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World Heritage City Dialogues

Adapting Cities for Climate Resilience 2021

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Introduction

In 2021 the World Heritage City Dialogues gathered over 100 practitioners from all world regions to discuss on-site challenges of protecting urban heritage against climate change-induced issues.

The World Heritage Centre organised this series of online meetings to create space for more informal discussions and exchanges in parallel to statutory processes. These allowed practitioners working on-site to expand on specific challenges linked to the World Heritage city management and climate change challenges to exchange directly with peers in their world region.

About the World Heritage City Dialogues

The World Heritage Centre launched the World Heritage City Dialogues (Dialogues) in 2019 within the context of the World Heritage Cities Programme, one of the six thematic programmes approved and monitored by the World Heritage Committee.

The Dialogues function as an online forum, bringing together site managers of the World Heritage cities in each region, National Focal Points, and the World Heritage Cities Programme to facilitate an informal exchange of experiences and views.

In 2020, nine regional sessions of the Dialogues gathered more than 250 participants across the five global regions. During these exchanges, site managers, national Focal Points for World Heritage and heritage professionals representing 83 World Heritage sites from 44 countries shared their experiences and challenges, especially in the context of the ongoing pandemic crisis.

The Dialogues have allowed the World Heritage Centre, Focal Points, and site managers to inform each other about their planned and ongoing activities, discuss current challenges and accomplishments, address transversal topics, and explore specific areas for cooperation. Experiences shared by participants during the Dialogues have also allowed them to spot innovative practices in the field and encouraged inter-city cooperation.

The Dialogues have thus proved to be a valuable tool to reinforce the messages of the 1972 UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), the approach of the 2011 UNESCO Recommendation on the Historic Urban Landscape (HUL Recommendation) and the UN 2030 Agenda for Sustainable Development.

The World Heritage City Dialogues and the World Cities Day 2021

The 2021 sessions of the Dialogues were organised in the framework of the World Heritage Cities Programme and the World Cities Day celebrated by UN-Habitat on 31 October.

In 2021, the Dialogues built on the takeaways from [the 10th Anniversary Celebrations of the Recommendation on the Historic Urban Landscape](#) (HUL) (June 2021) and the [UNESCO HUL Call for Action](#) launch as background material. The Celebrations served as a platform for international experts, managers, and practitioners to share lessons learned from COVID-19 and resume discussions on the future of urban management, tackling topics such as public space, renovations, tourism, infrastructure, and livelihoods. The main takeaways from the June 2021 events were shared with all site managers of World Heritage cities and National Focal Points for World Heritage prior to the Dialogues to facilitate interchanges and build on the ongoing discussions.

The world region organised the 2021 sessions of the Dialogues to reflect and expand on specific regional takeaways and define which topics require guidance and support. Six online sessions gathered 102 participants across the five global areas. During these exchanges, site managers, national Focal Points for World Heritage and heritage professionals representing 42 World Heritage properties in 57 countries shared their experiences and challenges in urban heritage management.

A particular focus was put on "Adapting Cities for Climate Resilience", the theme of the World Cities Day of 2021, aiming to provide a space for site managers and National Focal Points for World Heritage to present and elaborate ideas and strategies for climate action and the implementation of the HUL Recommendation when facing this challenge. The participants exposed the impacts of climate change and extreme weather events on World Heritage cities and discussed current challenges and opportunities for heritage preservation and sustainable urban development. In this context, the discussions emphasise how the HUL Recommendation can be implemented in each region according to specific scenarios.

Format

- Site managers of World Heritage cities and National Focal Points for World heritage from all State Parties were invited to join the sessions.
- Participants were invited to prepare short presentations on the state of their city and that in their region, including:
 - Short site presentation (for site managers).
 - Description of the most pressing issues and problems posed by the climate crisis to the site and/or the country.
 - Key initiatives and actions undertaken.

- Future activities and next steps.
- Reference materials.

(Presentations were voluntary and some participants only attended as observers and/or joined the discussion without presenting their case)

- Sessions were organised according to UNESCO working regions.
- Each of the sessions of the 2021 Dialogues consisted of:

Session Agenda

- A presentation of the results and main regional takeaways from the Anniversary event of the HUL Recommendation by Ms Jyoti Hosagrahar, Deputy Director of the UNESCO World Heritage Centre.
- Presentations by the site managers and the participants
- Q&A
 - *Has your city suffered any climate-related disasters?*
 - *What actions have you taken towards climate change adaptation and resilience?*
 - *Are you taking any steps towards implementing the HUL Call for Action?*
 - *What are the critical challenges of implementing the HUL Approach in your city?*
- Discussion
- Closing remarks

Climate Change and World Heritage Cities

Ms Jyoti Hosagrahar, Deputy Director of the UNESCO World Heritage Centre

In the framework of the theme of World Cities Day 2021, “Adapting Cities for Resilience”, climate change is among the most significant threats facing cities and heritage sites today. Climate change undermines the wellbeing of communities around the globe, threatens entire ways of life and the transmission of living heritage, and causes lost economic opportunities in the cultural and creative industries. The issue is now among the top threats to cultural and natural sites inscribed on the World Heritage List, as indicated in the State of Conservation reports presented to the World Heritage Committee.

10%

of World Heritage cities report threats related to Climate Change and severe weather events

98

SoC reports concerning climate change related threats and severe weather events were submitted to the World Heritage Committee

Prevalence of climate change and severe weather events in SoC reports for urban properties (all time)

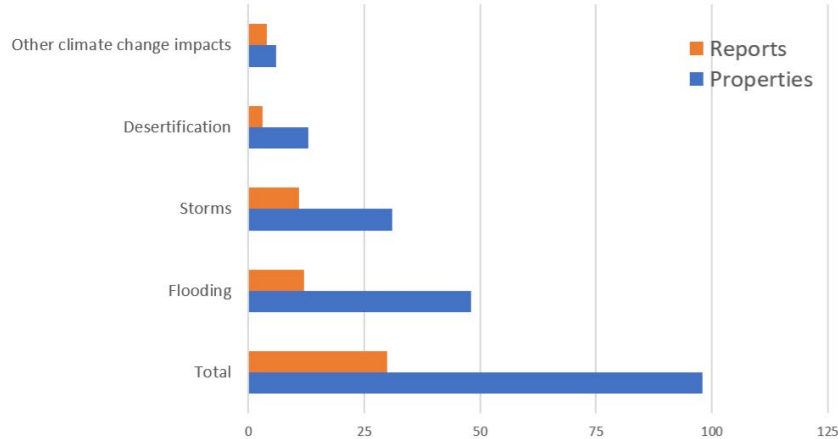


Fig. 1: State of Conservation analysis (all time).

For the past years, UNESCO has been focused on integrating climate action into the 1972 World Heritage Convention framework and towards implementing the 2030 Agenda. Among them, the HUL Recommendation contributes to putting the focus on sustainable urban development in historic cities rather than addressing absolute conservation. The World Heritage Cities programme has intensively worked to develop support materials and organise activities to promote its dissemination and on-site implementation. Takeaways from the [Celebrations of the 10th Anniversary of the HUL Recommendation](#) can be consulted online. The HUL Call for Action was launched to allow cities and practitioners to reflect on their accomplishments and commit to planning their next steps to manage historic cities in line with the Recommendation.

Synthesis

World Heritage sites serve as climate change observatories to gather and share information on applied and tested monitoring, mitigation, and adaptation practices. The global network of World Heritage also helps raise awareness of the impacts of climate change on human societies, cultural diversity, biodiversity and ecosystem services, and the world’s natural and cultural heritage. World Heritage properties are a resource for society to mitigate and adapt to climate change through ecosystem benefits, such as water and climate regulation, also the carbon stored in World Heritage Forest sites. On the other hand, cultural heritage can convey traditional knowledge that builds resilience to change and leads us to adaptive strategies and a more sustainable future.

UNESCO has also always been present during the UNFCCC COP meetings, holding numerous side events to showcase UNESCO’s climate action activities and engage with different stakeholders, putting its expertise at the service of Member States, working in close synergy with the overall UN system to enable a bold and effective climate action.

Climate change and World Heritage

Climate change is now among the top threats to cultural and natural heritage sites inscribed on UNESCO's World Heritage List. Climate change disrupts the lives of communities across the globe, threatening entire ways of life, including the practice and transmission of living heritage. It also contributes to lost economic opportunities in the cultural and creative industries and cultural tourism.

A comprehensive institutional framework has been developed within the World Heritage Convention to address the risks caused by climate change to World Heritage properties. The key document is the "Policy Document on Impacts of climate change and World Heritage", first adopted in 2007 and currently being updated.

The Recommendation on the Historic Urban Landscape: a tool to integrate heritage conservation and sustainable urban development

The Recommendation on the Historic Urban Landscape (HUL Recommendation) was adopted on 10 November 2011 at the 36th session of the General Conference. It is a "soft law" to be implemented by Member States voluntarily, an additional tool to integrate policies and practices of conservation of the built environment into the broader goals of urban development with respect to the inherited values and traditions of different cultural contexts. It applies to all historic cities, not only World Heritage sites.

UNESCO's approach to managing historic urban landscapes is holistic by integrating the goals of urban heritage conservation and those of social and economic development. This method sees urban heritage as a social, cultural, and economic resource for the city development

The HUL Recommendation (HUL Approach) looks at historic urban areas as composed of layers of history, economic, social, and spatial relationships between the built heritage, natural environment, and local communities. These layers include natural and cultural, tangible and intangible, and any city's universal and local heritage values. These heritage values should be taken as a point of departure in the overall management and development of the city. The layers of values and history are also reflected in the physical layers, the stratigraphy of the place. In this sense, archaeology allows us to interpret the city's layers and do a diachronic 'reading' through time.

Therefore, the HUL Approach shifts its focus from 'monuments' to the urban fabric as a whole, instead of and beyond the notion of the historic centre. At the same time, this understanding considers the city a process characterised by change and stability.

Climate change and urban heritage

Urban sites and historic cities are facing unique challenges related to the risks caused by climate change.

- Over 90% of all urban areas are coastal, putting most cities on Earth at risk of flooding from rising sea levels and powerful storms
- Historic cities are particularly at risk because many developed, for historical reasons, along the coast or major rivers.
- Consequently, nearly a third of many World Heritage cities are along the coasts.

With rising temperatures and accompanying sea-level rise, the risk of climate change-related disasters is increasing in World Heritage cities such as Grand Bassam or Venice.

An analysis of the State of Conservation reports (SoC reports) submitted to the World Heritage Committee since 1972 provides some critical data:

- There were 1,225 reports concerning 171 properties in the World Heritage Cities Programme submitted to the World Heritage Committee between 1982 and 2021, out of 4,051 reports relating to 593 properties.
- 98 SoC reports for urban World Heritage properties concerned climate change-related threats and severe weather events. This represents 10% of World Heritage cities.
- 1/5 (18%) of World Heritage cities with SoCs are threatened by climate change and severe weather events.

The issues were brought to the forefront during the 2021 World Heritage City Dialogues session. On World Heritage Cities Day, the World Heritage Centre organised six regional sessions of the World Heritage City Dialogues on the theme of “Adapting cities for climate resilience”. The events gathered more than 100 participants across the five global regions. During these exchanges, site managers, National Focal Points for World Heritage and heritage professionals representing 42 World Heritage properties in 57 countries shared their experiences and challenges, especially in climate change resilience and adaptation.

Site managers and focal points presented the perceived effects of climate change on their sites. They elaborated ideas and strategies for climate action, including implementing the HUL Recommendation.

The most reported effect of climate change in the cities was an increased frequency and intensity of natural disasters. Increased flood risk was present in cities across all global regions, for instance, in the M’Zab Valley (Algeria), Grand-Bassam (Cote d’Ivoire), Queretaro (Mexico) and Split (Croatia).

Changing rainfall patterns were reported in tropical cities like George Town (Malaysia), which saw heavier rains in short periods. In inland cities such as Asmara

(Eritrea), Timbuktu (Mali) and Jaipur (India), a lack of rain threatens the desertification of the landscape surrounding the city, as well as access to critical resources and water availability.

Rising sea levels and coastal erosion were reported in World Heritage properties in Small Island Developing States, such as Mauritius, and coastal and insular settlements like the Islands of Gorée and Saint-Louis (Senegal). Typhoons and strong winds were reported mainly in tropical areas, including the coastal cities of India, Cape Verde, and Belize.

At the same time, extreme heat waves have become more common in historic cities such as Riga (Latvia) and Mantua and Florence (Italy). The urban heat island effect and intense urbanisation worsen these heat waves.

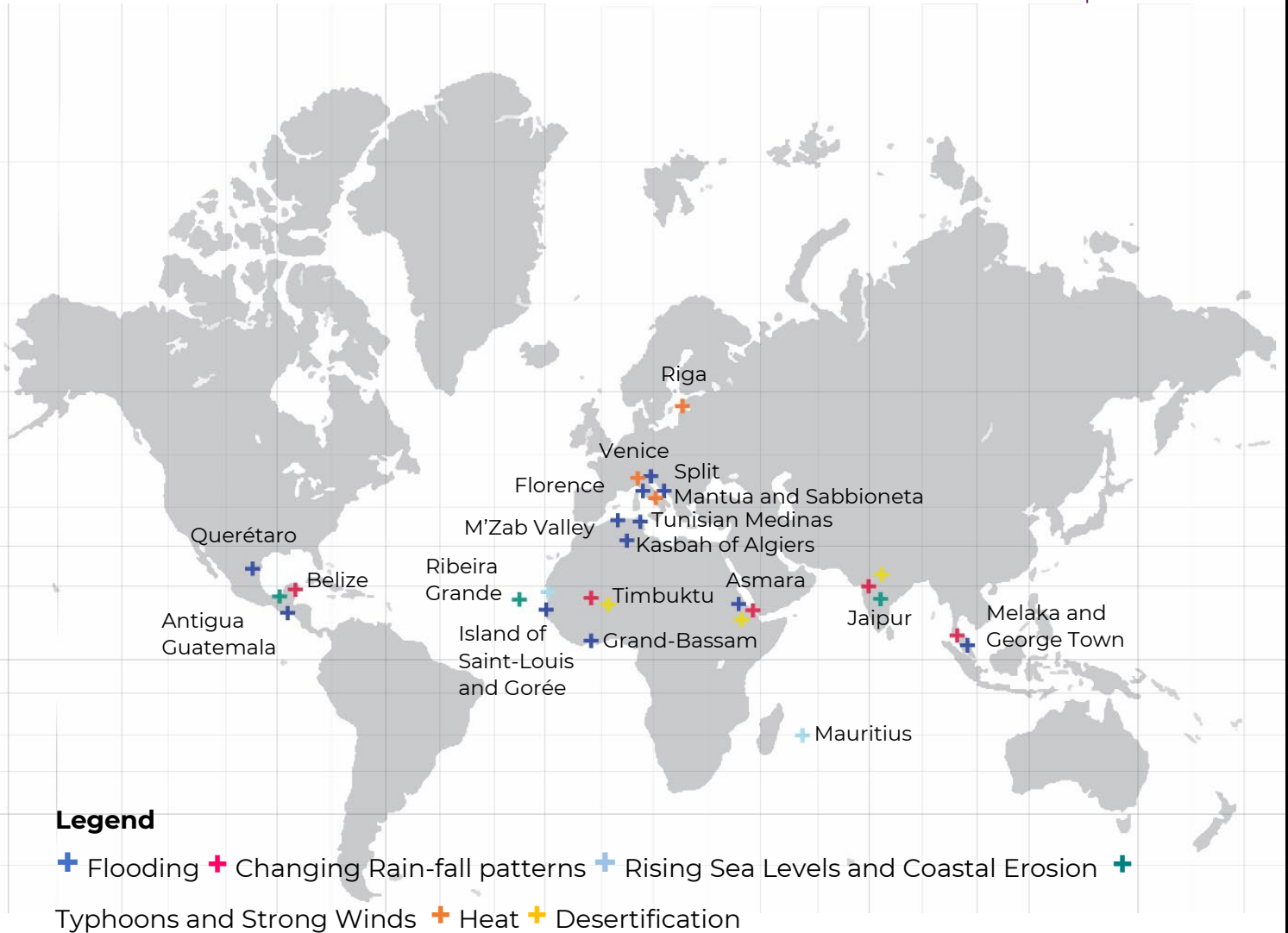


Fig. 2: Impacts of climate change in World Heritage Cities.

Region (by alphabetical order)	City (by alphabetical order)	Country	Challenges (Legend)					
			+	+	+	+	+	+
AFR	Asmara	Eritrea	■	■				■
AFR	Cidade Velha, Historic Centre of Ribeira Grande	Cabo Verde				■		
AFR	Grand-Bassam	Cote d'Ivoire	■					
AFR	Island of Saint-Louis	Senegal	■		■			
		Country	Challenges (Legend)					

Region (by alphabetical order)	City (by alphabetical order)		+	+	+	+	+	+
AFR	Island of Gorée	Senegal						
AFR	Timbuktu	Mali						
AFR	Mauritius							
ARB	Kasbah of Algiers	Algeria						
ARB	M'Zab Valley	Algeria						
ARB	Tunisian Medinas	Tunisia						
APA	Jaipur City, Rajasthan	India						
APA	Melaka and George Town, Historic Cities of the Straits of Malacca	Malaysia						
EUR	Florence	Italy						
EUR	Historical Complex of Split with the Palace of Diocletian	Croatia						
EUR	Historic Centre of Riga	Latvia						
EUR	Mantua and Sabbioneta	Italy						
EUR	Venice	Italy						
LAC	Antigua Guatemala	Guatemala						
LAC	Belize Barrier Reef Reserve System	Belize						
LAC	Historic Monuments Zone of Querétaro	Mexico						

Table 1: The classification of Climate Change impacts on World Heritage Cities.

Several strategies were identified by the participants of the World Heritage City Dialogues organised in October 2021 on “Adapting Cities for Climate Resilience” to face these challenges. First, participants pointed out the opportunity to learn from traditional knowledge systems to mitigate and adapt to climate change and increase resiliency. Historical settlements worldwide have developed strategies to manage disaster risk and minimise flooding.

- For instance, the higher areas of the island were left unbuilt and used as cemeteries in Bahrain. This helps to absorb water and avoid flooding.
- In the M 'Zab Valley (Algeria): traditional water management systems include tangible and intangible components: a community organisation manages the channels and infrastructure that control water flow. Traditional settlements are designed to prevent damage by flooding: flood-prone areas near the river were occupied only by temporary structures and not by dwellings. The abandonment of this planning practice has led to increased vulnerability to flooding.
- In Bamberg (Germany), traditional urban farming practices help to secure food production and contribute to water management in the city.

At the same time, local adaptation strategies, physical interventions and monitoring were often needed to address the effects of climate change. In Queretaro (Mexico) and Asmara (Eritrea), urban water infrastructure, such as drainage systems, needs to be upgraded. Luxembourg plans to install solar panels on rooftops while protecting the site's landscape values and OUV. World Heritage cities in Mexico closely monitor the impact of winds, temperature, and humidity on building conservation. Significant infrastructure works are being planned in the Langue de Barbarie, near the Island of Saint-Louis (Senegal), to prevent coastal erosion. In Asmara (Eritrea), a new dam is being built to improve water availability. The river mouth is drained in Grand-Bassam (Cote d'Ivoire) to enhance water evacuation from the lagoon. In Venice (Italy), a flood defence system is already in place to prevent flooding, including the one caused by rising sea levels.

Finally, participants suggested how UNESCO could support World Heritage cities to increase their resilience and mitigate and adapt to climate change. Four main areas of action were identified:

- Technical assistance to protect historic cities from climate change.
- Access to funding for climate change adaptation and mitigation actions in developing nations and SIDS.
- Guidelines for climate change-related infrastructure works and the installation of renewable energy infrastructures, such as solar panels or wind farms, in a way that preserves the site's Outstanding Universal Value.
- Creation of platforms for knowledge exchange.

Annexe 1 Asia and the Pacific

Asia and the Pacific

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Asia and the Pacific

Executive summary

In 2021, the World Heritage City Dialogues brought together site managers, National Focal Points for World Heritage and other World Heritage stakeholders in Asia and the Pacific to share their latest experiences and challenges in managing the rich and complex urban heritage of the region. Discussions are mainly on the impacts of climate change on urban properties and strategies for climate adaptation and resilience. The conference call was held on 28th October in English between 10:30 am-12:30 pm CET through MS Teams.

The session included the participation of two site managers of World Heritage properties that are part of the World Heritage Cities Programme in Nepal and Malaysia and of representatives from the Wildlife Institute of India (WII) - UNESCO Category 2 Centre on World Natural Heritage Management and Training for Asia and the Pacific Region. The participants offered insights into the recent initiatives undertaken to integrate further the natural components of urban heritage in heritage management frameworks. Some key climate-related issues were identified, such as the urban heat island effect, worsened by urbanisation and global warming and affecting most of the historic settlements, floods, and vulnerability to sea-level rise and coastal erosion, stronger storms, and increasingly harmful natural disasters.

Representatives from the Kathmandu City Planning Commission described the city's efforts in implementing reconstruction, conservation and restoration initiatives following the 2015 earthquake. Notable accomplishments were the combination of a built heritage conservation strategy with financial assistance and training activities to preserve the traditional architectural heritage. Significant challenges include ensuring economic sustainability and consensus-building amongst stakeholders at all levels. In parallel, environmentally responsive efforts aimed to improve the quality of urban areas. These include the pedestrianisation of the city centre, advocacy for healthier and more sustainable commuting modes for urban dwellers, and reintroducing urban farming, aiming to reduce the carbon footprint.

George Town, Malaysia, reported on their efforts to engage civil society representatives in heritage protection and valorisation activities. For example, focusing on local understanding concerns and compiling relevant local historical data and bibliography, the site managers understood the need to provide residents with Disasters Risk Reduction equipment, such as fire extinguishers and smoke detectors.

Lastly, the participants renewed their commitment to implementing the HUL Recommendation by adopting the HUL Call for Action. They offered examples of alternative initiatives to disseminate urban heritage values among the broad public and to engage local communities in heritage conservation and management through public surveys and consultation processes.

Presentations

Wildlife Institute of India (WII) - UNESCO Category 2 Centre on World Natural Heritage Management and Training for Asia and the Pacific Region (India)

The Wildlife Institute of India aims to strengthen the implementation of the World Heritage Convention in the Pacific Region. It achieves this goal through training, research, dissemination of information, network building, capacity-building related to World Natural Heritage site inscription, protection, conservation, and management. The approach centre approaches an integrated, holistic vision of cultural and natural heritage. At the same time, the centre believes that community involvement in climate change is crucial, especially in places with rapid population growth.

For instance, the World Heritage property “Jaipur City, Rajasthan” is strongly tied to its natural setting. Jaipur has been affected by extreme heat events. Moreover, substantial population growth has put pressure on the city’s existing water and civic infrastructure facilities. A pilot project on Ecosystem-based Disaster Risk Reduction and landscape interventions to ensure water availability in the historic settlement is currently underway under the IUCN and ICCROM.

Ms Ang, Ming Chee – World Heritage site: “Melaka and George Town, Historic Cities of the Straits of Malacca” (Malaysia)



Fig. 3: Melaka and George Town, Historic Cities of the Straits of Malacca. Author: Ko Hon Chiu Vincent © Ko Hon Chiu Vince

Ms Ang Ming Chee is the general manager of George Town World Heritage Incorporated and site manager of the World Heritage property “Melaka and George Town, Historic Cities of the Straits of Malacca”. In George Town, the impact of climate change is mainly visible in heavier rainfalls during a brief period and increasingly hot temperatures. To address this issue and improve the resiliency of the historic city, George Town World Heritage Incorporated launched the Disaster Risk Reduction project in 2017.

Increasing temperatures and floods have a considerable negative impact on historical buildings in George Town and local livelihoods. A project funded by the UNESCO Office in Jakarta draws together 5,000 heritage houses. As part of the initiative, floodgates were introduced in the historic houses as a protection element. Shophouse fronts were opened to allow free access to the local community and simultaneously enable passive ventilation. The project found alternative solutions to air-conditioning by drawing from traditional expedients and matching community needs.

Local community leaders from different religious, ethnic, and linguistic groups are encouraged to participate in heritage preservation and management through consultation. In this process, locals identified that fire and flooding are significant

points of concern. Consequently, the site manager organised capacity-building activities and provided vital resources. Now, fire extinguishers and smoke detectors are freely delivered to the population during the training activities.

Reference materials: [Disaster Risk Management - George Town World Heritage Incorporated](#)

Ms Nilima Thapa Shrestha, “Kathmandu Valley” (Nepal)



Fig. 4: Patan. Kathmandu Valley (Nepal) Author: Francesco Bandarin © UNESCO

Ms Nilima Thapa Shrestha is an architect and urban planner at the City Planning Commission, Kathmandu Metropolitan City (KMC).

Kathmandu has been working on implementing the HUL Recommendation for two years. In doing so, they aimed to balance heritage conservation and economic development to enable sustainable development.

1) Kathmandu’s Historic Urban Landscape project

Following the 2015 earthquake that severely hit the valley, the City Planning Commission of Kathmandu developed a post-disaster recovery project comprising built heritage conservation and reconstruction. The project is currently in its implementation phase. The expected outcomes of the activity are:

- Financial mechanism to support the conservation of traditional buildings.
- Building bylaws for traditional architecture.
- Model building design catalogues for traditional architecture.
- Enhancement of skilled human resources for traditional building construction.

The first implementation phase of the project took place in the district of Kilagal, which served as a pilot scheme for the whole initiative. The area hosts a significant city festival, which locals carry out. In this project, local authorities encouraged residents to develop conservation activities rather than new constructions to safeguard the city's urban heritage.

Economic support is strongly needed, and technical backup is also being provided to the engaged public in equipment delivery.

Heritage Conservation- Financial Mechanism

Building Type	Grant per sq.ft (According to the frontage)			
	Zone 1 UNESCO WHS	Zone 2 Jatra routes	Zone 3 Residential Area within the boundary of core city	Zone 4 Other area outside the boundary of core city
Type A Conservation	3200/32 Lakh 26,000\$	3000/30Lakh	2800/28Lakh	2600/26Lakh
Type B Reconstruction	2600/26Lakh	2400/24Lakh	2200/22Lakh	2000/20Lakh
Type C Changing the façade of RCC buildings	2000/20Lakh	1800/18Lakh	1600/16Lakh	1400/14Lakh
Type D Construction of RCC building with traditional façade	1400/14Lakh	1200/12Lakh	1000/10Lakh	800/8 Lakh 6,600\$

Fig. 5: The area has been analysed and categorised into four zones associated with four related conservation strategies and related financing schemes. The higher the heritage value, the more critical the economic support provided to property owners for undertaking conservation activities (Type A)

Site Visits and Community Consultation



11/1/2021

Ar. Nilima Thapa Shrestha

Fig. 6: Site visits and community consultations were undertaken prior to the project implementation.

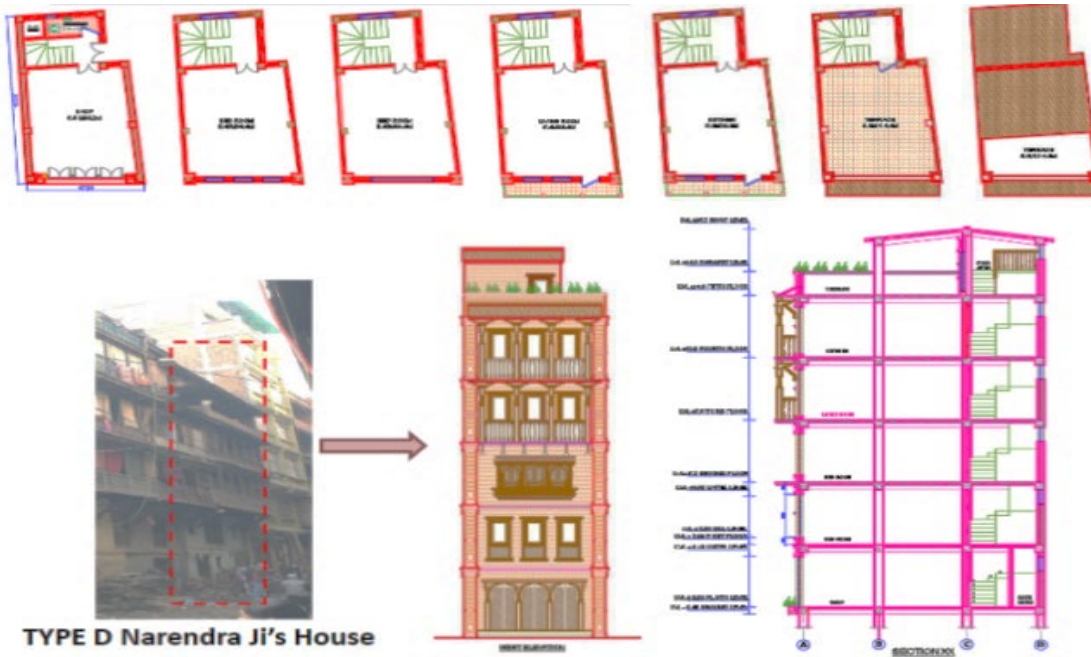


Fig. 7: An example of the reconstruction of a property.

2) Kathmandu's Environmental Conservation project

Kathmandu City is also implementing a project on environmental conservation. The focus is on building disaster and climate resilience by conserving traditional buildings and reducing the need for new constructions. To achieve this, the municipality is supporting the adequation of communal spaces dedicated to terrace farming activities, creating pedestrian areas in the city centre, and reinforcing the development of communal infrastructure. The goal is to reduce the city's carbon footprint and encourage healthier commuting modes for residents. In particular, the project halts unsustainable land-use changes that harm the historic environment.

Environmental Conservation

Disaster and Climate Resilience

- By-laws : Communal infrastructure development / water recharge
- Food green city : Reintroducing KMC's terrace farming
- The project aims to achieve disaster resilience by conserving traditional buildings
- Reducing the need of new construction
- Utilizes the insulation system created by traditional material and construction technology
- Such plans help reduce the land use change, encouraging green growth

Vegetable	Planting	Harvest
SPINACH	Feb-March	20-30cm
KALE	Feb-March	15-25cm
KOHLRABI	Feb-March	30-40cm
CABBAGE	Feb-March	30-45cm
EGGPLANT	Aug-Jan	30-45cm
CARROTS	Aug-Nov	10-15cm
CORIANDER	July-Oct	20-30cm
CORIANDER	July-Sept	5-10cm
CORIANDER	Sept-Nov	20-30cm
CABBAGE	June-Aug	30-45cm
CORIANDER	July-Sept	5-10cm
CORIANDER	Sept-Nov	20-30cm
ONIONS	All year	30-45cm
ONIONS	All year	30-45cm
ONIONS	All year	30-45cm
ONIONS	Feb-June	30-45cm
ONIONS	Jan-June	30-45cm
CARROTS	July-Nov	10-15cm
CARROTS	Jan-March	10-15cm
CARROTS	Aug-Oct	10-15cm

11/1/2021

Ar.Nilima Thapa Shrestha

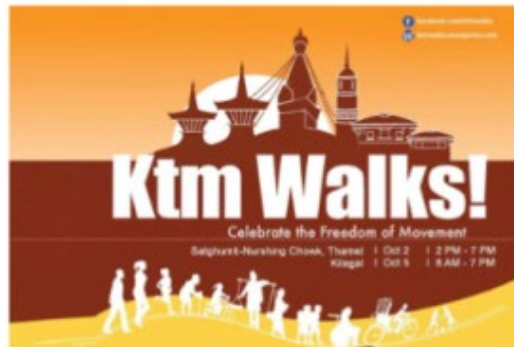
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Fig. 8. Key actions in Disaster and Climate Resilience.

Environmental Conservation

Air pollution/ Quality of life /Economic revitalization

- KMC is working on pedestrianization of core city area
- This aims to reduce the carbon foot print of the city
- Encourage healthier mode of commute for the urban dwellers



11/1/2021

Ar.Nilima Thapa Shrestha

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Fig. 9: Some activities are carried out to enhance the quality of life in urban areas.

Discussions

“What are the challenges faced in the implementation of the HUL Recommendation in the case of Kathmandu?”

Ms Nilima Thapa Shrestha, “Kathmandu Valley” (Nepal)

It is challenging to raise awareness of the HUL Approach and explain the principles of the HUL Recommendation to the public. The COVID-19 pandemic made communication even more difficult.

“How do you combine the ideals of local people with the principles of the HUL Recommendation?”

Ms Nilima Thapa Shrestha, “Kathmandu Valley” (Nepal)

After the earthquake in 2015, residents started abandoning historic buildings and moving to new houses. Historic buildings were subdivided among family members, complicating their management. Additionally, dynamics linked to gender issues, such as an imbalance in job accessibility, made men more likely to own heritage properties than women.

“What are the challenges you face in terms of climate change adaptation and resilience? What the specific mitigation actions are being undertaken?”

Wildlife Institute of India (WII) - UNESCO Category 2 Centre on World Natural Heritage Management and Training for Asia and the Pacific Region.

A lot of preventive actions and mitigation efforts are made by the Indian Government to address Climate Change. This relevant authority changed its nomenclature from the “Ministry of Environment Forests” to the “Ministry of Environment and Forests and Climate Change” to highlight this commitment.

A primary national focus is put on the Himalayan ecosystem due to its relevance to the country regarding systemic balance. It showed the first signs of climate change impacts, directly affecting the watercourses of India at large. This translated into

extensive research and documentation of the phenomenon and inventory of buildings.

Other side-effects of climate change in the region are:

- Extreme heat events particularly hit inland cities representing most of the nation's settlements.
- Cyclone disturbances hit particularly coastal cities (recently, the Bengal gulf was severely hit by a cyclone, which undermined the integrity of the Indian-Bengali World Heritage Natural site "[Sundarbans National Park](#)").

The government is preparing complex infrastructure investments and nature-based solutions, such as mangrove planting.

Reference materials: [Cyclone Amphan makes landfall across Sundarbans World Heritage properties \(Bangladesh, India\)](#)

“When did Kathmandu City started to implement the approach of the HUL Recommendation, and what have been the steps to prepare for this? What is the budget amount for preparation steps towards the HUL implementation? Are any departments from the government involved?”

Ms Nilima Thapa Shrestha, “Kathmandu Valley” (Nepal)

Kathmandu City started to implement the approach of the HUL Recommendation in 2020 and utilised it as a reference for creating integrated development schemes.

The local government wanted to provide economic resources through grants to support reparation initiatives. However, this was not possible due to the need for appropriate channels. Currently, the projects under implementation are supported by 22 different donors. The Heritage Conservation Department is the leading authority coordinating the reconstruction efforts, with the technical support of the City Planning Commission. Other departments, such as Finance, Procurement, and Infrastructure, are also involved.

“Referring to the target objectives of the HUL Call for Action, what are the possibilities for implementing alternative activities, such as storytelling, aiming to engage the broader public with diverse aspects of their cities’ history, including the environment? “

Wildlife Institute of India (WII) - UNESCO Category 2 Centre on World Natural Heritage Management and Training for Asia and the Pacific Region.

Although the Wildlife Institute of India mainly focuses on natural heritage, we are trying to bring heritage, culture, and natural aspects of heritage. In Jaipur, the Heritage Lab initiative has been the first attempt to explore the natural components of cultural sites. This is a path that could be further explored.

Regarding the role of storytelling in conveying heritage significance, we can share the example of the 2017 festival exploring the part of natural heritage in literature and the arts. This festival brought together poets, artists and people not usually concerned with the heritage field, including people from the native areas of the Himalayas region.

Reference material: [Heritage Lab, Jaipur](#)

Representative of Kathmandu Metropolitan City

In 2019, Kathmandu Metropolitan City developed a plan to create a walking trail linking two components of the World Heritage property: Swayambhu and Hanuman Dhoka Durbar, which lay 2.2km apart. The plan included preserving heritage assets in the area and collaborating with the local community to preserve intangible heritage, mainly linked to climate resilience. Moreover, the initiative aimed to boost the economy and raise awareness about traditional risk resilience. The plan is on halt now.

Representative of Luang Prabang

Luang Prabang carries out World Heritage-related awareness-raising campaigns dedicated to youth, drawing together heads of villages and communities every year.

“Considering the positive implications of using local construction materials rather than reinforced concrete, ranging from enhancing local skills and labour to reducing transportation costs and climatic impacts, what is your approach to the subject? “

Ms Nilima Thapa Shrestha, “Kathmandu Valley” (Nepal)

To ensure the survival of traditional building techniques, we need to count on the support of the local residents. Traditional buildings are unable to meet modern needs and expectations. For example, concrete can bear higher loads, increasing the built surface's rentability. In response to economic factors, we classify each conservation project according to different categories, with culturally significant buildings receiving higher subsidies.

We are also working to convince and involve all users to adopt more environmentally sustainable building practices in urban areas.

Closing remarks

Ms Jyoti Hosagrahar, the Deputy Director of the World Heritage Centre, underlined the ongoing commitment of UNESCO and the World Heritage Cities Programme to support and collaborate with the cities, i.e., Asia and the Pacific region, addressing their specific challenges.

She invited participants to join the HUL Call for Action and the World Heritage City Labs organised by the World Heritage Cities Programme in the context of the 10th Anniversary of the HUL Recommendation.

Annexe 2 Europe and North America

Europe and North America

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Europe and North America

Executive summary

On 28th and 29th October 2021, the World Heritage City Dialogues brought together site managers and National Focal Points for World Heritage in Europe and North America region to share their latest experiences and challenges in managing the rich and complex urban heritage of the area. Discussions primarily focused on the impacts of climate change on urban properties and strategies for climate adaptation and resilience.

On 28th October, the session included the participation of 14 site managers of properties that make part of the World Heritage Cities Programme in Albania, Austria, Azerbaijan, Croatia, France, Germany, Hungary, Italy, Latvia, Lithuania, Luxembourg, San Marino, Spain, and Sweden.

On 29th October, the World Heritage City Dialogues brought together 11 site managers of properties that make part of the World Heritage Cities Programme in Belgium, Canada, France, Germany, Luxembourg, Norway, Portugal, and Spain.

Some key common climate-related issues were identified, including vulnerability to rising water levels in cities exposed to the sea (Split, Le Havre, Québec City, and Bryggen), flooding, increased soil dryness, pollution, and heat-island effects. Positive examples shared by the site managers include a project for re-paving urban spaces to counteract the side effects of flooding in Mantua, Italy, and promoting urban farming and drought-resistance vegetable crops to counteract soil dryness in Bamberg, Germany.

Overall, World Heritage stakeholders in Europe and North America are aware of climate change's short- and long-term side effects on historic cities. Many of the managers presented their efforts in developing dissemination and awareness-raising activities on the challenges posed by climate change. They highlighted engagement as key to achieving climate-resilient

Presentations

Mr Rudolf Zunke, “Historic Centre of Vienna” (Austria)



Fig. 10: Historic Centre of Vienna (Austria) Author: Francesco Bandarin © UNESCO

Mr Rudolf Zunke is the site manager of the World Heritage property “[Historic Centre of Vienna](#)”.

The World Heritage property reports a big challenge managing the different stakeholders, internal departments of the municipality and the national government, as well as international bodies. This has highlighted conflicting elements related to urban development and heritage preservation.

Mr Elsevar Mammadov, National Focal Point (Azerbaijan)



Fig. 11: The Shirvanshah's Palace, Baku (Azerbaijan) Author: Graciela Gonzalez Brigas © UNESCO

Mr Elsevar Mammadov is the Head of the International Department at the Administration of State Historical-Architectural Reserve 'Icherisheher'.

Mr Elsevar Mammadov highlighted how the "[Walled City of Baku with the Shirvanshah's Palace and Maiden Tower](#)" is exposed to risks and threats related to climate change. Rapid urbanisation and urban pressure are recognised as significant threats.

Mr Mammadov shared a recent project to enhance the sense of belonging of the local population and their attachment to local heritage.

Ms Paula Cordeiro, “La Grand-Place, Brussels” (Belgium)



Fig. 12: La Grand-Place, Brussels (Belgium) Author: Ko Hon Chiu Vincent © UNESCO

Ms Paula Cordeiro, the architect at the 'Cellule Patrimoine historique' (Urban planning department - City of Brussels), is the site manager of the World Heritage property “[La Grand-Place, Brussels](#)”.

In 2021, Brussels did not register problems associated with floods.

Regarding the implementation of the HUL Recommendation, the site manager reported that the local administration faces difficulties in its implementation. Heritage Management and urban development plans are rarely integrated, even though the interconnection between the two is crucial.

Mr Jo-Anick Proulx, “Historic District of Old Québec” (Canada)



Fig. 13: Historic District of Old Québec (Canada) Author: Ko Hon Chiu Vincent © UNESCO

Mr Jo-Anick Proulx is the Cultural Resources Manager for World Heritage Sites.

The management framework of the World Heritage property “[Historic District of Old Québec](#)” includes three site management authorities: the City Government, the Provincial Government, and the Federal Government. The latter owns and operates the fortified heritage sites.

Québec City is mainly affected by urban pollution and extensive use of concrete. Rising sea levels will cause problems for urban areas near the sea. Québec’s distinctive fortifications are unlikely to be affected as they are located uphill. As climate change is not strongly perceived in Québec yet, it is difficult to bring attention to the need to anticipate countermeasures. Lastly, he noted that urban development pressure on the old town is also another critical issue.

Eventually, Mr Jo-Anick Proulx enquired about the activities of the World Heritage Cities Programme and how they could benefit site managers.



The Deputy Director of the World Heritage Centre gave an overview of the scope of the World Heritage Cities Programme, specifying that this is one of six thematic programmes formally approved and monitored by the World Heritage Committee, and inscribed within the UNESCO World Heritage Centre.

The Programme was developed to identify and respond effectively to the key issues that affect the unique contexts of heritage cities, as they are living areas with evolving needs. The 2011 Recommendation on the Historic Urban Landscape was created as an additional tool to integrate policies and practices for the conservation of the built environment into the wider goals of urban development, including inherited values and traditions of different cultural contexts.

The World Heritage Cities Programme also functions as way to disseminate the latest and most relevant documents, policies, and information to site managers of World Heritage properties, while enhancing their connectivity to the Advisory Bodies (ICOMOS, IUCN and ICCROM).

Reference materials:

- [The World Heritage Committee](#)
- [World Heritage Cities Programme](#)
- [2011 UNESCO Recommendation on the Historic Urban Landscape](#)

Mr Radoslav Bužančić, “Historical Complex of Split with the Palace of Diocletian” (Croatia)



Fig. 14: Historical Complex of Split with the Palace of Diocletian (Croatia). Author: Ko Hon Chiu Vincent © UNESCO

Mr Radoslav Bužančić, Head of Department at the Conservation Department in Split, is the site manager of the World Heritage property “Historical Complex of Split with the Palace of Diocletian”.

The site manager reported on several projects to improve the conservation of the Diocletian Palace. Another strategy tried to connect the site with other heritage areas located 5km away – which could be linked to plans to redefine the boundaries of the property in the future. Excavations are still to be carried out to obtain more data to support the plans.

Being a coastal city, Split will potentially suffer from rising sea levels. In particular, the underground chambers of the Diocletian Palace are at significant risk, given their direct proximity to the seafront and connection to the port.

**Ms Severine Routel, “Le Havre, the City Rebuilt by Auguste Perret”
(France)**



Fig. 15: Le Havre, the City Rebuilt by Auguste Perret (France) Author: Francesco Bandarin © UNESCO

Ms Severine Routel is Policy Officer for the UNESCO World Heritage property "[Le Havre, the City Rebuilt by Auguste Perret](#)".

The coastal City of Le Havre is exposed to the challenges brought by climate change. The city is managed by the ‘Le Havre Seine Métropole’, which comprises Le Havre as the main settlement and 53 other cities under its jurisdiction.

As the city is a productive industrial area, the site managers established a dialogue with relevant industries, which resulted in the signing of an agreement on the energy transition in 2021.

Among the actions implemented, phone alarms inform residents about climate-related risks and provide information on how to face climate-related disasters.

As the rising sea level threatens the integrity of the city and the Étretat cliffs, the site manager expressed her desire to dedicate more efforts to sensitise the public and younger generations about climate change.

Ms Patricia Alberth, “Town of Bamberg” (Germany)



Fig. 16: Town of Bamberg (Germany). Author: Pressestelle Stadt © UNESCO

Ms Patricia Alberth is Head of the World Heritage Office at the City of Bamberg and site manager of the World Heritage property “[Town of Bamberg](#)”.

Recently, the local authorities have noticed an increased dryness of the soil. In response, they have worked to enhance the water systems within the city area. They have also promoted drought and heat-resistant vegetables suitable for urban farming.

Given that the German translation of the HUL Recommendation had been launched relatively recently, it had been challenging to raise awareness about its approach amongst local residents. To conclude, she invited UNESCO to engage more directly with site managers.

Mr Carlo Francini, “Historical Centre of Florence” (Italy)



Fig. 17: Historical Centre of Florence (Italy). Author: Carlo Francini © UNESCO

Mr Carlo Francini, the art historian, is Head of the UNESCO Office of Florence and site manager of the UNESCO World Heritage property "[Historical](#)".

The COVID-19 pandemic, mass tourism and climate change are three critical threats to World Heritage property. The World Heritage management framework of the Historic Centre of Florence is defined by a Management Plan, which sets out conservation and development objectives, and an Action Plan that outlines how to achieve these goals. The implementation progress is measured using the Sustainable Development Goals as monitoring tools. Significant actions undertaken consisted of the following:

- A project to minimise the hydrological risk caused by the Arno River, as the city has recently experienced partial collapses of the riverbanks.
- Plantation of trees to prevent further collapses.
- Improvement of public transport systems to connect the city centre to the periphery.
- Installation of drinking water fountains in public spaces.

In the context of COVID-19 recovery, the site managers are working on a proposal to develop paths in the landscape for tourists and locals alike, creating connections between green and cultural spaces.

Reference materials: [Monitoring the implementation of the World Heritage Management and Action Plan in the Historical Centre of Florence \(Italy\)](#)

Ms Monica Bedini and Ms Elisa Parisi, “Mantua and Sabbioneta” (Italy)



Fig. 18: Mantua and Sabbioneta (Italy) Author: Valerio Li Vigni © UNESCO

Ms Monica Bedini is the site manager of the World Heritage property “[Mantua and Sabbioneta](#)”, and Ms Elisa Parisi is an officer at the Department of Environment, Municipality of Mantova.

An in-depth study on climate change, Mantua and Sabbioneta, have been carried out in partnership with the University of Venice. All the municipal structures and departments were involved, especially in training the relevant technicians. The significant impacts identified are flooding and air pollution.

To mitigate climate change and prevent climate-related disasters, the local authorities have carried out activities regarding energy efficiency, monitoring systems of buildings, urban forestry, and nature-based solutions. Other activities include:

- A project for re-paving the city’s urban spaces with permeable paving aims to minimise flooding.

- The production of an informative catalogue drawing together nature-based solutions for climate resilience and adaptation.
- Community engagement and awareness-raising activities.
- Plantation of trees to mitigate the urban heat island effect, including with flowerpots, when deep planting is not possible.

Ms Luana Alessandrini, “Historic Centre of Urbino” (Italy)

Ms Luana Alessandrini is Architect at the Municipality of Urbino.

The World Heritage property “Historic Centre of Urbino” in Italy plans to include climate change-related issues in its Management Plan. The Municipality uses zoning studies to determine possible locations for renewable electric energy plants compatible with heritage values.

Reference material: [ITA only] [Comune di Urbino: Indirizzi per la localizzazione di impianti per la produzione di energia elettrica da fonti rinnovabili](#)

Ms Ingrid Veneroso, “Associazione Beni Italiani Patrimonio Mondiale” (Italy)

Ms Ingrid Veneroso is Communication Culture Manager for the Rivista Siti Patrimonio Mondiale, at the Associazione Beni Italiani Patrimonio Mondiale.

Ms Veneroso shared the Association’s effort to share and translate World Heritage concepts and frameworks in Italy. These include a glossary, including explanations of technical terms. Creating a common reference vocabulary is essential to disseminate plans and ideas for the historic city.

Reference material: [ITA only] [Italiano](#)

Mr Aigars Kušķis, “Historic Centre of Riga” (Latvia)



Fig. 19: Historic Centre of Riga (Latvia) Author: Véronique Dauge © UNESCO

Mr Aigars Kušķis is the site manager of the World Heritage property “[Historic Centre of Riga](#)”.

The World Heritage site manager reported challenges in integrating infrastructure works in the historical centres. Recently, mobility and micro-mobility development projects have been developed, which might change the streetscape and threaten the intactness and integrity of the site. Telecommunications equipment, such as antennas, are challenging to integrate into the historic urban environment.

Like other cities, Riga also suffers heat-island effects, which are worsened by the fact that many urban spaces are finished with asphalt or cobblestones. Lastly, the site manager highlighted how water management systems (sewage and drainage) need to be adapted to new needs resulting from climate change side effects.

Mr Gediminas Rutkauskas, “Vilnius Historical Centre” (Lithuania)

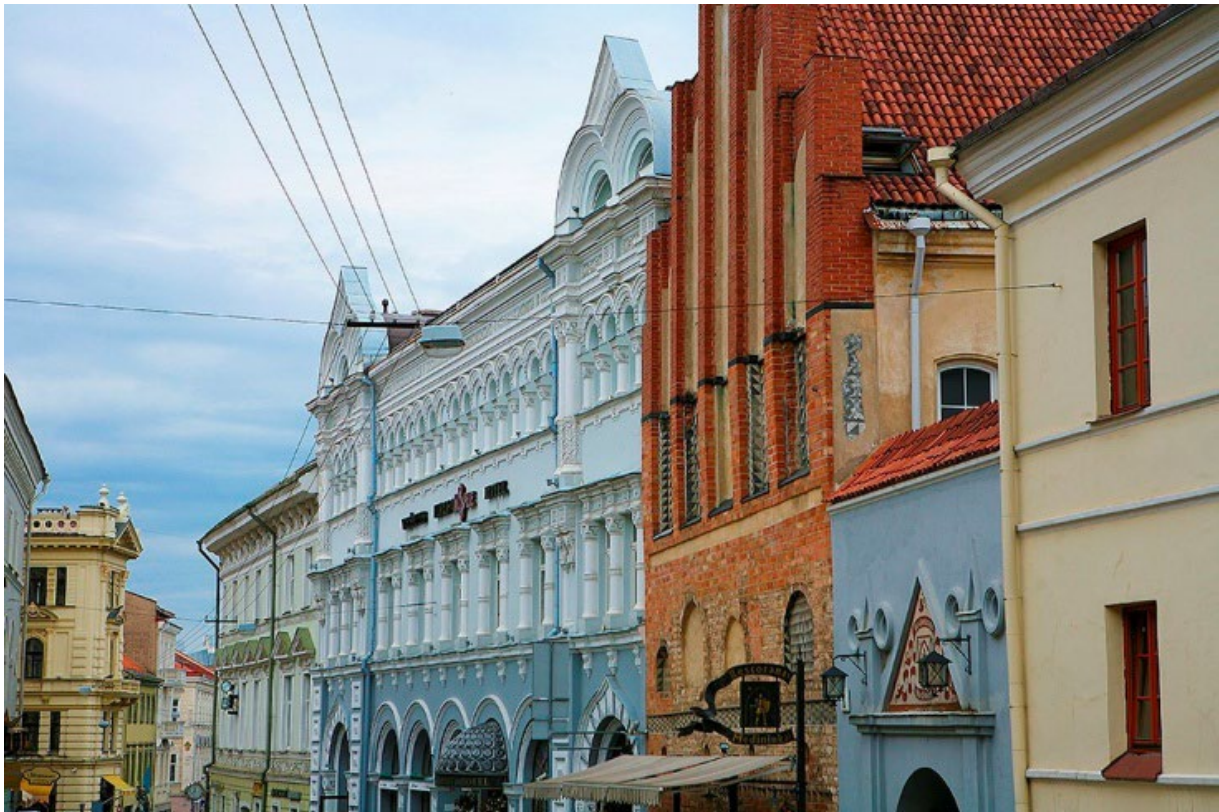


Fig. 20: Vilnius Historical Centre (Lithuania). Author: Ko Hon Chiu Vincent © UNESCO

Mr Gediminas Rutkauskas is the Director at the Vilnius Old Town Renewal Agency and site manager of the World Heritage property “[Vilnius Historical Centre](#)”.

The site manager of the World Heritage property noted how the historic city centre of the capital of Lithuania had been traditionally mineral and green-less. It was due to the bombings that occurred during WWII that space opened in the dense urban fabric. More recently, the need for green urban spaces and other actions to improve life quality in this context have conflicted with its traditional shape and image.

Mr Robert L. Philippart, “City of Luxembourg: its Old Quarters and Fortifications” (Luxembourg)



Fig. 21: City of Luxembourg: its Old Quarters and Fortifications (Luxembourg) Author: Ko Hon Chiu Vincent © UNESCO

Mr Robert L. Philippart is the site manager of the World Heritage property “[City of Luxembourg: its Old Quarters and Fortification](#)”.

Significant floods hit the city in July 2021. As a reaction, the Government set up an inter-ministerial Committee to face the emergency, including representatives of the heritage department. As part of the actions taken, a training programme allowed relevant stakeholders to learn more about the protection of tangible and intangible heritage in case of emergency, as well as the integration of climate change as part of the Management Plan for the “City of Luxembourg”.

Ms Hege Agathe Bakke-Alisøy “Bryggen” (Norway)



Fig. 22: Bryggen (Norway) Author: Andrea Albertino © Andrea Albertino

Ms Hege Agathe Bakke-Alisøy is the site manager of the World Heritage property “[Bryggen](#)”.

Bryggen is a coastal city with buildings that date back 300 years old and are composed mostly of wooden elements. Climate change has significantly affected their conservation. Increasing rainfall patterns especially challenge their maintenance, while the rising sea level affects the World Heritage property and the city centre more broadly.

The site manager explained that a first Heritage Impact Assessment for the World Heritage property is currently under preparation and asked for examples of similar studies in other European World Heritage cities.

Reference materials: [International Experts Meeting - Heritage in Urban Contexts: Impacts of Development Projects on World Heritage properties in Cities](#)

Ms Irena Caquet – Programme Specialist, Europe and North America Unit, World Heritage Centre

Ms Caquet reiterated the commitment of the Europe and North America Unit to the support efforts of site managers.

Closing remarks

In the closing remarks, the Deputy Director outlined the ongoing commitment of UNESCO and the World Heritage Cities Programme to support and collaborate with the cities, addressing the specific challenges of the Europe and North America region.

As part of the initiative, Ms Hosagrahar reiterated the invitation to join the HUL Call for Action and World Heritage City Labs, organised by the World Heritage Cities Programme as follow-up events of the 10th Anniversary of the HUL Recommendation contributing to its implementation.

Annexe 3 Latin America and the Caribbean

Latin America and the Caribbean

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Executive summary

The World Heritage City Dialogues 2021 brought together site managers and focal points for World Heritage cities in Latin America and the Caribbean region to share their latest experiences and challenges in managing the rich and complex urban heritage. Discussions mainly focused on the impacts of climate change on urban properties and strategies for climate adaptation and resilience.

Among World Heritage Properties in Latin America and the Pacific region that make part of the World Heritage Cities Programme, the 28th of October 2021 session included the participation of 5 site managers from the Dominican Republic, Guatemala, and Mexico and of 4 National Focal points for World Heritage from Belize, Ecuador, Mexico, and the Dominican Republic. Some key climate-related common issues were identified, including urban flooding and increased vulnerability to problems associated with drainage and sewage, coastal erosion for sea-exposed sites, stronger storms and increasingly harmful temperatures and natural disasters more broadly.

A significant challenge posed to conserving traditional dwellings, as highlighted by the site manager of the “Historic Monuments Zone of Querétaro” (Mexico), is the combination of depopulation and worsening of the climatic conditions. This puts the historic city at risk of gentrification and material degradation. Further concerns were shared by the site manager of “La Antigua Guatemala” (Guatemala), who referred to the urban pressures on natural areas surrounding the site as land use changes, affecting inhabited historic and natural areas.

Common challenges were identified during the session, which was a valuable exercise to discuss, in a collaborative way, sustainable solutions for historic urban areas in Latin America and the Caribbean. In particular, the site managers and National Focal points endorsed the positive environment created during the event, allowing them to freely share their perspectives on the challenges and accomplishments encountered in developing management and risk preparedness plans. Also, UNESCO Officers from Field Offices participating in the Dialogues offered valuable insights into intergenerational community involvement in the historic centre of La Havana (Cuba), which served to inform about urban interventions with an eye on the current diverse needs of the local residents.

Presentations

Ms Silvia Batty, Belize Institute of Archaeology (Belize)



Fig.23: Belize Barrier Reef Reserve System (Belize) Author: Brandon Rosenblum © Brandon Rosenblum

Belize's only World Heritage property is the "[Belize Barrier Reef Reserve System](#)" (natural).

The former capital Belize-city, located on the coast, is protected by legislation focused on historic areas and protecting key heritage buildings within the area and includes integrated tourism and management plans. The main challenges are those of an area characterised by mixed residential and retail space, together with places of memory. Efforts have been made to integrate these elements into the city's fabric to preserve narratives related to the Nation's identity.

Major climate-related issues relate to changing rainfall patterns, which cause drainage problems within historic urban spaces.

Further, challenges are in the preparation of effective monitoring mechanisms, the development of indicators, and the designation of specific approaches to apply to

WH property and *buffer zones*, including the integration of historic spaces within broader urban strategies as a reaction to gentrification and the increase of tourism.

Ms Mauricia Dominguez, "Colonial City of Santo Domingo" (Dominican Republic)



Fig. 24: Colonial City of Santo Domingo (Dominican Republic). Author: Ko Hon Chiu Vincent © UNESCO

Ms Mauricia Dominguez is the site manager of the World Heritage property "[Colonial City of Santo Domingo](#)".

In Colonial City, activities have been implemented since 2013, focusing on strengthening the habitability of urban areas by upgrading road sections, eliminating exposed wiring, and improving water, telephone, and internet supply to dwellings. The project has been financed through a loan from the Inter-American Development Bank (IDB), and its first phase was completed in 2018. The second phase focuses on the historic centre (which corresponds to the World Heritage property) and aims to keep its residents to avoid gentrification phenomena.

The focus is on the northern part of the historic centre, where a plan to develop electric transportation systems is in place. In parallel, another project focuses on collecting data and information on vulnerability and risk to properties.

Mr Juan Diego Badillo, National Focal Point (Ecuador)



Fig .25: City of Quito (Ecuador) Author: Francesco Bandarin © UNESCO

Mr Juan Diego Badillo, in assignment to the Ministry of Culture and Heritage of Ecuador (Instituto Nacional de Patrimonio Cultural (INPC), is the National Focal Point for World Heritage and the Periodic Reporting exercise in Ecuador.

The INPC plans to launch support schemes for crafts, agricultural foodstuffs, and new constructions focusing on climate change and the reinterpretation of production and building methods. Difficulties have been recorded in urban management in terms of links between heritage-territory. Implementing the HUL Recommendation is hindered by a certain level of confusion regarding its concepts.

Mr Norman Muñoz Urizar, “Antigua Guatemala” (Guatemala)



Fig. 26: Antigua Guatemala (Guatemala) Author: Ko Hon Chiu Vincent © UNESCO

Mr Norman Muñoz Urizar, in charge of the National Council for the protection of Antigua, is the site manager of the World Heritage property "[Antigua Guatemala](#)".

In recent years, climate change is severely hitting the country with hurricanes and floods. La Antigua Guatemala, a World Heritage property since 1979, has also been impacted. The city has always been defined as a place of artistic, historical and landscape expression. The natural context, characterised by hills and volcanoes, is integral to the site's identity.

Likewise, development projects in natural areas on the periphery of the city lead to deforestation and end up causing landslides and impacting the drainage structures of the urban centre. Besides, the considerably high humidity in the area is compounded by periods of rainfall (characterised by their intensity and length), as the existing drainage structures cannot guarantee rainwater evacuation. Moreover, seismic, and volcanic activity also pose considerable risks to historic structures.

A base Risk Management Plan was developed at the National level by the Disaster Reduction coordinator and did not focus on specific historic cities. The authorities responsible for La Antigua are defining their adapted plan from the perspective of the needs of the historic city. Financially, there is no direct State funding for urban

heritage conservation. The local annual budget destined for the task is 1 million dollars and fails to address local challenges effectively.

Considerable real estate pressure is in areas formerly occupied by coffee plantations. The drop in international coffee prices has encouraged producers to change land use. Landowners have been involved in developing territorial coordination plans with the Municipality to channel this trend. However, given the division between the departments responsible for safeguarding the city as a heritage site and those responsible for urban development, there is a conflict of interests and a lack of legal clarity regarding collaboration possibilities between the different sectors.

Mr Francisco Vidargas, National Focal Point (Mexico)



Fig. 27: Historic Centre of Mexico City and Xochimilco (Mexico). Author: Ko Hon Chiu Vincent © UNESCO

Mr Francisco Vidargas, a historian by training, is deputy director of the National Institute of Anthropology and History (World Heritage Directorate) and National Focal Point for World Heritage.

The Focal Point for World Heritage in Mexico has proposed a broad vision for urban heritage management, linking climate change to World Heritage to mitigate its effects. Methodologies from the nature sector and IUCN's reports on climate change need to be further incorporated into activities focused on cultural and urban heritage.

In addition, he explained that risk management and adaptation plan commonly need to include natural components and involve local communities. Monitoring programmes concerning the State of Conservation and the evolution of the sites under the effects of climate change must consider three specific areas with respective parameters:

1. Changes in temperature and relative humidity.
2. Impact of wind speed on specific parts of monuments and buildings.
3. Creation of specific indicators to assess the deterioration of materials.

Mr Vidargas underlined that the Recommendation on the Historic Urban Landscape had highlighted the interrelationships between entropic and natural factors in various historic Mexican cities. More work needs to be done defining the role of cultural heritage in the contemporary context and working for its integration into other fields. It will be necessary also to empower civil society by facilitating their participation in urban management and development decision-making processes.

To conclude, Mr Vidargas discussed knowledge building and methodologies and focused primarily on *buffer zones*, mentioning that further efforts are needed to define their roles and their adequate use. He referred to the examples of Vienna (in Austria), Cartagena (in Colombia) and Seville (in Argentina), which have all been affected by new architectural projects. He brought up the example of the Pelli tower in Seville, located outside the *buffer zone* but still threatening the cohesion of the cityscape by competing it with the iconic profile of the *Giralda Cathedral Tower* in the historical centre.

Mr Joel Perea Quiroz, "Historic Monuments Zone of Querétaro" (Mexico)



Fig. 28: Historic Monuments Zone of Querétaro (Mexico) Author: Ko Hon Chiu Vincent © UNESCO

Mr Joel Perea Quiroz, a Lawyer by training in charge of the Municipal Government of Querétaro (Coordination of World Heritage Cities), is the site manager of the World Heritage property "Historic Monuments Zone of Querétaro".

In the last ten years, the historic city of Querétaro has been affected mainly by flooding inherent to the intensification of rainfall. Most urban areas are characterised by their traditional constructive solutions (adobe and other earthen building techniques), which today are expensive in many ways, especially maintenance. These constructions are significantly affected by rainfall, and partial façade collapses have been recorded.

Municipal and National Governments have the destined economic resources to address the issue of urban flooding. Efforts to improve the pluvial and sanitary sewage have been made. In coordination with Francisco Vidargas (Focal Point for World Heritage in Mexico), drainage works on public roads have been carried out for 160 million Mexican pesos. Nevertheless, these resources only sometimes directly reach the departments in charge of urban heritage conservation.

Mr Mauro Rosi, Chief of the Latin America and the Caribbean Unit at the UNESCO World Heritage Centre.

Mr Mauro Rosi, with a background in philosophy and previous experience as a journalist, is the Chief of the Latin America and Caribbean Unit at the World Heritage Centre.

Mr Rosi agreed on the importance of the *buffer zone* as a management tool, characterised by being an area that allows for a certain freedom of action. More restrictive measures apply to possible visual impact, which is evident in the case of Vienna, for example. Further action is required to develop objective indicators to quantify other effects. There is, for instance, a growing ecological interest, and indicators already in place for natural sites could also be adopted in cultural sites; in the context of urban sites, a particular focus could be put on uses, functions, typologies, and best practices at the local scale.

Ms Olga Rufins Machin, UNESCO Office Havana (Cuba)

Ms Olga Rufins Machin is responsible for the Culture Programme at the UNESCO Office in Havana.

The UNESCO Office in Havana is implementing a pilot project, supported by funds from the Spanish Agency for International Development Cooperation (AECID), which focuses on the *Plaza Vieja* (old square) and aims to improve accessibility to the site for people with specific needs. This initiative is part of a more comprehensive project centred on developing a strategy for accessibility to the whole historic centre as a cultural area.

The project adopts a community-led awareness-raising approach to raise awareness of the specific needs of the local population (Cuba is characterised by the considerable ageing of its population). The project has created a series of training workshops and consultation activities with the intergenerational groups of residents and students, aiming to benefit the inhabitants, as opposed to national and international tourism development projects.

In addition, a couple of years ago, a programme implemented in Old Havana took necessary actions to prevent flooding, an issue affecting the entire Caribbean region. In addition to the '*Oficina del Historiador*' (historian's office), which contributes with a budget, technical and material support, and the authorities in charge of the local Master Plan, the programme counted as well with the participation of the Cuban Ministry of Science, Technology and Environment and made part of the National plan to face climate change. In addition, the initiative had the support of the Embassy of the Netherlands, experts, and representatives of the Institute for Water Management of the TU Delft, who contributed to technical analyses.

Discussion

"How can implementing the Historic Urban Landscape Recommendation be made more specific? What would be the specific issues to work on?"

Mr Joel Perea Quiroz, "Historic Monuments Zone of Querétaro" (Mexico)

The organisation of spaces for the exchange of Ideas, such as Dialogues, should be pursued. Broadening the spectrum of participation to a broader audience would bring new ideas and clarify priorities as they are perceived beyond World Heritage site managers.

Mr Norman Muñoz Urizar, "Antigua Guatemala" (Guatemala)

An important step would be the possibility of having a technical assessment from peers for Management Plans of World Heritage sites. Mexico has much experience that can be shared and contribute much to the whole region, as the risks and challenges are common.

Ms Silvia Batty, National Focal Point (Belize)

The integration of communities can be incredibly beneficial. A greater engagement with them in the framework of these activities (Dialogues) is crucial, as such exchanges create a space for introducing ideas, strategies, and overall sharing reference tools.

Lastly, similar challenges and problems should stimulate further regional collaboration and mainly technical exchanges.

Mr Rodrigo Sainz Lara, "Camino Real de Tierra Adentro" (Mexico)

An essential line of action would be to share the indicators used to develop heritage Management Plans.

Access to more quantitative and differentiated information on the challenges posed by climate change would allow for improved solutions based on specific and localised experiences.

Mr Francisco Vidargas, National Focal Point for World Heritage (Mexico)

The issue of cooperation remains fundamental for the Latin American and Caribbean region. Knowledge of the working methodologies used in other countries on the same problems is crucial. During the last three years, a method for implementing Management Plans for World Heritage sites has been implemented, the result of which was a publication.

Other reference materials: [Plan de Acción para el Patrimonio Mundial en México y América Central \(PAMAC\), 2018-2023](#)

Closing remarks

In the closing remarks, the Deputy Director outlined the ongoing commitment of UNESCO and the World Heritage Cities Programme to support and collaborate with the cities, addressing the specific challenges of Latin America and the Caribbean Region.

As part of the initiative, Ms Hosagrahar reiterated the invitation to join the HUL Call for Action and World Heritage City Labs, organised by the World Heritage Cities Programme as follow-up events of the 10th Anniversary of the HUL Recommendation contributing to its implementation.

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Africa

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Africa

Executive summary

On 29th October 2021, the World Heritage City Dialogues brought together site managers and focal points for World Heritage cities in the African region to share their latest experiences and challenges in managing the rich and complex urban heritage. Discussions mainly focused on the impacts of climate change on urban properties and strategies for climate adaptation and resilience.

The session included the participation of 11 site managers from Cabo Verde, Eritrea, Kenya, Mali, and Senegal, six of which were among the 14 properties that make part of the World Heritage Cities Programme in the Africa region. Key climate-related common issues were identified, including vulnerability to sea level rise and coastal erosion, shortage in water supply, problems associated with sewage and waste disposal in urban areas, floods, droughts, stronger storms, and increasingly harmful natural disasters broadly. As posed by representatives of Small Islands Developing States (SIDS) such as Mauritius and the property "Island of Saint-Louis" in Senegal, a significant concern was the risk of disappearance because of sea level rise. Participants offered insights into the diverse initiatives undertaken at the local level to counteract these issues. Besides general efforts to contribute to reducing CO2 emissions globally, in the case of the Saloum Delta, for example, a community-led initiative focused on replanting mangrove vegetation along the coast to prevent coastal erosion and protect the integrity and liveliness of this Cultural Landscape.

The Dialogue also brought together representatives from UNESCO Field Offices in the region and colleagues from UN-HABITAT, who shared their views on recent and ongoing projects and activities that contribute to global efforts to find environmentally attentive solutions to counteract climate change. Traditional know-how has been highlighted as a source of inspiration dealing with urban management issues, combining the urban development needs and heritage preservation through locally based sustainable practices.

Presentations

**Mr Claudio Ramos, “Cidade Velha. Historic Centre of Ribeira Grande”
(Cabo Verde)**



*Fig. 29: Cidade Velha, Historic Centre of Ribeira Grande (Cabo Verde). Author: Tim Schnarr
© Limes. Media/Tim Schnarr*

Mr Claudio Ramos is the site manager of the World Heritage property “Cidade Velha. Historic Centre of Ribeira Grande”.

Many residents of the historic settlement of Cidade Velha make a living by fishing (around 200 households) and developing other activities related to exploiting local natural resources. Therefore, the city is being more severely affected by the increasing strength of winds.

An urban requalification project financed by the national government is under study. It focuses on climate resilience, architectural retrofitting of urban properties and modernisation of the agricultural sector. The primary stakeholder is the Ministry of the Environment, which is mainly involved in developing a plan to respond to the urban area’s problems.

Mr Medhanie T. Maryam, “Asmara: A Modernist African City” (Eritrea)



Fig. 30: Fiat Tagliero building, Asmara (Eritrea) Author: Sailko (CC BY-SA 3.0), via Wikicommons

Mr Medhanie T. Maryam is the Coordinator of the Asmara Heritage Project Office (Department of Public Works Development) and site manager of the World Heritage property “Asmara: A Modernist African City”.

Asmara is in a semi-arid region of Eastern Africa, with limited seasonal rains, which turn particularly harsh for two months yearly. The capital of Eritrea is vulnerable to extreme drought and flood, which have intensified over the last three decades and led to considerable deterioration of water resources. This, combined with a booming population, resulted in the overexploitation of water reserves and a considerable forced reduction of the available water per capita.

New infrastructure is being constructed to face the water shortage (e.g., a new dam). In urban areas, infrastructural upgrading actions are being taken. These try to solve problems such as obstructions to sewage and drainage systems. Currently, both the Management Plan for the property and the urban Master Plan consider natural features present in the broader landscape that frames the city of Asmara on a hill, as it has repercussions on the urban property itself. These include the runoff of meteoric waters and changes in the topography.

In terms of strategy, a technical committee has been set up to update the Environmental Plans that have been in place for the last 25 years. Guidelines presented by these plans also link indirectly to the conservation of the built environment.

Mr Ben Essayouti El-Boukhari, “Timbuktu” (Mali)



Fig. 31: Timbuktu (Mali). Author: Lazare Eloundou Assomo, © UNESCO

Mr Ben Essayouti El-Boukhari, former Director of the Municipal Museum of Timbuktu, is the Head of the Cultural Mission of Timbuktu and the site manager of the cultural property of Timbuktu World Heritage Site.

Changes in Timbuktu's urban landscape are altering its historic architecture's distinctive features. Timbuktu's traditional construction materials are of natural composition primarily, especially rammed earth. Climate change affects the reproductive cycles and survival rate of many vegetal species. Accordingly, in recent years, traditional constructive solutions have been abandoned in favour of industrial concrete or metallic structures. Security issues affecting the country are a significant threat to Malian heritage preservation in the context of Timbuktu; access to the city is being controlled. This impacts the trade routes and, thus, the price of imported building materials. Consequently, the items produced domestically are more expensive than the ones imported. The second remains nonetheless less chemically and visually compatible with existing buildings, and so, they negatively affect the OUV and integrity of the property.

Several cities reported several interconnected issues related to climate change. For instance, in Timbuktu (Mali), climate change and conflict have reportedly caused many interlinked problems. Firstly, climate change is an increasingly vital factor in

the ongoing armed conflict in Mali. The security situation makes mitigating and preventive policies and actions challenging to develop and implement. At the same time, the lack of climate action and its effects worsens the security crisis, creating a vicious circle.

In Timbuktu, desertification has caused the disappearance of local tree species used in traditional construction, forcing residents to use imported materials such as concrete and steel. The lack of security and desertification have forced farmers to search for new areas for their livestock, which are increasingly being forced into the city. This has caused social tensions and contributed to management and sanitation problems.

As a result of climate changes, natural resources are becoming rarer in the bordering countryside. This brought about the migration of animal herds towards urbanised areas, which led to the pollution of public spaces and reduced the quality of life in town.

Mr Eloi Coly, “Island of Gorée” (Senegal)



Fig. 32: Island of Gorée (Senegal). Author: Richard Veillon, © UNESCO

Mr Eloi Coly is the Curator of the "Maison des Esclaves" and the site manager of the World Heritage property "Island of Gorée" in the Ministry of Culture and Communication framework.

The Island of Gorée is under major threats of coastal erosion. A project to protect the littoral is in its implementation phase. It applies to the shores of Gorée Island and the Cape Verde Peninsula (Dakar). Extensive public surveys have preceded the implementation. The working group commissioned with the project has presented different proposals at the town hall in front of representatives of the local inhabitants and the direction of heritage. Given that the Island of Gorée is inhabited, the main problem is integrating heritage protection with residents' appropriation of the project. The main concern about the project's development was its ability to remain coherent with the site and minimise its visual impact. These were described and analysed in a Heritage Impact Assessment presented to locals.

Reference materials:

- 1) [UNESCO, Gorée, patrimoine durable. État des lieux et perspectives d'avenir. 2017](#)
- 2) [Bureau de l'UNESCO a Dakar, Lutte contre l'érosion côtière sur l'île de Gorée](#)
- 3) [Bureau de l'UNESCO a Dakar, Lutte contre l'érosion côtière sur l'île de Gorée. Le projet en 3 étapes](#)

Mr Mahécor Diouf, “Saloum Delta” (Senegal)



Fig. 33: Saloum Delta (Senegal) Author: Sébastien Moriset © UNESCO

Mr Mahécor Diouf is the site manager of the World Heritage site and Cultural Landscape “*Saloum Delta*” in Senegal, in the framework of the “Direction du Patrimoine Culturel” (Ministry of Culture and Communication).

The Cultural Landscape is home to some villages, settlements, and inhabited islands. In terms of management, some efforts have been voluntarily made by the concerned communities to protect mangrove landscapes in the region as a safeguarding measure towards coastal erosion.

Mr Moustaph Ndiaye, “The Island of Saint-Louis” (Senegal)

Mr Moustaph Ndiaye is the site manager of the World Heritage site “*Island of Saint-Louis*” in Senegal, in the framework of the “Direction du Patrimoine Culturel” (Ministry of Culture and Communication).



Fig. 34: Island of Saint-Louis (Senegal) Author: Ko Hon Chiu Vincent © UNESCO

Located on a lagoon, the Island of Saint-Louis is subject to threats related to both the seaside and the riverfront, and it concretely risks disappearance. Coastal erosion is a significant problem for property integrity, and preventive action is being undertaken in partnership with the French Development Agency (Agence Française pour le Développement).

Mr Gaétan Siew, Special Envoy for UN-HABITAT (Republic of Mauritius)

Mr Gaétan is the former President of the International Union of Architects and former Secretary General of the African Union of Architects. He is currently Chairperson of the Port Louis Development Initiative and Special Envoy for UN-Habitat.

The government and private sector have made some progress in reducing CO2 emissions. In terms of vulnerability, as a Small Island Developing State (SIDS), the Republic of Mauritius is greatly threatened by seawater rise and related issues, featuring 6th on the global list of climate vulnerability. Both World Heritage properties in the country are located on the seafont and at risk of being severely exposed soon.

Ms Anne Lemaistre, Director, UNESCO Office in Abidjan / National Office for Cote d'Ivoire

Grand Bassam has been facing climate-related issues for several years. In 2019, a significant flood occurred, and UNESCO deployed an emergency mission to evaluate its impacts. The accident stimulated the adoption of the HUL Recommendation as a reference approach for developing responsive measures to similar emergencies.

The management plan has been revisited, and, on occasion, a risk prevention plan for natural disasters has been developed in collaboration with national authorities.

Reference materials: [UNESCO deploys an emergency mission to evaluate the impact of floods in the Historic Town of Grand-Bassam, Côte d'Ivoire.](#)

Ms Guiomar Alonso Cano, Culture Programme Specialist, UNESCO Regional Office for West Africa (Sahel), Burkina Faso, Cabo Verde, Gambia, Guinea-Bissau, Mali, Niger, and Senegal / UNESCO Dakar

Traditional know-how has revealed pivotal for developing Climate-resilient solutions in managing cities in the Sahel region. More efforts are invested in finding collaborative solutions to cope with everyday problems affecting diverse cities, as for the Global Adaptation Fund, which provides a more extensive framework for funding opportunities as is led by the African World Heritage Fund.

Reference materials:

- [United Nations \(Climate Change\) - Adaptation Fund](#)
- [African World Heritage Fund](#)

Mr Ali Daou, Culture Programme Officer at UNESCO National Office for Mali / UNESCO Bamako

Mr Ali Daou is Culture Programme Officer at the UNESCO National Office for Mali in Bamako.

In the context of Bamako (the capital and largest city in Mali), the UNESCO Culture and Science sectors are aiming to put in place mechanisms to deal with the urban flooding risk associated with the Niger river, which crosses the urban area.

The main hazard associated with the Niger river relates to its pollution. Demographic pressures impact sewage capacity and waste disposal in urban areas. Pollution has come to the point of provoking severe negative repercussions on the health of citizens (as in the case of a children's centre that was impacted). This led to greater social and institutional awareness of the associated dangers.

On the other hand, the infrastructure surrounding the river is extremely precarious. UNESCO aims to have a role in mobilising the technical and financial resources to

develop urbanisation strategies compatible with the site and capable of facing the problem.

Ms Karalyn Monteil, Project Officer at the UNESCO Regional Office for Eastern Africa: Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Rwanda, Seychelles, Somalia, South Sudan, Uganda, United Republic of Tanzania / UNESCO Nairobi

A current pilot project focuses on indigenous and traditional knowledge systems linked to biodiversity conservation, climate change and disaster risk reduction. Studies were carried out in seven heritage sites in the Eastern Africa region, with one of the studies focusing, for instance, on 'Research and documentation of Traditional Knowledge Systems on biodiversity conservation and climate change: experience from Lamza Village, Eritrea'.

Although the project activities were organised according to the criteria of intangible cultural heritage and read through its lens, the related research activity pointed out that traditional knowledge systems and management systems can be resources that cities can look at in their quest for climate adaptation and resilience.

Reference materials: [UNESCO Nairobi, 'East African stakeholders review links between living heritage and climate change.'](#)

Discussion

During the final discussion, the key takeaways from the conversations were resumed:

- Some places are highly vulnerable and are facing more severe threats than others, and more should be made to protect these properties.
- In many cases, initiatives, and policies advance actions for countering climate change at the national, regional, and local levels. The challenge is aligning and matching initiatives with broader global efforts, frameworks, and recommendations.
- In many instances, the key issues seem to revolve more around what is perceived as daily problems (related to infrastructure, flooding of roads, water supply, and the like). Still, climate change makes these more complex, so the challenge is how to face these issues in their evolving and worsening shape.
- Another problem is with how the housing sector is currently impacted by climate change.
- The question of how to find solutions based on traditional knowledge remains critical.

The whole must be made in line with the evolution of the climate crisis and the resulting needs of the concerned communities, but also in concordance with the OUV of the urban and inhabited properties of the World Heritage list.

Closing remarks

In the closing remarks, the Deputy Director outlined the ongoing commitment of UNESCO and the World Heritage Cities Programme to support and collaborate with the cities, addressing the specific challenges of the Africa Region.

As part of the initiative, Ms Jyoti Hosagrahar reiterated the invitation to join the HUL Call for Action and the upcoming World Heritage City Labs, organised by the World Heritage Cities Programme as follow-up events of the 10th Anniversary of the HUL Recommendation contributing to its implementation.

Annexe 5 Arab States

Arab States

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Arab States

Executive summary

The World Heritage City Dialogues 2021 brought together site managers and focal points for World Heritage cities in the Arab region to share their latest experiences and challenges in managing the rich and complex urban heritage. Discussions mainly focused on the impacts of climate change on urban properties and strategies for climate adaptation and resilience.

On 2nd November 2021, the session included the participation of 4 site managers of properties that make part of the World Heritage Cities Programme in Algeria, Morocco, Palestine, and Saudi Arabia, and the National Focal point for World Heritage in Tunisia. Some key climate-related common issues were identified, including flooding and increased vulnerability to sea-level rise and coastal erosion, problems associated with sewage, water systems (both surface and underground) for storage, evacuation and distribution, problems with the solidity of the building foundations, droughts, stronger storms and increasingly harmful temperatures and natural disasters more broadly.

As highlighted by representatives from Bahrain and the city of Algiers (Algeria), a significant concern was the interference of modern interventions in urban planning and land-use schemes with the natural pathways of meteoric waters. This poses significant problems to the integrity of the built and natural heritage and raises questions on integrating modern legacies as part of urban heritage in the sustainable use of natural resources framework.

The Dialogue also highlighted how traditional know-how could be a source of inspiration for urban management issues and the possibilities to use this as a tool to build social cohesion. The participants offered positive examples of safeguarding efforts and awareness-raising campaigns in historical centres. To raise awareness of the population towards urban heritage protection and management, which consists of artisan craftsmanship workshops, courses on earthen architecture, and student-led small-scale urban amelioration activities.

Presentations

Mr Abdelouahb Zekagh, “Kasbah of Algiers” (Algeria)



Fig. 35: High View of la kasbah, front of the sea (Algeria) Author: Hana Aouak © UNESCO

Mr Abdelouahb Zekagh is a Teacher and Researcher National Polytechnic School of Algiers and Head of the protection plan for the World Heritage site “[Kasbah of Algiers](#)”.

Three case studies were presented as concrete Climate-related impacts on World Heritage sites in Algeria.

1) “[M'Zab Valley](#)”.

This is a mixed site in the Southern part of the country, which in 2008 witnessed severe flooding problems. The cause is the lack of maintenance in the water distribution systems, which combines with periodic overflows (every 25 years approximately) of the river crossing the settlement. Non-compliance with the existing traditional canalisation systems and unregulated construction activity in the valley, taking the place of formerly temporary dwellings, were the significant causes of damage following the 2008 proceedings.

There is a significant need to enhance the risk preparedness of the water distribution system, and recent initiatives incorporated the relevant traditional know-how in water management. This has been put in place to prospectively face

the upcoming flooding (2032 ca) and align to water storage, distribution and evacuation needs, which are the main areas of action for the area.

2) “Kasbah of Algiers”

In 2003, some sections of historic built-up tissue bordering the Western side of the Kasbah of Algiers also witnessed some flooding-related disasters provoked by the overflowing of a nearby watercourse, which over time has been topped by the construction of a road.

The Kasbah itself has been affected by some of the urban interventions implemented during the French period in the 1930s. These modified the inflow of the two streams that historically provided the city with water resources (drawn from the mountain regions) and interrupted the continuity of water courses as this had been organised in the past.

Some works have been performed on the old aqueducts to allow the natural downflow of the waters towards the sea. Also, within the fringes of the site, some actions have been carried out at the underground level. These concerned the sewage systems to allow the evacuation of meteoric waters and protect the foundations of the dwellings from infiltration and humidity problems.

3) “Tipasa”

The World Heritage site is located on the coast Westwards from Algiers. It faces severe coastal erosion problems, with an increase in the salinity percentages resulting in corrosion of the building elements.

Ms Miray Hasaltun Wosinski, Secretary of ICOMOS Bahrain



Fig. 36: Pearling, Testimony of an Island Economy. Author: Ko Hon Chiu Vincent © Ko Hon Chiu Vincent.

Ms Miray Hasaltun Wosinski is a Consultant at Bahrain Authority for Culture and Antiquities, Secretary of ICOMOS Bahrain, and Member of the ICOMOS Sustainable Development Goals Working Group (SDG WG)

Bahrain hosts three World Heritage sites, two archaeological and one urban. Two of these are located on the coast and are subject to more significant threats from climate change. A common problem in Bahrain is that traditional knowledge related to building techniques is lost, which, combined with Climate-related events, increases the conservation challenges.

The traditional land use strategy, consisting of allocating the central part of the island to burial activities and the coastal areas for settlement, was planned to serve natural irrigation purposes. The traditional geological formation consists of bedrock close to the surface, especially prominent in the central part, which prevents agricultural activity in the area. Thus, burial activity developed in a way that was compatible with the outflow of the meteoric waters. This is currently being impacted by increasing urbanisation pressures in the inland areas, which obstructed the natural topography, defacing the water pathways and leading to flooding.

In Bahrain, another distinctive heritage feature is the intricate underground system for water management, which relates to the historic water pathways and is currently also being impacted by sea-level rise. The actual increase in the sale percentages present in the building materials undermines the foundations of the dwellings through crystallisation processes, putting them at risk of collapse. The increasing amount of rainfall cannot be absorbed nor channelled by the current discharge system.

Bahrain has been implementing the HUL Approach, especially in holistic planning, stakeholder involvement with an eye toward the private sector, and public space enhancement. In 2014, the World Heritage site "[Qal'at al-Bahrain – Ancient Harbour and Capital of Dilmun](#)" underwent a Minor Boundary Modification according to the HUL Recommendation principles, more precisely by integrating the landscape values of the broader setting into the proper site.

Mr Aboukacem Chebri, “Portuguese City of Mazagan (El Jadida)”, (Morocco)



Fig. 37: Portuguese City of Mazagan (El Jadida) (Morocco). Author: Ko Hon Chiu Vincent © Ko Hon Chiu Vincent.

Mr Aboukacem Chebri is the site manager of the World Heritage site: "[Portuguese City of Mazagan \(El Jadida\)](#)".

Mazagan city did not record serious problems related to climate change, although it is a coastal settlement and, as such, it remains exposed to sea rise. Major problems consist of changes in construction materials. Further work must be carried out in the form of a Heritage Impact Assessment regarding the effects of the sea on the site. There is a local university working on oceanographic studies. Although there has been no exchange so far, these events organised by the World Heritage Centre may stimulate domestic cooperation.

The surrounding area accommodates the biggest industrial African port working with phosphate chemicals, located about 15km from the site. This impacts agricultural activity and possibly also the integrity of the urban components, although no in-depth scientific study has been carried out. The site manager Mr Chebri proposed receiving assistance from the Advisory Bodies, the World Heritage Centre and relevant Arab organs to implement such impact studies.

Mr Ibrahim M. Alkayyat, “Historic Jeddah, the Gate to Makkah” (Saudi Arabia)



*Fig. 38: Historic Jeddah, the Gate to Makkah (Saudi Arabia) Author: Simone Ricca
© Simone Ricca.*

Mr Ibrahim M. Alkhayyat is the Director of the Historic Jeddah Office at the Makkah Al-Mukarrama Region and site manager of the World Heritage site “[Historic Jeddah, the Gate to Makkah](#)”.

The site of Jeddah does not face noticeable threats coming from Climate-related events, although the water remains a central theme of concern. This includes underground elements and results in landslides affecting some buildings’ stability, with few cases of partial collapse. The Risk Management Plan remains nonetheless in place.

Ms Hamida Rhouma, National Focal Point for World Heritage (Tunisia)



Fig. 39: Medina of Sousse (Tunisia) Author: Aneta Ribarska © Aneta Ribarska

Ms Hamida Rhouma is the General Architect and Director of the ‘Centre des sciences et techniques du Patrimoine’ at the Institut National du Patrimoine and National Focal Point for World Heritage.

Flooding is a significant climate change side-effect affecting Tunisian cities, negatively impacting urban infrastructures in historic urban areas. The authorities set out to elaborate Risk Management Plans as a tool to counteract the problem.

The ‘Institute National du Patrimoine’ is responsible for heritage conservation in Tunisia. It aims to counteract the loss of traditional know-how by establishing a

dedicated centre entrusted with transmitting related knowledge through workshops and drawing together craftsmen and artists.

There are also initiatives led by privates, who are developing conservation projects targeting remarkable buildings in the Tunisian medinas that are consequently devoted to more public functions and so invested with a civic character.

Ms May Shaer, Chief of the Arab States Unit, UNESCO World Heritage Centre

Ms May Shaer saluted the event, stressing how the focus pinpoints some key topics and issues affecting World Heritage sites in the Arab States region, as highlighted in the Periodic Reporting exercise. Specifically, these consist of urban development pressures, climate change-related issues, and a shared endorsement towards greater adoption of the HUL Approach as a tool for Sustainable Development. Lastly, the Arab States Unit team reiterated their commitment to supporting Member States and site managers in implementing their initiatives.

Discussion

“Do you have any suggestion on how to mobilise people in implementing the HUL Approach locally and broadly on how to raise awareness on its principles?”

Ms Hamida Rhouma, National Focal Point (Tunisia)

It remains crucial to involve the local population in the decision-making process. Therefore, it is necessary to develop socio-economic studies concerning the current needs, aspirations, and perspectives on the people’s heritage. A participatory approach, advanced to understanding the critical spheres of actions to be developed on-site, can also increase the youth’s dynamism.

Historic settlements in Tunisia are characterised by a solid associative fabric which can endorse the awareness raising of the local population towards heritage preservation and social cohesion building. The country, in the framework of a public-private partnership, is investing in heritage valorisation efforts and aiming to develop a socio-economic study of the residents of World Heritage cities as part of the renovation of the management plans. The Medina of Tunis is a pilot project supported by the World Heritage Fund, which is set to be applied to other cities.

Mr Ibrahim M. Alkayyat, “Historic Jeddah, the Gate to Makkah” (Saudi Arabia)

Opportunities exist to raise awareness of the population towards urban heritage protection and management, especially by taking advantage of digital means. Some initiatives in Jeddah consisted of film festivals in the old city, promoting youth towards healthy lifestyles and art fairs. Cultural and art centres can serve as mediums to facilitate awareness-raising campaigns.

Mr Abdelouahb Zekagh, “Kasbah of Algiers” (Algeria)

The M’Zab Valley is characterised by earthen architecture, while the Kasbah of Algiers features more rigid construction materials. In Algeria, CAPTERRE, a Centre for Earthen Built Heritage, is responsible for delivering courses related to traditional building techniques and organising restoration activities.

In 2018, following an international meeting, some grassroots community-led activities were advanced and proposed restoration and small-scale urban amelioration efforts in the contest of the Kasbah of Algiers. The project was carried out by students of fine arts and architecture schools in collaboration with the residents to enliven the heritage areas and, at the same time, raise the awareness of youth through hands-on conservation activities.

Reference Materials : [CAPTERRE - Le Centre Algérien du Patrimoine Culturel Bâti en Terre](#)

Closing remarks

In the closing remarks, the Deputy Director outlined the ongoing commitment of UNESCO and the World Heritage Cities Programme to support and collaborate with the cities, addressing the specific challenges of the Arab States Region.

As part of the initiative, Dr Jyoti Hosagrahar reiterated the invitation to join the HUL Call for Action and the upcoming World Heritage City Labs, organised by the World Heritage Cities Programme as follow-up events of the 10th Anniversary of the HUL Recommendation contributing to its implementation.

Participants (By country, in alphabetical order)

Participants in Asia and Pacific Region

India

- Wildlife Institute of India (WII) - Category 2 Centre on World Natural Heritage Management and Training for Asia and the Pacific Region.

Malaysia

- Ms Ang Ming Chee – General Manager of George Town World Heritage Incorporated and the site manager of the World Heritage property “Melaka and George Town, Historic Cities of the Straits of Malacca”.

Nepal

- Ms Nilima Thapa Shrestha – Architect and urban planner at the City Planning Commission, Kathmandu Metropolitan City (KMC) - World Heritage property: “Kathmandu Valley”.

UNESCO

- Mr Jawad Aziz – Cultural Program Specialist, UNESCO National Office to Pakistan (UNESCO Islamabad)
- Ms Carole Idczak – Associate Programme Specialist, UNESCO National Office to Cambodia (UNESCO Phnom Penh)
- Ms Jyoti Hosagrahar – Deputy Director, World Heritage Centre, Culture Sector
- Ms Carlota Marijuán Rodríguez – Programme Assistant, World Heritage Cities Programme, World Heritage Centre, Culture Sector
- Mr Giacomo Martinis – Intern, World Heritage Cities Programme, World Heritage Centre, Culture Sector.
- Mr Masanori Nagaoka – Culture Programme Officer, UNESCO National Office to Cambodia (UNESCO Phnom Penh)
- Ms Nipuna Shrestha – Programme Coordinator for Culture, UNESCO National Office to Nepal (UNESCO Kathmandu)
- Ms Tharmila Vigneswaranathan – Programme Assistant, World Heritage Cities Programme, World Heritage Centre, Culture Sector.
- Ms Alba Zamarbide – Associate Programme Officer, World Heritage Cities Programme, World Heritage Centre, Culture Sector.

Participants in Europe and North America

Albania

- Ms Luciana Zanati – World Heritage property: “Historic Centres of Berat and Gjirokastra.”

Austria

- Mr Alexander Würfl – World Heritage property: “Historic Centre of the City of Salzburg.”
- Mr Rudolf Zunke – World Heritage property: “Historic Centre of Vienna.”

Azerbaijan

- Mr Elsevar Mammadov – National Focal Point for World Heritage.

Belgium

- Ms Iris Kockelbergh – World Heritage property: “Plantin-Moretus House-Workshops-Museum Complex.”
- Ms Paula Cordeiro – World Heritage property: “La Grand-Place, Brussels.”

Canada

- Mr Jo-Anick Proulx – World Heritage property: “Historic District of Old Québec.”

Croatia

- Mr Radoslav Bužančić – World Heritage property: “Historical Complex of Split with the Palace of Diocletian.”

France

- Ms Manon Espinasse – World Heritage property: “Bordeaux, Port of the Moon.”
- Ms Severine Routel – World Heritage property: “Le Havre, the City Rebuilt by Auguste Perret.”
- Ms Véronique Bonneau-Contremoulins – World Heritage property: “Le Havre, the City Rebuilt by Auguste Perret”

Germany

- Ms Christine Bauer – World Heritage property: “Mines of Rammelsberg, Historic Town of Goslar and Upper Harz Water Management System.”
- Ms Patricia Alberth – World Heritage property: “Town of Bamberg.”

- Ms Katrin Kaltschmidt – World Heritage property: "Collegiate Church, Castle and Old Town of Quedlinburg."

Hungary

- Ms Alexandra Bodnar – World Heritage property: "Budapest, including the Banks of the Danube, the Buda Castle Quarter and Andrassy Avenue."

Italy

- Mr Carlo Francini – World Heritage property: "Historical Centre of Florence."
- Ms Luana Alessandrini – World Heritage property: "Historic Centre of Urbino."
- Ms Monica Bedini and Ms Elisa Parisi – World Heritage property "Mantua and Sabbioneta"
- Ms Ingrid Veneroso – representant of the Italian Association of World Heritage sites

Latvia

- Mr Aigars Kušķis – World Heritage property: "Historic Centre of Riga."

Lithuania

- Mr Gedikminas Rutkauskas – World Heritage property: "Vilnius Historic Centre"

Luxembourg

- Mr Robert L. Philippart – World Heritage property: "City of Luxembourg: its Old Quarters and Fortifications."
- Mr Robert L. Philippart – World Heritage property: "City of Luxembourg: its Old Quarters and Fortifications."

Norway

- Ms Hege Agathe Bakke-Alisøy – World Heritage property: "Bryggen"

Portugal

- Ms Margarida Guimarães – World Heritage property: "Historic Centre of Oporto, Luiz I Bridge, and Monastery of Serra do Pilar"

- Ms Sara Abreu – World Heritage property: "Historic Centre of Oporto, Luiz I Bridge, and Monastery of Serra do Pilar."

San Marino

- Ms Marta Stacchini – World Heritage property: "San Marino Historical Centre and Mount Titano."

Spain

- Ms Rosa Ruiz Entrecanales – World Heritage property: "Old Town of Ávila with its Extra-Muros Churches."
- Ms Rocío Sarmiento Jiménez – World Heritage property: "University and Historic Precinct of Alcalá de Henares"

Sweden

- Ms Erica Duvensjö – World Heritage property: "Church Town of Gammelstad, Luleå."

UNESCO

- Ms Jyoti Hosagrahar, Deputy Director, World Heritage Centre, Culture Sector.
- Ms Irena Caquet – Programme Specialist, Europe and North America Unit, World Heritage Centre, Culture Sector.
- Ms Alba Zamarbide – Associate Programme Officer, World Heritage Cities Programme, World Heritage Centre, Culture Sector.
- Ms Tharmila Vigneswaranathan – Programme Assistant, World Heritage Cities Programme, World Heritage Centre, Culture Sector.
- Ms Carlota Marijuán Rodríguez – Programme Assistant, World Heritage Cities Programme, World Heritage Centre, Culture Sector.
- Mr Giacomo Martinis – Intern, World Heritage Cities Programme, World Heritage Centre, Culture Sector.

Participants Latin America and the Caribbean

Belize

- Ms Sylvia Batty – National Focal Point for World Heritage.

Dominican Republic

- Ms Jessica González Vargas – National Focal Point for World Heritage
- Ms Mauricia Dominguez – World Heritage property: "Ciudad colonial de Santo Domingo."

Ecuador

- Mr Juan Diego Badillo – National Focal Point for World Heritage.

Guatemala

- Mr Norman Muñoz Urizar – World Heritage property: “Antigua Guatemala”

Mexico

- Mr Francisco Vidargas – National Focal Point for World Heritage.
- Mr Joel Perea – World Heritage property: “Zona de monumentos históricos de Querétaro”
- Mr Luis Alejandro Morales Rodriguez – World Heritage property: “Zona de monumentos históricos de Querétaro”
- Mr Rodrigo Sainz Lara – World Heritage property: “Camino Real de Tierra Adentro”

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- Ms Jyoti Hosagrahar, Deputy Director of World Heritage Centre.
- Ms Carlota Marijuán Rodríguez – Programme Assistant, World Heritage Cities Programme.
- Mr Giacomo Martinis – Intern, World Heritage Cities Programme.
- Ms Tharmila Vigneswaranathan – Programme Assistant, World Heritage Cities Programme.
- Mr Mauro Rosi, Chief of the Latin America and the Caribbean Unit, World Heritage Centre.
- Ms Olga Rufins Machin – Culture Programme Officer, UNESCO National Office to Cuba (UNESCO Havana)
- Ms Brigitte Sartre – Secretary the Latin America and the Caribbean Unit, World Heritage Centre.
- Ms Alba Zamarbide – Associate Programme Officer, World Heritage Cities Programme.

Participants, Africa

Cabo Verde

- Mr Claudio Ramos – World Heritage property: “Cidade Velha.”

Eritrea

- Mr Medhanie T. Maryam – World Heritage property: “Asmara: A Modernist African City.”

Mali

- Mr Ben Essayouti El-Boukhari – World Heritage property: “Timbuktu”

Senegal

- Mr Eloi Coly – World Heritage property: “Island of Gorée.”

- Mr Mahécor Diouf – World Heritage property: “Saloum Delta”
- Mr Moustaph Ndiaye – World Heritage property: “Island of Saint-Louis.”

South Africa

- Mr Nomcebo Kunene – World Heritage property: “Barbeton Makhonjwa Mountains.”

Kenya

- Mr Mohammed Ali Mwenje – World Heritage property: “Lamu Old Town.”

Mauritius

- Mr Gaétan Siew, Special Envoy for UN-HABITAT

UNESCO

- Ms Jyoti Hosagrahar, Deputy Director of the World Heritage Centre.
- Ms Guiomar Alonso Cano – Culture Programme Specialist. Field Office Dakar, Senegal.
- Ms Alyssa Barry – Assistant Project Officer, World Heritage Centre, Africa Unit.
- Mr Ali Daou – Culture Programme Officer, UNESCO Office Bamako, Mali.
- Ms Anne Lemaistre – Chief of Office, UNESCO Office Abidjan, Cote d’Ivoire.
- Ms Carlota Marijuán Rodríguez – Programme Assistant, World Heritage Cities Programme.
- Mr Giacomo Martinis – Intern, World Heritage Cities Programme.
- Ms Karalyn Monteil – Project Officer for Culture, UNESCO Office Nairobi, Kenya.
- Ms Tharmila Vigneswaranathan – Programme Assistant, World Heritage Cities Programme.
- Ms Alba Zamarbide – Associate Programme Officer, World Heritage Cities Programme.

Participants, Arab States

Algeria

- Mr Abdelouahb Zekagh, – World Heritage site: “Kasbah of Algiers.”

Bahrain

- Ms Miray Hasaltun Wosinski, Secretary of ICOMOS, Bahrein.

Morocco

World Heritage City Dialogues

The Dialogues have allowed the World Heritage Centre, Focal Points, and site managers to inform each other about their planned and ongoing activities, discuss current challenges and accomplishments, address transversal topics, and explore specific areas for cooperation. Experiences shared by participants to the Dialogues have also allowed to spot innovative practices in the field and encouraged inter-city cooperation.

The Dialogues have thus proved to be a valuable tool to reinforce the messages of the 1972 UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention), the approach of the 2011 UNESCO Recommendation on the Historic Urban Landscape (HUL Recommendation) and the UN 2030 Agenda for Sustainable Development.

