

Cultural heritage resources in climate action

Stephanie Shapiro and Sarah Sutton

ABSTRACT

With the climate warming faster now than during any period in human history, every part of society—including the cultural sector—has a responsibility to advance changes that benefit communities now and in the future. Both intangible and tangible cultural heritage play an important role in climate adaptation, mitigation, and resilience activities around the world, and can help mobilize climate action by optimizing connections to people and communities. Cultural heritage climate action applications range from sites providing a safe haven for communities during severe weather, to using artifacts like photographs as proxy indicators of climate change, to developing low- and zero-carbon footprint exhibitions. The authors follow the Talanoa Dialogue, a pattern of exploration and goal setting often used in cooperative planning for climate action. The process begins with “Where are we now?”, then proceeds to “Where do we want to go?”, and concludes with “How are we going to get there? This article outlines the origin, current practice, and future of cultural heritage resources in climate action, and concludes with recommendations for how to reach a place where cultural heritage plays a more significant role in taking and influencing climate action. Globally and nationally, the cultural sector’s footprint is significant. No site can avoid impacts from the changing climate; neither can their communities.

INTRODUCTION

The climate is warming faster now than during any period in human history. This change is driven by humans and is impacting humans—particularly the vulnerable and the least responsible. But it does not have to be that way. Many individuals and organizations across the country and the globe are taking important actions to reduce mismanagement of waste, deforestation, and reliance on burning of fossil fuels to limit the overwhelming impact on the biosphere. Every part of society—including the cultural sector—has a responsibility to advance changes that benefit communities now and in the future. Cultural heritage can help mobilize climate action by optimizing connections to people and communities. Though the challenge at times feels overwhelming, opportunities for the cultural sector to act are numerous and often inspirational. This article outlines the origin, current practice, and future of cultural heritage resources in climate action. It is framed using the Talanoa Dialogue, the discussion platform used during development of the Paris Agreement by the United Nations to summarize “where we are,” identify “where we want to go,” and recommend how to reach a place where cultural heritage plays a more significant role in taking and influencing climate action.

Cultural heritage is defined by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as “artefacts, monuments, a group of buildings and sites, museums that have a diversity of values including symbolic, historic, artistic, aesthetic, ethnological or anthropological, scientific and social significance. It includes tangible heritage (movable, immobile and underwater), intangible cultural heritage embedded into cultural, and natural heritage artefacts, sites or monuments.”¹ Cultural heritage plays an important role in climate adaptation, mitigation, and resilience activities around the world. The breadth of climate action applications ranges from sites providing a

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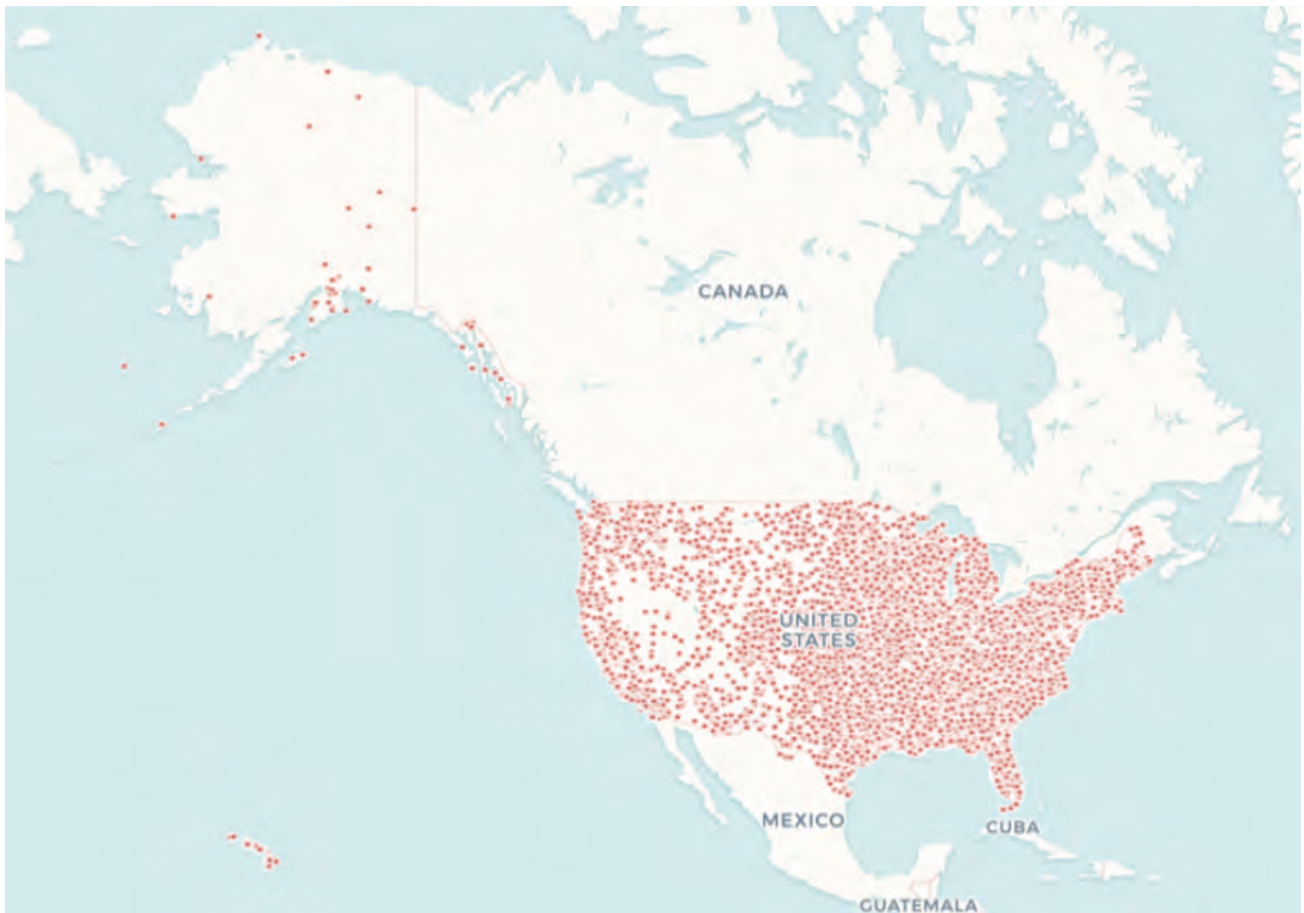
safe haven for communities during severe weather, using artifacts like photographs as proxy indicators of climate change, to developing low- and zero-carbon footprint exhibitions.

Globally and nationally, the cultural sector's footprint is significant. According to UNESCO there were over 104,000 museums worldwide in 2021.² In the US there are reported to be over 35,000 museums.³ This number is supported by the American Association for State and Local History (AASLH) 2022 Census of History Organizations, which identified at least 21,588 history organizations in the US. No site can avoid impacts from the changing climate; neither can their communities nor their residents. The gravity of the situation is called out in the United Nations' Sustainable Development Goal Target 11.4, calling for actions that "strengthen efforts to protect and safeguard the world's cultural and natural heritage."⁴

BACKGROUND: ESTABLISHING AMERICAN AND GLOBAL COALITIONS FOR CULTURAL HERITAGE IN CLIMATE ACTION

The recognition of the value of cultural heritage in climate action has been rising steadily over the last few years thanks to a few cultural heritage professionals and organizations that have been working to get us to this point. Early cultural sector actors include the United Kingdom non-profit *Julie's Bicycle*, which was formed in 2007, and a professional network dedicated to sustainability that was formed by the US American Alliance of Museums in 2008. Ad hoc work by initiatives and organizations continued until a turning point came in 2016 with the formation of the *Coalition of Museums for Climate Justice* in Canada. This was further fueled in 2017 by the Trump administration's decision to withdraw from the Paris Agreement. Civil society in the US responded by creating *We Are Still In*, a coalition pledging active response to climate action, which organizations from the cultural sector began joining in 2018.

The 2022 National Census of History Organizations conducted by AASLH found at least 21,588 history organizations exist in the US. AASLH



That same year the [Climate Heritage Network](#) formed, and foundational publications appeared: *The State of the Art in Stating Risk: Assessment of Climate Vulnerability Assessments for National Park Service Archaeology and Cultural Heritage Resources* and, from the International Council of Museums and Sites (ICOMOS), *The Future of Our Pasts: Engaging Cultural Heritage in Climate Action*. In 2019, the International Council of Museums adopted the 2030 Agenda for Sustainable Development and “Sustainability” as its theme, and a critical worldwide mass of cultural heritage professionals attended that year’s Conference of the Parties (COP25) to the United Nations Framework Convention on Climate Change (UNFCCC). In partnership with the International Institute for Conservation, the Smithsonian Institution hosted the resulting symposium and published *Stemming the Tide: Global Strategies for Sustaining Cultural Heritage through Climate Change* in 2020.

By 2021, cultural heritage’s appearance in climate action had become so substantial that not only did COP26 welcome an expanded participation of cultural heritage professionals, but the next month, in December, the first meeting on cultural heritage and the Paris Agreement took place. One hundred cultural heritage professionals from around the globe came together virtually in a meeting co-sponsored by ICOMOS, the UN Intergovernmental Panel on Climate Change (IPCC), and UNESCO to share how cultural heritage should be included in future reports of the IPCC.

At COP25, US cultural sector organizations assured the world community that they were still in the fight against climate change. Left to right: Stephanie Shapiro (Environment and Culture Partners), Andrew Potts (ICOMOS), Miguel Naranjo (UN Framework Convention on Climate Change), Sarah Sutton (Environment and Culture Partners). [WORLD WILDLIFE FUND](#)



WHERE ARE WE?

In 2022, climate action in the US continues to accelerate at federal, state, tribal, non-profit, and community levels. Yet, even as the prevalence of cultural heritage professionals in climate action has increased exponentially over the past few years, the full impact and importance of their work is overlooked. To rectify this, expanded collaboration and coordination are required.

The Biden-Harris Administration is prioritizing and pursuing climate action in an unprecedented manner and announced that the US was [rejoining the Paris Agreement](#) on President Biden's first day in office. Since then it has encouraged a "whole-of-government approach" to solutions from clean energy generation to [America the Beautiful](#), a land conservation effort. Federal funding and strategies for climate and cultural heritage activities are not new, but they are still limited. With the damaging financial impact of the COVID-19 pandemic, museums and related institutions are hurting; funding to support work, including climate action, is desperately needed. Since the mid-2000s, US granting agencies such as the National Endowment for the Humanities (NEH), Institute of Museum and Library Services (IMLS), and National Endowment for the Arts (NEA) have funded some cultural heritage-climate projects, but with over 35,000 museums in the country, the needs far outpace currently available funds.

Good work is underway, nevertheless. For example, NEH's long-term grant program [Sustaining Cultural Heritage Collections](#) has offered nearly 200 awards to "help cultural repositories plan and implement preservation strategies that pragmatically balance effectiveness, cost, and environmental impact." This initiative prioritizes "sustainable approaches to preservation that contribute to an institution's financial health, reduce its use of fossil fuels, and benefit its green initiatives, while ensuring that collections are well cared for and available for use in humanities."⁵ Through its [Research and Development](#) program, NEH has also supported fundamental research to develop Sustainable Tools in Cultural Heritage (STiCH) through a grant to Foundation for Advancement in Conservation (FAIC) with research partners Northeastern University, Environment and Culture Partners, and the Pratt Institute. STiCH provides a life cycle assessment, carbon calculator, and library of case studies and information sheets for cultural heritage professionals to make educated, sustainable choices to lower the environmental impact of their work. This is a practitioner-focused project that enables users to make informed decisions about their conservation and exhibition practices. A 2020 cooperative agreement between FAIC and NEH also launched [Held In Trust](#), a sector-wide collaborative project to explore the intersection of cultural heritage preservation with issues of urgent importance in the world today impacting the cultural landscape, including sustainability and climate change, in addition to other topics. The Climate Crisis and Environmental Impact Working Group contributed four immediate recommendations to improve climate action: (1) raise awareness of and access to information about climate risk to cultural heritage sites; (2) raise awareness nationally of the degree of commitment and response already underway; (3) bolster that response by identifying the current climate impacts of the sector, beginning with carbon footprints; and (4) support the development of climate action and resilience frameworks to help mitigate impacts on climate and develop resilience within the sector. These and recommendations from eight more working groups will be announced at the 2023 National Convening in Washington, DC.

The National Park Service (NPS) has pursued related, national-level activities, and professional training for heritage professionals and NPS personnel continues to expand. In 2016, NPS published [Cultural Resources Climate Change Strategy](#) as part of its [2010 Climate Change Response Strategy](#). The *Cultural Resources Climate Change Strategy* "sets out a vision and broad approach for managing impacts to and learning from cultural resources under modern climate change".⁶ In addition, NPS provides resources and manages programs sharing how it is responding to climate change at national parks, which cultural heritage professionals can use at their sites. Examples include: [stories](#) about how NPS is responding to the impact of climate change at national parks; the [Vanishing Treasures Program](#), which helps "to develop and implement proactive historic preservation founded in science and research through the delivery of expert technical assistance and training" in the Western US; and

The Biden-Harris Administration is prioritizing and pursuing climate action in an unprecedented manner.

the 2021 publications *Guidelines on Flood Adaptation for Rehabilitating Historic Buildings* and *Planning for a Changing Climate: Climate-Smart Planning and Management in the National Park Service*.

For Native communities, climate change is impacting their ecosystems, food, and traditions—cumulatively, both their tangible and intangible cultural heritage. Funding, training, technical assistance, resources, and programs are available from the *NPS State, Tribal and Local Plans & Grants* division, the *Bureau of Indian Affairs (BIA) Branch of Tribal Climate Resilience*, and the *Northern Arizona University Institute of Tribal Environmental Professionals (ITEP)*. The *Tribal Resilience Resource Guide* includes *Guidelines for Considering Traditional Knowledges (TKs) in Climate Change Initiatives*, developed by the Climate and Traditional Knowledges Workgroup. The publication is meant to “examine the significance of TKs in relation to climate change and the potential risks to indigenous peoples in the U.S. for sharing TKs in federal and other non-indigenous climate change initiatives”.⁸ The ITEP Status of Tribes and Climate Change (STACC) Working Group published *The Status of Tribes and Climate Change Report* in August 2021, which includes a chapter on cultural resources and states: “Appropriate consideration of Tribal cultures, values, traditions, histories, stories, and practices is a vital component of climate change adaptation and mitigation planning.”⁹ The ITEP *Adaptation Planning Tool Kit* includes “Cultural Resources and Traditions” as part of its *Adaptation Planning Spreadsheet*. The BIA’s *National Climate Assessment – Indigenous People’s Resilience Actions* map shows examples of climate action Indigenous people are taking across sectors such as cultural resources and water supply and quality.

“A changing climate presents an existential threat to our shared heritage; however, it also presents an opportunity for communities and cultural institutions to work together for solutions.”

— Tatiana Ausema, senior program officer, NEH Office of Challenge Programs

At the state level, the California Department of Parks and Recreation Cultural Resources Division and Office of Historic Preservation provide resources for climate action. Resources include disaster preparedness, response, and recovery strategies and assistance. The California Cultural Resources Climate Change Task Force, formed as a result of the 2018 Global Climate Action Summit, is developing a *Cultural Resources Climate Change Strategic Plan* that will include information on how to develop solutions in collaboration with the California state historic preservation officer and California Native American Tribes.¹⁰ Similarly, the Maine Historic Preservation Commission has developed a *Historic Properties Toolkit* consisting of climate adaptation planning resources, including an interactive map, *Weathering Maine*, showing Maine’s historic and cultural resources with an overlap of environmental threats like floods and storm surge. In 2018, the Maryland Historical Trust and city of Annapolis developed a project called Weather It Together, which focused on building resilience to sea level rise. This resulted in the addition of the chapter “Historic Preservation & Emergency Management” to its *Flood Mitigation Guide for Maryland’s Historic Buildings* thanks to support from the NPS Hurricane Sandy Disaster Relief Fund.

A “whole-of-society” approach and commitment to climate action is vital. For such a complex problem impacting multiple systems, no one entity and no single part of society can be expected to create sufficient change. Every aspect of global culture must turn toward this effort. This shift is evident with growth in private non-profit associations, in small and large museums, and in the commitment of informed and inspired individuals.

In the non-profit space, the Climate Heritage Network (CHN) formed out of the Global Climate Action Summit of 2018 as a voluntary membership organization “committed to aiding their jurisdictions in tackling climate change and achieving the ambitions of the Paris Agreement.”¹¹ CHN developed the *Madrid-to-Glasgow Arts, Culture, and Heritage Climate Action Plan* outlining how arts, culture, and heritage should “mobilize for climate action.” Eight working groups developed and implemented scalable solutions, which were presented at the UNFCCC COP26 in Glasgow. Some of these solutions turned into resources, such as the “*Cultural Heritage in Climate Planning: HiCLIP Pilot Project for Understanding the Integration of Culture into Climate Action*” and “*Models of Supporting*

Climate Action by Local Communities and Indigenous Peoples.” CHN has collaborated with other institutions and cultural heritage organizations, such as Historic Scotland, and has increased the presence of cultural heritage at COPs due to the network’s extensive international membership. Additionally, the National Trust for Historic Preservation (NTHP) includes “Climate Resilience” as one of its seven goals in its “crowdsourced framework for action,” *Leading the Change Together*. NTHP also offers **climate action resources** and provided an inaugural round of climate action grants to National Trust Historic Sites in 2021. Also in 2021, in Massachusetts, the **Boston Green Ribbon Commission’s Collaborative Climate Action Planning program** hosted a cohort of ten cultural institutions. Together over the next year, the institutions developed climate action plans that aligned to the climate goals of the city of Boston. A new cohort of cultural institutions plans to start doing the same in summer 2022.

The work continues in community settings as well. In New Hampshire, Strawberry Banke Museum has worked with the city of Portsmouth since 2013 to determine how sea level rise will impact the city and prepare for the consequences. In 2021, the exhibit *Water Has a Memory: Preserving Strawberry Banke & Portsmouth from Sea Level Rise* opened to the public to share how the city and museum are working together on mitigation strategies. In Washington, DC, the Smithsonian’s Anacostia Community Museum has created **Urban Waterways**, a research and educational initiative that examines the relationship between the District of Columbia and the Anacostia River. The Anacostia River watershed serves over 1 million people in the District of Columbia and parts of Maryland, but few see the landscape as a watershed. This is changing because of physical projects like a stormwater management construction and raised bed vegetable gardens that are part of public programming, and virtual projects such as a **story telling of the Anacostia’s resilience**.

Infill flooding during high tide at the Strawberry Banke Museum in Portsmouth, New Hampshire. STRAWBERRY BANKE MUSEUM



WHERE DO WE WANT TO GO?

These are only a few examples of the cultural sector taking initiative on climate action. They range from a small, individual institution to whole communities and national and global networks. The focus, however, is primarily on *mitigation*, the reduction of harmful impacts on the environment. The role of the cultural heritage sector in *adapting* to climate change and becoming *resilient* in the face of a changing climate—even more importantly, strengthening their communities facing climate change—is what needs to be enhanced now.

At the global and national levels, it is vital that cultural heritage be seen as an ally and its value incorporated when countries make decisions to invest time, money, and hope in climate action. This means intentionally, proactively engaging cultural heritage professionals in ways that optimize the potential of their sites for mitigation and adaptation in a practical sense, and for their value in resilience—physically for their landscapes and structures, and emotionally for their roles as beacons of identity and heritage. There must be a coordinated, systems-thinking, and collective approach in which culture is included in decisions with other sectors like business or higher education. For example, a city designing its climate resilience strategy should include the open space at a public garden as part of its stormwater infrastructure investment plan. A college or university can pair its humanities and environmental departments with museum staff for student opportunities to create public engagement programs and exhibits to help the community understand the impacts of climate change. Such impacts are different in every locale, but everyone experiences them in some way. We must help each other manage and prepare for them, and cultural heritage solutions offer scalable solutions.

HOW DO WE GET THERE AND WHAT DO WE NEED?

As public-serving institutions, the heart of cultural sector organizations is to benefit people and communities. The cumulative climate work of these institutions is laudable, and individually they are making an impact, but to truly move forward there must be much, much more. Recommendations for doing this work are as follows.

- 1. Overall:** Include cultural stewards in planning, design, and decision-making activities related to climate action at all levels. Communities will benefit when tangible and intangible cultural heritage aspects are considered in climate adaptation, mitigation, and resilience work.
- 2. Global:** Include cultural heritage in IPCC reports so nations can protect cultural heritage while maximizing its contributions to resilience. This would demonstrate the success stories of the sector and also demonstrate opportunities for collaboration with other sectors usually included in the reports. So far, cultural heritage has been included only in the IPCC–ICOMOS–UNESCO Co-Sponsored Meeting on Cultural Heritage and Climate Change, and the benefits of inclusion have not been fully communicated.
- 3. US leadership:** Appoint a culture secretary to coordinate climate action–cultural heritage work at the federal level by forming an intergovernmental working group on cultural heritage. The working group could include representatives from the Advisory Council on Historic Preservation, BIA, IMLS, NEA, NEH, NPS, and the Smithsonian Institution. The working group’s charge could include collaborative development and coordinated dissemination of climate action resources for *and with* cultural heritage professionals and sites in a true whole-of-society partnership.

“The ubiquity of history organizations in the United States means they are affected in some way nearly every time a severe weather event or natural disaster occurs, placing invaluable pieces of the nation’s cultural heritage at risk. At the same time, however, the widespread presence of history organizations in communities across the country makes them uniquely positioned to contribute meaningfully to climate action.”

*— John Garrison Marks, Director,
AASLH Public History Research Lab*

4. **Agency and private funding:** Provide additional funding directly to cultural institutions for cultural heritage climate work. Though federal funds are available through grant programs such as those of IMLS and NEH, institutions need immediate, direct funds to do work. The Department of Energy and the Environmental Protection Agency as well as the Department of the Interior should expand eligibility and criteria that take advantage of cultural heritage sites for fulfilling their goals. Private foundations and businesses should consider funding cultural institutions directly. The Helen Frankenthaler Foundation **Frankenthaler Climate Initiative** is a successful model: \$10 million was pledged to visual arts institutions and schools for clean energy generation and energy efficiency projects during 2021–2023. Of this, \$5.1 million was awarded to 79 institutions in the inaugural cycle. A second round of funding has just been completed, with \$3 million going to 48 institutions.

We can talk about climate change, not as a controversy or a question, but as reality, a shared responsibility, and something we are capable of affecting now just as we have already.

CONCLUSION

But what can each of us do, now, as we and our friends and allies work to implement the aspirations described above? We can do the work where we are. We can talk about climate change, not as a controversy or a question, but as reality, a shared responsibility, and something we are capable of affecting now just as we have already. And we can model positive action. We can advocate for our sites and the places important to us. We can help others recognize how important heritage is to them and how at risk it really is, and then we can show them how to join us in making a difference. That difference can be in your city, as part of a larger non-profit, and as a citizen diplomat when you travel. Cultural heritage cannot advocate for itself, but we who know the wonder and joy of heritage can speak and do on its behalf.

ENDNOTES

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2. UNESCO 2021: 53.
3. IMLS 2014.
4. United Nations General Assembly 2017: 15.
5. National Endowment for the Humanities 2022.
6. Rockman et al. 2016: 1.
7. NPS 2015.
8. CTKW 2014: i.
9. STACC Working Group 2021: 219.
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On the cover of this issue

Climate change creates conditions conducive to larger, more frequent fires, particularly in the American West. As a result, historic structures and artifacts are at greater risk of fire damage. The Bent's Fort Fire started on the morning of April 12, 2022. Approximately 85% of the national historic site's 800 acres burned. Thanks to the efforts of fire crews, the reconstructed adobe fort was undamaged. | [NATIONAL PARK SERVICE](#)