



**21 April 2023**

**14:00-16:30 Beijing time (UTC + 8)**



**2023 WHITRAP SHANGHAI  
WORLD HERITAGE DIALOGUES - 1**

**World Heritage, Climate Change and Resilience**

Disaster response and Emergency risk preparedness for heritage under climate change induced threats

Organized on the occasion of the ICOMOS International Day for Monuments and Sites



# 2023 WHITRAP SHANGHAI World Heritage Dialogues - 1

## World Heritage, Climate Change and Resilience Disaster response and Emergency risk preparedness for heritage under climate change induced threats

organized on the occasion of the **ICOMOS International  
Day for Monuments and Sites**

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# CONTENT

Introduction	4
Presentation	7
Programme	11
Participants	14



# INTRODUCTION

## 2023 WHITRAP SHANGHAI World Heritage Dialogue - 1

### World Heritage, Climate Change and Resilience Disaster response and Emergency risk preparedness for heritage under climate change induced threats

organized on the occasion of the ICOMOS International Day for Monuments and Sites

Following the 6 **WHITRAP Shanghai World Heritage Dialogues** organized in 2022 for the 50th anniversary of the World Heritage Convention: *The Next 50: World Heritage as a Source of Resilience, Humanity and Innovation*, WHITRAP Shanghai is continuing the World Heritage Dialogues series co-organized by the College of Architecture and Urban Planning (CAUP) Tongji University (Shanghai, China) to deliver cutting-edge professional information and expert perspectives provided by experts from the Asia-Pacific region and around the world.

The **1st 2023 WHITRAP Shanghai World Heritage Dialogue** is organized on the occasion of the **ICOMOS International Day for Monuments and Sites** (18<sup>th</sup> April). The 2023 ICOMOS Day theme is “Heritage Changes” in accordance with the ICOMOS Three-Year Scientific Plan (2021-2024) and the 2020 ICOMOS Resolution on a Human-Centered Perspective on Heritage.

On **21 April 2023** from **14:00-16:30 Beijing time (UTC+8)**, the WHITRAP Shanghai World Heritage Dialogue will discuss World Heritage, Climate Change and Resilience – Disaster response and Emergency risk preparedness for heritage under climate change induced threats. In this round table Chinese and international scholars, experts and heritage managers will discuss how to respond to the threat of climate change and how to deal with the emergency climate risks, and share their experiences and reflections.

This Dialogue will continue the discussion on climate change, which was held on 14th September 2022 at the **4th WHITRAP Shanghai**

**World Heritage Dialogue titled “World Heritage and Climate Change and Resilience. Heritage as a solution to confront Climate Change: Perspectives and tools.”**

The written summary of the session is available at:

<http://www.whirtap.org/index.php?classid=1461&newsid=3354&t=show>

The video recording is available at:

<http://heritap.whirtap.org/index.php?classid=12497&id=38&t=show>

The previous Dialogue, discussed more of the theoretical basis of climate change, heritage to disasters and the use and function of heritage itself as a tool to cope with climate change induced threats in relationship with its surrounding environment. The objective of the 2023 Dialogue is to further focus on practice. In addition to our understanding of climate change, scholars, experts and heritage managers will share their working experience and reflections on several issues such as what needs to be done to complement and strengthen heritage conservation and management under climate change threat? What are the traditions and indigenous knowledge that should be carried forward? How to further link sustainable development and cultural heritage conservation practice.

**Language**

The online Dialogue will be bilingual with simultaneous interpretation. Video recordings of the Dialogue and a brief synthesis will be published online on the WHIRTAP website.



# PRESENTATION

## **World Heritage, Climate Change and Resilience Disaster response and Emergency risk preparedness for heritage under climate change induced threats**

Climate Change refers to long-term changes in temperature and weather patterns, which can be caused by natural causes such as changes in the solar cycle, but human activities have been the main cause of change since the 19th century, particularly the burning of fossil fuels such as coal, oil and gas. Scientists have also recently discovered that the huge amounts of water vapour produced by volcanic eruptions under the sea are also a factor in keeping the Earth's temperature high. The last decade has been the warmest on record for the planet, and as greenhouse gas emissions continue to rise, humanity faces the consequences of Climate Change: extreme droughts, water shortages, major fires, rising sea levels, floods, melting polar ice, catastrophic storms, and reduced biodiversity.

In a 2014, the Potsdam Institute for Climate Impact Research<sup>1</sup>, noted in its study study, that "if average temperatures rise by 3 degrees Celsius, about one fifth of the world's cultural heritage would be under long-term threat, with 136 of the nearly 700 sites on the List below sea level" as a baseline at that time. The report further stressed that "it is expected that by 2030, the world's cultural heritage will be at risk of climate change and at the same time "70% of the world's corals are expected to suffer long-term degradation by 2030". But in just under a decade, as highlighted by the World Heritage Centre, UNESCO, 2022 recorded "one third of natural sites and one sixth of cultural heritage worldwide are threatened by climate change... 60% of World Heritage forests are threatened by climate change related events... Two-thirds of the world's blue carbon assets are at high risk of degradation and corals could disappear by the end of the century"<sup>2</sup>.

World Heritage properties of all types and categories are affected by the impact of Climate Change worldwide, which has become one of the most acute threats to the Outstanding Universal Value of World Heritage properties. "Climate Change and severe weather events" is one of the standard 14 factors and sub factors adopted by the

World Heritage Committee<sup>3</sup> to monitor the State of Conservation of properties.

Not only sites are impacted but populations as well, living in the sites or outside, as their livelihood can be threatened, their social structure and cultural diversity, leading to increased poverty, migration, conflicts and starvation in the worse cases.

Protecting heritage values means managing risks as well as interventions following climate events. Relevant knowledge, research and monitoring are essential, and appropriate tools and assessment needs must also be planned and developed in advance. This means looking at World Heritage in a broader context, taking into account regional planning and coordinated governance at all levels and across all sectors. These measures apply to all types of heritage: archaeological sites, urban, rural heritage, monuments, natural heritage, marine, forest, geological, biodiversity. In the midst of the threats posed by climate change, we need to prepare as early as possible to identify the appropriate ways, means and tools to ensure the long-term conservation of heritage and, in synergy with other factors, to reach the sustainable development goals of human society.

The previous WHITRAP Shanghai World Heritage Dialogue on World Heritage and climate change stressed the importance of improving and developing the policy and institutional frameworks and tools to address climate change. Participants in the discussions insisted how crucial it was to link modern and traditional knowledge systems when studying climate change. The dialogue strongly advocated for prioritising the study of climate science, heritage resilience and its vulnerabilities, and the need to use nature itself as a means of mitigating the impact of climate change on cultural heritage. It must be clearly understood that human beings, as beneficiaries and stakeholders, have a very important role in this process, especially in the management of heritage values and the development and dissemination of heritage knowledge.

When the *Convention Concerning the Protection of the World Cultural and Natural Heritage* was adopted by UNESCO, in 1972, just over 50 years ago, climate change was not at the forefront of discussions in the heritage conservation community, although nature

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<sup>1</sup> <https://www.pik-potsdam.de/en/news/latest-news/archive/2014>

<sup>2</sup> <https://whc.unesco.org/en/news/2408>

<sup>3</sup> <https://whc.unesco.org/en/factors/>

and environmental issues were already of widespread concern to the international community. Although the text of the Convention does not explicitly refer to climate change, it does refer to the definition of the role and function of heritage through planning and governance. This is still true today: good governance is key to managing the impacts of climate change and to adopting long-term policies to prevent risks. In 2022, the 50th anniversary of the Convention was an opportunity to reflect on World Heritage in the next 50 years to come. As we stand now at the start of the next 50, facing even greater levels of climate change threats and disasters, it is essential to closely follow and track the dynamics of climate change and its impact on cultural heritage, while at the same time taking stock of 50 years of experience and lessons learned in dealing with the various issues involved. This is because they will not only help us to develop the most appropriate local responses to our heritage sites, but will also give us the energy to focus on the rediscovery and application of traditional knowledge, whether in response to long-term threats or unexpected disasters, so that we are prepared.



# PROGRAMME



## **World Heritage, Climate Change and Resilience Disaster response and Emergency risk preparedness for heritage under climate change induced threats**

**Friday 21 April 2023**

**Online 14:00-16:30 Beijing time (8:00-10:30 UTC)**

### **14:00-14:15 Introduction**

Marie-Noël TOURNOUX, Project Director, WHITRAP Shanghai

- Introduction
- Presentation of the participants
- Group Photo

### **14:15-14:30 World Heritage Climate Change and Resilience**

Dr. MU Xingyu, Project Director, WHITRAP Shanghai

### **14:30-15:12 Pecha Kucha (6 min/speaker)**

- YAN Haiming, Deputy Director and Associate Research Fellow and at China Academy of Cultural Heritage, Director of ICOMOS China Secretariat
- Rohit JIGYASU, Project Manager on Urban Heritage, Climate Change and Disaster Risk Management, ICCROM
- FANG Yuan, Director of Heritage Office, Huangshan Scenic Area Management Committee, China
- LEI Yaxian, Director of Pingyao County Cultural Heritage Institute, China
- JIANG Huiyuan, Party Secretary and Director of the Cultural and Tourism Bureau of Lucheng District, Changzhi City, Shanxi Province, China
- Feng Jianrong, Director, Shaoxing City Cultural and Historical Research Museum, China
- Adam MARKHAM, Deputy Director of the Climate & Energy program at the Union of Concerned Scientists

### **15:20-16:20 Round Table Discussion**

Moderator: Dr. MU Xingyu, Project Director, WHITRAP Shanghai

Panel discussion kick-off questions

- 1 What do you think can be done to enable heritage to respond effectively to climate change threats to disasters?
- 2 Please share your experiences and relevant reflections on heritage response to emergency disasters and risks

### **16:20-16:30 Wrap up**

Marie-Noël TOURNOUX, Project Director, WHITRAP Shanghai



# PARTICIPANTS

**Marie-Noël TOURNOUX**  
**Project Director, WHITRAP Shanghai**



Marie-Noël TOURNOUX joined WHITRAP Shanghai in April 2018, as Project Director. She focuses urban heritage and sustainable urban development. She studied Art history and English Literature at the Sorbonne University, Paris, France. She was a researcher for the French Ministry of Culture's Cultural Inventory Service. Her research area was 19th and 20th century architecture and urban heritage, religious architecture and resort towns. From 2002 to 2017 she worked at the World Heritage Centre, UNESCO, in several Regional and Thematic Units. She has been involved in many technical assistant projects and state of conservation monitoring activities in Europe, Africa and Asia, focusing mainly on urban heritage and cultural landscapes as well as Heritage Impact Assessments. She assisted in the development UNESCO's "Recommendation on the Historic Urban Landscape" (HUL) adopted in 2011. She implemented HUL related projects and studies. In 2015 to 2016 she assisted in UNESCO's global report for sustainable development "Culture: Urban Future".

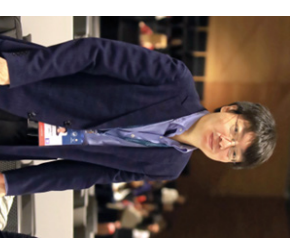




**Dr. MU Xingyu**  
**Project Director, WHITRAP Shanghai**

Dr. MU Xingyu joined WHITRAP Shanghai in July 2020 as Project Director. She studied and conducted her research in the field of cultural heritage restoration and historic urban conservation in Rome (Italy) for 12 years. There, she was actively engaged both on theoretical issues - a comparison between Eastern and Western conservation theories - and since 2013 on built heritage restoration projects as a practicing architect. In 2016, she received her PhD in architectural history and restoration from the University of Rome, La Sapienza; in 2018, she became a fellow at ICCROM, where she began working on World Heritage issues, while addressing the specificities of Chinese conservation culture in the context of East-West academic exchanges. At WHITRAP Shanghai, she is responsible for the Centre's research projects and for the capacity-building initiatives on the challenges of Climate Change and on World Cultural and Natural (mixed) Heritage sites in China.

**YAN Haiming**  
**Deputy Director and Associate Research Fellow and at China Academy of Cultural Heritage, Director of ICOMOS China Secretariat**

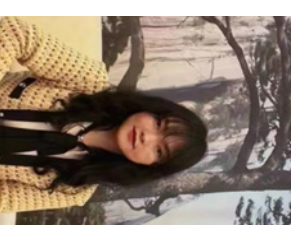


He has a Bachelor's degree in Sociology from Peking University and a PhD in Sociology from the University of Virginia. He is currently the Deputy Director and Associate Researcher of the China World Heritage Centre of the Chinese Academy of Cultural Heritage and the Director of the Secretariat of the China Association for the Protection of Monuments and Sites (ICOMOS CHINA). His research interests include world heritage, heritage and Chinese society. He is responsible for the research and nomination of world heritage sites such as the Maritime Silk Road, the Silk Road South Asia Corridor and the Eritrou Site, as well as the research on the sustainable development and value communication of world heritage sites such as the Hani Terraces and the Grand Canal. He is in charge of training and academic cooperation projects between the Chinese Academy of Cultural Heritage and ICCROM, the Italian National Research Council and other institutions, and he is in charge of the preparation of the UNESCO World Heritage Capacity Building Manual series of teaching materials. As the head of the secretariat of the China Association for the Protection of Monuments and Sites, he presided over the preparation of the pre-programme and the cultivation of the tentative list for the World Heritage Conference.



**Rohit JIGYASU**  
**Project Manager on Urban Heritage, Climate**  
**Change and Disaster Risk Management,**  
**ICCROM**

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. 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, UNISDR, Getty Conservation Institute and World Bank for consultancy, research and training on Disaster Risk Management of Cultural Heritage.



**FANG Yuan**  
**Director of Heritage Office, Huangshan**  
**Scenic Area Management Committee,**  
**China**

She is Director of Huangshan World Heritage Management Office (Huangshan World Cultural and Natural Heritage Monitoring Center). She has been engaged in the management of Huangshan World Heritage conservation for nearly 20 years. Under her leadership, the office completed the "Huangshan World Heritage Conservation Management Plan", "Huangshan World Heritage Resource Database", "Huangshan World Heritage Monitoring Information System", "Xuezhuang and Huangshan Cultural Heritage Research" and other projects. She has also been involved in the compilation of books such as "Huangshan Cultural Heritage - Pavilions and Bridges Volume", "World Heritage - Huangshan Volume" and "Huangshan Geological Science Book"; participated in the revision of the IUCN Green List Assessment Criteria; and completed the Chinese version of "Huangshan World Heritage Report for the 3rd Cycle of Periodic Reporting".



**LEI Yaxian, Director of Pingyao County  
Cultural Heritage Institute, China**

She is Director of Pingyao County Cultural Heritage Institute. She has been engaged in the protection of cultural relics since 1987. Currently, she is a member of the communist party committee of Cultural and Tourism Bureau of Pingyao County and the Director of the Institute of Cultural Relics.

**JIANG Huiyuan  
Party Secretary and Director of the  
Cultural and Tourism Bureau of  
Lucheng District, Changzhi City, Shanxi  
Province, China**

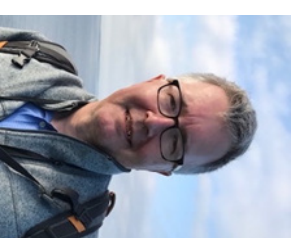


Jiang Huiyuan is Director of the Culture and Tourism Bureau (Cultural Heritage Bureau) of Lucheng District, Changzhi, Shanxi. He has long been engaged in the protection of cultural relics and has presided over the repair projects for a number of state-protected cultural relics. In 2021, local cultural relics were severely damaged in an extremely heavy rainstorm. In order to reduce the damage, the bureau carried out rescue and maintenance measures for thirty-three affected cultural relics in the district. The projects accomplished good results and experience was accumulated in dealing with natural disasters for immovable cultural relics.



**FENG Jianrong**  
**Director, Shaoxing City Cultural and**  
**Historical Research Museum, China**

Feng Jianrong is a native of Shaoxing city, Zhejiang Province. He is currently the director of the Shaoxing Culture and History Research Museum and a member of the Chinese Calligraphers Association. He has long been engaged in the decision-making process of the city. He is interested in local literature and history research. He was the editor-in-chief of the national "Eleventh Five-Year Plan" key publication "Shaoxing Series", etc. He has written more than one hundred papers published in the various newspapers and journals. He authored many books such as the "Dialect in Yue area" and books about Shaoxing folk culture..



**Adam MARKHAM**  
**Deputy Director of the Climate &**  
**Energy program at the Union of**  
**Concerned Scientists**

Adam Markham is the Deputy Director of the Climate & Energy Program at the Union of Concerned Scientists (UCS), a science advocacy NGO in Cambridge, Massachusetts, USA. He has a background in international climate policy, biodiversity, conservation and archaeology. He co-authored the UCS report, National Landmarks at Risk, detailing climate impacts on US historic and archaeological sites and was the lead author for the UNESCO/ UNEP/UCS report, World Heritage and Tourism in a Changing Climate. In 2019 he was the main contributor on climate impacts for the ICOMOS report, The Future of our Pasts. He has participated in Climate Vulnerability Index (CVI) assessments for the Heart of Neolithic Orkney (Scotland) and Vega Archipelago (Norway) World Heritage Sites. Markham is a member of the ICOMOS Climate Action Working Group, the International Committee on Archaeological Heritage Management, and is on the steering committee for the Climate Heritage Network.

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 Xingyu MU  
 Graphic Design:  
 Giulia OLDANI



The World Heritage Institute of Training and Research for the Asia and the Pacific Region under the auspices of UNESCO (WHITRAP) is a Category II institute under the auspices of UNESCO. It was the first international organization in the field of world heritage to be established in a developing country. Mandated by the States Parties of the World Heritage Convention and other States Parties of UNESCO, the institute was founded to promote the conservation and development of World Heritage in Asia and Pacific Region. WHITRAP has three branches in Beijing, Shanghai, and Suzhou. The Shanghai Centre at Tongji University focuses on the conservation of cultural heritage, such as the sustainable development of ancient towns and villages, architectural sites, architectural complexes, and cultural landscapes. The Beijing Centre at Peking University is in charge of natural heritage conservation, archaeological excavation, and management of the sites' cultural landscape. The Suzhou Centre, hosted by Suzhou Municipal Government, is in charge of traditional architectural craftsmanship and restoration, conservation materials analysis, and historic garden restoration and maintenance.

联合国教科文组织亚太地区世界遗产培训与研究中心 (WHITRAP) 是联合国教科文组织的二类国际机构，是第一个在发展中国家建立的遗产保护领域的专业机构。它服务于亚太地区《世界遗产公约》缔约国及其他联合国教科文组织成员国，致力于亚太地区世界遗产的保护与发展。联合国教科文组织亚太地区世界遗产培训与研究中心由北京、上海、苏州三个分中心构成。上海分中心（同济大学承办）主要负责文化遗产保护相关项目，包括城镇、村落保护与可持续发展、建筑/建筑群/建筑遗址保护以及文化景观保护等；北京分中心（北京大学承办）主要负责自然遗产保护、考古挖掘与遗址管理以及文化景观管理；苏州分中心（苏州市政府承办）主要负责传统建筑技术和修复、保护材料以及历史园林的修复与维护。