

## **Living Heritage in a Changing Climate: Challenges, Solutions and Opportunities**

**Dr William P. Megarry**

### **Introduction**

This paper will discuss the important topics of climate change and living heritage. This is a very relevant and timely subject. When delivered in October 2021, the leaders of nearly 200 countries were meeting in Glasgow for the 26th conference of parties (COP) where they will attempt to find consensus on meaningful climate action. Since then, the 27th COP has met and concluded in Egypt. It can be hard not to be somewhat skeptical about what are achieved at these events as discussions are increasing focused on what richer countries must sacrifice. But like many others who heard world leaders from the global south and small island developing states (SIDS), it was hard not to be moved by their lived experience of climate change and its impacts on daily life in many parts of the world. Many of these responses did not refer to economic impacts or nationally defined contributions. Rather, they focused on the loss of identity and culture as people's homes are inundated by rising waters. Places which anchor them to this planet, ironically being set afloat.

And so, culture is at the heart of this topic and living culture and this paper will explore some of the ways it intersects with the climate crisis. The symposium is exploring how climate change will affect understanding, assessing and managing places directly or tangibly associated with events, or living traditions with ideas or beliefs and artistic and literary works? This relates to the operational guidelines of the World Heritage Convention which describes these as being directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.

### **Climate Change and Heritage: An Overview**

Before diving deeper into specifics, it is worth reviewing existing references to heritage (and living heritage in particular) in current drivers in both climate and heritage policy. There is much talk this week about implementing the **Paris Agreement**, but it may come as some surprise that this Agreement does include a reference to what we may call 'living heritage' in Article 7.5. This stresses the need for adaptation "*guided by the best available science and, as appropriate, traditional knowledge, the knowledge of indigenous peoples and local knowledge systems*". Many readers will rightly challenge this division between knowledge systems, yet it is an important inclusion which has been reflected in every ICOMOS declaration since including, most recently, the 2020 Climate and Ecological Emergency declaration. This stresses the value and centrality of heritage – both tangible and intangible - in climate action. It also noted the importance of solidarity, meaningful engagement, equity and climate justice when working with indigenous communities, vulnerable and frontline groups.

Within the heritage sector and ICOMOS, the Climate Change and Cultural Heritage Working Group (later named as Climate Action Working Group) was established in 2016 to directly input into heritage policy on climate change; specifically, to provide inputs into the update of the Policy Document on the Impacts of Climate Change on World Heritage Sites. This process remains ongoing. Perhaps the most important driver for us within the ICOMOS community was the **Future of Our Pasts** report. Released in 2018, this is the widest ranging study of cultural heritage and climate change in existence. It has over 30 authors and was peer-reviewed by over 100 experts and organisations. It began from the premise that



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culture is uniquely suited to communicate about climate change, and that it is an underused asset in our global response to it.

### **Climate Change and Living Heritage**

The *Future of Our Pasts* report explored the intersections between cultural heritage and climate change and – unsurprisingly – living heritage is a common topic throughout. The report is built around four key, and a range of cross-cutting, themes. Key themes are shown on the slide and include two very large areas: adaptation, which is described by the IPCC as “*The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects*”, and mitigation which, in climate science refers solely to human interventions to reduce the sources or enhance the sinks of greenhouse gases.



Figure 1. Traditional architecture on the Island of Majuli in Assam, India © W. Megarry, 2017

Examples of both from living and intangible heritage are many including the importance of traditional knowledge systems for biodiversity management or building techniques which result in structures which stay warm and cool, mitigating carbon. Adaptation strategies include examples of historical water management in The Netherlands and architectural adaptations from places like Majuli, a river island in Northeast India which lives with regular flooding during the monsoon season (Figure 1). These topics deserve papers in-their-own-right, so the focus here is on the remaining two themes: impacts and vulnerability, and stressing urgency or climate communication. This will be done through the lens of two recent projects by members of the ICOMOS Working Group. These are the Values-Based Climate Change Risk Assessment: Piloting the Climate Vulnerability Index for Cultural Heritage in Africa (CVI Africa) Project and The Heritage on the Edge Project.

### **Climate Change, Living Heritage, and Assessing Vulnerability**

Much ink has been spilled on the topic of vulnerability of heritage sites, and rightly so, but these have tended to focus on hazards and impacts to extant build and monumental



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heritage. Examples of well publicized sites-at-risk include the iconic Moai of Rapa Nui or the city of Venice in Italy. In a minority of other cases, the focus is on archaeology, both extant and subsurface and impacts to this are particularly acute in coastal areas. But things get some complex when it comes to impacts on ‘living’ heritage. One example of this are cultural landscapes and, continual or associative cultural landscapes in particular. These are described in Article 10 of the *Operational Guidelines for the Implementation of the World Heritage Convention* as, “*landscapes on the World Heritage List... justifiable by virtue of the powerful religious, artistic or cultural associations of the natural element rather than material cultural evidence, which may be insignificant or even absent*”. In these cases, a lack of impacts to anthropogenic physical elements can make understanding vulnerability more challenging. Landscapes are dynamic systems where culture and nature interact. This is a complex dynamic. As the American geographer Carl Sauer noted, culture is often seen as the agent which transformed the natural landscape into the cultural one. But this dynamic is far more nuanced and reciprocal, and climate change illustrates this complexity. It also makes assessing the impacts to and the vulnerability of these places much harder.



Figure 2. Bangaan Village in the Rice Terraces of the Philippine Cordilleras World Heritage property  
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A particularly complex dynamic is found where landscape, community and production are entwined. Examples include World Heritage (WH) properties like the Coffee Cultural Landscape of Colombia, the Rice Terraces of the Philippine Cordilleras (Figure 2) and the Champagne Hillsides, Houses and Cellars of France. These are all landscapes where production aligns with living traditions, and they are some of the most vulnerable to changing climates. Having evolved within specific climates, changes can be acutely felt. The 2019 State of Conservation report for the Champaign Hillsides noted potential impacts on both the quality and quantity of the wine, but also on long established cultivation practices. To make a difficult situation worse, adaptation is particularly difficult in these

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cases where changing climates can render entire crops and traditions associated with harvesting and production irrelevant. These intangible traditions are often what are lost when communities are impacted by climate change. While climate hazards like temperature change, coastal erosion, increased precipitation, and flooding may erode the mortar and build fabric of extant heritage, they also threaten the traditions and customs which act as a social mortar for communities. These impacts are noted in the 2019 *Future of Our Pasts* report which was published by the Working Group. This contains a table which records impacts on various aspects of our cultural heritage from different hazards. In all hazard cases, the combined number of impacts on communities and intangible cultural heritage outnumber other heritage categories like archaeology, buildings, and structures, and this is before secondary impacts like climate migration or economic factors are considered. To be clear: there is no protective wall tall enough to reduce this impact and these landscapes risk losing both their outstanding universal value and their wider social, community and economic values through no fault of their own and with little ability to respond.

### Case Study: The CVI Africa Project

So, how can we understand the vulnerability of ‘living heritage’? Reflecting the *Burra Charter*, it must start with the values which make these places and traditions significant. Over the last five year, the ICOMOS working group has been working with partners from Australia, Scotland and, more recently Tanzania and Nigeria to explore the utility of a tool

called the climate vulnerability index (CVI), specifically to cultural heritage World Heritage properties. The CVI is a values-drive, science-based and community led technique, ideally suited to assessing impacts and the vulnerability of different types of heritage sites. It was designed as a *rapid* tool which provides an overall assessment or low, moderate, or high, of the vulnerability of World Heritage Sites by initially identifying the unique heritage and socioeconomic values of an individual site, working with the community to identify key values. This often starts with the statement of outstanding universal values (SOUV) but also include socio-economic or spiritual values were not included in the SOUV. It then works with in-country climate scientists to identify potential impacts to these values, balancing these with the adaptive capacities of both the sites and their associated communities to provide an assessment of the vulnerability of the property. Prior to the project, the CVI process has only been applied to sites in Western Europe and Australia, and the CVI Africa project was its first application to properties in Africa.

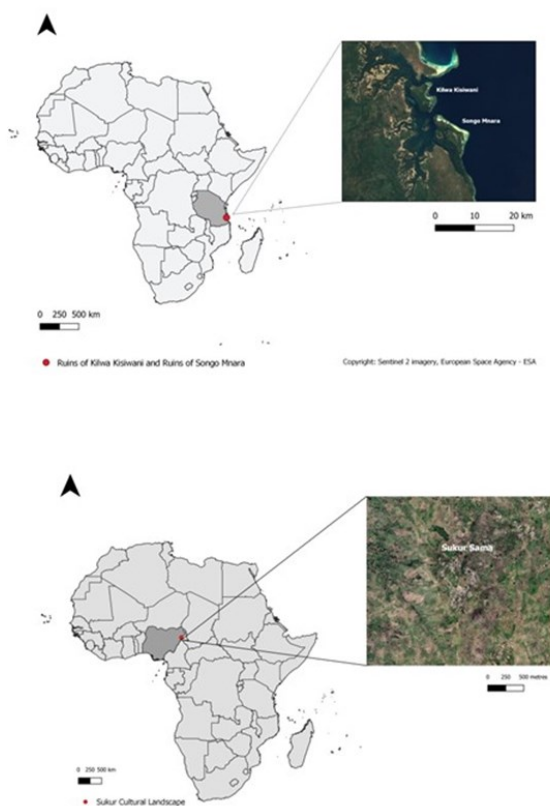


Figure 3. The CVI Africa Project sites: The Ruins of Kilwa Kisiwani and Ruins of Songo Mnara in Tanzania (top), and the Sukur Cultural Landscape (below) © own elaboration

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The project had two parts. Firstly, it provided training a cohort of heritage professionals from across the continent in climate change, cultural heritage and vulnerability. Secondly, working with local stakeholders it ran two workshops at the Ruins of Kilwa Kisiwani and the Ruins of Songo Mnara WH property in Tanzania and at the Sukur cultural landscape in Nigeria (Figure 3). In the latter case, it was the first time that the CVI had been applied to a cultural landscape, especially one with strong intangible cultural elements. At Kilwa Kisiwani, a historic Swahili coastal town, the OUV focus was very much on the built heritage and archaeological deposits, so other significant property values were identified through consultation with the local community. These included living elements including traditions of pilgrimage and ongoing religious activity at some monuments, which were included in the vulnerability assessment. The Statement of outstanding universal value for the Sukur cultural landscape includes reference to past structures, landscape, and contemporary traditions so it is a very good place to start when considering values. Many of these values were intricately associated with the community who continued to live within the site and their presence at the in-person workshop in Yola, Northern Nigeria allowed the CVI process to consider all aspects of cultural and natural significance at the site.

Results from this project indicated that both sites had a moderate to low vulnerability to climate change. This was based primarily on impacts to their OUV and incorporating impacts to community values and living heritage was greatly facilitated when these are including in the SOUV. Climate impacts were also considered alongside the adaptive capacity of the communities to respond to them. This is key when thinking about intangible culture and living traditions who are often highly adaptable to change.

### **Case Study: Heritage on the Edge**

The second them and project explored here is the Future of Our Pasts project which was a collaboration between Cy Ark and Google Arts and Culture between 2018 and 2020. The project aimed to stress urgency and raise awareness about the impacts of climate through the lens of iconic cultural heritage sites, promoting culture as an asset in climate action. This was based on the premise that – for many - the topic of climate change can be overwhelming, and people can very quickly get lost in a forest of scientific terms and doomsday predictions. Heritage is about people and things which are important to people. As such, it humanises the conversation and makes it people centred. It is a lens through which we can understand these wider issues in an accessible and human-centred way. The Heritage on the Edge Project was about using technology, interviews, and narratives to tell stories from iconic heritage sites from around the world, which reflect the wide range of climate impacts and the lived experience of those who live and work in them. The phrase ‘every place has a climate story’ is often used when discussing climate and heritage but it is the Historic Mosque City of Bagerhat in Bangladesh.

The site is a wonderful example of past (and present) climate adaptation. It was built by the Turkish general Ulugh Khan Jahan in the 15th century on the edge of the Sundarbans, a vast riverine Delta in the Bay of Bengal. This was a challenging landscape and from the outset, its designer used materials sympathetic to the landscape and the environment including stone foundations which prevented saline intrusion into the mudbrick architecture. It was inscribed on the World Heritage list in 1985 and continues to be a living site and landscape, central to local and Bangladeshi national identity. As such, the history of the site remains deeply engrained in its present allowing us to explore the intersection between heritage and local values. In this sense, it remains a living heritage site. The issue impacting



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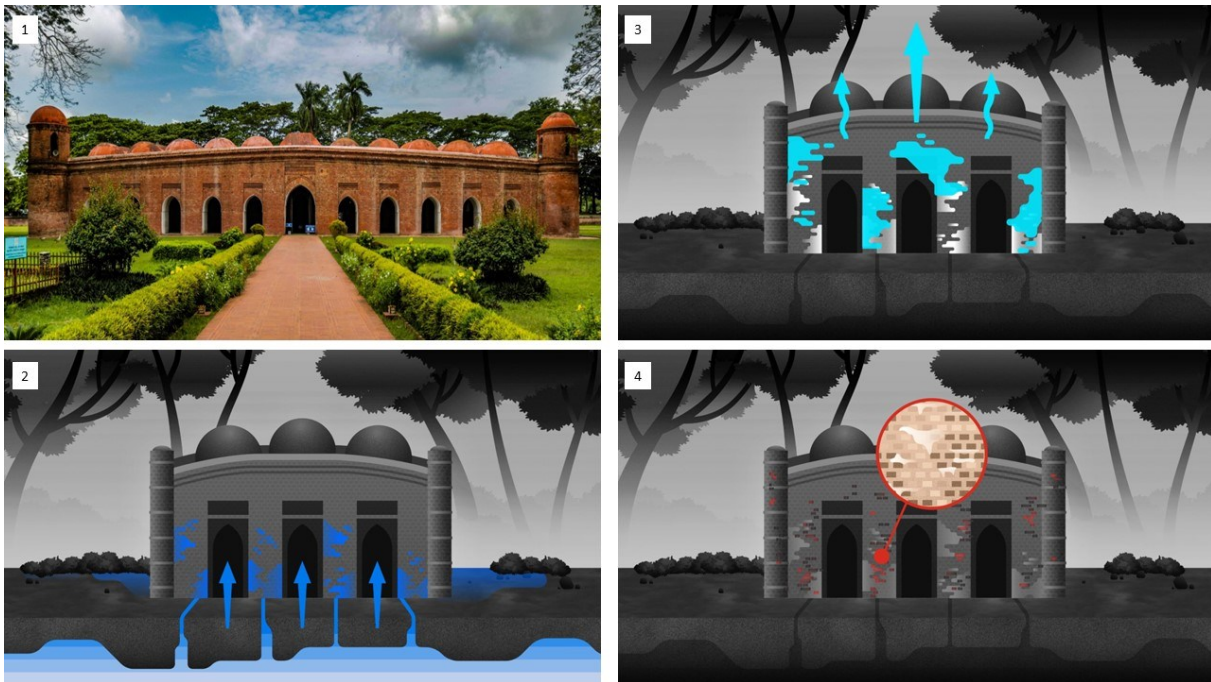


Figure 4. Efflorescence at the Historic Mosque City of Bagerhat. 1) The Sixty Dome Mosque, 2) Infographic showing rising saltwater permeation into brick masonry, 3) Infographic showing water evaporation from structure and, 4) salt on brick masonry © Images from Google Arts and Culture, 2021

Bagerhat is less direct than other climate impacts - rising sea-levels across Bangladesh are resulting in increasing salinity of fresh water. This is having significant health impacts on people. It is also damaging sites like Bagerhat through a process called *efflorescence*, which is a combination of saturation, evaporation, and aridity (Figure 4).

The narrative or story of Bagerhat involved combinations of both past and present elements, and an understanding of the difference values of the site both archaeologically, historically, and socially. The physical site itself is a testimony to past environmental historical adaptation and resilience being situated on the edge of a marginal environment. As a living world heritage site, the climate impacts on the property affect both the physical structures and the surrounding community and these impacts also enable us to explore issues of climate justice which are so important to the climate change narrative. After some of the small island states, Bangladesh represents perhaps the most unfair manifestation of the climate emergency. While they rank only 144th in the world in terms of carbon and greenhouse gas emissions, they are amongst the most vulnerable of countries. The actions of the wealthiest nations - who are best able to adapt to the consequences of climate change – are most acutely felt by countries which are least able to. The Heritage on the Edge attempted to communicate this message through the world heritage site. Through this site, it was possible to communicate these key messages about climate change and its impacts. This was part of the climate story of Bagerhat, but most sites have similar stories to tell.

### Climate Change and Living Heritage: Some Challenges

Before concluding this paper, it is worth exploring some of the challenges facing Living Heritage not from climate change, but from climate action. One of the more complex

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intersections between heritage and climate action is where conflict exists between carbon adaptation or mitigation and heritage. For past heritage, this may be impacts on landscapes from renewable energy schemes like wind or solar farms, but there are also more direct conflicts where living traditions directly contribute to climate change. Examples of this may be the rich industrial heritage – both past and living – which survive in often marginal mining communities in places like the north of England or West Virginia. Living heritages of music and labour which tie communities together are intricately connected to an activity which directly contributes to climate change. An example from Ireland is the conflict visible in the ancient tradition of turf cutting on our bog lands. Bog lands form over thousands of years and are some of the most important carbon sinks in Europe. They are also key to biodiversity and contain an irreplaceable record of landscape and climate history. Yet burning peat is one of the most evocative smells for Irish people and many associate it with memories of turning, stacking and transporting peat from upland landscapes in childhood. How do we balance our need to reduce carbon yet not lose these traditions? Like with build heritage, must we triage some aspects of our living heritage and accept that we cannot save everything? There is no easy answer to this conflict except to propose that decisions are made within wider carbon mitigation strategies which consider community impacts and the potential scale of activities.

### **Conclusion**

In conclusion, the relationship between living heritage and climate change can be both very simple and quite complex. Heritage is both an asset to our response and can be used to stress urgency and communicate the myriad impacts of climate change on sites, peoples and their landscapes. It is also increasingly vulnerable and understanding this vulnerability is key to protecting it. Such assessments need to be values-based, incorporating wider social, spiritual, and economic values, science-driven and community led. Heritage is alive and living things can and do adapt and evolve, sometimes in strange ways. This global health pandemic has shown us that huge changes are possible in a short amount of time, where political will and desire is present. It will take a complete change in mind-set or a cultural-shift, and we must make sure that culture and heritage is at its heart.