

Planning for Permanent Emergency: “Triage” as a Strategy for Managing Cultural Resources threatened by Climate Change

Michelle L. Berenfeld

ONE HUNDRED YEARS FROM NOW, THE WORLD WILL LOOK VERY DIFFERENT. The changes humans have made to the planet in the nearly 100 years since the establishment of the National Park Service (NPS) will seem minor in comparison to the changes to come. By the time the next NPS Centennial Essay series appears, the Earth will be 2–4 degrees Celsius (4–11 degrees Fahrenheit) warmer, with some 0.25m higher sea levels, fewer plant and animal species, and perhaps two billion more human beings.¹ The centennial of America’s “best idea” is as good a time as any to think seriously about what the parks will look like at their *bicentennial* and what we can do now to assure that they have one.

It is perhaps surprising that those of us charged with protecting the past are rarely prepared to seriously consider the future beyond the next few years or, at best, our own lifetimes. This has always been a problem—cultural heritage management usually relies on limited and short-term funding and, particularly in the case of the national parks, the short time horizons of politics. Most cultural heritage interventions, when considered within the time-scale of historic sites and landscapes, are conceived of in woefully short terms. The impacts of climate change, however, make these tendencies even more dangerous, and, if they continue, will lead to catastrophic losses in an unacceptably short period of time. While not everything can or should be preserved for centuries or millennia, the NPS must consider how sites will fare in the next century and beyond.

NPS is part of an international community of cultural heritage organizations tasked with protecting, preserving, and presenting historic sites and landscapes for the future. Organiza-

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tions around the world—ranging from the global in scope, such as the World Heritage Centre, to national trusts and ministries of culture, to local organizations and non-governmental organizations (NGOs—form an international cultural heritage community that is grappling with the challenge of responding to the scope and scale of climate change.² Success will require radical shifts in perspective and methods—including prioritizing some sites over others, accepting and even advocating for loss, and planning for long-term, ongoing, radical change.

NPS faces all of these challenges, but it is also uniquely positioned to serve as a model for other organizations dealing with climate change impacts on cultural heritage. There are several reasons for this. First, NPS is in a position to manage cultural resources at the national scale, and, therefore, in theory at least, to establish priorities that reflect a national perspective. Second, NPS oversees both cultural and natural sites, which should allow the organization to take an integrated approach that considers how cultural resources—and the actions taken to preserve them—impact natural resources and vice versa. Finally, the National Park Service is a widely respected, even beloved, institution that speaks directly to millions of people each year and therefore could profoundly impact public opinion and understanding of climate change and its impacts.³

Nevertheless, NPS will still have to adapt its approach to the preservation of cultural heritage sites to respond to the significant challenges ahead as it begins its second century. Anyone who has tried to kick an unhealthy habit or build up their savings account knows that it is difficult for human beings to make wise decisions on behalf of the future—even their own or their children’s—when it requires sacrifice in the present. Even more difficult is doing so when the best-case scenario for that future is to preserve a status quo. But NPS must plan and act on *at least* the “centennial” scale.

NPS is in charge of much of the physical history of the United States—both its ancient landscapes and the traces of the human cultures that have shaped and reshaped them for centuries. It is also a steward of the history that is contained within those places. As the protectors of these natural and cultural and intellectual resources, NPS must keep its collective eye on the long-term clock and think on a national scale. It must plan not just for the next decade or the next generation, but for the next century and the ones after that, and for the whole country.

One approach is a “triage” strategy for cultural heritage management, which requires difficult decisions about what to save and how, as well as recognition that some sites are more important to us than others. It requires some level of consensus on value and significance and how resources should be allocated. As difficult as it will be to reach such consensus, the advantage in this approach is that it does not rely on—despite the term’s connotations in the medical world—quick responses to unpredictable events. A “triage” approach, as defined here, draws on the data we have about climate change impacts, however imperfect, to organize cultural resources and sites into three main categories and to plan accordingly. Those categories include (1) those sites that are, for lack of a better term, “goners”—that is, they are unlikely to survive beyond another generation without heroic measures to save them; (2) those sites that could survive for decades or perhaps centuries with thoughtful maintenance, and at a feasible expense; and (3) those sites that for whatever reason are deemed so im-

portant to our national heritage that we will save them at any cost, even in radically different contexts.

Letting go

One, albeit controversial, response to climate change threats to cultural resources is to do nothing. We could allow historic structures and cultural landscapes to be flooded by rising sea levels or be dragged away by eroding sands and increasingly severe storms. In some cases, this will be a reasonable or even unavoidable response—areas of Gateway National Recreation Area, for instance, which were damaged in Hurricane Sandy, may never be fully recovered.⁴ This only has to be true, however, in terms of the preservation of the *physical* site. There is far more to cultural resources than their physical remains. Historic buildings, cultural landscapes, and archaeological sites are all primary sources for human history as well as sites of cultural memory. While much of the power and poignancy of visiting a cultural heritage site comes from our ability to literally walk in the footsteps of our ancestors, we must accept and act on the reality that this will not always be possible. If we do not plan for that eventuality, then we will deprive future generations not only of the opportunity to experience those sites, but also to develop their own ideas about them and produce new knowledge about our past. This is an essential responsibility of any cultural heritage steward—to make it possible for new and different interpretations of the past to be developed in the future. This is why we try to be cognizant of our own historical perspectives and biases, and why we acknowledge that we can never totally escape them. We must give our successors the chance to write history for themselves.

Given, then, that we will not be able to preserve all sites in the forms that we have them, we must focus our energies on protecting the fullest record of the past that we can. With limited resources and limited time, this may mean allowing the physical remains of a site to deteriorate, while building up our capacity to preserve its value in other ways—such as through visual records and oral histories, scholarship, and maintenance of archives. Even if the fabric of a particular building, for example, is gone, its history need not—and should not—be allowed to disappear. NPS must get into the business of creating an *afterlife* for cultural resources, even as it may continue to preserve their physical lives for a while longer. This will be a challenge, as it is for many organizations: The mission of the NPS is grounded in the physical experience and integrity of the sites it protects; however, this can no longer be a primary goal for all the sites under its purview.

The afterlife of a site is not only a record of its existence at a certain moment, but a means for future generations to continue to discover and decide new things about it. As we all know, conservation is a historical process. What and how we decide to conserve and interpret at a site is a big part of writing its history. When 20th-century additions are removed from an 18th-century house so that visitors can experience life in the earlier colonial period, this is a decision that affects the future history of that place. As long as the site still exists, and while NPS continues to protect and interpret it, the public will have access to the site's complete history. But what if the house were entirely gone, what information would remain? What decisions would be preserved? What aspects of that history would be accessible to future generations?

A “triage” approach would also affect how NPS distributes limited resources. Every dollar that goes into maintaining the foundations of a fort that sits, for now, at sea level is one more dollar that could be spent on archival research, analytical documentation, artistic interpretation, and scholarship about the history of that place before the site is permanently flooded and made inaccessible. Of course, such a direct correlation of resources is misleading, as such funds would not necessarily come from the same source, but NPS must get into the business of making arguments for these types of decisions. The budget will always be finite, and time and money spent shoring up things that will only need to be shored up again and again until they are, in fifty or a hundred years, unsalvageable, will be time and money that could have been—but was not—spent on creating a future history of that doomed place. Unfortunately, this means that at some point someone has to say, “Stop fixing this. Let it go.” No one really wants to do that, and there will be many good reasons to put it off—safety, community support, and values of all kinds—but we must accept that we will lose sites, and focus our attention instead on trying to preserve their memory.

Maintenance and planning

Happily, a large proportion of the sites in the NPS domain are likely to survive to the next centennial and beyond with some thoughtful maintenance and planning, and NPS is well equipped to do this. New challenges, however, must be considered. NPS has begun to, and must, take into account predicted effects of climate change, which are notoriously difficult to pin down. In addition, the results of successful maintenance are often largely invisible and uncelebrated. Much of the work of NPS will be preventing detrimental things from happening and preparing for other things that might not happen the way it predicted. NPS will, therefore, have to effectively explain to the public (and to Congress) what they are doing and why, in order to continue to garner support for these efforts.

While maintenance and monitoring have always been a part of the work of NPS, so will the need to focus attention on the relationships between natural and cultural heritage in the parks as climate change impacts continue and grow. As an organization and a government agency, NPS is unusually well positioned to do this. Most cultural heritage organizations are focused on the built environment and lack the expertise, infrastructure, mission, or will to work on natural resources as well.⁵ The division between natural and cultural heritage stewardship is problematic, but long-standing, and while some organizations are working towards integrated approaches to cultural and natural heritage, few have found great success. The UNESCO World Heritage List, for instance, is organized into natural and cultural sites, originally with two separate lists of criteria for inclusion and still two separate professional advisory bodies in charge of their assessment.⁶ While the World Heritage Centre has taken steps towards resolving this division, this dichotomy continues to present challenges.⁷ While scholars, site managers, and funders, in particular, continue to view the natural world and cultural resources as largely separate spheres, for many decades NPS has contained and cared for both.

Cultural resources within the parks must be managed, monitored, and *interpreted* alongside, and as part of, the natural environment, which human beings not only occupy, but

shape. Management and interpretation strategies for cultural heritage sites in the parks must be integrated with natural resources. While this may be an overly broad, even pat, statement that we can all agree with on the surface, in fact its implementation will necessitate some difficult choices. Sometimes what is a reasonable or even optimal response to threats to natural resources will be detrimental to cultural resources (and vice versa), and NPS will sometimes have to sacrifice one for the other.

More specifically, benchmarks should be established for when sites that are being maintained and monitored will or could lose that status. For instance, NPS should try to determine and publicly acknowledge that some sites will be sustainable at reasonable expense and effort for, say, fifty years, but probably not for one hundred years, and plan for those scenarios. This would be part of both a management strategy and public education plan. Interpretation of cultural resources should situate sites on a timeline that includes a future at least as long as their past. Visitors should not only be able to learn about the history of a site—through which they can perceive changes and developments that have led up to their own time—but also to consider its future. With all due disclaimers about certainty, NPS should plot the future of these sites according to the best predictions possible about the impacts of climate change—and talking about rising sea levels and temperatures, changes in biodiversity, and other factors that will affect the site and how NPS plans to respond. By placing cultural resources in a historical continuum, NPS can more effectively explain to the public the threats posed by climate change as well as the decision-making processes of the institution.

Save at any cost

Finally, there are some sites that NPS could decide must be saved at any cost. If this is a real category—and it may not be—then NPS will be charged with building, or at least accepting, a consensus about what aspects of the parks the world simply cannot live without and for which the country is willing to take heroic measures to save. It is hard to imagine that it will come to this, but it will. The Statue of Liberty, to choose one example, may well become such a resource.

Liberty Island was inundated during Hurricane Sandy, leaving mechanical infrastructure and other facilities heavily damaged.⁸ Sea level rise and increasingly severe storms will continue to threaten it in the coming century. When and how should NPS prepare for this? How might we respond differently to the next storm? Do we rebuild electrical systems and visitor centers again and again until it is impossible to continue doing so? Do we start thinking now about what will have to be done to preserve the Statue of Liberty in New York Harbor for the next two hundred years, and how people may experience it very differently then? Do we want to plan for the next generation or for centuries?

Once again, the international cultural heritage community provides an interesting example. In 1959, with the construction of the Aswan Dam in southern Egypt, UNESCO launched a campaign to save and relocate ancient monuments that would be flooded by the project.⁹ The world decided that it was worthwhile to literally move mountains to save the great temple of Abu Simbel, built by the pharaoh Ramses in the 13th century BCE. Abu Simbel was originally sited on a spot along the Nile meant to be seen by anyone approaching

Egypt by boat—they would encounter this monumental statement of pharaonic power as they sailed along the river.¹⁰ With the threat of flooding by the Aswan Dam, the temple was moved to higher ground and a different location. The intended royal message to arriving boats was sacrificed, but Ramses and his temple were saved. Perhaps that original context is not so important millennia later, and the compromise was worth it—visitors still get a sense of the specific landscape of Egypt and an impression, even if altered, of what this temple looked like in antiquity. The alternative—as illustrated by the much smaller Temple of Dendur now housed in a glass pavilion in the Metropolitan Museum of Art in New York City—preserved the building and allows it to be widely visited, but its context is radically altered.

The Statue of Liberty was meant to be seen by those coming to the United States on a boat. Do we want it to always be visible in this way? Is that the most important thing? If so, what will we do to ensure that experience for another fifty or a hundred years, or, if we consider the Abu Simbel time-scale, over 3,000 years?

While it may seem unlikely now, the question of incurring massive public expense to radically alter a national park in order to preserve its most treasured monuments will arise before the century is out. If NPS is truly considering the long-term future of cultural heritage in the United States, and serving as an advocate for a political response to climate change, as it should be, NPS should bring these issues up now.

Conclusion

Although very broadly construed here, this outline of a “triage” strategy for managing cultural resources in response to climate change is intended to serve as a starting point for real considerations of the future of the national parks beyond the current political cycle or the scale of an individual lifetime. It is a call for NPS to work proactively, in its role as steward of, and advocate for, the parks. Repeated, reactive efforts to shore up, stabilize, move, or strengthen historic structures in the face of climate change will eventually fail. They will leave little for our successors to study or appreciate if they don’t include plans for an “afterlife” of those places. While allowing for the disappearance of a site may seem to contradict the mission of the parks, eventually we will not have a choice. The afterlife we provide for, however, is what will be left to future historians, archaeologists, and school teachers. This is true for all sites, ultimately, but many cultural resources will survive for some time yet, if NPS can maintain them as part of a larger ecosystem that is changing, and will continue to change, in the next decades and centuries. Finally, NPS should be thinking about those sites that could justifiably be the focus of massive public attention and expense should they be seriously threatened by climate change, and what role NPS should play in response.

Perhaps most important, however, is that NPS has an opportunity to educate the public about the fact that the historic fabric of the parks is threatened by climate change, that some places will be lost or irrevocably altered as a result, and that we must prepare for this now. When another major city is lashed by a hurricane or a coastal town is washed out to sea, or thousands of people are displaced or a year’s crops are wiped out, the fate of the national parks, and their cultural resources in particular, will not be at the top of everyone’s list of things to worry about—but their existence will be essential to recovery and the resilience

of our society as a whole and for our future. Our present actions may deny it, but a nation without history is not one that any of us will want to live in. It is our responsibility now to not only preserve and interpret how humans have shaped the landscape of the United States, but to explain how that landscape is responding.

Endnotes

1. For temperature and sea level predictions, IPCC 2014, especially pp. 178–179, 368–369; for biodiversity, IPCC 2002; for population, United Nations 2004.
2. As of August 15, 2014, there are 191 states parties to the World Heritage Convention: <http://whc.unesco.org/en/statesparties/>. World Heritage Centre and climate change: <http://whc.unesco.org/en/climatechange/>. Among the many cultural heritage organizations considering climate change as part of their work, see especially: National Trust for Historic Preservation (US): <http://www.preservationnation.org/> (with numerous posts and articles on the subject of climate change); English Heritage: <http://www.english-heritage.org.uk/professional/advice/advice-by-topic/climate-change/>; World Monuments Fund: <http://www.wmf.org/field/special-initiatives>. For a report on climate change impacts on sites outside the U.S., see Sabbioni et al. 2012.
3. See Cafaro 2012.
4. A stark and commonly cited example from Canada is Herschel Island-Qikiqtaruk Territorial Park in the Yukon, where warming temperatures have caused coastal erosion and rising seas, damaging historic structures and exposing archaeological remains. Climate change was recognized in the site management plan as one of the “top stressors” on the park: http://www.env.gov.yk.ca/publications-maps/documents/herschel_management_plan.pdf (section 2.5.2 and *passim*).
5. See Barthel-Bouchier 2013.
6. These are the International Union for Conservation of Nature (IUCN) and International Council on Monuments and Sites (ICOMOS), who assess natural and cultural (or “mixed”) sites, respectively. See <http://whc.unesco.org/en/advisorybodies/>.
7. Another challenge is that convention traditionally responded to threats to World Heritage sites by placing them on the List of World Heritage in Danger. This has served as a way of prodding a state party to respond to these dangers, with the main motivation being the threat of the removal of the site from the World Heritage List. This is not an effective remedy for dealing with climate change, of course, as no one country can be held responsible for it, nor is such a punishment likely to lead to increased protection of the site. Furthermore, the presence of many sites on this list now as a result of intractable political or military conflicts has also shifted the meaning of the list. The list: <http://whc.unesco.org/en/danger/>.
8. The NPS website’s account of the damage and recovery: <http://www.nps.gov/stli/after-hurricane-sandy.htm>.
9. This campaign, which raised \$80 million, launched the effort to draft the World Heritage Convention: <http://whc.unesco.org/en/convention/>.
10. For an overview of this project and the significance of the temples at Abu Simbel, see Kadry 1983.

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Michelle L. Berenfeld is the John A. McCarthy Assistant Professor of Classics at Pitzer College in Claremont, CA, where she teaches classical archaeology and international cultural heritage. Prior to coming to Pitzer, she taught at Brown University and worked at the World Monuments Fund in New York, where she launched WMF's climate change initiative as part of the World Monuments Watch program in 2008.