## Every Place has a Climate Story: Interpreting Climate Change at Historic Sites

## Angela M. Richman

FOUR YEARS AGO, AT A NATIONAL PARK SERVICE (NPS) CONFERENCE, a senior scientist stunned me with the following declaration: "Climate change is a topic for natural resource parks, not cultural parks." Speechless for a moment, I soon retorted, "Climate change is an issue that affects all humans, so it is a topic that every park can embrace." "Oh yeah, what about Thomas Edison National Historical Park? How do you talk about climate change there?" he replied.

My mind raced, and then I realized a very clear connection. "As humans struggled to create better living conditions in the 1800s, inventions like Edison's light bulb steadily crept into every household in America. If we are to succeed in finding solutions to the impacts of climate change, we will need to rely on American ingenuity and new technology once again." After I finished fumbling through this explanation, my colleague shrugged and ended the conversation with, "Well, you got me with this park example, but surely there are other cultural parks that don't have a connection."

Could that possibly be true? I don't think so. I remembered when just a few months before this conference NPS Director Jon Jarvis declared that "climate change is fundamentally the greatest threat to the integrity of our national parks that we have ever experienced." He did not say "the greatest threat for natural parks." He meant the whole national park system.

*Every* park in the national park system has a climate change connection and a story to tell. While climate impacts may be more obvious or tangible in natural parks, I have also experienced that human stories in cultural parks can be more thought-provoking and change-inspiring. Yet, I do not think the scientist's perspective is that unusual in the NPS mainstream. In my experience as the NPS climate change communications specialist, it was common to hear my peers talk about the effects of climate change in our national parks and other protected areas mostly in terms of natural resource issues, such as melting glaciers, sea level rise, invasive species, more severe storms, and increased forest fires.

But climate change is also affecting America's great cultural and historic resources that are protected by NPS. These resources include historic and prehistoric physical structures,

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such as buildings and monuments that commemorate people and events; archaeological ruins and artifacts that record a 15,000-year history of human occupation on our continent; cultural landscapes, such as subsistence areas; ethnographic resources that pass knowledge down through the generations; vast museum collections, many of which are irreplaceable; and iconic sites that record our nation's history.

These cultural sites have much to teach us about the values we place on climate change and our role in it, how past human societies and groups responded to climate change, and how humanity has arrived at this juncture where we are living in a rapidly changing climate and have a growing concern about it.

Climate change cannot be fully understood or communicated without an understanding of its human dimensions. It is very much a human story. And that's where the cultural parks can have the most impact.

In addition to developing and communicating knowledge about the scientific process and climate science, park staff should develop an understanding of historical events, timelines, cultural influences, and attitudes that provide the *human* context for understanding and communicating climate change.

This is important for a number of reasons. First, climate change is, in fact, a major driver of the character of parks today, natural and cultural. Second, by communicating the full set of impacts we tell the whole story of a park. Third, by doing so, we raise the potential for our visitors to embrace a preservation mission. And, lastly, our public expects this kind of leadership on these kinds of topics in the second century of our national parks.

Climate has shaped the rise and fall of cultures throughout history. Today, the reverse is also occurring—the climate that affects humans is itself affected *by* humans.

Researchers predominantly agree that the significant human impacts on global climate began with the Industrial Revolution. Just like Thomas Edison National Historical Park, NPS preserves many historical sites that illustrate how human advancements that have created a better, more comfortable way of living for Americans have also contributed to the current changes in climate. When Thomas Edison invented the light bulb or when F.C. Lowell built the factories in Lowell, Massachusetts, those steps were taken for the benefit of human progress. But like many advancements in that era, people had little awareness or concern for the potential long-term consequences to the climate and atmosphere.

Even the very establishment of our national park system was couched in the consumption of resources contributing to our culture of carbon. First it was the implicit message to Americans to jump in their Model A Fords to drive across the country to a national park. Now our visitors come by car, train, bus, and both domestic and international airplane flights—all adding to the world's carbon footprint. That fact alone offers a climate change message to visitors at any national park: consider your climate impacts, large and small.

For much of the first 100 years of NPS—and to a large extent today—the raw visitation numbers measured the success of the national parks. For the vast majority of our visitors, their national park experiences are still defined by how they move through them. Therefore, as public servants, we have a responsibility to communicate about climate change. There are many different approaches we can take to get our messages across, relating climate change to each individual park's enabling legislation.

Each NPS site is probably connected in one or more ways to the human story of climate change, and these human connections can be important avenues for helping the public relate to and care about this issue. Obvious connections exist in parks where cultural resources are at risk from a changing climate (including sea-level rise, increased frequency and severity of storms, increased wildfires, drought, and widely fluctuating temperatures).

In other cases, the ability to see our cultural landscapes as places to discuss climate change may require looking beyond the typical "traditional" narrative, and into side-paths in the historical record. This could lead to some fascinating and compelling connections and open whole new realms of relevancy related to park resources.

A good place to begin when developing climate change interpretative programs or messages at a cultural park is to create site-specific climate change connections and themes. In the curriculum for *Interpreting Climate Change*, a virtual course for front-line interpreters, a series of questions are posed to help staff identify their park's climate change theme when developing programs at a historical or cultural site. These questions include:

- How has climate affected different groups of people throughout history?
- What are the human implications of a changing climate for the future?
- How have people responded to a changing climate in the past—and how are we responding today?
- How have human activities and choices impacted climate?
- What aspects of human nature and human events can be linked to climate change?
- What are lessons from the past that help us understand the risks and opportunities of climate change?
- How does climate change connect to other humanist topics, including psychology, economics, anthropology, law, philosophy, political science, sociology, business, religion, and environmental studies?

From these questions, park staff can build their site's climate change themes.

What follows are a few examples of how interpreters at sites across the country have connected climate change to their site in the last few years:

Montezuma Castle National Monument, Camp Verde, Arizona. Changing climates have had consequences for cultures and civilizations of the past, and archaeologists have postulated that ancient cultures may have abandoned this site because of an increasingly harsh climate and competition for scarce water and food. Do we view the fate of past cultures as simply "ancient history," or does their experience link to our own, in this case specifically around a message about changing climates and human fate?

**Fort Point National Historic Site, San Francisco, California.** The experience of soldiers stationed here during the Civil War can help inspire and teach us today how to effectively address the psychological and emotional impacts of climate change. The challenging environment in San Francisco—it was dreary, damp, and uncomfortable—forced the soldiers to

**Figure 1.** Interpretive Ranger Paul Ollig gives a climate change presentation at Fort Point in San Francisco. Rather than talk about sea-level rise, he compared the day-to-day struggles during the Civil War with the present struggles to deal with climate change. Photo courtesy of National Park Service.

find innovative ways to improve morale. Additionally, upon hearing of the onset of the Civil War, these soldiers undoubtedly faced an emotional crisis as they were asked to prepare to defend against an enemy that would most likely never come, while their friends and family fought and died 3,000 miles away.

Many people struggle with feelings of hopelessness and futility around climate change. Can we draw insights from the experience of the soldiers of Fort Point to find within us



the strength and hope to continue to fight the battle against climate change?

Antietam National Battlefield, Sharpsburg, Maryland. The carbon footprint of the Army of the Potomac can help us grasp the scale of the carbon footprint of modern society. The burning of coal and other fossil fuels has long been the engine of modern economies, and these resources were essential to the Civil War effort, and were often fought over. A comparison of the amount of greenhouse gases released into the atmosphere for one day of battle at Antietam to the amount released in a single day by a coal-fired power plant today produces startling numbers, and begins to illustrate the rapid rate of increase in the contributors to climate change.

**Yosemite National Park, California.** Yosemite recently lost one of its few remaining glaciers when park scientists declassified it. Back in 1872, John Muir conducted a series of experiments on Lyell Glacier using sticks to determine how fast the glacier was moving. These sticks are still in the park's archive collection. Inspired by Muir's simple experiment, in 2012 park scientists recreated the same experiment and determined the glacier was no longer moving at all.

My last example is of a cultural park that does not often interpret its natural resources but has a very dramatic natural connection to climate change that could be shared with the visiting public and local community.

Sitka National Historical Park, Sitka, Alaska. This is one of the few parks in the system where the apparent sea level is not rising, but appears to be falling as a result of isostatic re-



**Figure 2.** Student Conservation Association Intern Emily Noyd greets visitors in Sitka National Historical Park and shares a climate change message. She talks about the climate impacts on the local salmon and how that changes the cultural landscape the park lies within. Photo courtesy of National Park Service.

bound from the Little Ice Age. Sitka offers a contrast to the usual climate change story, and makes possible a discussion of climate change impacts at other parks in the system. But it also sits in the heart of the Tongass National Forest in Southeast Alaska, where climate change is negatively impacting the health of old-growth forests of hemlock, Sitka spruce and yellow cedar, each of which is an important element in the Tlingit and Haida cultures, specifically for the carving of iconic totem poles.

These are just a few examples of how park interpretation and programming might connect park cultural resources to climate change. There are many other possibilities for climate change themes, stories and strategies at each of these sites, and throughout the national park system.

In addition to identifying the park climate change connections and themes, I would like to suggest a series of best practices for communicating climate change in cultural sites:

- Resource specialists, cultural specialists, and interpreters should meet to share knowledge, understanding, and ideas about climate change;
- Interpreters and other staff should become familiar with the climate science or studies that the park is already engaged in, and share that information with the public;
- Staff should identify new science or research that ought to be conducted to help cultural sites address climate change;
- Staff should collaborate with other local or regional experts in other protected areas, universities, or public institutions to ensure a holistic understanding of and approach to communicating climate change at cultural sites;

- The interpretive staff should meet to establish park themes and appropriate programs and venues for incorporating a climate change message;
- Park staff should strive to create a safe environment for the public to share knowledge, ideas, concerns and feelings about this topic;
- Interpretive staff should be willing to try new approaches and adapt interpretive products and messages as new understanding becomes available; and
- Interpreters should help move this topic forward in a productive way by including messages of hope and action: What concrete steps might the visitor take?

The National Park Service has come a long way from that conversation I had with a colleague four years ago to address climate change at cultural sites. However, we still have work to do.

If you are currently working at a cultural site, and not communicating about climate change, consider the following. As climate change becomes a more tangible and constant force in our lives, the resources that parks protect will benefit from immediate engagement on this topic. We have an opportunity and responsibility to start the conversations that are meaningful, full of hope, and focused on a better future, and to move people toward action. The time for cultural sites to embrace and engage on this topic is now.

## Acknowledgments

Some of the content in this article first appeared in the *Interpreting Climate Change* curriculum modules but have been modified for purposes here. Original content was written with the assistance of Becky Lacome, Paul Ollig and John Rudy.

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- Angela M. Richman, formerly of National Park Service Climate Change Response Program, 1201 Oakridge Drive, Suite 200, Fort Collins, CO 80525; angie4stars@gmail.com