Every History Has a Nature

Thoughts on Doing Public Environmental History

Gregory E. Smoak

Presidential addresses have always been in some measure personal reflections that aspire to engage broader issues facing our communities. Following that tradition, I will ground my talk today in my personal experience, in some of the work that I have done, but I also hope that in some small way it speaks to critical issues facing the public history community and indeed, all of our communities. At times over the past two years, it has seemed that the world was coming apart—a global pandemic, an ongoing reckoning with systemic racism and inequality, one of the most divisive elections in our country's history, all set against the backdrop of a worsening climate crisis that poses an existential threat to the planet as we know it. I will not claim to have the answers today, but I do want to reflect upon some of the ways that the practice of public environmental history might help address some of the problems we face.

In deciding on this topic, the COVID-19 pandemic loomed large. That shouldn't come as a surprise. The pandemic has touched everything we have done individually and collectively over the past two years, which, as chance would have it, corresponded with my term as NCPH president. The real and potential impacts of the pandemic, your health and well-being being chief among them, were constant considerations as the staff and leadership of our organization worked to provide the programming and support you expect and deserve while carefully stewarding the organization's resources. That meant making some tough decisions, most notably moving three successive annual meetings online. Although the next couple of years will continue to pose challenges, I am proud to say that NCPH is on a solid footing.

The pandemic also transformed my day job—teaching Native American, environmental, and public history at the University of Utah. While reacting to the initial lockdown in the middle of the Spring 2020 semester was not seamless, things got

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Gregory Smoak. (Photo by University of Utah)

smoother, and I can safely say that I now know more about online education than I ever thought I would! Just as importantly the pandemic not only impacted the way I taught my classes, but also the content I presented, particularly at the intersection of Native and environmental history.

Finally, there was my other day job—directing the American West Center. The pandemic posed real challenges for the center as it did for every public history institution. Oral histories and tribal consultations had to be put on hold, stalling or slowing our projects, which are based on outreach and community engagement. But it was also in this role that I was able to participate in an important and rewarding multi-year collaboration with Utah Humanities, rooted in environmental history, that asked the citizens of our state to "Think Water Utah."

And so, reflecting on the past two years as a "pandemic president," teaching Native American environmental history, all the while working on a communitybased project with an environmental focus, has kept me thinking about the intersection of public and environmental history and the role of public historians in helping communities understand the changes around them.

Before going any further, I must acknowledge that many public historians, as well as the NCPH as an organization, have taken the environment seriously for a very long time. Almost twenty years ago, Martin Melosi and Phil Scarpino edited an anthology on *Public History and the Environment*, while a special issue *of The Public Historian* was devoted to the subject of "Environmental History as Public History."¹ In 2014 "Sustainable Public History" was the theme of our conference in Monterey, California, and that meeting was linked to a second special issue of *The Public Historian* as well as the digital publication *Public History in a Changing Climate.*² The initial NCPH task force on sustainability has grown into a standing committee that is charged with advancing environmental sustainability as a core principle of public history practice and of our organization. Currently, David Glassberg and Donna Graves are editing "Our Climate Emergency," a year-long series of blog posts on *History@Work* focused on how public historians are engaging the climate crisis. And, as I will get to shortly, I am not even the first NCPH President to take up the intersection of environmental history and public history in a presidential address! This overview only scratches the surface of the publications, resources, sessions, working groups, and blog posts which public historians have devoted to the topic in the intervening years.³

Although public environmental history is not untrodden ground, I hope to contribute to that conversation today because I think that it offers a critical means for public historians to address some daunting and intertwined challenges. Over the past decade, and especially over the past five years, we have seen growing attacks on knowledge that have undercut public confidence and muddied public discourse. Climate change denial has increasingly taken the form of an attack on science. At the same time, we have seen an attack on own profession. We are seemingly living in an age of false equivalencies and "alternative facts." And so, in part today I will speak in favor of advocacy, not for a partisan cause, but for good historical scholarship in public service. While I am not so naïve as to believe our actions alone will turn this tide, I do believe that we must do our part. As public historians it is incumbent upon us to inform public discourse. To do so we must remain true to our professional ethics and methods, but we must not shrink from advocating for good history and good science. Environmental history can be a powerful tool for doing just that.

That is because environmental history requires us to take the natural processes of the planet just as seriously as the goals and values of human societies. It is ultimately the story of how peoples have engaged the natural world and the reciprocal consequences of that engagement for both their societies and nature. (By nature, I mean—borrowing a definition from the eminent environmental historian Donald Worster—"the non-human world, the world that we have not in any

I Martin V. Melosi and Philip V. Scarpino, eds., *Public History and the Environment* (Malabar, FL: Kreiger Publishing, 2004); Special issue, "Environmental History as Public History," *The Public Historian* 26, no. I (Winter 2004).

² Special issue, "Public History and Environmental Sustainability," *The Public Historian* 36, no. 3 (August 2014); NCPH epub, *Public History in a Changing Climate*, https://ncph.org/wp-content/uploads/2014/03/PHCC-2014.pdf.

³ For example, see, "Public History and Environmental Sustainability Reading List," National Council on Public History website, https://ncph.org/phc/social/sustainability-reading-list/.

primary sense created."⁴) When peoples engage nature to extract wealth and make a living, they do so according to their own cultural imperatives and their impacts on the natural world vary accordingly. Environmental history is a reciprocal story because nature is not simply a passive object; it is not simply acted upon. Nature presents opportunities and poses obstacles that are defined by natural laws, not human laws. The material world matters. Yet nature alone does not dictate the way human societies will approach the natural world any more than people should expect nature to follow their cultural logics (although of course we have often done just that). And so, environmental history is also a dialectical story where the material and ideal worlds meet, and the unintended consequences of human actions are just as important as the purposeful results.

Many historians have noted affinities between public history and environmental history and many of you might have been in Portland in 2010 when NCPH met jointly with the American Society for Environmental History (ASEH). And so, it is worth exploring the intersections between public and environmental history in a bit more detail.

I will begin to do this by considering two remarkably parallel presidential addresses, delivered in the same year nearly three decades ago, by two distinguished historians. In 1993, the environmental and urban historian Martin Melosi served as NCPH president. In his address, "Public History and the Environment," Melosi confronted the issue of advocacy and assessed how environmental history might have greater impact in public discourse.⁵ That same year, William Cronon, one of the most revered figures in the field, addressed the ASEH as its president. The title of his talk: "The Uses of Environmental History."⁶ While Melosi's and Cronon's talks were quite different, both ultimately engaged the question of applying environmental history to real world concerns. Here I will focus upon just two critical intersections in their talks which I believe provide valuable insights into the relationship between public and environmental history.

Let's start with the idea that history can and should be put to an applied purpose. That premise is obvious to us as public historians—you know, "History at Work"—but it has also infused the work of numerous environmental historians, though not without controversy.

For Melosi, the tension between advocacy and objectivity was the critical issue facing public historians doing environmental history. He began his address by bluntly stating, "The last thing a public historian wants to be called is an 'advocate." "Yet," he continued, "the field of environmental history was born of 'advocacy." Indeed, the emergence of environmental history as a distinct field in the early 1970s

⁴ Donald Worster, "Transformations of the Earth: Toward an Agroecological Perspective in History," *The Journal of American History* 76, no. 4 (March 1990): 1089.

⁵ Martin V. Melosi, "Public History and the Environment," *The Public Historian* 15, no. 3 (Autumn 1993): 10–20.

⁶ William Cronon, "The Uses of Environmental History," *Environmental History Review* 17, no. 3 (Autumn 1993): 1–22.

cannot be disentangled from the power and urgency of the modern environmental movement that burst onto the public scene a decade earlier. "Given the breadth of its appeal and the timing of its birth," Melosi continued, "it is not surprising that the modern environmental movement spawned a brand of history so full of contemporary conviction."⁷ Likewise, William Cronon asserted that it was "no accident that many of the most important works" of environmental history reflected "present-day concerns" and were "framed to make contemporary political interventions." Going even further, he argued that "many if not most" environmental historians wanted "their histories to be useful not just in helping us understand the past but in helping us change the future."⁸

Melosi's caution was not unwarranted. Among the most common, if tiresome and easily parried, criticisms leveled at public history has always been that by working for communities and clients, public historians somehow set aside their objectivity and become biased advocates. And importantly, much of Melosi's concern was for historical consultants and government historians who must maintain "absolute objectivity to be respected in public." Academic environmental historians, he asserted, had much greater freedom because for them advocacy could be understood as "conviction" rather than "bias."⁹ Still, Melosi believed there were ways to navigate the limitations imposed by the "specter of 'advocacy," and I will return to his ideas on this score in a moment.¹⁰

Cronon also saw advocacy as a potential problem, but less so for the historian remember he was essentially speaking to a group of other academic environmental historians—than for one of the field's important audiences, environmental activists. Specifically, he identified the tension between the romantic notions of nature existing outside of history held by many environmentalists and our discipline's commitment to the "task of historicizing everything we study, whether it be human cultures or natural systems."¹¹ In Cronon's estimation the "ahistorical or even antihistorical" impulses of environmentalism could potentially undercut the movement, and sound historical practice offered "our best antidote to naive assumptions, decontextualized arguments, excessive generalizations, and plain oldfashioned wishful thinking—all of which pose problems for contemporary environmentalism." He concluded, "It is here I think that we will discover the most important uses of environmental history."¹²

When considering the advocacy question in environmental history it is interesting to note that neither Melosi nor Cronon mentioned climate change in their addresses. While perhaps surprising today, this is completely understandable given their intentions—neither set out to define the greatest environmental threats facing

9 Melosi, "Public History and the Environment," 15. 10 Ibid., 17.

⁷ Melosi, "Public History and the Environment," 11-12.

⁸ Cronon, "The Uses of Environmental History," 2-3.

¹¹ Cronon, "The Uses of Environmental History," 10-11.

¹² Melosi, "Public History and the Environment," 12.

the planet—as well as the timeframe of their talks. Scientific and policy discussions of anthropogenic climate change stretched back to the mid–1960s, and international responses first began to take shape in the 1970s, but the issue was only becoming firmly planted in the public consciousness by the early 1990s. And by the end of that decade, it was becoming firmly politicized.¹³

A lot has changed in the past thirty years and today it seems impossible to consider advocacy and public environmental history without explicitly addressing the climate crisis. It is the issue of our generation, and of the next. It is imperative for us to act. And if Melosi's concerns about perceptions of objectivity remain valid, especially for consultants and agency historians, the public history movement has also displayed a pronounced tradition of activism.¹⁴ Indeed, solid historical scholarship is not incompatible with advocacy and activism! Yes, we must always remain true to our disciplinary standards and be thoughtful in our advocacy. But none-theless, we must advocate.

The second important intersection in Melosi's and Cronon's talks that I want to address is the vision of environmental history as a broadly applicable interpretive framework that might enrich any historical analysis—academic or public.

Melosi got at this notion obliquely as a potential solution for the advocacy predicament, writing "I am more inclined to treat environmental history not so much as a field of study—such as social history, urban history, or political history—but as a *mode of thinking*: as a tool, if you will, for studying human interaction with the physical environment." Thinking this way would push the historian to think beyond the "flat line of chronology" toward a more three-dimensional understanding of the past that "incorporated a greater appreciation of *place* (space)," and allowed the historian to move beyond traditional environmental topics such as wilderness and "invade such fields as culture, politics, economics, and diplomacy." It was here, he argued, "As a mode of thinking, [that] environmental history gives primacy to *perspective* over *point of view*." And, he hoped, "In this sense advocacy is more easily depoliticized."¹⁵

Cronon was far more direct. Beginning with what he called his "deepest article of faith" as an environmental historian, that being "all human history has a natural context," he declared that "Nature' is a fundamental category of historical analysis,

¹³ See Joshua P. Howe, *Making Climate Change History: Documents from Global Warming's Past* (Seattle: University of Washington Press, 2017), 206–8. Howe's collection is an excellent resource for public historians and teachers looking for primary documents, brief contextual essays, and ideas on historicizing scientific data. Some key scientific discoveries and theories in regard to the "greenhouse effect" stretched back to the nineteenth century, but it was the 1988 Senate testimony of NASA scientist James Hansen, a moment widely viewed as a "catalytic incident in the history of global warming politics," that the issue really became public.

14 Denise D. Meringolo, ed., *Radical Roots: Public History and a Tradition of Social Justice Activism* (Amherst, MA: Amherst College Press, 2021). Meringolo and her co-authors describe a "radical public history" tradition, which is defined as "future-focused, committed to the advancement of social justice, and engaged in the creation of a more inclusive material record."

15 Melosi, "Public History and the Environment," 17-18.

no less important than—indeed, deeply entangled with—class, race, and gender."¹⁶ While Cronon directed this comment at other historians as a potential audience for environmental history, I believe it can be just as true for public audiences. In recent years the American Historical Association has adopted the tagline "Everything has a history." If we embrace Cronon's call, we might reformulate that phrase and say that in an even more fundamental way, "every history has a nature."

So, what if we treated nature, the environment, as such a fundamental category? What might that look like? A decade ago, Mark Fiege, an environmental historian as well as an accomplished public historian whose work has often focused on the public lands of the American West, gave us an example. It was a couple of students in Fiege's environmental history course that posed the very question to him-could you employ the environment as an analytical framework to understand any moment in history, the same way you might use race, class, or gender? Sure, it might be useful for understanding the creation of National Parks, the impact of the chemical industry in the twentieth century, or any other event that might be marked "environmental," but what about all the stuff usually considered social history, cultural history, or political history? The question sent Mark on a long journey that resulted in his book The Republic of Nature: An Environmental History of the United States.¹⁷ In the book he provides an environmental context for nine events in American history that were not so clearly marked environmental, including the Salem witchcraft trials and the Brown v. Board of Education decision. The results, I think, can be instructive for public historians grappling with how the environment might provide a framework for their own work. To be clear, I am not suggesting that all public historians should or must use environmental history in every project, but that as Melosi and Cronon suggested, and Fiege's work illustrates, it can be a valid and useful "mode of thinking, a "fundamental category" for public historians to approach a wide range of topics.

Now that I have briefly sketched out a theoretical position for doing public environmental history, I want to turn to some of the work that I have done and reflect on the value of doing public environmental history in practice.

Our shared experience with COVID-19 provides a starting point. We are now living through one of those rare times that most of us, historians or not, recognize as being historical. While many questions about the pandemic understandably swirled around the science of viruses and vaccines, many others were historical. Like many public historians, I was approached by local media outlets in the early days of the pandemic to provide context.¹⁸ How did COVID-19 compare to earlier

¹⁶ Cronon, "The Uses of Environmental History," 12-13.

¹⁷ Mark Fiege, *The Republic of Nature: An Environmental History of the United States* (Seattle: University of Washington Press, 2012).

¹⁸ I was certainly not alone. Two years ago, in my first column for *Public History News*, I surveyed a few of the many ways in which public historians had jumped into action to archive and interpret the experiences of communities with COVID-19, and to provide historical context for the public. I revisited the topic a year later to check in on how the pandemic has changed public history

pandemics like the Black Death or the Great Influenza of 1918? How did local communities and governments respond to these earlier crises? Were those responses as politically charged and divisive as current lockdowns and mask mandates? And why did some communities suffer far more than others? In answering these questions, particularly the last one, I found an opportunity to utilize environmental history scholarship with the goal of expanding public awareness of the social and historical underpinnings of past and current pandemics.

First and foremost, I wanted to communicate that pandemics are never purely biological events. Yes, microbes are the physical cause of disease, but human decisions and actions shape the course of disease events. Evolving understandings of Native American epidemics and depopulation provided the deeper context for me to make this point.

In 1976 the late environmental historian Alfred Crosby coined the phrase "virgin soil epidemics" to describe the impact of novel microbes on populations that had no previous exposure and so lacked the protection of adaptive, often called "acquired," immunity. As a result, virgin soil populations suffered much higher mortality rates. Crosby's article was pathbreaking and part of his much larger body of work dedicated to understanding the environmental implication of European expansion and colonization, the so-called "Columbian Exchange."¹⁹ Following Crosby, a standard historical narrative emerged that conflated the impact of epidemics with the massive depopulation of Native America that followed contact. On one hand this narrative rightly recognized the effect of natural forces in history, but on the other it obscured the very real impact of human decisions and actions. In the worst-case scenario it could be twisted to so naturalize the epidemics as to hold European colonists blameless for the devastation that befell Native societies. The horrendous loss of life could be chalked up to physical or genetic weakness, and if no one meant for it to happen, no one was really to blame. I have personally heard both students in the classroom and audience members at public talks express this very logic.

More recently scholars such as David Jones and Paul Kelton have pushed back forcefully against this simplistic narrative and, I think, their work can be valuable for public historians thinking about how to frame the course and impact of disease events for public audiences.²⁰ First, we must disentangle the epidemics from Native

practice. "Pandemics and Public History," *Public History News* 40 (June 2020), 1, 12; "Pandemic Year +1: The New Normal," *Public History News* 41 (June 2021), 1, 7.

¹⁹ Alfred W. Crosby, "Virgin Soil Epidemics as a Factor in the Aboriginal Depopulation in America," William and Mary Quarterly 33, no. 2 (April 1976): 289–99; Crosby, The Columbian Exchange: Biological and Cultural Consequences of 1492 (Westport, CT: Greenwood Press, 1972); Crosby, Ecological Imperialism: The Biological Expansion of Europe, 900–1900 (Cambridge, UK: Cambridge University Press, 1986).

²⁰ David S. Jones, "Virgin Soils Revisited," William and Mary Quarterly 60, no. 4 (October 2003): 703-42; David S. Jones, Rationalizing Epidemics: Meanings and Uses of American Indian Mortality Since 1600 (Cambridge, MA: Harvard University Press, 2004); Paul Kelton, Epidemics and Enslavement: Biological Catastrophe in the Native Southeast, 1492-1715 (Lincoln: University of Nebraska

depopulation. While the two are undeniably related, they are not the same thing. Second, we must abandon the singular focus upon microbes and immune systems and more broadly consider the "total disease environment"—that is, all the other factors that impact human mortality during epidemics and pandemics. If we do these things a very different picture of Native American depopulation emerges. Smallpox and all of the other "virgin soil" maladies did not occur in a vacuum. They struck in the midst of wars of conquest, slave raids, forced migrations, and the disruption of subsistence activities. Malnutrition is the single greatest factor in spiking mortality rates during epidemics. It is a simple fact that hungry, weakened people die in far greater numbers than the well-fed. And so, the ravages of disease and the depopulation of Native America cannot be understood outside of the context of conquest and colonization. They were not simply biological events.

This essential lesson can inform our interpretations of the COVID-19 pandemic. We must consider all of the social, political, and economic factors that shaped the pandemic as much as we think about the evolution of the virus itself. At first, COVID-19 followed pathways of trade and commerce, often striking affluent, well-connected communities. For example, in Utah and the Rocky Mountain West, the initial outbreaks occurred in ski resort towns, which see the constant influx of wealthy travelers. But quickly the deeper inequities in our society became painfully evident. Working-class people of color, who were far more likely to be in occupations deemed "essential" and lacked the economic resources to shelter in place, became the hardest hit populations. In Native communities, such as those on the Navajo Nation, the presence of co-morbidities and persistent disparities in access to good health care led to high mortality rates, just as they had a century earlier during the Great Influenza pandemic. Rather than naturalizing the suffering of these communities, we must examine the historical patterns that produce disparate outcomes. And by taking both the natural world and human responses to it seriously, environmental history gives us a means to address such questions of inequity and injustice.

So far, I seem to be talking only about the ways that environmental history might be useful in responding to crises, but I also want to emphasize that it has many other public history applications. For example, a project that I completed for the National Park Service in 2015, an environmental history of Little Bighorn Battlefield National Monument, illustrates how environmental history can serve as a valuable tool for the management and interpretation of public lands.²¹

Little Bighorn is an iconic place. Each year, at least before the pandemic, over 300,000 visitors made their way to the park in southeastern Montana to walk the ground where George Armstrong Custer made his "Last Stand" against Lakota and Cheyenne warriors led by Crazy Horse, Sitting Bull, and Gall. It is unlikely that any

Press, 2007); Paul Kelton, Catherine Cameron, and Alan Swedlund, eds., *Beyond Germs: Native Depopulation in North America* (Tucson: University of Arizona Press, 2015).

²¹ Gregory E. Smoak, "An Environmental History of Little Bighorn Battlefield National Monument," RM-CESU Cooperative Agreement Number H-1200090004, 357 pages, December 2015.

of those visitors come seeking or expecting a "natural" experience. That is, of course, what the big "crown jewel" parks—Yellowstone, Yosemite, Grand Canyon—are for. But even if Little Bighorn is an historical site—a "cannonball park" in the late Ed Abbey's estimation—every history has a nature and environmental history can help inform park management and enrich the understandings of those visitors.²²

The goals for the project were twofold; first, to provide a management tool for park staff that helped them understand the natural processes and human actions that had shaped the monument's ecology and landscape; and second, to enhance the visitor experience by suggesting how the natural world impacted the desperate fight that took place there in 1876 as well as the modern landscapes that visitors encountered. Much has been written about the struggles over interpretation at Little Bighorn, which, along with Mount Rushmore National Monument, has become a lightning rod for debates over how Native history has been presented within the park service, and so I did not address those concerns explicitly.²³ My essential research questions became: what was the landscape and ecology of the battlefield like at the time of the battle, and why? And how has the landscape and ecology changed since, and why?

These broad questions produced complex answers which illustrate the intersection of natural forces and human cultures. The Little Bighorn valley in 1876 was the product of geologic, climatic, and ecological forces stretching back thousands, even millions of years. But it was also a human landscape shaped by millennia of Native management practices, which included the use of fire, as well as more contemporary struggles amongst Native peoples to control shrinking hunting territories and cope with the expansion of the United States.

The landscape that visitors encounter today, however, is substantially different. It is an agricultural landscape that reflects a very different set of culturally driven decisions and historical actions that followed with Euro-American conquest. Among these were the destruction of the bison and their replacement by large, domesticated grazers, most notably cattle, that impacted the ecology in important ways, and the imposition of new jurisdictions, boundaries, and regulations. Because the monument sits wholly within the Crow Nation, its environmental history is also in part the story of the interplay between that sovereign indigenous nation, the Office of Indian Affairs, the Department of War, and the National Park Service. To understand how these complex and seemingly disparate factors shaped the monument's landscape, let's consider a fence. That's right, a barbed-wire fence.

Within a year of the battle the Army began to unofficially manage the site, and in 1879 the War Department authorized the creation of a national cemetery. But the military faced one small problem: the land belonged to the Crows, who vocally

²² Edward Abbey, Desert Solitaire: A Season in the Wilderness (New York: McGraw-Hill, 1968), 9.

²³ For example, see Edward T. Linenthal, Sacred Ground: Americans and Their Battlefields (Champaign: University of Illinois Press, 1993), 127–71.

opposed any further cessions. Nor was the Indian Office happy, as the withdrawal of arable land for the cemetery could impact its own plans to assimilate the Crows by turning them into farmers. So rather than the originally proposed eighteen square miles, in 1886 the War Department settled for only a single section of land, one-square mile. This was expanded a few decades later with the addition of a smaller isolated parcel located four miles south—the Reno-Benteen Defense site. The now-established Custer Battlefield National Cemetery would remain under military jurisdiction until it passed to NPS management in 1941.

In environmental terms, the most consequential management decision the military made during its tenure was to fence the cemetery reservation in 1890. The barrier was intended to prevent cattle trespass and the resulting damage to the headstones and other memorials being erected on the site. Barbed wire fences are, of course, not impermeable. All kinds of mobile nature from birds and small mammals to windborne seeds pass right through. But cattle and other large grazers, which are particularly potent agents of environmental change, are blocked. And so, while the fence could not halt all ecological change, it did effectively set the memorialized space off on a different management course.

By the mid twentieth century, under National Park Service management, the effect of the fence was plainly visible. Inside the monument boundaries native grasses and other types of vegetation thrived, while outside the fence many introduced species, indicative of commercial grazing, predominated. But it would a mistake to argue, as some NPS managers did for a time, that this difference indicated the preservation of a "pristine" or "natural" high plains ecosystem inside the park.²⁴ Despite the greater presence of native plants, a completely ungrazed and unburned landscape was just as artificial, just as much a product of human intervention as an over-grazed, modern agricultural landscape. The unintended consequences of management decisions stretching back to the nineteenth century became apparent one August morning in 1983 when a wildfire scorched nearly the entire monument. The thick buildup of native grasses and nearly a century of fire suppression set the stage for the inferno. Miraculously, no one was injured, and the park's infrastructure was essentially undamaged. The fire also exposed numerous artifacts and some human remains, which led to a flurry of archaeological work that has transformed our understandings of the battle, an unexpected benefit to be sure. But for our purposes here, the fire was a powerful illustration of how natural forces and human actions together shape a place.

And here the project offers an intriguing interpretive possibility. In his 2014 NCPH presidential address Bob Weyeneth challenged public historians to demystify the historical profession as a means of bridging the distance between historians and their publics. He encouraged us to "pull back the curtain" and make the creative, interpretive work that happens at historic sites transparent. One way to

²⁴ For example, see "Master Plan Narrative," Custer Battlefield National Monument, Montana, July 20, 1964, p. 8.

do this, he suggested, was to make obvious the ways in which historic sites inhabit the present. That is, to make the managerial and interpretive decisions and actions that created them as they now exist clear to visitors.²⁵ By interpreting how the landscape took shape and has changed at Little Bighorn, environmental history does just this. The story of the fence and the fire is but one way to illustrate how this iconic and controversial historic site inhabits its present.

Finally, I want to turn to "Think Water Utah," the project that has occupied my attention for several years now and which, I believe, illustrates the value of public environmental history to inform public discourse and advocate for a more inclusive and sustainable future.

At the center of TWU are two Smithsonian exhibits-"Water Ways," which is part of the Museum on Main Street program (MoMS), ²⁶ and "H2O Today." Utah Humanities has long partnered with the Smithsonian to bring MoMS exhibits to the state and things started off simply enough in 2019, with plans for the Water Ways tour. Then, they got more interesting. Megan Van Frank, who directs Utah Humanities' Center for Community Heritage, had the vision and energy to add "H2O Today" to the mix, and use the tour of these two important and timely exhibitions to advance an important statewide conversation about our water history and imperiled future. What Megan has lovingly called the "water circus" will literally reach every corner of the state during its over two-year run. TWU has included companion exhibits and local programming at nine partner venues, associated exhibits at the Utah Museum of Fine Art and Natural History Museum of Utah in Salt Lake City, as well as episodes of Utah Humanities' podcast "Beehive Archive" and a multitude of online resources. All of this, in the middle of a pandemic. It would have been impossible without the team of young and talented public historians that Megan assembled, including Megan Weiss, Nathan Housley, and Mikee Ferran.²⁷

In producing statewide programming, the TWU team knew that we would have tell some unsettling stories and ask hard questions for the project to truly matter. There is a well-known adage in the American West, often spuriously attributed to Mark Twain, that whiskey is for drinking and water is for fighting over. Throw in the intertwined and divisive issues of urban population growth and climate change and things could get really tense. We knew that we must directly engage these topics, but that to do so ethically and fairly we must remain rigorous in our historical practice. If we were to advocate for good history and good science, we would have to get things right.

²⁵ Robert R. Weyeneth, "What I've Learned Along the Way: A Public Historian's Intellectual Odyssey," *The Public Historian* 36, no. 2 (May 2014): 9–25.

²⁶ For more on the MoMs program see Ann E. McCleary, "Creating Teaching Opportunities and Building Capacity Through the Museum on Main Street Program," *The Public Historian* 36, no. 4 (November 2014): 71–91.

²⁷ Megan Weiss, "All Hands on Deck: Utah's Statewide Water History Effort," *History@Work*, May 27, 2021, https://ncph.org/history-at-work/utahs-statewide-water-history-effort/.

As the state consulting scholar my primary role has been to provide the intellectual framework to link the national and global stories of the Smithsonian exhibits to state and local experiences. I approached this task as an exercise in environmental history. From my perspective "water ways" encompassed both the physical world of climate, watersheds, and elements of the built environment such as irrigation ditches, as well as the social, cultural, political, and religious values that have guided human engagement with that most essential life-giving resource. I set out to gather and tell stories that illustrated Utah's unique water ways, but which also spoke to issues extending far beyond the state's borders, including the impact of climate change and the struggle for environmental justice. The result was an extended essay, published by Utah Humanities and made available at local host venues, which provided a basis for the development of state and local exhibits and programs.²⁸

Utah, like every other place, has its own unique water ways, which flow first from the natural world. The unavoidable physical reality is that Utah is a very arid place! Statewide, an average of thirteen inches of precipitation falls in any year only Nevada is drier. Yet at various times, winter for example, and in specific places, mostly at the foot of high mountain ranges, moisture is far more plentiful. The availability of water in these narrow swaths of what might otherwise be an inhospitable landscape has allowed human populations to thrive for millennia.

But if the overriding aridity and relative local abundance of water have been central factors in determining where Utah's peoples have lived, they have not dictated how Utah's peoples have lived with water resources. Native peoples utilized mobility and an intimate understanding of local resources to survive. They generally adapted their lifeways to available water sources and aside from digging irrigation channels in a few places, did not seek to radically alter natural water courses. On the other hand, the first Euro-American colonists, members of the Church of Jesus Christ of Latter-day Saints (LDS), sought to transplant an agrarian way of life they knew from the humid East. Doing this in a land of scant rainfall meant both building larger irrigation works to divert water from its natural channels to where people farmed, as well as displacing Native peoples from the most productive and well-watered lands along the Wasatch Front. While the communitarian goals of the Church's early history in Utah made it unique, the attempt to control nature, rather than accept and adapt to the limitations it imposed, was indicative of the Euro-American colonization of the West. In the twentieth and twenty-first centuries, as urban population growth intensified pressure on water resources, the belief only grew stronger that nature could, and should, be reengineered to quench the growing thirst. Still today, state leaders largely focus on questionable and expensive new developments intended to increase water supplies, rather than on enhanced conservation measures or curbing demand, as the

²⁸ Gregory E. Smoak, "Utah Water Ways," Utah Humanities, 2020, https://www.utahhumanities. org/images/centerheritage/docs/TWU_UtahWaterWays_Essay_lr.pdf.

solution to the state's uncertain water future. In this way Utah's experience mirrors those of our arid, fast-growing neighbors Idaho, Nevada, and Colorado.

In Utah, climate change is not a nebulous future threat; it is our present. Keeping the increase in global average temperature to under two degrees Celsius by the year 2100 was the critical target set by the 2015 Paris accords. According to data released by NOAA in 2019, much of the state has already exceeded that benchmark. All of Utah has seen at least a one-degree Celsius increase over the past century and nearly half the state has warmed by two degrees. In the extreme, a substantial portion of eastern Utah is now 2.5 to three degrees hotter than a century ago. These increases may sound small, but they are significant for the interior West, which gets most of its precipitation as winter snowfall. The region's water infrastructure was designed to capture spring snowmelt. But warmer temperatures mean thinner snowpacks, earlier melts, and more precipitation falling as rain. That is, if it rains. Since the beginning of the twenty-first century Utah and the American Southwest have been locked in a two decade long "megadrought," the longest to hit the region in 1,200 years.

Utah's water future appears even more tenuous in light of the state's explosive growth. Over the past decade, Utah's population has grown faster by percentage than any other state and over two and half times the national average. The expansion has been concentrated along the narrow metropolitan corridor of the Wasatch Front, home to the vast majority of Utahns, and around the burgeoning amenity communities of Washington County in the southwest corner of the state, which have seen an astounding thirteen-fold population increase since 1970.

Despite these daunting facts, Utahns today use more water per capita than the residents of every other state except Idaho. And where does that water go? The vast majority, over 80 percent, goes to agriculture (which today accounts for less than 2 percent of the state's GDP), but of the water consumed by Utah households more than six of every ten gallons is put on lawns and other landscaping. Only four gallons or less is used inside the home to drink, to bathe, and to cook. These numbers reflect the historical legacy of water development and current use patterns not only in Utah but across much of the West.

In Utah, Great Salt Lake is where these trends—urban growth, wasteful water use, and climate change—collide and become impossible to ignore. Because of its unique nature and because it lies downstream of everything and everyone, Great Salt Lake acts as a mirror that reflects Utah's modern waterways back towards the state's residents. For this reason, telling its many stories became a unifying theme throughout TWU. The lake is Utah's most iconic natural feature and lends its name to our capital city. It has been an economic engine for Utah and remains a critical habitat for millions of migratory birds. Once it was Utah's marquee attraction, drawing tourists from around the world to float like corks on the waters of "America's Dead Sea." Since the mid-twentieth century, as Utah residents and visitors alike turn their gaze towards the mountains and the canyonlands, the lake has fallen from favor. But we ignore Great Salt Lake at our own peril. As metropolitan growth has accelerated so have water diversions. Add drought and warming temperatures and the lake has fallen to historic low water levels, exposing hundreds of square miles of mud flats. Air quality along the Wasatch Front is often among the worst in the nation in part due to dust storms kicked up from the exposed lakebed. Could Great Salt Lake turn into another environmental catastrophe on the scale of the Aral Sea? Perhaps.

The past year has seen a new low—as in a new historic low water mark for Great Salt Lake—as well as a glimmer of hope, as Utahns and their political leaders have become increasingly aware of the lake's predicament and its potential impacts on life in the state. Some credit goes to the tireless education and lobbying efforts of key conservation groups like Friends of Great Salt Lake. But the sad fact is that the impact of climate change and population growth are simply becoming impossible to ignore. During this year's legislative session lawmakers were flown by helicopter to see the extent of Great Salt Lake's decline. The legislature subsequently enacted the most comprehensive bill ever to address the lake's fall, which included, for the first time ever, a provision to secure a temporary (ten year) inflow water right for the lake. Still, it is not a permanent solution, but a hopeful first step.

I cannot say precisely how much impact TWU has had on an emerging recognition that the state must change it current water ways. The *Salt Lake Tribune* recently cited the Water Ways essay in an editorial calling for the reform of Utah water politics. But I am proud that TWU has addressed environmental justice issues and responded to the climate emergency by advancing this critical conversation in communities across the state.

In this way, TWU illustrates the many important ways that that public history, environmental history, and advocacy can intersect. Ironically, given his concern with the "A" word, Martin Melosi may have said it best: "Let environmental history be a means to make the value of history better understood to the public. Let the richness of our profession offer leadership in understanding the essential relationship of humans to the physical world."²⁹ This is the kind of advocacy that I think is essential. While environmental history need not become part of every public historian's toolkit, it can be a powerful means to address not only our relationship with the natural world, but to push back against contemporary attacks on good science and good history, and hopefully move us toward a more just and sustainable future.

29 Melosi, "Public History and the Environment," 20.