRAM

Heritage at High Tide 2024

April 6: Understanding the Risks and Showcasing Data

8:30 a.m. Opening Remarks

- Welcome

Prof. Ioanna Kakoulli, Acting Director, UCLA SNF Center for the Study of Hellenic Culture

- Introductions

Dr. Vassiliki Kassianidou, Deputy Minister of Culture of the Republic of Cyprus; H.E. Evangelos Savva, Ambassador of the Republic of Cyprus to the U.S.; H.E. Ekaterini Nassika, Ambassador of Greece to the U.S.

- Heritage at High Tide: An Overview

Prof. Ioanna Kakoulli, Acting Director, UCLA SNF Center for the Study of Hellenic Culture

9:00 a.m. Panel Discussion I: The Present Danger/Data Showcase

- *Focus: Latest climate projections in the Mediterranean area with focus on the Eastern Mediterranean, their implications for cultural heritage, and how to interpret and utilize these data for protective measures; Share evidence of how these changes are affecting cultural sites mainly at coastal zones and underwater.*

Presentations:

- Rising sea levels and Mediterranean coastal World Heritage Sites - trends, potential impacts and challenges for adaptation
Prof. Athanasios Vafeidis, Christian-Albrechts University Kiel
- Safeguarding cultural heritage from climate change induced hazards
Prof. Alessandra Bonazza, University of Bologna

10:00 a.m. Break

10:10 a.m. Panel Discussion II: On the Brink - Cyprus and Greece's Heritage Sites

- *Focus: An in-depth look at specific sites in Cyprus and Greece with emphasis on World Heritage Sites that are most vulnerable; Discussion on how current conditions compare to historical data and trends.*

Presentations:

- TBD
Dr. Demetrios Athanasoulis, Ephorate of Antiquities of Cyclades, Greece
- Enhancing Resilience of cultural heritage against the impacts of climate change: the strategies and practices undertaken by the Department of Antiquities
Dr. Anthi Kaldeli, Department of Antiquities, Cyprus

11:10 a.m. Panel Discussion and Q&A

- An opportunity for the audience to engage with the panelists, ask questions, and share insights

April 7: Towards a Resilient Future

8:30 a.m. Opening Remarks

- Brief introduction: Sharing insights and key takeaways
Prof. Ioanna Kakoulli, Acting Director, UCLA SNF Center for the Study of Hellenic Culture

8:40 a.m. Keynote Address

- Integrating Climate Data in Heritage Conservation: A Roadmap for Decision-Making
Dr. Rohit Jigyasu, ICCROM, Rome, Italy

9:20 a.m. Break

9:30 a.m. Panel Discussion III: Bridging Awareness and Charting the Course

- *Focus: Strategies to enhance awareness of imminent risks and the use of data in heritage protection; Case studies on successful community-led initiatives and involvement in safeguarding heritage; Presentation of mitigation strategies and policy recommendations; Actionable solutions, including education, public awareness, and engagement.*

Presentation:

- Climate Threats to our Past: Assessing Risks and Mitigating Impacts in the Eastern Mediterranean
Prof. Nikolaos Bakirtzis, Cyprus Institute

10:30 a.m. Closing Session: Roundtable Discussion and Q&A

- Synthesizing Knowledge and Strategies for Heritage Resilience: *Engaging Conversation on Actionable Solutions, Including Education, Public Awareness, and Community Involvement*

Abstracts and Bios

April 6: Understanding the Risks and Showcasing Data

9:00 a.m. Panel Discussion I: The Present Danger/Data Showcase

Prof. Athanasios (Nassos) T. Vafeidis

Professor, Christian-Albrechts University Kiel, Institute of Geography, Kiel, Germany

Title: Rising Sea Levels and Mediterranean Coastal World Heritage Sites - Trends, Potential Impacts and Challenges for Adaptation

Abstract: Climate-induced sea-level rise is exacerbating the frequency and intensity of coastal hazards globally and is expected to fundamentally alter today's coastlines. Coastal World Heritage sites (WHS) already face significant challenges as a consequence of rising sea levels. In the Mediterranean region, which has a particularly high concentration of coastal WHS, numerous sites are expected to be at risk within the coming decades, due primarily to coastal flooding and erosion. To manage these risks adaptation is urgently required. However, currently available adaptation methods and practices are generally not suitable for protecting WHS from SLR. We explore the sea-level rise related risks that Mediterranean WHS will need to address in the future and discuss barriers to adaptation that need to be overcome. We conclude that, besides mitigation which is essential, innovative adaptation solutions, suited to the specific characteristics of each WHS, need to be devised in order to preserve world heritage.

Bio: Nassos is Professor of Coastal Systems at Christian-Albrechts University Kiel and leads the Coastal Risks and Sea-Level Rise Research Group. He has a background in Surveying Engineering (Athens) and Physical Geography (King's College London). His research focuses on exploring how coastal systems respond to changes in both physical and socio-economic drivers. He has participated in a number of collaborative international research projects and has co-authored more than 100 peer-reviewed articles and book chapters. He was a lead author of the First Mediterranean Assessment Report (MAR1), which was awarded the North-South prize of the Council of Europe, and has contributed to the Stern Review on the Economics of Climate Change and to the IPCC Fifth Assessment Report.

April 6: Understanding the Risks and Showcasing Data

9:00 a.m. Panel Discussion I: The Present Danger/Data Showcase

Prof. Alessandra Bonazza

Research Scientist and Adjunct Professor, National Research Council of Italy, Institute of Atmospheric Sciences and Climate (CNR-ISAC), University of Bologna, Italy

Title: Safeguarding Cultural Heritage from Climate Change Induced Hazards

Abstract: The risks on cultural heritage imposed by climate change have gained increasing attention during the last 20 years and several efforts have been made in order to evaluate the projected impacts and provide quantitative assessments of damage on cultural sites.

The current contribution addresses methods and approaches for the development of projections of the impacts in the near and far future of climate change on cultural heritage, in relation to gradual and extreme variations of climate parameters. State of advancement, as well as still existing gaps, are discussed with a focus on approaches attempting a quantification of the damage and the development of risk indicators. The discussion will be centered on the driving role of research in supporting the definition of priorities for heritage managers and the development of strategies by decision and policy makers for the prevention and safeguarding of cultural heritage at risk.

Bio: Senior researcher at the Institute of Atmospheric Sciences and Climate of the National Research Council of Italy, where she coordinates the research unit "Impacts on Environment, Cultural Heritage and Human Health". PhD in Earth Sciences, adjunct Professor at the University of Bologna and Honorary Professor at the University for Continuing Education Krems, Austria.

Expert in climate change and pollution impact on cultural heritage, risk assessment and vulnerability analysis; she coordinated the Interreg Central Europe Projects ProteCHt2save and STRENCH focusing on the safeguarding of cultural and natural heritage towards extreme climate hazards. She is currently coordinator of the Interreg Central Europe Project INACO and principal investigator in the HORIZON EU Project CHEMINOVA dealing with the protection of heritage in changing climate.

April 6: Understanding the Risks and Showcasing Data

10:00 a.m. Panel Discussion II: On the Brink - Cyprus and Greece's Heritage Sites

Dr. Demetrios Athanasoulis

Director of the Ephorate of Antiquities of Cyclades, Greece

Title: Delos: An iconic archaeological site under climate threat

Abstract: TBD

Bio: Demetrios Athanasoulis, (Ph.D. in Byzantine Archaeology, Aristotle University of Thessalonike and Université Paris I-Panthéon-Sorbonne), is director of the Ephorates of Antiquities of the Cyclades and the Dodecanese (Hellenic Ministry of Culture). He is a member of the Scientific Board of Parco Archeologico di Pompei (Italy), the Board of the Christian Archaeological Society, president and member of Scientific Committees and Boards.

He has conducted numerous archaeological field research projects in the Peloponnese and the Cyclades and has planned and carried out large-scale European programs for the enhancement of monuments, digital applications and research as well as dozens of restoration projects.

He has also planned, studied, and implemented new archaeological museums as well as important archaeological exhibitions in Greece and abroad. He has co-organized international exhibitions of contemporary art in museums and archaeological sites.

He has participated in international scientific conferences and has published numerous papers and articles in the fields of Byzantine architecture and archaeology as well as of the management of the cultural heritage. He has been awarded twice by the Europa Nostra.

April 6: Understanding the Risks and Showcasing Data

10:00 a.m. Panel Discussion II: On the Brink - Cyprus and Greece's Heritage Sites

Dr. Anthi Kaldeli

Archaeological Officer, Department of Antiquities, Cyprus

Title: Enhancing Resilience of Cultural Heritage Against the Impacts of Climate Change: The Strategies and Practices Undertaken by the Department of Antiquities

Abstract: Cyprus as an island in the eastern Mediterranean basin presents both a rich archaeological heritage and diverse geomorphological features. Given the increasing threats imposed to heritage by climate change and the need for urgent action, this presentation will focus on the challenges apparent in the preservation of archaeological sites and monuments in Cyprus, and will discuss the strategies and practices put forward by the Department of Antiquities, as the competent governmental authority for the management and protection of archaeological heritage; the aim is to address the risks effectively, by enhancing resilience. These challenges will be reviewed in conjunction with the measures proposed hitherto as part of different frameworks and policies, while emphasis will be put on the significance of mitigation strategies, adaptation plans, research and synergies. Examples will mainly involve practices undertaken for the World Archaeological sites of Nea Pafos and the ten Painted Churches in the Troodos Region.

Bio: Dr Anthi Kaldeli holds a PhD in Archaeology from the Institute of Archaeology (UCL). As an Archaeological Officer at the Department of Antiquities, Cyprus, she is actively involved in UNESCO and EU projects, and has coordinated management studies for the World Heritage sites of Nea Pafos, in collaboration with the Getty Conservation Institute, and the Painted Churches in the Troodos Region. Dr Kaldeli is member of the ICCROM Council, and has been representing the Republic of Cyprus in ICCROM General Assemblies and World Heritage Committee Sessions and Assemblies. She has participated in ICCROM, UNESCO and MOSAIKON workshops and is member of the European Commission's Expert Group on Cultural Heritage. Dr Kaldeli was part of the EU's expert group on "Strengthening Cultural Heritage Resilience for Climate Change". She is focal point for the joint initiative of the Hellenic Republic and the UN for "Addressing climate change impacts on cultural and natural heritage", and board member of ICOMOS Cyprus.

April 7: Towards a Resilient Future

8:40 a.m. Keynote Address

Dr. Rohit Jigyasu

Project Manager on Urban Heritage, Climate Change & Disaster Risk Management, ICCROM, Rome, Italy

Title: Integrating Climate Data in Heritage Conservation: a Roadmap for Decision Making

Abstract: Climate change is having significant impact on cultural heritage due to changing temperature and humidity conditions as well as increasing frequency and intensity of catastrophic events such as floods, hurricanes and wild fires. Climate risk assessment is an important step to evaluate various risk factors for prioritizing interventions for climate action. This would necessitate systematic collection of climate data from various sources for identifying the probabilities of hazards in a particular context of heritage. These can then be analyzed with respect to the vulnerability of heritage based on condition diagnosis to evaluate the level of potential impacts on various attributes and values. The presentation will highlight the challenges and opportunities for undertaking climate risk assessment of heritage and elaborate on the application of this methodology for deciding various adaptation interventions. It will conclude by suggesting various ways in which climate action needs to be embedded in decisions on conservation planning and management.

Bio: Rohit Jigyasu is a conservation architect and risk management professional from India, currently working at ICCROM as Project Manager on Urban Heritage, Climate Change and Disaster Risk Management. He is also at present the vice president of ICOMOS International Scientific Committee of Risk Preparedness (ICORP). Rohit served as UNESCO Chair holder professor at the Institute for Disaster Mitigation of Urban Cultural Heritage at Ritsumeikan University, Kyoto, Japan, where he was instrumental in developing and teaching International Training Course on Disaster Risk Management of Cultural Heritage. He was the elected President of ICOMOS-India from 2014-2018 and president of ICOMOS International Scientific Committee on Risk Preparedness (ICORP) from 2010-2019. Rohit served as the Elected Member of the Executive Committee of ICOMOS since 2011 and was its Vice President from 2017-2020. Before joining ICCROM, Rohit has been working with several national and international organizations such as UNESCO, UNDRR, Getty Conservation Institute and World Bank for consultancy, research and training on Disaster Risk Management of Cultural Heritage. He has undertaken post disaster assessments in India, Nepal, Bhutan and Japan. He is also the main author of the UNESCO Resource Manual on Managing Disaster Risks for World Heritage and the co-editor of recently published Routledge handbook on cultural heritage and disaster risk management and Routledge book on Good Practices for Disaster Risk Management of Cultural Heritage. He also co-authored the revised draft of the UNESCO Policy on climate action for World Heritage Properties that is currently under discussion by the States Parties of the World Heritage Convention.

April 7: Towards a Resilient Future

9:30 a.m. Panel Discussion III: Bridging Awareness and Charting the Course

Prof. Nikolas Bakirtzis

Associate Professor and Director of the Andreas Pittas Art Characterization Laboratories (APAC Labs), Cyprus Institute

Title: Climate Threats to Our Past: Assessing Risks and Mitigating Impacts in the Eastern Mediterranean

Abstract: The Eastern Mediterranean is already affected by the impact of the climate crisis. The loss of tangible and intangible cultural heritage will have devastating impacts on local communities and societies, thus making mitigation policies and adaptation measures an urgent necessity for a sustainable future. Assessing the risk and correlating climate phenomena with threats on cultural heritage is a necessary step as we try to mitigate the impact of climate change in an era of crisis and volatility. Addressing these needs, the Task Force on Cultural Heritage of the Cyprus Republic's Eastern Mediterranean and Middle East (EMME) Region Climate Change Initiative, aimed at mapping the challenge, providing policy recommendations and raising awareness for a more coordinated effort to preserve and protect cultural heritage in the EMME region.

Bio: Nikolas Bakirtzis is Associate Professor at The Cyprus Institute. His research and publications focus on byzantine monasticism, medieval cities, and, the island landscapes of the Byzantine, Medieval and Early Modern Mediterranean. As the Director of the Andreas Pittas Art Characterization Labs at the Cyprus Institute, he is leading research on aspects of the history, the materiality and the provenance of works of art enhanced through the use of digital and analytical methods. He also works on heritage at risk, including looting and illicit trafficking of antiquities, as well as, the impacts of Climate Change on Cultural Heritage coordinating the Task Force on Cultural Heritage of the Cyprus Republic's Eastern Mediterranean and Middle East Region Climate Change Initiative.