# The George Wright Forum

The GWS Journal of Parks, Protected Areas & Cultural Sites
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***(continued)***

**On the cover:** Virginia State Capitol, Richmond, Virginia. The Virginia State Capitol (1785) was designated as a National Historic Landmark (NHL) as part of the commemoration of the centennial of the American Civil War. From 1960 until 2017 the official Interior Department name of this property was "Confederate Capitol," a moniker that referenced its use as a seat of government from 1861–1865 rather than its association with either the oldest legislative body in the United States or its architectural qualities as designed by Thomas Jefferson. At the request of the Virginia Department of Historic Resources, Secretary of the Interior Sally Jewell changed the name in early 2017 as part of an effort to update the NHL documentation of the property to recognize the panorama of its historic significance. Since the 1960s only about 3% of all National Register of Historic Places and National Historic Landmark nominations have ever been updated for content since their initial listing. Historic American Buildings Survey photo.

# SOCIETY NEWS, NOTES & MAIL

## Three new members join GWS Board

Three new members are joining the George Wright Society Board beginning January 1, 2018: Jerry Emory, Bill Walker, and Mike Walton, profiled below. They take over from Nathalie Gagnon, David Graber, and Lynn Wilson. The GWS Board officers for 2018 are Jerry Mitchell, president; Dave Reynolds, vice president; Armando Quintero, treasurer; and Jennifer Thomsen, secretary.

### *Jerry Emory*

Following work with several conservation organizations based out of both Latin America and the Western US in the 1980s, Jerry became a professional writer and communications consultant. He is the author of five books and numerous magazine articles. He worked as a consultant with The Nature Conservancy of California, the Packard Foundation's Conservation Program, and the Gordon and Betty Moore Foundation, where he was a senior communications officer. Mostly recently Jerry was the vice president for communications, programs and government affairs at the California State Parks Foundation, where he worked the past 10 years. He has served on the boards of the George Wright Society and the Rose Foundation's Northern California Environmental Grassroots Fund. A graduate of Stanford University and University of California–Berkeley, he lives with his family in Mill Valley, California.

### *Bill Walker*

Bill is the cultural resources program manager for Three Rivers Park District, a 27,000-acre "Special Park District" serving the Twin Cities metropolitan region (Minneapolis and St. Paul, Minnesota). In this role, he manages all aspects of cultural resources monitoring, preservation and legal compliance, and oversees the operation of the Park District's public historic sites.

Bill began his career in parks and protected areas with the National Park Service, serving as an interpretive park ranger at Salem Maritime National Historic Site (Salem, MA), Saugus Iron Works National Historic Site (Saugus, MA), and Virgin Islands National Park (St. John, USVI). From this early experience, Bill strongly believes that effective interpretive programming is one of the most powerful preservation tools available to resource managers, as it connects visitors with the meaning behind a park's protected status, and empowers them toward a personal stewardship ethic.

Bill holds a BA in History and Museum Studies from Gordon College (Wenham, MA) and a Masters of Education from the University of Minnesota. He is a New Yorker by birth, a New Englander by association, and a Minnesotan by marriage.

### *Mike Walton*

Mike grew up in Toronto, Ontario, Canada, at a time when parents directed children to "go outside and play." This resulted in unsupervised mounted (bicycle) and pioneer (foot) ex-

ploration of parks, ravines, rivers, ponds, paths, and tracks across the city. Getting dirty and bloody in nature resulted in a life-long passion about wilderness and what parks and institutions do to protect it. Presently, as the senior manager for the Regional Parks system with the Capital Regional District, on Vancouver Island in Victoria, British Columbia, Mike oversees the protection and use of 13,000 hectares (32,124 acres) of parklands and regional trails that welcome 7 million visits annually.

Previously, Mike worked with Parks Canada for 23 years including as field unit superintendent, Northern Ontario; resource conservation manager, Yukon Field Unit; Aboriginal relations and federal relations business unit leader with Alberta-Pacific Forest Industries (on secondment from Parks Canada); director, parks liaison, Secretary of State (Parks); superintendent, Georgian Bay Islands National Park; and manager, visitor services, Pukaskwa National Park. Mike was also an assistant park superintendent, head of interpretation, and park warden with the Ontario Provincial Park System.

Mike recently completed his PhD with the University of Victoria in British Columbia. His PhD research investigated the governance of protected areas, particularly sharing power and decision-making. Dr. Walton also holds a M.Sc. in Parks and Recreation Resources Management from Slippery Rock University, Pennsylvania; an Honours Degree in Outdoor Recreation from Lakehead University in Thunder Bay, Ontario; and a Diploma in Economic Development from the University of Waterloo, Ontario. Mike lives in Victoria, B.C., with his wonderful and patient partner of 37 years, Sylvie. They have three grown children and two grandchildren. Mike now directs his grandchildren to "go play outside" with him.

# Announcing the Richard West Sellars Fund for the Forum

*Jennifer Palmer*

Dear GWS members and friends,

As many of you know, our community recently lost one of our most beloved and devoted friends of parks, protected areas, and cultural sites. Richard West Sellars dedicated 35+ years of his life to the National Park Service and continued to expand his leadership through many esteemed publications, most notably his 1997 landmark book, *Preserving Nature in the National Parks: A History.* His ongoing contributions and service truly shined a light on the preservation of historic sites and parks management and he will be dearly missed by all of us.

In honor of his legacy, the Richard West Sellars Fund for the Forum has been established to recognize the long association between Dick Sellars and the George Wright Society. The fund celebrates his personal interest in *The George Wright Forum* as a reader and a regular contributing author. As a life member of the George Wright Society, Dick served as our president for two years, and faithfully participated in many GWS conferences. In 2011, he was awarded the prestigious George Melendez Wright Award for Excellence.

As our Society goes through some necessary transitions in the coming year, this fund will ensure that *The George Wright Forum* continues to maintain its standard of excellence with professional editorial direction, and that through 2018 it will continue to be published in both a hard-copy as well as an electronic format for the benefit of all Society members. It is our expectation that the Richard West Sellars Fund for the Forum will also ensure a smooth transition to an even better, redesigned *George Wright Forum* in the future.

The Richard West Sellars Fund for the Forum will be used to strengthen the programs of the George Wright Society and specifically enable *The George Wright Forum* to continue as the preeminent interdisciplinary park and protected areas journal. *The George Wright Forum* stands alone as a journal that addresses natural and cultural heritage issues, social science, and the state of current research and stewardship. The *Forum* is now more essential than ever to support a network of park and protected areas professionals and contribute to the critical work of conservation scholarship.

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We are pleased to report that we are launching the Richard West Sellars Fund for the Forum with an anonymous lead challenge gift of $10,000. We can think of no better tribute to his lifelong commitment to scholarship and park professionalism.

Together let's make a tangible contribution in honor of this remarkable legacy and the future of the George Wright Society! To make a donation to the fund or to the GWS in general, please visit https://www.georgewrightsociety.org/donate.

Kind regards,

Jennifer Palmer, Executive Director
George Wright Society


# Letter from Woodstock

**Rolf Diamant**

## Values We Hold Dear

Last August, Greg Moore, president and chief executive officer of the Golden Gate National Parks Conservancy, posted on the organization's homepage its perspective on the National Park Service (NPS) decision to approve a First Amendment permit for the proposed Patriot Prayer event at Crissy Field in Golden Gate National Recreation Area.

As the nonprofit partner of Golden Gate National Recreation Area and the Presidio Trust, the conservancy made the restoration of Crissy Field an early signature project. Moore's thoughtful statement actually looks beyond the issue of the permit, and, in a much broader context, addresses not only the conservancy's own visions and values, but also speaks to the motivations and expectations of all people who answer the call of park stewardship, public service, and environmental humanism. The statement, at its heart, is a thoughtful reaffirmation of why we create and work to sustain national parks and other protected areas and why we must not retreat on progress that has been made in our national parks on behalf of conservation, equity, and inclusion.

I will not go into the full story of the ultimately aborted August 26th Crissy Field event (canceled by its organizers at the eleventh hour), but suffice it to say that other events staged by the small alt-right Patriot Prayer group, which describes itself as fighting big government, have been a magnet for white nationalists of various affiliations. San Francisco officials feared that the event, billed as a "Freedom Rally," would trigger violent confrontations in the park. Given the broad diversity of park users at Crissy Field, Patriot Prayer's selection of this rally venue was perceived as deliberately provocative. In the eyes of many people, including a number of young people of color at the conservancy's Crissy Field Center, the proposed event was profoundly disturbing and even personally threatening coming so soon after the violence at Charlottesville.

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Every national park has at least one designated area where free speech and freedom of assembly rights guaranteed by the First Amendment to the Constitution are accommodated through a no-cost permit system. While NPS regulates aspects of the activity to protect park resources, it never regulates the content of the message. As long as technical requirements are met, no group that wants to lawfully assemble to exercise First Amendment rights can be denied a permit. NPS eventually issued a First Amendment permit for the rally with a comprehensive list of conditions attached.

In the days leading up to the event, concurrent scheduled public programs were canceled, facilities and stores planned to close, and law enforcement was mobilized. It was in this context that the conservancy released the following statement seeking to reassure its staff and volunteers, members, donors, agency partners, and the general public just where the organization stood, and to refocus attention on the larger purposes of its work. In this, my 18th Letter from Woodstock, I have included most of the statement as it appeared on August 23.

***The Parks Conservancy Perspective on the Decision of the National Park Service to Approve a First Amendment Permit for the Patriot Prayer Event on Crissy Field on August 26, 2017***

**Acknowledging a Decision**

Today, the National Park Service (NPS) announced its decision to go forward with a First Amendment permit for an event on Crissy Field. The Golden Gate National Parks Conservancy is a nonprofit partner to the parks and does not have jurisdiction over permits issued for events and activities in the Golden Gate National Recreation Area.

We acknowledge the complex factors affecting this decision. We appreciate the priority that the NPS gave to public safety in its consideration. And we reflect upon our First Amendment rights to free speech and the NPS obligation to follow federal law and policy regarding this fundamental American principle.

**Affirming the Parks Conservancy's Vision and Values**

Given recent national events, this decision requires an even deeper reflection. The Parks Conservancy firmly believes that our national parks celebrate diversity—as places of welcome and enjoyment for people of every age, ethnicity, race, sexual orientation, religion, or gender identity. That principle is fundamental to our democracy and the unique American invention of a National Park System. Our national parks are places of inclusion.

Through the ongoing work of the Conservancy's Crissy Field Center and many other programs with a multitude of community partners, the Conservancy continues to advance this vision of inclusion. For almost 20 years, the Conservancy has carried these principles forward by encouraging people of all backgrounds to

enjoy Crissy Field and offering special programs to reach a broader cross-section of our community. We believe our public lands—like the nation itself—are made stronger by diversity.

**Rejecting Hate and Intolerance**

Recently, events in and around a park in Charlottesville, Virginia demonstrated how our public places can be invaded. Emancipation Park was overtaken by those who promote intolerance and exclusion. The Conservancy stands directly against all forms of hatred, bigotry, or oppression as anathema to our American ideals, as well as to the values of our national parks as places of welcome and inclusion. We stand against movements that promote and foster this reprehensible thinking, including white supremacy, white nationalism, and neo-Nazism—and any other spokesperson or movement spreading intolerance or hatred.

**Recalling Crissy Field as Common Ground**

The potential for hatred and intolerance being promoted by groups or individuals on Crissy Field is especially poignant to us because, in 1999, the Conservancy led the effort to restore Crissy Field from an old military airfield to a national park for all. Our values embraced—and continue to embrace—diversity and inclusion. Today, Crissy Field is a beloved national park that recognizes and shares the Presidio's complex history. It is where native peoples hunted and fished. It has seen immigrants pass through the Golden Gate and into San Francisco Bay. It was an airfield that saw many aviation milestones during the early 20th century. And it was home to a school that trained Japanese Americans as linguists during World War II—even as orders to incarcerate their families were carried out in the Presidio. Crissy Field is a place replete with meaning, a space for reflection and recreation, and a destination park that welcomes over a million visitors every year.

**Advancing Our Vision**

With the recent events in Charlottesville and the upcoming event on Crissy Field this Saturday, the Conservancy recommits itself to our vision of diversity and inclusion at Crissy Field and throughout the Golden Gate National Recreation Area. There is still much work ahead of us—and work that we proudly and humbly advance. Not everyone has easy access to our parks or the comfort that they are welcome. Our parks often lack the facilities and programs that support and serve a broad cross-section of our community. And our parks aren't equally enjoyed by all members of our community.

We embrace the opportunity to serve more kids, reach more people, and make the benefits of our national parks available to a wider spectrum of communities—with a focus on kids and families who need our parks the most, due to lack of access to nature and the outdoors.

**Reflecting Upon and Learning from Our National Parks**

Even while there is work to do, we can look to our National Park System as a source of introspection and reflection. Many national park sites and national monuments commemorate important progress in human rights, and also reflect upon times of intolerance, bigotry, and oppression. The Birmingham Civil Rights National Monument, Stonewall National Monument, César E. Chávez National Monument, Brown v. Board of Education National Historic Site, the Statue of Liberty National Monument, and other national park sites speak to civil rights, celebrate American immigrants, and honor progress in social justice. Other places such as the Japanese American Internment Camp at Manzanar National Historic Site, the Indian Memorial at the Little Bighorn Battlefield National Monument, Angel Island Immigration Station National Historic Landmark, and many other sites challenge us to reflect upon and remember the tragedies of intolerance and oppression—and its misguided consequences.

**Asking You to Join Us**

Only through reflection and action can we advance our democratic ideals as represented in our national parks. The Parks Conservancy asks our community of friends, supporters, and partners to continue to join us on the long and important journey of "Parks For All Forever."

**Thanking Our Partners, Volunteers, Supporters, and Community**

The Conservancy extends our profound gratitude to our public agency partners, to our thousands of dedicated volunteers, to our scores of community partners, to our members and donors, and to the youth we serve who give us hope for the future. And that future is fundamental to the founding principle of our National Park System—to preserve these timeless places for the "enjoyment, education, and inspiration of this and future generations."

The August 26 event on Crissy Field occupies one day. But the future is ours to create with the values we hold dear.

*Greg Moore*
President & CEO
Golden Gate National Parks Conservancy

Some years ago there was a series on public radio called *This I Believe* where people had ten minutes or so on air to give testament to their basic values and beliefs. Much like *This I Believe*, the conservancy's statement clearly set out a moral compass, and, in the process, models an ethical standard for a park-related *community of purpose* made up of a broad spectrum of park friends groups, cooperating associations, educational programs, foundations, and other environmental and community organizations. In all probability in the days ahead,

other public spaces, including national parks, will be used and abused by purveyors of hate and intolerance—the antithesis of what parks represent, as cornerstones of a civil and inclusive society. And sooner, rather than later, park and conservation organizations across the nation, as part of this expanding *community of purpose*, may need to speak up, as the Golden Gate National Parks Conservancy has done, and make clear to all the values we hold dear.

# Civic Engagement, Shared Authority, and Intellectual Courage

***Rebecca Conard and John H. Sprinkle, Jr., guest editors***

## Dedication

We dedicate "Civic Engagement, Shared Authority, and Intellectual Courage" to the memory of National Park Service historian Richard West Sellars (1935–2017). Dick will long be remembered as the historian who held up an analytical mirror to NPS's management of natural resources. *Preserving Nature in the National Parks: A History*, published in 1997 and reissued in 2009, provided the administrative motivation for the NPS Natural Resource Challenge, a multi-year initiative to revitalize the agency's natural resource and science programs.

Dick's long career with NPS (1973–2008) was spent in western parks, which gave him the breadth of experience to critique the full scope of the agency's resource management responsibilities. During the mid-1960s, he worked as a seasonal ranger-naturalist in Grand Teton National Park. After completing a Ph.D. in western history at the University of Missouri–Columbia in 1972, he accepted a position with the NPS Southwest Regional Office in Santa Fe, New Mexico. From 1979 to 1988, he oversaw the region's programs in history, archaeology, and historic architecture. He also oversaw underwater archaeology programs throughout the national park system. From his base in Santa Fe, he later carried out special assignments as acting superintendent at various western parks and as NPS liaison to the Dallas County Historical Foundation for the task of preserving and interpreting the Texas School Book Depository and Dealey Plaza in Dallas, site of the 1963 assassination of President John F. Kennedy. In 2008, the year he retired, Dick received the Department of the Interior Meritorious Service Award.

Additionally, Dick lectured on preservation philosophy, policy, and practice at NPS training centers, universities, and professional meetings. He also maintained a very wide network of colleagues through his affiliations with the Western History Association, American Society of Environmental Historians, Forest History Society, National Council on Public History, and the George Wright Society, with which he had a special relationship. Dick served as GWS

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president in 1999–2000, and, in 2011, the society presented him with its highest honor: the George Melendez Wright Award for Excellence to recognize his career-long contributions.

Dick intended to follow *Preserving Nature* with a similar exegesis on cultural resources management in NPS. Unfortunately, that project remained unfinished when he died on November 1, although he published two shorter works that give us good insight into his thinking about the early decades: *Pilgrim Places: Civil War Battlefields, Historic Preservation, and America's First National Military Parks, 1863–1900* (Eastern National, 2005) and "A Very Large Array: Early Federal Historic Preservation—The Antiquities Act, Mesa Verde, and the National Park Service Act," *Natural Resources Journal* (University of New Mexico School of Law), vol. 47, no. 2 (2007).

By dedicating "Civic Engagement, Shared Authority, and Intellectual Courage" to Dick's memory, we continue to recognize his contributions to history and interpretation in the National Park Service.

# Planned Obsolescence: Maintenance of the National Park Service's History Infrastructure

*John H. Sprinkle, Jr.*

Almost everything—especially most of the products we purchase these days—has an expiration date: from the milk in your refrigerator, the mattress on your bed, the ink in your computer printer, to the batteries in your flashlight. Remarkably, even Twinkies have a shelf-life. The personnel who manage the physical infrastructure of the national park system understand the concept of product life-cycle all too well. The maintenance backlog, now famously estimated at some $12 billion, is essentially a list of products—such as water pipes, road surfaces, roof shingles, and HVAC (heating, ventilation, and air conditioning) systems—that have reached the end of their utility and need either substantial repair or outright replacement. The National Park Service (NPS) annually maintains a detailed accounting of almost every aspect of these physical requirements, but what about the state of the agency's intellectual infrastructure? When does the relevancy of its various products of research and programs of interpretation become stale, out-of-date, or expired? Studies such as *Imperiled Promise: The State of History in the National Park Service* have documented the decline in historical practice over the last generation and the great divide between history and interpretation within the agency. This "almost willful detachment" has been "perpetuated and enforced" by the agency's bureaucratic framework since the mid-1960s.[1] Frequently studied, and often found wanting, the National Park Service's conservation mantra ("*protection* through *appreciation*, *appreciation* through *understanding*, and *understanding* through *interpretation*") remains an essential component of its mission, but one that requires periodic revitalization if it is to retain its freshness and relevancy.[2]

The dual goals expressed in the agency's 1916 legislative mandate established a Janus-like binary conflict (enjoyment of the people vs. impairment of the resources) that has perplexed NPS leadership over the last century.[3] In the aftermath of World War II, NPS Director Newton Drury articulated a long list of challenges that sound quite familiar today.[4] Existing parks were overcrowded and understaffed, with crumbling infrastructure and insufficient funding to address a plethora of pressing needs. Drury thought that larger, modern facilities were required to meet the demand of ever-increasing numbers of tourists. The de-

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cade-long Mission 66 program addressed the diverse crises through a billion-dollar expansion of infrastructure and a revitalization of moribund programs where the agency embraced modernism.[5]

On Founder's Day, August 25, 1966, when the National Park Service celebrated its 50th anniversary, there were 231 units (grouped in 16 distinct categories) in the system that encompassed nearly 27 million acres spread across the United States and its territories.[6] In the early 1960s the Park Service retained the same fundamental mission and character as in 1916: it was a (mostly western) land management agency dedicated to the stewardship of nationally significant historical, natural, and recreational resources. All this was about to change as the "new conservation" merged with the emerging environmental movement to transform the mandate of the National Park Service, adding major roles and responsibilities that focused attention beyond the boundaries of its traditional activities. Adjustment within the mandates and missions of the National Park Service over the last 50 years highlighted a constellation of continuing administrative dilemmas as the institution awkwardly approached its second century.

## Maintenance and other backlogs

Since 1916, while acknowledging the pragmatically unattainable goal of completing the system, each generation has added fiscal and administrative burdens to the challenge of maintaining an ever-growing collection of protected areas. The rapidly growing NPS maintenance backlog is frequently cited by the agency's leadership, park boosters, and politicians as evidence that park facilities are fundamentally underfunded.[7] Because of the size of these estimates, parallel concerns about the overall state of American infrastructure, and its potential public relations and political impact, the agency takes its calculations seriously. The Park Facilities Management Division (PFMD) annually calculates deferred maintenance (DM) statistics for almost 76,000 "constructed assets" located within parks. Employees use a Facilities Management Software System (FMSS) to track changes in the Facility Condition Index (FCI) and especially Critical Systems Deferred Maintenance (CSDM). The high status of this issue among the administrators is highlighted by the adoption of two standardized maintenance backlog reports within the agency's Project Management Information System (PMIS). Efforts to identify and estimate the infrastructure backlog have withstood congressional scrutiny, and the figures are considered fairly precise.[8]

The unease regarding an expanding infrastructure maintenance backlog has a long history within the agency. President Franklin Roosevelt's incorporation of dozens of historic properties into the park system during the 1930s forever shifted the balance of parks within the agency's portfolio.[9] Since then, historic units, with their seemingly maintenance-needy above-ground resources, have dominated the system in terms of numbers of designated units. Drury argued that the "development backlog" totaled almost $500 million in 1949.[10] In 1954, Charles Porter thought that it would be difficult to justify the cost of securing properties that would protect the view into Maryland across the Potomac River from George Washington's Mount Vernon when the restoration and maintenance of nearby Fort Washington was so underfunded.[11] A decade later, Ronald Lee noted that the agency was having "great

difficulty keeping up" with needed restoration work, a situation that was only exacerbated with the addition of new stewardship responsibilities each year.[12] To some, the solution for dealing with the infrastructure maintenance backlog, both physical and intellectual, was obvious: stop creating new parks and programs until the agency had met its stewardship and educational goals. However, according to one study, new parks and programs were not the problem: 80% of operating increases were directed toward older parks (those created before 1981), a cohort that collectively accounted for well over 90% of the agency's total budget.[13]

Hidden within the estimates for the NPS's maintenance backlog is a calculation for the restoration and rehabilitation of the physical infrastructure that helps interpret the natural, historic, and recreational public spaces. While some data is available through the PMIS system, the agency's leadership can only extrapolate the overall need for its museum, interpretive, and conservation programs.[14] The Organization of American Historians' *Imperiled Promise* report recalled recommendations that NPS needed to address museum backlogs and archival access to its collections, as well as improving the agency's administrative history program.[15] Under the slogan "Putting Education Front and Center," the Second Century Commission recommended in 2001 that as a first step the agency had to invest in replacing "broken, dilapidated, out-of-date, inaccurate, and irrelevant media, including exhibits, signs, films, and other technology delivered information."[16] Such concerns are magnified where the interpretive device is an entire building, such as the reconstructed McLean House at Appomattox Courthouse National Historical Park, which is seated within a cultural landscape that attempts to replicate village life at the close of the Civil War.[17] The agency has exhaustive estimates regarding the life-cycle maintenance for HVAC systems within its visitor centers, but what about the replacement costs associated with interpretive exhibits and other media?

And what about the stories we tell our visitors? Should every product of historical inquiry and interpretation the agency produces come with a "best used by" date? Compared with the robust procedures used to identify and compile the physical infrastructure maintenance backlog, NPS spends relatively little on identifying and estimating backlogs in our research and interpretation programs. In fact, the agency has always had a difficult relationship with scientific and historical research. During Mission 66 the National Park System Advisory Board commended the "constructive attitude" among the agency's leadership and asserted that "an expanding research program" was "a wise and advantageous investment" of agency funds.[18] Dealing with the interpretation backlog has often resulted in charges of revisionism as the focus of commemoration at various parks has changed in the past.[19] And yet, there have been ongoing calls to revisit, revise, and replace old and outdated interpretation within the multiple media through which the Park Service portrays American history and culture.[20] As noted by the Organization of American Historians:

> History in the NPS has been under resourced for decades. Chronic underfunding and understaffing have severely undermined the agency's ability to meet basic responsibilities, let alone take on new and bolder initiatives, nurture and sustain public engagement, foster a culture of research and discovery, and facilitate

connectivity and professional growth among NPS staff. Reducing inefficiencies and forming productive partnerships can help address these gaps, but after decades of deferred maintenance, the history infrastructure seriously needs repair.[21]

## Planned obsolescence

One of the fundamental and frequently noted dualities of the national park system is the contrast between the static, congressionally established legislative mandates and the continually shifting currents of historical inquiry and interpretation. This presents a variety of challenges to an agency dedicated to preserving resources unimpaired for the future. As the articles in this issue of *The George Wright Forum* ably and substantively demonstrate, one of the values best enabled within the parklands is the "dynamic process … considered in the light of ongoing research framed by new questions and multiple viewpoints."[22] As recent controversies surrounding Confederate statues have tragically demonstrated, civic engagement, shared authority, and intellectual courage are this generation's contribution to a constantly evolving national dialogue that frames the American experiment.[23]

Accepting the cyclical and generational nature of historical inquiry and interpretation, the National Park Service might consider seriously embracing the concept of planned obsolescence for the products of its historical research and interpretive programs. The Office of Management and Budget puts expiration dates on all federal agency forms; why not on our reports and lesson plans? After a while, even the most finely crafted interpretive plan, historic resource study, or national historic landmark nomination becomes stale and out-of-date. But, unlike for the various components of our physical plant, there is no administrative system that requires and enforces the periodic maintenance and replacement of our intellectual infrastructure. Perhaps every NPS product, like milk from the grocery, should have a "best if used by" date.

How much would the rehabilitation of the agency's history infrastructure cost? Calculating an estimate of the agency's intellectual backlog—especially the creation of statistics designed to shock park promoters, the general public, and politicians—only illustrates the conversion of an "ideological debate into a technical one" that would focus on the "problems of data collection" as a means to delay any real action to address the issue at hand.[24] As NPS Director Jonathan Jarvis noted early in his tenure, "I don't need another study to tell me what the agency needs."[25] So let us agree, for the sake of argument, that the cost of updating the National Park Service's history infrastructure would be the same as was allocated for implementing Mission 66.

Rather than creating a new program to confirm this estimate, the agency should instead consider providing nationwide leadership by investing in the revitalization of its history infrastructure. After fully funding the long-neglected Historic Preservation Fund that supports tribal, state, and local governments, how should NPS spend any additional appropriations?[26] One place to start would be a five-year commitment to substantively and significantly support the work of historically minded associations, such as the George Wright Society, the Organization of American Historians, and the National Council on Public History that would

incorporate the mission of the History Leadership Council and the History Advisory Board proposed in *Imperiled Promise.* This collaboration among historians, interpreters, and a whole host of other disciplines, both within and outside the agency, would survey the state of historical inquiry and interpretation, tossing out old and expired products, all with an eye towards revitalizing the agency's history infrastructure in time for the 250th anniversary of the American Revolution in 2026.

Unfortunately, despite the many lights along the path illuminating this volume, it seems that the declension so clearly elucidated in 2011 by the *Imperiled Promise* report has continued in recent years due to administrative distractions, ethical blunders, and other factors. That said, while some of our documentation programs, such as the Historic American Buildings Survey, are meant for the ages, many of our products require, just like the thousands of shingles covering the roof at Hampton National Historic Site, maintenance of the intellectual variety. Within the ever-expanding shopping center of ideas and interpretations of American history, the continuing challenge for the National Park Service and other stewards of protected areas across the country is how to ensure that the products on our shelves are timely, rigorous, and relevant, not stale, expired, and obsolete.

*The views and conclusions in this essay are those of the author and should not be interpreted as representing the opinions or policies of the National Park Service or the United States government.*

## Endnotes

1. Anne Whisnant, Marla Miller, Gary Nash, and David Thelen, "The State of History in the National Park: A Conversation and Reflections," *The George Wright Forum,* vol. 29, no. 2 (2012), 254. Ronald Lee (1905–1972) played an important role in linking research and interpretation. As NPS chief historian (1938–1941 and 1946–1951), Lee helped to operationalize the historic property survey mandates of the Historic Sites Act of 1935 both before and after World War II. In 1951 he was appointed as assistant director for Research and Interpretation, one of three high-level administrative silos that also included "Operations" and "Administration." During Lee's tenure, research and interpretation remained tied together. By 1965, an Interpretation and Visitor Services Division was created under the Operations directorate.
2. Conrad Wirth, "Securing Protection and Conservation Objectives through Interpretation," April, 23, 1953. NPS Park History Program Files.
3. See Donald Hellmann, "The National Park Service at 100," *Akron Law Review* vol. 50 (June 2017): 5–76; and Lary M. Dilsaver, ed., *America's National Park System: The Critical Documents,* 2nd ed. (Lanham, MD: Rowman & Littlefield, 2016). The binary mission (visitor use vs. resource protection) is a component of the feasibility criteria for adding a new park. Carol Hardy Vincent, *National Park System: Establishing New Units* (Washington, DC: Congressional Research Service, March 26, 2014).
4. Newton Drury, "The Dilemma of Our Parks," *American Forests* vol. 55, no. 6, (June 1949), 6–11, 38–39. His recognition of a post-war crisis in the management and use

of the parks was echoed in a variety of publications, most notably, Bernard de Voto, "Let's Close the National Parks," *Harper's Magazine* vol. 207, no. 1241 (October 1953), 49–52.

5. Ethan Carr, *Mission 66: Modernism and the National Park Dilemma* (Amherst: University of Massachusetts Press, 2007). Mission 66 provided increased funding for historical research and revitalized both the Historic Sites Survey and the Historical American Buildings Survey.
6. In 2015, as it approached its centenary, the national park system contained 408 units, comprising 84 million acres, which supports 292 million annual visits, as managed by 22,000 employees with an annual appropriation of $3 billion.
7. Kurt Repanshek, "National Park Service Maintenance Backlog Approaching $11.5 Billion," *National Parks Traveler*, March 23, 2015. Approximately half of the deferred maintenance is related to road construction issues. See http://www.nps.gov/subjects/plandesignconstruct/defermain.htm.
8. See General Accounting Office, *National Park Service: Efforts to Identify and Manage the Maintenance Backlog* (Washington, DC: GAO, May 1998).
9. See Harlan D. Unrau and G. Frank Williss, *Administrative History: Expansion of the National Park Service in the 1930s* (Washington, DC: National Park Service, September 1983).
10. Carr, *Mission 66*, 34.
11. Charles Porter (chief, Preservation Services) to chief of interpretation (Ronald Lee), "Mockley Point, near Fort Washington, Maryland," March 11, 1954, NPS Park History Files.
12. (Northeast Regional Director) Ronald Lee, "Statement on Historic Preservation Opportunities and Problems for the National Park Service," Regional Directors' Meeting, Philadelphia, PA, July 16, 1964, NPS Harpers Ferry Center, Ronald Lee Collection, Box 1.
13. National Park System Advisory Board, Committee on Standards and Criteria Final Report, June 10, 1997; National Park System Advisory Board, Minutes of the June 10, 1997 Meeting, 9–10; and National Park System Advisory Board Resolution 116-3, "Standards and Criteria for Additions to the National Park System," prepared by Warren Brown, the agency's chief of planning, all NPS Park History Files.
14. For example, based on estimates from the Intermountain Region, the national Museum Management Program extrapolated the artifact conservation backlog at $144 million in 2015. Figures generated from the PMIS system are somewhat biased in that generally only projects that have some chance of receiving funding within a tightly competitive fiscal environment are entered into the database.
15. *Imperiled Promise*, 83, 97. This study cites an earlier report by the National Academy of Public Administration that "identified serious problems and backlogs with the NPS's archival and curatorial efforts," and noted that the annual Government Performance and Results Act (GPRA) goals for completing park administrative histories and historic resource studies (the only goals for the NPS History Program and key studies for

understanding parks' histories) were "dropped in 2006 and never restored."

16. *Advancing the National Park Idea: National Parks Second Century Commission Report* (Washington, DC: National Parks Conservation Association, 2009), 24.
17. National Parks Conservation Association, "Appomattox Court House National Historical Park: A Resource Assessment," 2008.
18. National Park System Advisory Board Minutes, 39th Meeting, October 20–22, l958, National Historic Landmark Program Files.
19. For example, see Ari Kelman's account of the long struggle to identify, acquire, establish, and interpret the site of the 1864 massacre of Native Americans by the United States Army at Sand Creek, Colorado: *A Misplaced Massacre: Struggling over the Memory of Sand Creek* (Cambridge, MA: Harvard University Press, 2015).
20. See Robert K. Sutton, "Holding the High Ground: Interpreting the Civil War in National Parks," *The George Wright Forum* 25, no. 3 (2008): 47–57.
21. *Imperiled Promise*, 80.
22. Lisa Mighetto, "A Sobering Report—Imperiled Promise: The State of History in the National Park Service," *The George Wright Forum* vol. 29, no. 2 (2012): 265.
23. See Timothy Good, "The Need for Intellectual Courage, the History Leadership Council, and the History Advisory Board," *The George Wright Forum* vol. 29, no. 2 (2012): 268–271.
24. See, for example, Tim Lehman's discussion of how the issue of accurately calculating the loss of prime farmland during the 1970s delayed the introduction of effective preservation programs for a decade. "Public Values, Private Lands: Origins & Ironies of Farmland Preservation in Congress," *Agricultural History* vol. 66, no. 2 (Spring 1992): 257–272.
25. See Director Jarvis' signature program: *A Call to Action: Preparing for a Second Century of Stewardship and Engagement*, National Park Service, August 25, 2014. Online at https://www.nps.gov/calltoaction/.
26. Operations of Tribal and State Historic Preservation Offices are partially funded through the distribution of matching grants from the Historic Preservation Fund, which comes not from federal taxes but from the revenue generated by offshore oil and gas leases. Authorized at a level of $150 million annually, since 1976 the actual annual appropriation has averaged less than $50 million.

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# Shining Light on Civil War Battlefield Preservation and Interpretation: From the "Dark Ages" to the Present at Stones River National Battlefield

*Angela Sirna*

Civil War battlefield preservation and interpretation may be described as generational, influenced by a number of factors.[1] Historians writing about the history of Civil War battlefield preservation and interpretation point to several important paradigm shifts. First, there was the "Golden Age of Battlefield Preservation" in the 1890s when Civil War veterans populated Congress and created the first five military parks. There was a second wave of battlefield preservation in the 1920s, spurred by the passing of the Civil War generation, patriotism after World War I, and rising popularity of the automobile. An important administrative reorganization occurred in 1933 when President Franklin Delano Roosevelt signed an executive order transferring the nation's military parks and national cemeteries from the War Department to the National Park Service (NPS). This transfer of management signaled a departure in philosophy from battlefield preservation as a function of commemoration and military study to interpretation and education for a wider audience. Historians have also looked intently at the Civil War's centennial anniversary, which also coincided with the agency's Mission 66 program and brought substantial infrastructure improvements to Civil War parks. The Cold War pageantry of the centennial was dampened by the Civil Rights Movement, which challenged reconciliationist memories of the war by showing that the country still had a long way to go in terms of repairing race relations. In terms of more recent history, the 1990s saw a resurgence in battlefield preservation and a commitment by NPS to acknowledge slavery as the key cause of the war. NPS began expanding Civil War interpretation to include more social history, with varying degrees of success.[2] NPS continues to grapple with the war's legacy as the debate about the use of Confederate symbols in public spaces rages on.[3]

Individual park histories can reveal compelling stories that help us understand the generational nature of Civil War preservation and interpretation. The story of Stones River National Battlefield's (STRI's) creation and development unfolds along these general histo-

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riographical contours.[4] Congressman James Daniel Richardson, a Confederate veteran, first introduced legislation to establish a military park at Stones River in 1895. His effort was supported by two different veteran organizations comprising both Union and Confederate veterans: the Stones River National Battlefield and Memorial Association, formed in 1896, and the Association of the Survivors of Stones River, formed in Indiana in the late 1890s. The military park's supporters did not achieve success until 1929, when the park was established by Congress under the War Department, after most of the military veterans had died. While veterans originally had grand plans to preserve much of the original 4,000-acre battlefield, Congress was reluctant to create large and expensive battlefield parks. Tennessee Congressman Ewin Lamar Davis, who had taken up Richardson's efforts after his retirement, had to scale down the proposed park, using what was known as the "Antietam Plan." A three-person battlefield commission (composed of a Union veteran, a Confederate veteran, and an Army officer) selected only the "core" battlefield area where significant fighting occurred. This plan was based on the assumption that surrounding farmland would remain agricultural. Despite the park's small size, creation of the battlefield park meant the dislocation of an African American community called Cemetery, named for its proximity to the national cemetery.[5]

A few short years later, in 1933, STRI was transferred from the War Department to NPS as part of a larger reorganization of the Executive Branch. NPS did not do much with the battlefield until after World War II.[6] Thanks to Mission 66, a ten-year capital improvement campaign aimed at modernizing the national park system, the agency essentially remade the battlefield park by expanding the park's staff and constructing a new tour road, visitor center, and museum. In fact, the new development seemed to take on more importance than the battle's centennial in 1963, which was much quieter than the controversies at Fort Sumter or the fantastical re-enactments at Manassas. STRI's Mission 66 improvements treated visitors as civic pilgrims and focused interpretation almost exclusively on military history, which lent itself well to 1960s Cold War patriotism, and allowed park staff to avoid stories about slavery and race.[7] However, in 1998, park management helped organize the "Holding the High Ground" conference in Nashville, Tennessee, which laid the groundwork for more collaborative preservation partnerships and more inclusive park interpretation that acknowledged slavery as the primary cause of the war.[8]

There seems to be a historiographical gap between the Cold War patriotism that marked centennial observances and the more inclusive approach that came out of the "Holding the High Ground" conference in 1998. Historian Timothy B. Smith recently described the period between 1965 and 1990 as the "Dark Ages" of Civil War battlefield preservation because the federal government did little to advance a comprehensive battlefield preservation policy and purchase land for preservation purposes.[9] Just as the actual early Middle Ages were misunderstood, the history of Stones River National Battlefield indicates that this period in battlefield preservation and interpretation is also misunderstood. In fact, the 1970s were some of the most creative and innovative at the park due to a changing consciousness among staff that was influenced by both internal and external forces.

During this time, park staff became more aware of the "greater battlefield," the area of land that was part of the original battlefield but not federally owned. This land remained

agricultural until the mid-20th century, when park staff noticed that neighboring farms were increasingly being developed as new highways were being built. Park staff started to feel the urgency of protecting additional battlefield lands in the face of urban encroachment.[10] They also began understanding their role to preserve and interpret the battle's history beyond the three days of the battle. For example, in 1962 Superintendent Lawrence Quist suggested deleting Redoubt Brannon from the park's boundaries, because it was built after the battle.[11] Redoubt Brannan was donated to the federal park when STRI was first created. It was a small portion of Fortress Rosecrans, one of the largest Union earthworks built during the war. At about the same time, leaders of the city of Murfreesboro began to realize the historic importance of Fortress Rosecrans and purchased some of the remaining features for a city park. It was a remarkable change then, in the 1970s, when NPS began to support the city's plans to preserve the fort's remnants with the possibility that the agency might eventually take them over.[12] The environmental movement was running high at that moment, too, and park staff started to think about the park's natural resources. In doing so, they discovered that the park's shallow, rocky soil was actually a cedar glade, home to sensitive and rare plant communities. With this new knowledge of the cedar glade, park staff began to think differently about environmental factors influencing the battle.[13] They came to understand the importance of restoring landscape features, just as the cultural landscape discipline was starting to gain hold in the agency.[14]

Despite being known as a conservation agency, NPS did not have an exemplary track record in environmentalism until agency culture started to change in the late 1960s and 1970s. This redirection was due to several factors, including damning reports from some of the nation's top scientists, the grassroots environmental movement, and new federal environmental laws. NPS managers directed employees to incorporate science-based practices into park management and develop environmental education programs.[15] NPS employees carried out these efforts not only in parks traditionally thought of as "nature parks," but in historical parks and Civil War battlefields as well. In 1968, NPS began creating National Environmental Education Development (NEED) materials for schools and encouraged parks to develop Environmental Study Areas (ESAs) for schools to use as outdoor classrooms as a supplement.[16] STRI Superintendent John D. Hunter dedicated Cedar Glades ESA in 1972. The next year, park interpreters brought in eighteen school groups with 662 students to use Cedar Glades ESA.[17] Superintendent Hunter also heartily supported another youth environmental education program called STEP, or Students Toward Environmental Participation, which students developed to encourage their peers to become environmental advocates in their own communities. STEP students would form clubs in their local high schools, receive training from NPS, and could organize field trips and workshops in national park ESAs all over the country. Superintendent Hunter and park technician Bettie Cook worked with Rutherford County and Metro Nashville Public Schools. They planned and held a statewide STEP conference at Opryland in Nashville in 1974, which was attended by 300 students from 29 different communities. Superintendent James Sanders continued to support the program when he replaced Hunter in 1974 (Figure 1).[18]

The participatory nature of the park's environmental education programming infiltrated


**Figure 1.** Environmental education workshop at Cedar Glades National Environmental Study Area, July 1979. Courtesy of STRI.

other aspects of park interpretation. During the Civil War centennial, living history programs became very popular at Civil War military parks. While NPS management hedged away from "sham battles" by putting in place a policy that prohibited re-enactments on park lands, that policy did not quell Civil War enthusiasts' desire to act out the past. NPS interpreters also recognized the utility of re-enactments to portray a more human aspect of war. To meet both needs, NPS began incorporating living history demonstrations into park programs all across the country in the mid-1960s. It is unknown when the first living history program was offered at STRI, but these programs were in full swing in the 1970s (Figure 2). Initially the park held firearm demonstrations, but expanded to cavalry and artillery programs, which were popular among visitors. Volunteers in Parks (VIPs) were instrumental in implementing these programs. Some of them

**Figure 2.** Living history program at STRI, circa 1970. Courtesy of STRI.

tended to be nostalgic. For example, the park held a hay wagon ride with a marshmallow roast halfway through. Overall, though, living history programs helped the park tell different stories about the battle beyond traditional military history, such as a popular Civil War music program. Attendance rose in 1975 by 88%; however, it dropped after the nation's bicentennial in 1976.[19]

There were certainly limitations to the park's interpretive programming during this time. The park still focused largely on military history aimed at a white audience. The causes and consequences of the war in terms of slavery and emancipation were not addressed. However, there is also evidence that new scholarship in African American history was starting to reach the park. The grave of William Holland, who served in the United States Colored Troops, was marked on the park's 1980 general management plan (GMP) as a place recommended for interpretation, although it is unclear to what extent park staff knew his story. It would be 20 years before the park started regularly incorporating Holland's story into park interpretation.[20]

Despite a changing preservation ethic, a new environmental awareness, and a desire to expand park interpretation, park employees faced a distinct financial challenge. After the lush years of Mission 66, the agency had to operate under a leaner budget in the 1970s, which meant little support for land acquisition or landscape rehabilitation. Superintendent Sanders developed creative ways to engage the community in accomplishing some of these tasks. Using NPS historian Ed Bearss's and J.C. Killian's 1962 "Fence and Ground Cover Map for the Battle of Stones River" as a guide, Sanders issued special-use permits to allow locals to cut firewood on park property as a strategy to restore the treeline back to its 1862 location. He also borrowed a tree transplanter from Natchez Trace Parkway to remove trees from historically cleared fields to repopulate the area known to Civil War veterans as the "Round Forest" near the Hazen Brigade Monument. Sanders even offered to replace local landowners' chestnut rail fencing with modern fencing so the park could use the chestnut fencing in the park. Gradually, these efforts helped the park restore certain features of the battlefield's landscape.[21]

Concurrently, Sanders and his employees worked with the NPS Denver Service Center to create new general management and land acquisition plans (Figure 3). Both planning documents were ambitious and aimed to expand the boundaries of the park to counter encroaching development. One of the most ambitious recommendations of the GMP was a bike trail that ran along Stones River connecting the park with various historic sites, including Redoubt Brannan and the rest of Fortress Rosecrans. Sanders noticed that many local residents liked to walk and bike around the battlefield for recreational purposes, which he encouraged. The proposed trail was the first effort to develop what is now known as the Murfreesboro Greenway system. Congress failed to authorize funds to implement these plans when they were finalized in 1980; however, they provided a road map for Congressman Bart Gordon, who successfully introduced legislation to expand the park's boundary in 1987 and again in 1991. Gordon was also a major supporter of the Murfreesboro Greenway system, which now is a favored amenity among local residents.[22] The land acquisitions, along with Murfreesboro's explosive growth beginning in the 1980s and continuing to the present, were

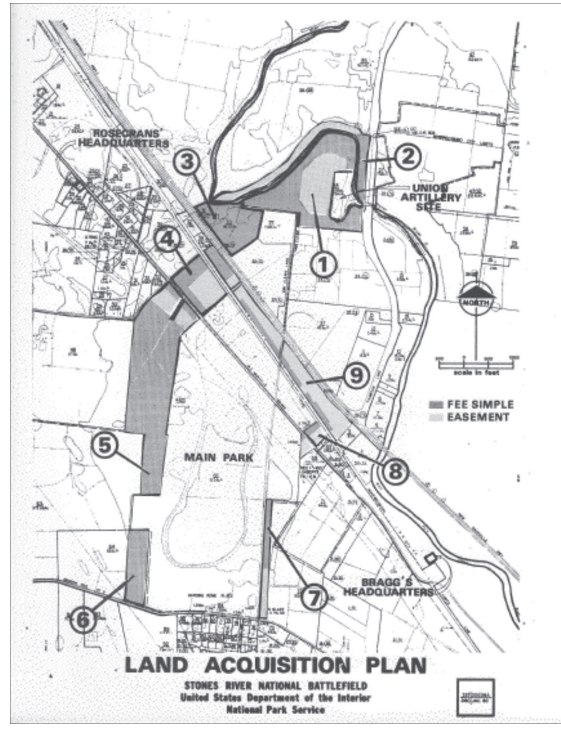


**Figure 3.** Land acquisition plan, part of the 1980 STRI general management plan.

important for the development of park interpretation because they helped link the park to community recreation and leisure spaces along Stones River.

During the 1980s, park staff started doing more serious military history research to incorporate human-interest stories into park interpretation. Perhaps the most innovative research-based program during this time was the "Hallowed Ground" lantern tour, an evening tour of the national cemetery. There, park volunteers in period dress acted out vignettes about people historically associated with the battle. These vignettes allowed visitors to interact with these historical figures as they learned about the war's impact on soldiers who fought at Stones River and the families on the home front. This program remains very popular today, and has generally evolved with Civil War scholarship.[23]

The 1990s saw a resurgence of public interest in the Civil War, or "a Renaissance," as Smith refers to the years 1990 to 2015. Ken Burns's 1990 documentary series, *The Civil War,* inspired many to visit battlefields and read more about the war. Increasing suburbanization around major battlefields prompted grassroots preservationists to get involved and preserve additional battlefield land. Congress established the American Battlefield Protection Program to help guide preservation efforts, but the federal government was no longer the driving force for battlefield protection. Instead, it was being led by groups like the Civil War Trust and The Nature Conservancy.[24]

New organizations and partnerships formed to leverage resources for Civil War battlefield preservation and interpretation at STRI as well. Local advocates formed the Friends of Stones River National Battlefield in 1989 to help the park with land acquisition efforts and park programming.[25] In 1995, James Huhta, director of the Middle Tennessee State University (MTSU) Center for Historic Preservation, submitted a proposal to establish the Tennessee Civil War National Heritage Area, which was authorized by Congress in 1998—the only heritage area that encompasses an entire state.[26] Staff at STRI welcomed both of these new partner organizations, and also formed other partnerships with MTSU to match professors

and students to assist with park needs, such as natural resource inventorying and monitoring, historical research, and interpretation.

Amongst all this renewed energy, there were strong efforts within NPS to bring in more diverse perspectives about the war, particularly the African American experience. As noted earlier, in 1998 National Park Service Civil War battlefield superintendents organized "Holding the High Ground," a conference to discuss several pressing issues at battlefield parks. STRI staff helped facilitate that meeting, held in nearby Nashville, which included field trips to local Civil War sites. Among other things, participants asked, "How do we go about expanding the scope of interpretation on Civil War battlefields?" The group collectively came to the conclusion that slavery should be discussed as a cause of the Civil War. These findings were reinforced in 2000, when Congressman Jesse Jackson attached an amendment to the Department of Interior's appropriation bill requiring the NPS to expand interpretation at Civil War sites, including the topic of slavery as central to the cause of the Civil War. At the direction of Secretary of Interior Bruce Babbitt, NPS put together a report on the status of interpretation at Civil War sites and found that there were deficiencies in placing battles in a larger context. This report was released the same year that NPS held another symposium, this time at Ford's Theatre in Washington, D.C., featuring several prominent historians who presented the latest Civil War scholarship. One of the symposium's emergent themes was the link between the Civil Rights Movement and the Civil War, which had a strong influence on sesquicentennial planning activities. While the efforts to bring in more diverse perspectives of the war were based in scholarship widely accepted in the history profession, they proved controversial among audiences who held tightly to Lost Cause ideology.[27]

This discourse surrounding Civil War memory was notable in context with the "culture wars" of the 1980s and 1990s, when interpretations in a variety of public spaces sparked controversy as historians challenged long-revered narratives. Part of the National Park Service response was to develop training around "civic engagement," in which parks would work with communities to tell untold stories at parks. Civic engagement still remains the heart of NPS interpretation today.[28]

Staff at STRI were clearly influenced by these national conversations. Under the direction of Superintendent Mary Ann Peckham, the park's first female superintendent, staff began building a new interpretive vision for the park. As part of its boundary expansion legislation in 1991, Congress directed NPS to undertake a new general management plan for STRI, which was finally completed in 1998. The GMP included new interpretive themes derived from "New Military History," a growing body of scholarship focused on sociocultural issues instead of the military order of battle, but the planning document stopped short of mentioning slavery and emancipation explicitly. However, in STRI's annual report for Fiscal Year 2001, shortly after Congressman Jackson's amendment, park staff reported that they had begun giving programs on slavery in Middle Tennessee. When the park renovated the Mission 66 visitor center in 2004, the African American experience was more fully incorporated into the permanent museum exhibits. Interpretive staff continued popular living history programs, such as weapons demonstrations, but also started to include the experiences of U.S. Colored Troops (USCT) into these programs, particularly the story of William Hol-

land, a veteran of the 111th U.S Colored Infantry, who is buried outside the Hazen Brigade Monument cemetery. As note above, Holland's story was identified in the 1970s as a possible African American interpretive program, but it was not until the 2000s that park staff began to actively interpret it.[29]

Similar to efforts in the 1970s, STRI staff began, in the 2000s, to engage local teachers and students through workshops and special partnerships. Interpretive staff traveled to schools with limited budgets for field trips. For those groups who could travel, interpretive staff developed an inquiry-based learning approach to park tours. In 2011, the park formed a special partnership with McGavock High School's Academy of Digital Design and Communication (located in Nashville) to develop a multi-disciplinary curriculum, using Stones River National Battlefield as a central theme.[30]

The park also continued to expand its relationship with MTSU, hosting graduate student researchers, interns, and seasonal employees from a range of disciplines, primarily natural sciences and history, to develop research-based interpretation. In 2002, the park began co-sponsoring, with the Tennessee Civil War Heritage Area and the MTSU Department of History, the "Legacy of Stones River Symposium," an occasional series that explored the topics of slavery, occupation and the home front, Civil War memory, pathways to freedom, and why soldiers fought.[31] MTSU public historians Rebecca Conard and Elizabeth Goetsch also helped guide the park in integrating natural and cultural interpretations through the cedar glade landscape.[32]

By the time of the Civil War sesquicentennial, for which the national theme was "Civil War to Civil Rights," the park had made a great deal of progress in incorporating the African American experience into its interpretation, but was still grappling with how to attract diverse audiences to take part in its programs. Things began to change in 2012, when Gayle Hazelwood became the park's first African American and LGBTQ superintendent. Under Hazelwood's direction, the park collaborated with the Friends of Stones River National Battlefield and the African American Heritage Society of Rutherford County to develop community-based interpretation of the African American experience before, during, and after the Civil War. Much of this programming centers on the historic Cemetery community, which was removed by the War Department to create the park in the late 1920s and early 1930s. Cemetery's story remained relatively unknown to park employees until 2004, when Miranda Fraley, a Ph.D. candidate at Indiana University and seasonal STRI employee, completed her dissertation, "The Politics of Memory: Civil War Commemoration in Rutherford County," which mentions the emergence of the community after the battle and subsequent removal by the War Department half a century later.[33] In 2007, MTSU public historians joined the effort in piecing together Cemetery's history, an effort that is ongoing.[34] In 2016 and 2017, these partners co-sponsored programs commemorating Cemetery community and celebrating Decoration Day. While this collaboration is still relatively new and therefore tenuous, it has sparked a desire among local African Americans to become active participants in interpreting black history at the park and surrounding areas.[35]

Today, STRI is firmly an urban park in one of the nation's fastest-growing counties.[36] In the face of encroachment, the park has grown to over 700 acres. Park interpreters, interns,

and volunteers now work to tell the many stories of the war, incorporating African American and women's history. Park staff no longer mow the battlefield, but instead keep it in native grasses, which they manage through prescribed burns. Visitors come to the park not just to see living history demonstrations or the museum exhibits updated ten years ago, but to enjoy the green space and recreational pursuits. These changes of course did not happen overnight, but the groundwork laid by STRI staff in the 1970s certainly bore fruit over the past 30 years.

If Stones River National Battlefield can serve as a text, it would show that the history of preservation and interpretation of Civil War sites does not progress in a linear fashion. Civil War interpretation requires much in terms of "intellectual maintenance," as John Sprinkle noted in this volume's introduction, because tensions between history and heritage remain a constant. In recent decades, NPS and park leadership has softened to accommodate collaboration with a wider range of organizations and groups to help interpret multiple stories. As demonstrated by efforts to preserve the history of Cemetery community, the interest of marginalized groups in a Civil War site's history should not be taken for granted; instead, park staff should make efforts to include their voices in park interpretation. In another vein, the impact of environmental factors, primarily urbanization, has also indelibly shaped how STRI and other Civil War sites are preserved and interpreted, and will likely remain a variable in years to come. As debates about climate change unfold, efforts to more fully integrate natural and cultural resource management will become more critical. What is becoming clear after examining STRI's recent history is the growing importance of volunteers and partners in expanding the agency's capacity for engaging audiences through research and programming. Sprinkle alluded to the many issues facing historical work in the agency, and thus the need for partnerships and volunteers is unlikely to change in the future. NPS should continue to foster and formalize these relationships. Although partnerships and collaborative efforts require significant time and sustained investment, they also increase the public's investment in our national parks.

*The views and conclusions in this essay are those of the author and should not be interpreted as representing the opinions or policies of the National Park Service or the United States government.*

## Endnotes

1. Timothy B. Smith recently described Civil War battlefield preservation as generational in his new book, *Altogether Fitting and Proper: Civil War Battlefield Preservation in History, Memory, and Policy, 1861–2015* (Knoxville: University of Tennessee Press, 2017), xvi.
2. For more on the development of National Park Service Civil War battlefield preservation, management, and interpretation, see the following works: Ronald Lee, *The Origin and Evolution of the Military Park Idea* (Washington, DC: National Park Service, 1973); Timothy B. Smith, *The Golden Age of Battlefield Preservation: The Decade of the 1890's and the Establishment of America's First Five Military Parks* (Knoxville: University of Tennessee Press, 2008); Robert Cook, *Troubled Commemoration: The American Civil*

*War Centennial, 1961–1965* (Baton Rouge: Louisiana State University, 2007); Joan Zenzen, *Battling for Manassas: The Fifty-Five Year Preservation Struggle at Manassas National Battlefield Park* (University Park: Pennsylvania State University Press, 1998): Jennifer Murray, *On a Great Battlefield: The Making, Management, and Memory of Gettysburg National Military Park, 1933–2013 (*Knoxville: University of Tennessee Press, 2014); Richard West Sellars, "Pilgrim Places: Civil War Battlefields, Historic Preservation, and America's First National Military Parks, 1863–1900," *Common Ground,* no. 1 (Winter 2005): 22–52; John Hennessy, "Touchstone: Sesquicentennial, the National Park Service, and a Changing Nation," *Common-Place* vol. 14, no. 2 (Winter 2014); Robert Sutton, "Holding the High Ground: Interpreting the Civil War in National Parks," *The George Wright Forum* vol. 25, no. 3 (2008): 45–57.

3. On June 25, 2015, NPS Director Jonathan B. Jarvis issued a policy ending sales of stand-alone Confederate flag items in NPS visitor centers. This policy followed a very public, passionate debate sparked by the murders of nine African Americans at Emanuel African Methodist Episcopal Church in Charleston, South Carolina, by white supremacist Dylan Roof. National Park Service press release, "National Parks Pull Confederate Flag Sales Items," June 25, 2015. On line at https://www.nps.gov/aboutus/news/release.htm?id=1713.
4. The Battle of Stones River occurred December 31, 1862, to January 2, 1863, near the town of Murfreesboro, Tennessee. The Union army used United States Colored Troops to re-inter bodies in a national cemetery there after the war.
5. For more on the initial creation of STRI, see John Riley George, "Stones River: Creating a Battlefield Park, 1863–1932," dissertation, Middle Tennessee State University, 2013; Miranda Fraley, "The Politics of Memory: Remembering the Civil War in Rutherford County, Tennessee," dissertation, Indiana University, 2004. For more on Cemetery community, see Rebecca Conard, "Historic Cemetery Community: The Cedars, Stones River National Battlefield, Rutherford County, Tennessee" in *Ethnographic Overview and Assessment, Stones River National Battlefield: Final Report*, Will Leggett, ed. (National Park Service: Southeast Regional Office, 2016), 23–106.
6. Angela Sirna and Rebecca Conard, *Stones River National Battlefield Administrative History* (National Park Service: Southeast Regional Office, 2016), 35–52.
7. Gilbert J. Backlund, "Patriotism on the Battlefield: The National Park Service and Mission 66 at Stones River," master's thesis, Middle Tennessee State University, 2005; Sirna and Conard, *Stones River National Battlefield Administrative History,* 53–77.
8. Sutton, "Holding the High Ground," 47, 52; Sirna and Conard, *Stones River National Battlefield Administrative History,* 118.
9. Smith, *Altogether Fitting and Proper,* 165–167.
10. Sherman Perry to Regional Director, memorandum, "Interstate 24 Interchange," May 29, 1969, and J. Leonard Volz to Southeast Regional Director, memorandum, "Interstate at Stones River National Battlefield," both Folder 56 D-30 Roads and Trails; Bruce W. Black and John Hunter, "Management Objectives Stones River National Battlefield," March 22, 1972, Folder 43 D-18 Management Objectives, Series 1, STRI park archives;

James Sanders interview by Angela Sirna, October 20, 2015, 1–4.

11. Lawrence Quist to Regional Director, memorandum, "Deletion of Brannan Redoubt from Stones River National Battlefield," February 1, 1962, Folder 111 L-1417 Boundaries, Series 1, STRI park archives.
12. John Hunter to Southeast Region Chief Division of Lands, memorandum, "Draft of Proposed Transfer of Lands by the City of Murfreesboro," September 20, 1973, Folder 111 L-1417 Boundaries, Series 1, STRI park archives.
13. Elsie Quarterman, "Plant Communities of Cedar Glades in Middle Tennessee," doctoral thesis, Duke University, 1948; Elsie Quarterman, "Major Plan Communities of Tennessee Cedar Glades," *Ecology* vol. 31, no. 2 (April 1950): 234–254; Miller, Wihlry, and Lee, Inc., and Elsie Quarterman, *Stones River National Battlefield Cedar Glades Report* (National Park Service: Denver Service Center, 1976); John Hunter to Theodore C. Bigger, letter, April 26, 1972, Folder 34 A8215 Centennial Events, Series 1, STRI park archives; Sanders interview, 16–17.
14. Cultural landscapes as an academic field of inquiry originated with the work of geographer Carl Sauer on "The Morphology of Landscape" in 1925. Cultural geographers and folklorists continued to build upon his work for the next several decades. In the 1950s, J.B. Jackson, who did not align himself with any particular academic discipline, began to make "cultural landscape" a familiar term in the design field, which caught the interest of preservationists interested in historic districts and rural landscapes. NPS became involved in identifying and preserving cultural landscapes in the 1970s. Ebey's Landing National Historical Reserve became one of the first designated cultural landscapes in the national park system after it was established in 1978. NPS hired its first cultural landscape staff in 1980 and started to develop standards for identifying, treating, and preserving cultural landscapes. See Julie Riesenweber, "Landscape Preservation and Cultural Geography," in *Cultural Landscapes: Balancing Nature and Heritage in Preservation Practice,* Richard Longstreth, ed. (Minneapolis: University of Minnesota Press, 2008), 23–34; Nancy Rottle, "A Continuum and Process Framework for Rural Historic Landscape Preservation: Revisiting Ebey's Landing on Whidby Island, Washington" in *Cultural Landscapes,* 129–149; Robert Melnick, "Preserving Cultural and Historic Landscapes: Developing Standards," *CRM Bulletin* vol. 3, no. 1 (March 1980): 1–2.
15. Richard West Sellars, *Preserving Nature in the National Parks: A History* (1997; repr., New Haven, CT: Yale University Press, 2008), 69–82, 185–191, 214–217, 244–246.
16. Barry Mackintosh, *Interpretation in the National Park Service: A Historical Perspective* (Washington, DC: National Park Service, 1986), online at http://www.nps.gov/parkhistory/online_books/mackintosh3/directions_environmental.htm (accessed January 22, 2016).
17. John Hunter, "Superintendent's Annual Report 1972," June 12, 1973, and "Superintendent's Annual Report 1973," January 18, 1974, both Folder 82 H14 History, Series 1, STRI park archives.
18. Southeast Regional Director to NPS Director, memorandum, "Environmental

Education—A Giant 'STEP,'" March 7, 1972; John Hunter to State Coordinator, memorandum, "Attendance at Meeting in Nashville Concerning S.T.E.P. and Environmental Education," October 30, 1972; Vincent Ellis to Superintendent, Great Smoky Mountains National Park, memorandum, "STEP and Environmental Education in the Nashville Area," November 17, 1972; "A Brief Summary of the S.T.E.P. Program at Stones River National Battlefield, Murfreesboro," [1974], all Folder 38 A98 STEP, Series 1, STRI park archives.

19. Mackintosh, *Interpretation in the National Park Service,* online at http://www.nps.gov/parkhistory/online_books/mackintosh3/directions_living_history.htm (accessed February 25, 2016); Hunter, "Superintendent's Annual Report 1972"; Hunter, "Superintendent's Annual Report 1973"; James Sanders, "Superintendent's Annual Report on Stones River National Battlefield for Calendar Year 1975," February 17, 1976, and James Sanders, "Superintendent's Annual Report on Stones River National Battlefield for Calendar Year 1976," January 5, 1977, both "Superintendent's Annual Reports" binder, Stones River National Battlefield Administrative Files; Don Magee, "Stones River National Battlefield 1980 Annual Report," March 11, 1981, Folder Stones River National Battlefield, Superintendents' Annual Narrative Reports, 1980–2001, Records of NPS, Record Group 79, National Archives and Records Administration, College Park, MD (RG 79, NARA-CP); Sirna and Conard, *Stones River National Battlefield Administrative History,* 85–87.
20. Jim Sanders, "1979 Report on YCC Camp 7602 Stones River National Battlefield," September 6, 1979, Folder 39, Park Archive; A98 YCC (1978–1981), Series 1, STRI park archives; Hunter, "Superintendent's Annual Report 1973"; Sanders, "Superintendent's Annual Report on Stones River National Battlefield for Calendar Year 1975"; Teresa Watson interview by Angela Sirna, Murfreesboro, TN, February 18, 2016; National Park Service, *Stones River National Battlefield General Management Plan/General Design Concept* (Murfreesboro, TN: National Park Service, 1980), 72.
21. Sanders Interview, 8, 12–13, 17.
22. John Hunter to Associate Regional Director of Professional Services, memorandum, "Stones River Master Plan, Proposed Land Acquisition," February 28, 1975, Folder 111 L1417 Boundaries, Series 1, STRI park archives; National Park Service, *Stones River National Battlefield General Management Plan/General Design Concept*; Sanders interview, 16; Bart Gordon interview by Angela Sirna, Murfreesboro, TN, October 16, 2015, 3; *An Act to Amend the Boundaries of Stones River National Battlefield, and for Other Purposes,* Public Law 100-205, 100th Cong., 1st Sess. (December 23, 1987); *To Expand the Boundaries of Stones River National Battlefield, and Other Purposes*, Public Law 102-225, 102d Cong., 1st Sess. (December 11, 1991); Sirna and Conard, *Stones River National Battlefield,* 83–94, 91, 103–105, 107–110.
23. Donald Magee interview by Angela Sirna, November 3, 2015, 15–16, 28, STRI park archives; Donald Magee, "Superintendent's Annual Report of Stones River National Battlefield and Cemetery for Calendar Year 1983," February 10, 1984, and "Superintendent's Annual Report of Stones River National Battlefield and Cemetery for

Calendar Year 1984," February 25, 1985, both located in Folder Stones River National Battlefield, Superintendents' Annual Narrative Reports, 1980–2001, Records of NPS, RG 79, NARA-CP; Donald Magee, "Superintendent's Annual Report of Stones River National Cemetery for Calendar Year 1985," February 2, 1986, Folder 157 A2621 Annual Reports, Series 1, STRI park archives.

24. Smith, *Altogether Fitting and Proper,* 191–221.
25. Mary Ann Peckham, "Stones River National Battlefield and Cemetery 1989 Annual Report," March 2, 1990, Folder Stones River National Battlefield, Superintendents' Annual Narrative Reports, 1980–2001, Records of NPS, RG 79, NARA-CP.
26. Tennessee Civil War Heritage Area, "History of the Tennessee Civil War Heritage Area," online at http://tncivilwar.org/who_we_are/history (accessed February 11, 2016).
27. *Holding the High Ground: Principles and Strategies for Managing and Interpreting Civil War Battlefield Landscapes,* proceedings of a conference of battlefield managers, Nashville, TN, August 24–27, 1998 (Fredericksburg, VA: Fredericksburg & Spotsylvania National Military Park, 1999); Robert Sutton, ed., *Rally on the High Ground: The National Park Service Symposium on the Civil War* (Fort Washington, PA: Eastern National, 2001); Sutton, "Holding the High Ground," 47–57.
28. Tom Engelhart and Edward T. Linenthal, eds., *History Wars: The Enola Gay and Other Battles for the American Past* (New York: Henry Holt and Company, 1996); Edward T. Linenthal, "The National Park Service and Civic Engagement," *Public Historian* vol. 28, no.1 (Winter 2006): 123–129.
29. National Park Service, *Stones River National Battlefield, Tennessee: Final General Management Plan, Development Concept Plan, Environmental Impact Statement* (Denver, CO: National Park Service, Denver Service Center, 1998); Stuart Johnson, "Superintendent's Annual Narrative Report Stones River National Battlefield Fiscal Year 2001, September 2000 to October 2001," February 14, 2002, Folder Stones River National Battlefield, Superintendents' Annual Narrative Reports, 1980–2001, Records of NPS, RG 79, NARA-CP; Gilbert Backlund interview by Angela Sirna, part two, Murfreesboro, TN, October 15, 2015, 10, STRI park archives; James Lewis interview by Angela Sirna, Murfreesboro, TN, November 9, 2015, 23-24, STRI park archives.
30. Stuart Johnson, "Superintendent's Annual Narrative Report Stones River National Battlefield Fiscal Year 2011, October 2010 to September 2011 (Draft)," February 2012, STRI park administrative files.
31. Stuart Johnson, "Superintendent's Annual Report Stones River National Battlefield Fiscal Year 2004, October 2003 to September 2004, February 20, 2004; Johnson, "Superintendent's Annual Report Stones River National Battlefield Fiscal Year 2005, October 2004 to September 2005," March 24, 2006; Johnson, "Superintendent's Annual Report Stones River National Battlefield Fiscal Year 2007, October 2006 to September 2007," July 25, 2008; Johnson, "Superintendent's Annual Report Stones River National Battlefield Fiscal Year 2010, October 2009 to September 2010," June 17, 2011, all STRI park administrative files.
32. Rebecca Conard, "The Changing Face of the Countryside: Environmental History and

the Legacy of the Civil War at Stones River National Battlefield," *The George Wright Forum* vol. 28, no. 2 (2011): 161–181; Elizabeth Goetsch, "All Could Not Help But Feel It: A Cultural Landscape Approach to History at Stones River National Battlefield," master's thesis, Middle Tennessee State University, 2011.

33. This is not to say, however, that Cemetery residents and descendants had forgotten about their community's past. Park neighbor and Cemetery resident Leonora E. Washington wrote a "A Black Perspective of the History of the Area as Compiled during the Tennessee Homecoming Celebration in 1986 by a Local Resident." A copy is on file in the STRI park archives.
34. Rebecca Conard, et al. "African Americans on the Land: Five Cultural Landscape Studies of Stones River NHB." Murfreesboro, TN: public history seminar, Middle Tennessee State University, December 2007; Lydia Simpson, "Settling In: Tracking the Formation of the Cemetery Community through Public Records," master's thesis, Middle Tennessee State University, 2011; Rebecca Conard, "Finding Historic Cemetery Community: The 2011 Public History Field School," *Public History at Middle Tennessee State University Newsletter* (Fall 2011); Conard, "Historic Cemetery Community: The Cedars" (2016).
35. See the Friends of Stones River National Battlefield website: http://stonesriverbattlefield.org.
36. Murfreesboro was listed as the 13th-fastest-growing city in the country in 2016; Scott Broden, "Mayor Proud Murfreesboro on Fastest-growing Cities List," *Daily News Journal* [Murfreesboro, TN], May 20, 2016.

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# Farming in the Sweet Spot: Integrating Interpretation, Preservation, and Food Production at National Parks

*Cathy Stanton*

Food production falls somewhere between the natural and the cultural, between resource bases of land, air, and water and human practices of cultivation and harvesting. This ambiguity creates particular challenges for the many national parks and heritage areas that incorporate farms, fisheries, ranches, orchards, and other types of working landscapes relating to food. Some of those challenges reflect long-running debates about whether public lands and waters should be kept in use or left alone, and if they are to be used, who should benefit and how. Other questions stem from the complexities of food itself—its essential role in human survival, its emotional and social as well as biological qualities, and the way it is interwoven with "sense of place" and specific ways of life, especially on small scales. The changing climate complicates things further, making subsistence and survival themselves less taken-for-granted than they once seemed to be.

Amid competing calls for expansion of large-scale industrialized agriculture on the one hand and a rebuilding of smaller-scaled local or regional food systems on the other, how should national parks best steward and interpret resources directly used in producing food? This article addresses that larger question through a case study: the agricultural lands within the recently expanded boundaries of Martin Van Buren National Historic Site (NHS) in Kinderhook, New York.[1] After a brief overview of the overlapping layers of ownership and use of Van Buren's farmland, I explore some of the challenges the park and its partners face and the strategies they are using as they work toward a new model of shared land stewardship and interpretation.

## Reassembling Van Buren's farm

In 1840, after a single term as president, Martin Van Buren returned to his small-town home and became a gentleman farmer in the mold of Thomas Jefferson and other agrarian advocates of the early republic. The land that Van Buren owned from 1839 until his death in 1862 had already been continuously farmed for centuries, with indigenous peoples cultivating

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food in the area long before the establishment of Dutch colonial farms in the 17th century. Van Buren grew apples, hay, potatoes, grains, meat, and dairy products for his household and for burgeoning commercial markets in New York and other regional cities.

Far from being a bucolic retreat from partisan politics, Van Buren's farming was a direct extension of his political career. He ran for president twice more, including on the 1848 Free Soil Party ticket, and tried to make his own farm a reflection of the ideals of "Free Soil, Free Speech, Free Labor and Free Men" that undergirded northern opposition to the expansion of slavery in the new western states. He combined traditional Dutch-American farming knowledge with an embrace of then-cutting-edge techniques, aiming to demonstrate that supposedly tapped-out northeastern farmland could be made productive enough to compete successfully with larger farms then being established along the moving western frontier (Figure 1). In a pre-fossil-fuel era, those new techniques consisted of strategies we now think of as "organic," "natural," "regenerative," or "sustainable," like crop rotation and intensive fertilization ("Henceforth manure—manure—is the word," the former president wrote in an 1843 letter) intended to enhance soil health and productivity.[2]

Van Buren's carefully nurtured fields have remained in continuous agricultural use ever since, although the property itself became fragmented over the decades. By 1974, when the

**Figure 1.** Wayside exhibit at Martin Van Buren NHS interpreting the soil improvement techniques embraced by "progressive" farmers in the mid-19th century. Photo by the author.

national park was established on a small parcel of land that included Van Buren's mansion, most of the farmland was being cultivated by a farmer who produced market and commodity crops using chemical pesticides and fertilizers, many of them now banned. Until 2009, the park remained an island within this conventional farm, but preservationists' concerns about encroaching development led to a push for a boundary expansion to enclose nearly all of Van Buren's 200-plus acres within the park. The result is a complex mosaic of ownerships, easements, and uses, including a number of private homes and a working farm that owns and cultivates more than 100 acres within the park boundary as well as considerable additional acreage outside it. The National Park Service (NPS) also owns 25 acres of farmland directly behind the mansion; the working farm has a short-term lease on this parcel and its functional farm buildings, only one of which dates to Van Buren's period (Figure 2).

The current farmers are very different from their predecessors at the site, and they have been a crucial linchpin in the boundary expansion project. The farm sells directly to customers through a CSA (community supported agriculture) shareholder system and uses biodynamic methods, an organic approach that sees soil, plant, and animal life (including humans) as ecologically and socially intertwined. While by no means identical to Martin Van Buren's

**Figure 2.** Aerial view of Martin Van Buren NHS, 2011. The 25-acre parcel where the park and farm operations overlap most closely can be seen across the top of the photo, with the modern farm buildings in the top left corner. Courtesy of NPS/Martin Van Buren NHS.

methods and philosophy, this comes much closer to the historical precedent than do farms that sell commodity foods in large-scale markets and rely heavily on human-made pesticides and fertilizers from off-farm sources.[3] The regenerative techniques used on the farm also align closely with NPS's own preference for strategies that foster biodiversity and minimize the use of chemicals. Another key partner in the boundary expansion was a large regional land trust, which helped facilitate the purchase of the farmland and negotiate agricultural easements that ensure it will remain in cultivation in perpetuity.[4] The land trust holds some of these easements and the park others; the sale of development rights helped the farmers purchase the acreage that they own outright.

From the outset, many of those involved in the 2009 boundary expansion could glimpse tantalizing possibilities for a new generation of interpretation and co-stewardship. They envisioned a partnership that would build on existing experiments around the national park system but integrate past and present resource uses even more closely, creating a win–win–win situation. In this vision, the park is able to present a more holistic, nuanced view of Martin Van Buren's life. Conservation interests are served by maintaining the historical character of a significant piece of the Hudson Valley's agricultural landscape, supporting the vigorous regional tourism sector as well as a local-food economy that follows historical precedent by selling both close to home and in New York City and other nearby cities. And the farmers gain secure tenure on prime farmland in a desirable and expensive real estate market. The differing imperatives of historic preservation, public land management, and working agriculture have made themselves felt in various ways as the partners have worked out the details of the new arrangement, but the ongoing process points toward exciting potential for renewing interpretive practices at this and other NPS sites that incorporate working lands or other food-related resources.

## Challenges

Many of the biggest challenges stem from the legacies of older interpretive and management paradigms rooted in sharp dichotomies between past and present, public and private, nature and culture, preservation and change. Despite many innovations around the national park system in the past three or four decades, those older patterns continue to surface in the continuing preference of many managers and planners for clear-cut plans and narratives rather than a tolerance for open-endedness and more porous boundaries. At bottom, the tension is between the concept of a static "period of significance" and the dynamism of participating in real-time systems—in this case, a food system shaped by the demands of commercial markets. Parks are created to preserve a particular aspect of the past, but food producers must continually adapt to changing conditions in ways that may require reshaping the resource being preserved and protected.

At Martin Van Buren NHS, this fundamental tension has manifested itself most clearly in negotiations about the 25-acre parcel that the working farm leases from NPS. This area contains a 19th-century farm cottage but also a number of 20th-century structures that are central to the farm's operations. Initially, park planning approached these as modern "intrusions" that should be razed as soon as possible in order to preserve (or rather, to re-create)

a sense of the Van Buren-era landscape in the historic core of the park. The farmers made it clear that the financial burden of building new infrastructure elsewhere on their own property would jeopardize their ability to stay afloat financially. Over time, the park's position on the functional 20th-century buildings has shifted as managers have embraced the more flexible paradigms discussed in the following section. But a recent revaluation of the parcel, leading to a steep rent hike, plus the fact that the current lease extends only to 2020 with possible one-year extensions to 2026, keeps this a vexed issue.

One key underlying reason it is so vexed is the assumption—encoded in the kinds of law and policy that NPS must abide by—of a clear-cut distinction between the missions and practices of a commercial entity like a farm and those of a public agency like the National Park Service. In theory, this separation is obvious: one exists to make money, the other does not. But in practice, the line is blurred by the complex and sometimes contradictory relationship of both parks and farms with capitalist markets. Recent scholarship on national parks underscores how park creation has historically been entangled with economic development or redevelopment projects, even as parks have also often been asked to mitigate or withstand the effects of market-driven changes.[5] Meanwhile, like most people in the cultural sector, farmers are motivated as often by love of their work as by purely financial considerations; those who stay in farming or go into it in the early 21st century are as much altruists as they are entrepreneurs.[6]

One of the main interpretive challenges at Martin Van Buren NHS has been how to understand Van Buren's own approach to farming in relation to a wider spectrum of ideas about agriculture in both the past and the present. In hindsight, the 19th-century "improvers" whose ideas Van Buren selectively adopted look a lot like contemporary sustainable farmers. But in their day, they saw themselves as modernizers who embraced the doctrines of efficiency and productivity that helped set American agriculture on the road to our current industrialized food system. How, then, to connect past and present without over-selling similarities that reflect very different—even contradictory—positions along that trajectory?

Farmers of all kinds tend to align themselves with the ideals of independent agrarianism—the same ideals that Martin Van Buren sought to uphold against both the opposing system of enslaved agricultural labor and the emerging realities of waged labor in an industrializing economy. Then as now, the iconic image of the self-directed American farmer stands in sharp contrast to the realities of industrialism and capitalism, which favor concentrations of wealth, efficiencies of scale, and consolidation of control.[7] Farmers have been wrestling with this conundrum—most baldly expressed in the "get big or get out" axiom of the 1970s and 1980s—for most of the past two centuries, with mixed results.[8] Whether they are tiny or gigantic, virtually all American farms are affected by the continual volatility of markets, and virtually all require some kind of subsidy or support to stay afloat.[9] The contemporary farm at Martin Van Buren's estate is part of a widespread questioning of the effects of market logic on the food system, but it is also caught within an economic and regulatory environment shaped by those two centuries of struggle. Small-scale farmers must contend with consumer expectations shaped by the convenience and choice provided by industrialized agriculture, while also following expensive requirements put in place to curb the most damaging practices of

enormous "factory farms."[10] The for-profit/non-profit distinction structures much of what happens at a national park site where resources are being used for commercial food production, but it also obscures important questions about the complexities of the past and present of the U.S. food system and how NPS might interpret and deal with those complexities.

### Strategies

The park has approached these challenges in three main ways. First and perhaps foremost, key members of the park staff have been very committed to building a sense of trust and mutuality with the farmers cultivating Van Buren's land. In part this commitment reflects NPS's increased emphasis in recent decades on partnerships, sharing ownership and stewardship of resources, and engaging with civic and community issues. In a more basic sense, this is simple neighborliness: the park and the farm share space and interests, and everyone benefits from a congenial working relationship. At times the relationship-building process has been strained by internal NPS differences in assumptions and expectations, leadership changes, and clashing timetables, which have exacerbated the legal and financial challenges of working out the details of co-stewardship. But over the past eight years, good will and continuing commitment on both sides have sustained and strengthened the conversations. Other partners, particularly the land trust that facilitated the boundary expansion and the Olmsted Center for Landscape Preservation, have played important roles in this process, as discussed in more detail below.

A second key strategy has been the commissioning of a carefully sequenced set of studies supporting the park's shift from what was essentially a historic house museum to an active part of the region's historical and contemporary farming sector.[11] A 2004 cultural landscape report by the NPS's Olmsted Center for Landscape Preservation thoroughly documented the agricultural uses of Van Buren's farmland from the early Dutch colonial era to the turn of the 21st century. A 2006 scholarly historic resource study helped to update the park's interpretive themes, particularly by showing how Van Buren's post-presidential farming activities reflected sectional and ideological struggles of the antebellum period. Between 2009 and 2012, I was part of a team working on an ethnographic landscape study (ELS) that situated farming at Van Buren's Lindenwald estate within the broader agricultural history of the surrounding county and region. A relatively new format in the Park Service, the ELS enables the documentation of not only land uses but cultural meanings and practices associated with them by particular park-associated people—in this case, area farmers. While farmers arguably are not a cohesive group of people in the same way that an ethnic or tribal community might be, there are important parallels, particularly because farming *does* constitute a particular way of life with a deep and continuous history in the Hudson Valley.

At the same time, there are as many divisions as similarities among farmers. The ELS and other studies have helped the park to parse the thorny question of how to situate Van Buren within that larger spectrum. By showing Van Buren to have been *au courant* with farm reform ideas and projects of his day that were connected with wider political struggles, the historical research has helped the park arrive at a workable characterization of the eighth president's

farming activities. Park materials now describe him as a "progressive" farmer—progressive in the sense that he adhered to the Jeffersonian vision of agriculture as a cornerstone of American democracy. Literally, metaphorically, and politically, his soil-enhancing activities reflected a belief that the future of the nation depended on the viability of farms cultivated by free men. The connecting thread that has emerged is the soil itself, worked and enhanced—and at times overworked and depleted—for many centuries. Van Buren's specific approach to nurturing soil fertility provides a strong, clear link not only with the current farmers' biodynamic methods and contemporary sustainable farming more generally, but also with the Park Service's guidelines for responsible land management. The park has come to understand the living, working farmland as a central cultural resource for communicating why this still-little-known president matters deeply within the span of American history.

Finally, the park has worked to encode its new partnerships and interpretive directions in internal planning documents to ensure that future managers understand why sustainable farming is a crucial strategy for preserving and interpreting this piece of U.S. history. A general management plan (GMP) process was taking place alongside much of the work described above, resulting in a 2015 document that favored a holistic approach to managing and interpreting the site, one which would allow visitors to "walk in the footsteps of Martin Van Buren—as eighth president, politician, progressive farmer and family man."[12] The GMP sets out the broad strokes of this new approach, including its importance for stewardship and cultivation of this farmland in a time of radically changing climate patterns. The 2004 *Cultural Landscape Report* provided a basis for a 2016 treatment plan that similarly sets out the policy and philosophical frameworks for agricultural management at the site.[13]

One further document moves further into the details of what the partners understand to be "sustainable" methods and how those support the overlapping goals of interpreting Martin Van Buren's life, preserving the working agricultural landscape, and maintaining the economic viability of current and future farmers at the site. As this article was being drafted, the Olmsted Center was finalizing a supplemental set of agricultural management guidelines knitting together the objectives and best practices of both sustainable agriculture and cultural landscape preservation. Although landscape architects have historically been among those advocating most strongly for land treatments emphasizing a particular period of significance, the Olmsted Center has been shifting toward more responsive models that can take into account the inescapably dynamic qualities of the meanings and uses that connect people with landscapes—what Nancy Rottle has called a "continuum and process" model.[14] The new guidelines build on emerging practices around the national park system where park resources are being used for active food production, perhaps most notably at Cuyahoga Valley National Park in Ohio where farmers cultivating 11 small farms within the park have been able to sign 60-year leases that offer far greater stability than the usual shorter-term NPS leases for farmers.[15] Building on the exceptional synergy of historical significance, landscape character, and compatible contemporary usage at Martin Van Buren NHS, Olmsted Center planners saw an opportunity to articulate how the tantalizing vision for holistic, relevant interpretation at the park could be captured in management practices on the ground. The agricultural man-

agement guidelines are intended for future managers, most of whom will likely not be farmers themselves and who will need to be brought into the ongoing conversation about both the "why" and the "how" of this project.

Some questions remain unresolved, particularly about the future use and management of the 25-acre parcel where the park and farm uses overlap most closely. Gaps will always remain between the layered histories of U.S. farming writ large, Martin Van Buren's own farming, today's sustainable farming movement, NPS mandates, and the needs and practices of the park's specific farm partner. On a grander scale, the willingness or ability of those within the federal government to engage directly with questions about anthropogenic climate change—a context as pressing for contemporary farmers and citizens as sectional hostilities were for Martin Van Buren—may shift with changing political currents, undercutting some of the striking relevance of this site in the present. But food may prove to be an accessible enough entry-point to those questions that park visitors and area residents will find ways to connect the dots for themselves, particularly as the working farm is more fully integrated into the park's interpretation.[16] The groundwork that has been laid so far hints at striking innovation to follow, pushing beyond limiting dichotomies (past/present, nature/culture, for-profit/non-profit) and engaging directly with the richly resonant generative land and landscape of this particular place.

## Endnotes

1. I am indebted to current and former staff at Martin Van Buren NHS, the NPS Northeast Ethnography Program, the Olmsted Center for Landscape Preservation, Roxbury Farm, the Farmscape Ecology Program of Hawthorne Valley Farm, and others who have been involved in conversations about this project over the past several years. They have contributed immeasurably to my understanding of both agricultural history and the potential for historic sites to play a greater role in interpreting it.
2. Reeve Huston, "The 'Little Magician' after the Show: Martin Van Buren, Country Gentleman and Progressive Farmer, 1841–1862," *New York History* (Spring 2004): 108.
3. Terms such as "conventional," "industrial," and "sustainable" turn out to be much less specific and more value-laden than they appear at first, and they often overlap in actual farming practices. For example, "big organic" farming essentially mirrors any other large-scale agriculture except in its avoidance of certain chemical pesticides or fertilizers, while small-scale farms that use chemical pesticides but sell in extremely local markets may contribute substantially to the viability and "sustainability" of a local or regional food system. "Regenerative" is a more specific term, referring to modes of farming that treat farms as holistic ecological systems and avoid the use of imported "inputs" by producing most or all of their own fertilizer, animal feed, and, sometimes, seed.
4. Open Space Institute, "OSI Protects a Scenic and Working Farm Adjacent to Historic Lindenwald," press release, December 17, 2009. Online at http://osi.convio.net/site/PageServer?pagename=PressRelease_12_17_09.
5. For some accounts of this entangled relationship of park creation and economic development or redevelopment, which has sometimes involved attracting economic

activity to depressed or depopulated areas and sometimes protecting landscapes from too much development or visitation, see Robert W. Righter, *The Battle over Hetch Hetchy: America's Most Controversial Dam and the Birth of Modern Environmentalism* (New York: Oxford University Press, 2006); Hal K. Rothman, *America's National Monuments: The Politics of Preservation* (Lawrence: University Press of Kansas, 1994); Marguerite Shaffer, *See America First: Tourism and National Identity 1880–1940* (Washington, DC: Smithsonian Institution Press, 2001); Paul Schullery and Lee Whittlesey, *Myth and History in the Creation of Yellowstone National Park* (Lincoln: University of Nebraska Press, 2011); Cathy Stanton, *The Lowell Experiment: Public History in a Postindustrial City* (Amherst and Boston: University of Massachusetts Press, 2006), and Anne Mitchell Whisnant, *Super-Scenic Motorway: A Blue Ridge Parkway History* (Chapel Hill: University of North Carolina Press, 2010).

6. I am particularly indebted to Brian Donahue for helping me to work through this crucial point. For more, see the interview with Donahue in Michelle Moon and Cathy Stanton, *Public History and the Food Movement: Adding the Missing Ingredient* (New York and London: Routledge, 2018), 79–83.
7. For a discussion of how the ideals of agrarianism continue to inform contemporary American farming, with a specific focus on the Hudson Valley, see Margaret Gray, *Labor and the Locavore: The Making of a Comprehensive Food Ethic* (Berkeley: University of California Press, 2014), 15–40. Julie Guthman's *Agrarian Dreams: The Paradox of Organic Farming in California* (Berkeley: University of California Press, 2004) examines the same tension between agrarian ideals and capitalist markets.
8. For more on this fundamental tension within market-based agriculture, see R. Douglas Hurt, *Problems of Plenty: The American Farmer in the Twentieth Century* (Lanham, MD: Ivan R. Dee, 2002) and Moon and Stanton, *Public History and the Food Movement,* Chapters 3 and 4.
9. The best-known types of subsidy are the various state mechanisms designed to keep farmers solvent. Over time in the U.S., and particularly since the 1960s and 1970s, these mechanisms have favored strategies that expand the influence of "market forces" rather than curbing them. Leasing public lands, often at below-market rates, is another strategy used by many farmers; NPS leases a good deal of its farmable land, particularly for growing fodder crops like hay and corn. Contemporary food reformers point out that other forms of subsidy exist, including the use of low-wage seasonal labor, often by immigrants; off-farm income that offsets farm losses or low returns; and spill-over affluence from "locavore" shoppers or well-to-do landowners who are able to support smaller-scale farming. Arguably, Martin Van Buren and other "gentleman farmers" of the past and present are among these.
10. For an exploration of this tension, see Joel Salatin, *Everything I Want to Do Is Illegal: War Stories from the Local Food Front* (Swoope, VA: Polyface Farm, 2007).
11. See Leonard L. Richards, Marla R. Miller and Eric Gilg, *A Return to His Native Town: Martin Van Buren's Life at Lindenwald, 1839–1862*, Historic Resource Study, with site review reports by Sean Wilentz, Reeve Huston, and Jonathan Earle (Boston: National

Park Service, 2006); Llerena Searle, *A Farmer in His Native Town: Cultural Landscape Report for the Martin Van Buren Farmland* (Boston: Olmsted Center for Landscape Preservation, 2004); and Cathy Stanton, *Plant Yourself in My Neighborhood: An Ethnographic Landscape Study of Farming and Farmers in Columbia County, New York* (Boston: National Park Service Northeast Ethnography Program, 2012). Other recent related studies at the park include a Turf Management Plan (2010) and an ethnohistory of Mahican Indians in the Kinderhook area (2011).

12. National Park Service, *General Management Plan Environmental Assessment, Martin Van Buren National Historic Site* (Boston: National Park Service, 2015), 63.
13. Alexandra von Bieberstein and Margie Coffin Brown, *Cultural Landscape Report for Martin Van Buren National Historic Site, Volume II: Updated Treatment Plan and Record of Treatment* (Boston: Olmsted Center for Landscape Preservation, 2016).
14. Nancy D. Rottle, "A Continuum and Process Framework for Rural Historic Landscape Preservation: Revisiting Ebey's Landing on Whidby Island, Washington" in Richard Longstreth, ed., *Cultural Landscapes: Balancing Nature and Heritage in Preservation Practice* (Minneapolis and London: University of Minnesota Press, 2008), 129–149.
15. For a listing of these, see Rolf Diamant and Alex Romero, *Parks Where Farms and Food Matter: A Report from the October 2010 Northeast/National Capital Regional Conference Affinity Group* (Washington, DC: National Park Service, March 2011). Key sites that are relevant to this article include Ebey's Landing National Historical Reserve on Whidbey Island in Washington state, Point Reyes National Seashore north of San Francisco, Marsh–Billings–Rockefeller National Historical Park in Vermont, and Cuyahoga Valley National Park in Ohio.
16. This is the premise of Moon and Stanton's *Public History and the Food Movement*; see especially pp. 2–5, "Why Start with Food?"

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# The Changing Cape: Using History to Engage Coastal Residents in Community Conversations about Climate Change

*David Glassberg*

> My wife and I walk the beach constantly with our dogs. We have seen houses located on the dunes of the National Seashore fall into the ocean during winter storms. We see houses being raised onto stilts. We have seen huge sections of dunes collapse. We watch every year as heavy equipment has to rebuild beach access and stairs that are destroyed. We are currently looking for a larger house/lot, and yes rising sea levels are a huge factor in our conversations about where to live.
>
> — *Mike Kubiak, Wellfleet, Massachusetts, September 2016*[1]

Since 2001, the National Park Service (NPS) has explicitly embraced community engagement in its efforts to interpret social and political history. These strategies can also be employed to interpret environmental history topics such as climate change. The "Changing Cape" project, conducted at Cape Cod National Seashore in October 2016, suggests ways that public history and community engagement techniques can enhance how NPS communicates with the public about climate change and other environmental issues.

## Community engagement and NPS

The report of the "National Park Service and Civic Engagement Workshop," organized by the NPS Northeast Region in New York City in December 2001, identified three goals:

1. Heritage Resources are identified and protected that exemplify the fullness of the nation's history and culture and its rich diversity;
2. Interpretation, curriculum-based education, and other public programming connect the heritage of the nation to its contemporary environmental, social, and cultural issues. Parks serve as important centers for democracy and as places to learn and reflect about American identity and the responsibilities of citizenship;

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3. Significant resources are preserved through park and regional planning and cooperative stewardship strategies. Partnerships characterize park designation, planning, development, and management.[2]

Long-term trends within NPS led to these goals.[3] Concerning the first goal, since the 1960s the people interpreting history under NPS auspices have been coming from increasingly diverse social, political, and regional backgrounds. The agency had never interpreted the past with a single voice, but through its first 50 years its cultural outlook reflected that of many of its permanent employees: men from the rural South and West who entered NPS through veterans' preference.[4] That began to change in the 1960s, and as more women, African Americans, and people from urban areas joined NPS, the histories that they wanted to interpret to the public grew more diverse. One principal organizer of the Civic Engagement Workshop in 2001, Marty Blatt, chief of cultural resources for Boston National Historical Park, was born and raised in Brooklyn and had come to NPS from the Massachusetts Department of Labor. By the late 1990s, Robert G. Stanton, who is African American and served as NPS director from 1997 to 2001, and John Hope Franklin, the prominent African American historian who chaired the 12-person NPS Advisory Board, were in positions of leadership and could insist that NPS broaden its historical interpretation to "be more inclusive" and look for "untold stories."[5]

The second goal, envisioning national parks as places where citizens can discuss issues of contemporary concern, however controversial, entered NPS in the 1990s through the agency's growing connection with historians outside the agency examining the politics of public memory and commemoration. In 1991, historian Edward T. Linenthal published a study of NPS management of battlefield sites, and in 1995 Linenthal and other scholars explored the political controversy surrounding the National Air and Space Museum's exhibit about the dropping of the atomic bomb.[6] At the Civic Engagement Workshop in 2001, as well as in subsequent workshops, Linenthal and other outside historians challenged NPS not to shy away from interpreting controversial historical events, and to push visitors to consider connections between past and present.[7] The concept of shared authority and interpretation as facilitated dialogue, advanced by the growing number of public history programs founded in the previous two decades, as well as by organizations such as the International Museum of Sites of Conscience, which was heavily involved in planning the 2001 workshop, also pushed NPS in that direction. So did the agency's increasing number of partnerships with outside entities, including the legal mandate beginning in 1990 by the Native American Graves Protection and Repatriation Act to collaborate with tribal governments on the care and interpretation of objects of Native American origin.[8]

The Civic Engagement initiative's third goal, developing cooperative stewardship strategies, grew out of a long-term trend in NPS toward partnering with state and local government and private conservation organizations to offer more recreational opportunities and encourage the preservation and interpretation of lands beyond park borders. During the 1930s, NPS reached out from its original base—scenic "islands of protection" carved out of federally owned lands in the West—to assume control of historic battlefields from the War

Department, to oversee the Historic American Buildings Survey, and to provide technical assistance to state and local government recreation efforts. In the 1950s, NPS introduced the designation of National Seashore, and in the 1960s, National Recreation Area, and took on administration of the National Historic Preservation Act in 1966. The 1970s and 1980s saw the development of National Historic Trails and National Heritage Areas. Although NPS's increased engagement with state and local government and private partners parallels the expanded reach of other federal agencies over the past century, it also came about, especially after 1981, because NPS budgets could no longer support the agency purchasing and managing significant scenic and historic properties on its own. Several of those planning the Civic Engagement Workshop in 2001, such as Superintendent Rolf Diamant of Marsh–Billings–Rockefeller National Historical Park, came up through the system working in "external" areas, so knew firsthand the particular challenges of conserving nature and culture in peopled landscapes, establishing management goals across multiple jurisdictions, and, considering a landscape's local as well as national significance, how well it embodies a distinctive local community character and sense of place.[9]

## Community engagement and Cape Cod National Seashore

Of necessity, since its establishment in 1961, Cape Cod National Seashore has employed cooperative strategies for the conservation and interpretation of significant natural and cultural resources.[10] Rather than being carved out of federal lands, like earlier national parks, the national seashore encompasses six long-settled towns, from Chatham to Provincetown, where NPS established park boundaries but did not acquire all of the land within them. At Cape Cod, Congress for the first time authorized the expenditure of taxpayer dollars to purchase private property for incorporation into the park. Its founding legislation created a patchwork of public and privately owned properties, managed by a Citizens Advisory Commission of local residents and officials. Thus, from the beginning, Cape Cod National Seashore has been concerned with conserving the special character of the landscape and balancing the needs of seasonal tourists with year-round residents who live around its properties.

In 2003, the national seashore asked the University of Massachusetts–Amherst Department of Landscape Architecture and Regional Planning to help them understand the impact of continued economic development and four decades of NPS management activities on local residents and the landscape. As part of that effort, we organized a series of three community meetings, or "Cape Conversations," in June 2003, in Eastham, Provincetown, and Wellfleet. At each meeting, we projected a mix of contemporary and historical photographs, and quotations from the public hearings in 1959–1961 that led to the creation of the national seashore, in order to prompt discussion about how the Cape had changed. The community conversation method elicits memories attached to places, and unlike individual interviews, encourages a collective processing of the experience of environmental change over time.[11]

The resulting document, *People and Places on the Outer Cape: A Landscape Character Study* (2004), observed that the principal challenge to conserving landscape character came from development pressure and the dramatic increase in year-round population on the Cape since the 1980s.[12] No one at the time identified the effects of climate change as a threat to the

places that mattered in their community. Since then, warming temperatures and the prospect of accelerated sea-level rise and increased incidence of violent storms has threatened to dramatically alter or even obliterate storied landscape features and ways of life on the Outer Cape. In the space of a generation, changes in climate are beginning to affect the health and distribution of familiar flora and fauna, the viability of resource-based industries such as deep-sea fishing, hazard insurance rates, the performance of septic systems, and decisions about real estate.

Curious about how the prospect of climate change, in addition to other factors, might be affecting local residents' sense of place and ontological security, I spent my sabbatical in the fall of 2016 at Cape Cod National Seashore organizing a new series of four community conversations.[13] Our method, as in 2003, was to project a mix of contemporary and historical photographs and quotations on a screen in order to prompt reflections about change over time. In addition to Cape Cod National Seashore, the community conversations were co-sponsored by local historical societies (of Provincetown, Truro, Wellfleet, Eastham), the Association to Preserve Cape Cod, the Center for Coastal Studies in Provincetown, and the Mass Audubon Society in Wellfleet. The project was simultaneously an ethnographic research activity and a community engagement/interpretation activity in support of Cape Cod National Seashore's cultural and natural resource management goals.[14] The remainder of this essay will assess what NPS can learn from this community engagement project about communicating with the public on climate change and other environmental issues.

We initially thought of titling the series "Climate Conversations." But after a discussion with Dani Crawford, an interpretive ranger with experience interpreting climate change at other national parks; Bill Burke, cultural resources program manager; Sue Moynihan, chief of interpretation and cultural resources management; and George Price, the superintendent, we concluded that that title would probably only bring out local residents already concerned about the topic. Moreover, as in 2003, my principal collaborator was Bill Burke in cultural resources, and while we had the backing of environmental organizations, it made sense to promote the conversations as discussions about local history, which facilitated the participation of local historical societies as project partners. Understanding that the conservation of nature and history on the Outer Cape are inextricably intertwined, we decided to call the conversation series "The Changing Cape," and borrowing a phrase from the National Trust for Historic Preservation's "This Place Matters" campaign, subtitled it "Protecting the Places that Matter" (Figure 1).

The four conversations were an iterative process; based on the public response in one meeting, we changed the order of the slides and refined the topics and questions we asked in the next. By the end, we had settled on the order described below.

Picking up from the 2003 conversations, we began by asking residents what qualities they thought made the character of the Outer Cape landscape special, and projected a quotation from the 1960 hearings about the contributions of both nature and culture.

> You can turn the Lower Cape into a summer recreation and amusement area for a million people, but you cannot, at the same time, conserve its natural charm. This

> can be conserved, however, if emphasis is put upon the conserving of the way of life of the people living in this area, and also on the conserving of the flora and fauna which have been put there by nature.
>
> For 300 years the flora and fauna and the people have gotten along with mutual understanding; so successfully that it is an outstanding characteristic which accounts, to a marked degree, for the charm of the area. This mutuality of understanding between man and nature can best be preserved by preserving both man's way and nature's way.
>
> *Joshua Nickerson, Orleans, Massachusetts, 1960*[15]

In several of the community conversations, residents challenged Nickerson's conclusion that there was a way of life that could be conserved. In the words of a woman in Province-

**Figure 1.** Flyer for "The Changing Cape" community conversations, 2016.

town, "Circumstances have outrun us on preserving a particular way of life here."[16] This observation offered a superb introduction to the discussion that followed, of local residents' experience of change: economic, social, and ecological.

We framed our discussion of economic and social change by asking how Cape residents interacted with the natural environment over time. As in 2003, historic photographs of fishing and agriculture prompted conversations about the biggest economic change on the Cape since the early 20th century, the shift from natural-resource-based industries to tourism. The conversation in 2016 had a sharper point as year-round residents complained that the dramatic increase in tourism, while the area's economic lifeblood, also cut them off from enjoying their favorite places during the summer. A woman in Wellfleet, who had been living on the Cape year round for the past 17 years, observed, "What is really sad for me to watch is we have such a fragile environment and to see people all over the place who have no clue about what this place is about. I feel that the Outer Cape has become some kind of Disneyland in the summer.... These people have so much money compared to what we have."[17] A longtime resident added that in recent years crowds have caused many of his "secret spots" to be fenced off for protection, which "jeopardizes the people who live here year round from enjoying the natural part of Cape Cod that we love.... That's what happens when you get too many people in one area, they take it from you."[18]

While tourism remains important, conversations revealed concern about a different economic transition, the influx of retirees building new homes or purchasing what had formerly been rental houses and turning them into condos. A table indicating that nearly one-third of working-age men on the Outer Cape worked in the construction industry prompted a woman in Eastham to note the paradox of a local economy based on building, at the same time that residents decried development. She asked, "Construction jobs need population growth. Is this a goal?"[19] Residents complained that much of this new construction activity consisted of wealthy newcomers tearing down modest older homes—what *Better Homes and Gardens* celebrated in 1938 as "the genuine Cape Cod house"—to build "ecologically devastating" McMansions.[20]

This led to a discussion of how rapidly escalating housing prices kept families with young children from settling in the region. Anticipating this comment, we projected a slide with statistics showing the percentage of residents in each town under age 18, which had dropped by approximately 25% since 2003.[21] We heard poignant comments about the sustainability of Cape communities without children, and several residents made analogies to environmental conservation, that nesting plovers could find homes at Cape Cod National Seashore, but not the children of local residents. A woman in Provincetown remarked, "There are no young people in this town so you can't even call some young kid and say can you please shovel my walk for me? We have to do it ourselves." Another added, "It's not natural to have a concentration of older people with no younger people coming up behind."[22]

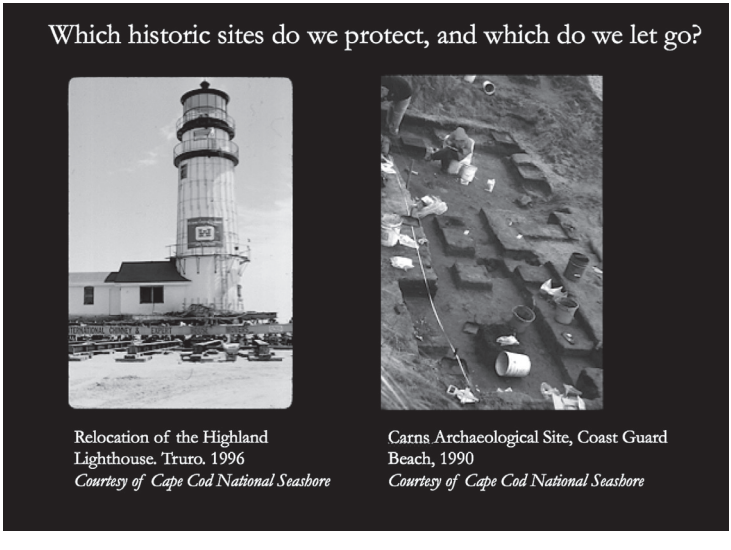
In response to the Nickerson quote about preserving both the human way and nature's way, which we showed at the end rather than beginning of the Truro conversation, one man commented, "It really takes viable communities to make that happen. That's really what we work on, and we've touched on things like changing occupational trends and young people

leaving. What that means about schools, the number of second homes versus people who are living here, the cost of housing, all these things sort of interlock with the environment. If we don't have communities, we have a museum of sand dunes but we don't have a community where we live and interact with people."[23]

After discussing economic and demographic changes on the Outer Cape, the conversation turned to ecological changes. Because of my interest in climate change, we introduced the topic with a diagram illustrating the greenhouse effect, a graph showing rising average annual temperatures on Cape Cod, and the Surging Seas Interactive Risk Zone map projecting future sea-level rise.[24] We followed this with a photograph of Henry Beston's famous "Outermost House" near Coast Guard Beach in Eastham being washed out to sea in a storm in 1978, the quotation from Wellfleet resident Mike Kubiak about housing that appears at the beginning of this essay, and a picture of the newly completed Herring Cove bathhouse facilities in Provincetown, which NPS built with movable structures and a relocated parking lot that take anticipated increased storms and sea-level rise into account.[25] Focusing on cultural resources, we paired a slide of Highland Light House, which had been moved to higher ground 20 years earlier, with one of a coastal archaeological site threatened with inundation. This prompted questions about NPS policies concerning what cultural resources will be protected and who decides (Figure 2).[26] Although I was not in a position to answer these questions, I informed residents that NPS would be publishing a "Cultural Resources Climate Change Strategy" document at the end of the year, and emphasized the importance in a democracy of having public conversations about these issues.

Not all ecological change discussed was climate-related. While sea-level rise and increased incidence of violent storms accelerates beach erosion, shifting sands have always been part of living on the Outer Cape, though in Truro a man noted that the economic conse-

**Figure 2.** Slide from "The Changing Cape" community conversation.



quences are greater for the new, more expensive waterfront homes than for the older homes, which were customarily built inland on higher ground. "It just doesn't make sense to me that people are willing to invest in something that if they did any research would know that they are not going to be able to keep it."[27] In Eastham, a woman observed that in the 19th century, students could see the ocean from their schoolhouse, a view now totally obscured by reforestation.[28] And in Wellfleet, in response to a historic photograph of surfcasting as a recreational activity enjoyed by local residents, a man commented that since the passage of the Marine Mammals Protection Act in 1972, seals have made surfcasting impossible. "Definitely no more surfcasting out there. I used to go surfcasting all the time, but since there's been the seal population moving in, there's no fish on the beach at night anymore." A woman responded that since sharks have followed the seals closer to shore, she could no longer swim "with abandon." "It seems to me that the fisherman have lost a lot of their livelihood because of this encouragement of seals, that have brought the sharks. For whose benefit is all this? Is this to be the land of the sharks?"[29]

We concluded each community conversation with a consideration of the NPS mission, since its founding in 1916, "to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." Local residents contemplated what "unimpaired" means when environments are changing faster than scientists can understand them. How can we feel at home in a changing environment? And paraphrasing the novelist Terry Tempest Williams, how do we find refuge in change?[30]

### Interpreting history and climate change with the public

What can NPS learn from this project about interpreting history and climate change? In 2012, Philip Cafaro asked the readers of this journal "What Should NPS Tell Visitors (and Congress) about Climate Change?" He complained that NPS "can do" stories about resilience and adaptation neglect the truth about the serious losses both human and non-humans will experience in parks and (formerly) protected areas. Visitors to NPS areas should be told "the truth about this—all of it—not just the parts that visitors feel comfortable hearing or that park interpreters feel comfortable saying."[31]

At the same time that Cafaro's article appeared, NPS was beginning to develop its *Cultural Resources Climate Change Strategy,* which it published at the end of 2016. That document addresses the question Cape Cod residents asked about how NPS decides which cultural resources to protect, and how to protect them. Through vulnerability assessments that weigh the historic significance of the resource, the location of the resource relative to sea-level rise and other hazards, and the capacity of the resource to withstand damage, NPS can prioritize among resources to protect and strategies to protect them.[32]

The *Cultural Resources Climate Change Strategy* includes several references to community engagement and interpretation. One is the recommendation that NPS and its state and local partners to go beyond technical and National Register criteria to assess a resource's contemporary significance through consultation with diverse stakeholders.[33] The call for consultation and public discussion suggests the utility of community engagement projects

along the lines of "The Changing Cape" for understanding the impact of climate change on the places that matter most to local residents and making decisions about adaptation. Although the word "justice" does not appear in the document, such consultation is a matter of heritage justice, the right of peoples to have the places with historical significance for their culture acknowledged and remembered.

Following from earlier NPS documents about climate change interpretation, the *Cultural Resources Climate Change Strategy* insists that "Every Place has a Climate Story." It calls for interpreting (1) change in the material world; (2) change in experience and lifeways ("How are modern communities experiencing change? How do memories of and expectations for local climates and environments connect with current climate experiences?"); (3) insights on how past societies have interacted with and responded to environmental change; and (4) how the modern climate situation has come to be.[34] Community engagement projects along the lines of "The Changing Cape" are well suited to eliciting discussions about these questions, especially the second one. Community conversations encourage the discovery and sharing of human stories about changing ways of life that can make historical interpretation more effective.[35]

Most provocatively, the NPS *Cultural Resources Climate Change Strategy* argues that rather than assume preservation in perpetuity, "document and prepare for loss" is an acceptable option.[36] Preparing for loss is a material process that includes revising building maintenance schedules and other details. But it is also a psychological process.

Historically, coastal residents have always adjusted to loss and change. Alanna Casey argues that coastal residents have continually experienced dramatic changes to their environment from storms and shifting sands; climate change represents an increase in the speed and volatility of weather events, but not a qualitative change.[37] Nevertheless, when does a quantitative change in the frequency of storms and flooding become a qualitative change? When does change become loss?

NPS interpreters can use community conversations about history to explore the differences in perspective between loss and change. During a research project investigating climate communication at Fire Island National Seashore, Jamie Remillard discovered that, after Hurricane Sandy in 2012, the public perceived a breach in the island as a loss, but scientists perceived it as change.[38] The national seashore could incorporate that finding through public programs and community conversations.

Unlike wayside exhibits or other interpretive tools, community engagement projects such as the "Changing Cape" allow the public to not only learn about the causes and impact of climate change, but also to process their anticipated losses together in a communal setting. It provides a forum to express their anxiety and grieve the impending loss of places to which they have become emotionally attached, to express their ambivalence about taking action to mitigate climate change by dramatically lowering their carbon footprint, and to express their desire for refuge and repair.[39] Cafaro recommends that NPS interpret climate change to the public in ways that raise fear and spur action, but the "Changing Cape" project suggests that NPS would also benefit from sponsoring more open-ended community discussions where people can "work through" their fear.

The stories of fear, grief, and loss that we heard were more profound than the typical "this problem needs a solution" information that NPS usually seeks to gather in public meetings. Much of what we heard from Cape residents were problems without solutions, and questions that in one way or another came down to how they might adjust to a world where, in the words of scientists, "stationarity is dead," and weather events will come along for which no analogue can be found in the past climate record during a time when humans existed on earth.[40] However, it is important to remember that they saw climate change as not the only threat to the continued existence of their communities. Many Cape residents identified recent demographic changes, such as the lack of year-round jobs since the decline of the fishing industry and young families priced out of the real estate market by affluent retirees, as potentially bigger losses. One potential benefit of a community engagement project for communicating about climate change is the ability to include the context of other major forces of change.Each generation experiences the environment as a new baseline, and forms new expectations about it as old ones are forgotten. Community conversations about history and climate change can offer the human, psychological equivalent of adaptation, a way for the public to understand that just as the present is not like the past, the future will not be like the present. Such conversations can also be a means for helping the public to find refuge in change, to learn to let go of environments to which they have become attached. However, historical interpretation can also remind the public that with all that they have to lose, there remains the potential for human agency, to make positive change to the environment. The *NPS Coastal Adaptations Strategy Handbook* remarks that NPS coastal management policies are moving along a continuum from "resisting change" to "accommodating change" to "directing change," and NPS historical interpretation could potentially move the public along that continuum as well.[41]


## Acknowledgments

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## Endnotes

1. Mike Kubiak, post on the *New York Times* Facebook page, September 27, 2016.
2. NPS, *The National Park Service and Civic Engagement: The Report of a Workshop Held December 6–8, 2001, in New York City*, 14. Online at https://www.nps.gov/civic/about/civic.pdf.
3. See David Glassberg, "Reflections on the Past, Present, and Future of Civic Engagement in National Parks," forthcoming in *Connections across People, Place, and Time: Proceedings of the 2017 George Wright Society Conference on Parks, Protected Areas, and Cultural Sites*.

4. The observation that "many" NPS employees in the agency's first 50 years were military veterans who hailed from the South and West is somewhat speculative, since no one has done systematic research on the changing composition of the NPS workforce over time. A brief overview of the history of the veterans' preference in federal hiring appears in Gregory B. Lewis, "The Impact of Veterans' Preference on the Composition and Quality of the Federal Civil Service," *Journal of Public Administration Research and Theory* vol. 23 (April 2013): 247–265.
5. See NPS, *Rethinking National Parks for the 21st Century: A Report of the National Park System Advisory Board*, July 2001. Online at http://www.nps.gov/policy/report.htm.
6. Edward T. Linenthal, *Sacred Ground: Americans and Their Battlefields* (Urbana: University of Illinois Press, 1991); Edward T. Linenthal and Thomas Engelhardt, eds., *History Wars: The Enola Gay and Other Battles for the American Past* (New York: New Press, 1996).
7. Edward T. Linenthal, "The National Park Service and Civic Engagement," *The Public Historian* 28, no. 1 (Winter 2006): 123-129.
8. Barbara J. Little, "Archeology and Civic Engagement," *Technical Brief #23*, NPS Archeology Program, November 2008.
9. Brenda Barrett and Eleanor Mahoney, "National Heritage Areas: Learning from 30 Years of Working to Scale," *The George Wright Forum* vol. 33, no. 2 (2016): 163–174.
10. On the establishment of Cape Cod National Seashore, see Francis P. Burling, *The Birth of the Cape Cod National Seashore* (Plymouth, MA: Leyden Press, 1977); Charles H.W. Foster, *The Cape Cod National Seashore: A Landmark Alliance* (Hanover, NH: University Press of New England, 1985).
11. We employed this method in an earlier research project in western New England, "Defining and Supporting Town Character," described in David Glassberg, *Sense of History: The Place of the Past in American Life* (Amherst: University of Massachusetts Press, 2001), 129–163.
12. Jack Ahern, David Glassberg, Elisabeth Hamin, and Ethan Carr, *People and Places on the Outer Cape: A Landscape Character Study* (2004). Online at https://permanent.access.gpo.gov/lps114840/landscape.pdf.
13. On the importance of attachment to familiar places as a source of ontological security, see Jane Grenville, "Conservation as Psychology: Ontological Security and the Built Environment," *International Journal of Heritage Studies* vol. 13 (November 2007): 447–461; on the utility of this concept for understanding how individuals respond to the prospect of climate change, see David Glassberg, "Place, Memory, and Climate Change," *The Public Historian* vol. 36, no. 3 (2014): 17–30.
14. In addition to endorsing the project, Cape Cod National Seashore provided researcher housing; the labor of two Student Conservation Association interns, Josie Mumm and Charlotte Hecht; and photocopying and publicity services, and also hosted the Eastham conversation at the park visitor center. The other partners endorsed the project, publicized it among their members, and arranged for the meetings to be held in their town's public library.

15. The area encompassing Cape Cod National Seashore, commonly referred to as the "Outer Cape," is also known as the "Lower Cape." Nickerson's testimony at the hearings of the Senate Subcommittee on Public Lands of the Committee on Interior and Insular Affairs appears in David Jenkins, *Culture of Preservation: The Cape Cod National Seashore Hearings, 1959–61*, *Draft Report* (Boston: NPS Boston Support Office, January 2003), 17.
16. Audio recording of Provincetown conversation, November 6, 2016, log 23:10, Cape Cod National Seashore archives.
17. Audio recording of Wellfleet conversation, October 26, 2016, log 18:12, Cape Cod National Seashore archives.
18. Audio recording of Wellfleet conversation, October 26, 2016, log 21:20, Cape Cod National Seashore archives.
19. Employment statistics courtesy of *City-Data.com*, accessed October 18, 2016; Eastham conversation, October 18, 2016, author's notes, no audio recording available.
20. "A genuine Cape Cod house, with all of its quaint and subtle charm, has developed an identity that can't be mistaken. The shingles, the shutters, the white picket fences, the low eaves with simple doorways and windows snuggled up under them—all lend to the charm of the infinitely livable houses found on Cape Cod"; quoted from "A Genuine Cape Cod House designed by R. B. Wills," *Better Homes and Gardens* vol. 16 (January 1938).
21. U.S. Census data, published in *Cape Cod Times*, March 23, 2011.
22. Audio recording of Provincetown conversation, November 6, 2016, log 31:47, Cape Cod National Seashore archives.
23. Audio recording of Truro conversation, October 6, 2016, log 57:38, Cape Cod National Seashore archives.
24. The Surging Seas Interactive Risk Zone Map (http://ss2.climatecentral.org) allows audiences to visualize different levels of inundation from sea-level rise in a particular place. Climate Central, a non-profit research and journalism organization, developed it for use in public educational activities related to climate change.
25. Mark Borelli, "Reducing Vulnerability of Coastal Visitor Facilities at Cape Cod National Seashore," in Courtney A. Schupp, Rebecca L. Beavers, and Maria A. Caffrey, eds., *Coastal Adaptation Strategies: Case Studies*, NPS 99/129700 (Washington, DC: National Park Service, September 2015), 41–43.
26. The Cape Hatteras Lighthouse was moved in 1999 at a cost of nearly $12 million, and might need to be moved again by the end of the 21st century; see Maria Caffrey and Rebecca Beavers, "Protecting Cultural Resources in Coastal US National Parks from Climate Change," *The George Wright Forum* vol. 25, no. 2 (2008): 86–97, and "Relocating the Lighthouse," in Schupp et al., eds., *Coastal Adaptation Strategies: Case Studies*.
27. Audio recording of Truro conversation, October 6, 2016, log 46:05. At the same Truro meeting, another man related the story of friend who said that when she bought her property on Ocean Drive in Wellfleet she had three acres, but when she sold it she had

one acre. At the 2017 George Wright Society Conference session on "Integrating Coastal Adaptation in National Parks" (April 3), someone in the audience noted the land use jurisdictional issues that coastal communities face; do communities and homeowners have legal rights to migratory sand?

28. Eastham conversation, October 18, 2016, author's notes, no audio recording available.
29. Audio recording of Wellfleet conversation, October 26, 2016, log 20:58, 24:17, Cape Cod National Seashore archives.
30. Terry Tempest Williams, *Refuge: An Unnatural History of Family and Place* (New York: Vintage, 1991).
31. Philip Cafaro, "What Should NPS Tell Visitors (and Congress) About Climate Change?" *The George Wright Forum* vol. 29, no. 3 (2012): 287–298.
32. Marcy Rockman et al., *Cultural Resources Climate Change Strategy* (Washington, DC: National Park Service Cultural Resources, Partnerships, and Science and Climate Change Response Program, 2016); see also Rockman, "An NPS Framework for Addressing Climate Change with Cultural Resources," *The George Wright Forum* vol. 32, no. 1 (2015): 37–50.
33. Rockman et al., *Cultural Resources Climate Change Strategy*, 33. Sandra Fatoric and Erin Seekamp note that the large number of properties listed on the National Register limit its utility as a tool for setting priorities for protecting vulnerable historically significant coast structure; see Fatoric and Seekamp, "Evaluating a Decision Analytic Approach to Climate Change Adaptation of Cultural Resources along the Atlantic Coast of the United States," *Land Use Policy* 68 (2017): 254–263.
34. Rockman et al., *Cultural Resources Climate Change Strategy*, 31.
35. Jackie Gonzales, "Interpreting Climate Change through Human Stories at Coastal National Park Sites," *History@Work Blog*, National Council on Public History, January 2, 2017.
36. Rockman et al., *Cultural Resources Climate Change Strategy*, 33.
37. Alanna Casey, "Bringing Historical Perspectives on Climate Change into Current Adaptation Practices," presentation at 2017 George Wright Society Conference, April 5.
38. Jamie Remillard, "Animating Outreach: Designing Public Texts that Move Audiences toward Community Resilience," presentation in the session "Communicating Coastal Vulnerability and Climate Change Adaptation Strategies to Varied Audiences," 2017 George Wright Society Conference, April 3.
39. On the utility of psychological models of grief and loss for climate change communication, see Rosemary Randall, "Loss and Climate Change: The Cost of Parallel Narratives," *Ecopsychology* vol. 1, no. 3 (September 2009): 118–129, and Renee Lertzman, *Environmental Melancholia: Psychoanalytic Dimensions of Engagement* (New York: Routledge, 2015).
40. P.D.C. Milly et al., "Stationarity is Dead: Wither Water Management?" *Science* vol. 319 (February 1, 2008): 573–574. For an overview of the scientific literature on the "no-analogue" future, and its relevance for public historians, see Glassberg, "Place, Memory, and Climate Change."

41. See Rebecca Beavers, Courtney Schupp, and Cat Hawkins Hoffman, "Introduction," in *Coastal Adaptation Strategies Handbook*, NPS 999/134090 (Washington, DC: National Park Service, 2016), 2.

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# Interpreting the Contributions of Chinese Immigrants in Yosemite National Park's History

*Yenyen F. Chan*

## Introduction

Over a century ago during the summer of 1915, in a forest of towering trees, a backcountry chef and his assistant were busy preparing a hearty meal of soup, trout, venison, fried potatoes, string beans, plum pudding, cheese, and coffee. White table cloth overlaid a banquet table; fallen logs and crates served as chairs; and fine china completed this elegant outdoor setting. The next morning, Tie Sing and Eugene would wake up before the crack of dawn, fire up the wood inside a collapsible sheet iron stove, and make breakfast and prepare lunches-to-go for 30 men. After clearing the table and washing the dishes, Tie Sing and Eugene would hitch all the food and supplies onto the backs of mules and set off for the next camping spot to prepare their next sumptuous meal. During this two-week-long trip, Tie Sing was given the nickname "The Wizard" for the magical concoctions he provided in the wilderness for Stephen T. Mather's Mountain Party trip (Figure 1).

What was the significance of the Mather Mountain Party trip of 1915 and a second one in 1916? Stephen T. Mather had just accepted a job as assistant secretary of interior in early 1915, and his main goal was to increase funding and support from Congress for national parks. To convince as many people as possible that a system of national parks was important, he invited congressmen, business leaders, journalists, and other influential people to join him on a two-week wilderness experience. With their help, in less than two years Mather and his collaborators were able to convince Congress to pass the Organic Act establishing the National Park Service (NPS) in August of 1916.

It is hard to know for certain how much Tie Sing's cooking influenced these men, but Mather was convinced of the importance of good food when in the outdoors. He said at a conference of park supervisors in the spring of 1915, "Scenery is a splendid thing when it is viewed by a man who is in a contented frame of mind. Give him a poor breakfast after he has had a bad night's sleep, and he will not care how fine your scenery is. He is not going to enjoy it."[1]

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**Figure 1.** Tie Sing and the Mather Mountain Party of 1915. Photo by Gilbert H. Grosvenor, courtesy of National Geographic Creative.

Tie Sing and Eugene were both Chinese living in the United States during a period of extreme anti-Chinese sentiment. In 1882, the Chinese Exclusion Act was passed by Congress to keep Chinese immigrants out of America for fear that they would take away jobs from everyone else here. The act was a travel ban forbidding further immigration of unskilled Chinese laborers. Only merchants and scholars were allowed. Originally passed as a short-term act, it was extended numerous times and was not repealed until 1942, 60 years later. It was the first time in our history that we expressly excluded a group of people from immigrating to this country.[2]

Yosemite seems like an unlikely place to tell the story of the early Chinese in America. Yet within this park's history, stories come spilling out of a people who lived behind the veil, and their impact is inextricably woven into Yosemite's history.

## The early Chinese in America

Yosemite was designated in 1864 for its extraordinary natural and scenic values because there was concern that, without protection, its natural wonders would be destroyed by loggers, hoteliers, cattle grazers, and sheep herders, among others. In the midst of the American Civil War, President Abraham Lincoln signed the Yosemite Grant, setting aside Yosemite Valley and the Mariposa Grove of Giant Sequoias as a protected area to be managed by the state of California. Twenty-six years later, in 1890, it became America's third national park.

During my first summer working in Yosemite for NPS, I remember learning from my supervisor that Chinese workers built the Tioga Road that passed right through the area known as Tuolumne Meadows.

Many years later, while driving with friends from San Francisco to Yosemite, I passed through a town called Chinese Camp in the Sierra Nevada foothills just west of Yosemite. The town is situated along the same road that eventually becomes the Tioga Road. I wondered about that small town's particular name and if there was any connection to Yosemite's Chinese road workers. I have since learned that a large population of Chinese lived in California from the mid-1800s to early 1900s, and that they contributed significantly to California's history.

The Chinese coming to California in the mid-1800s were fleeing dire natural and social disasters at home. Floods, droughts, typhoons, famines, and war pushed several hundred thousand Chinese, mostly from Guangdong Province, to emigrate abroad. After gold was discovered in California in 1848, many Chinese families pooled resources or borrowed money to send a member of the family on the month-long boat voyage to California. Infused with hope, they named the land across the ocean "Gum Saan," meaning "Gold Mountain."

The Chinese were originally tolerated if not admired for their hard work. One month after the first group of Chinese arrived in San Francisco in 1848, U.S. Consul Tom Larkin received a letter from a friend who wrote, "The Chinese are a sober and industrious people and if a large number could be introduced into California, landed property would increase in value fourfold."[3] Mark Twain observed, "They are as industrious as the day is long. A disorderly Chinaman is rare, and a lazy one does not exist."[4]

Despite such praise, as gold became harder to find, restrictive laws targeting Chinese and other foreign miners quickly followed. The Foreign Miners Tax of 1850 placed a $20 per month state tax on all non-American miners. French miners successfully led the fight against this law and by March 1851 it was repealed. But a new law was passed in 1852 requiring foreign miners to pay $3 per month. This tax was especially targeted towards Chinese and Mexican miners. Additionally, the Police Tax of 1862 required Chinese laborers to pay $2.50 per month for performing any work with the few exceptions of sugar, rice, coffee, or tea production. As a result of these two state taxes, most Chinese left mining and found jobs working in the agricultural fields, building irrigation channels, roads and tunnels, and working as cooks and laundrymen.

Beginning in 1863, construction of the Transcontinental Railroad required a large labor force. At first, Irish immigrants comprised the main labor, but many left railroad work due to the allure of new gold and silver mine strikes. As a solution, Chinese workers were hired as replacements. Soon thereafter, the railroad company brought many thousand Chinese from China by ship to keep up with the labor demands. John R. Gillis, assistant engineer of the Central Pacific Railroad said, "They were as steady, hardworking a set of men as could be found. They were paid from $30 to $35 in gold a month, finding themselves, while the white men were paid about the same, but with their board thrown in."[5] The Chinese worked on the hardest section of the Transcontinental Railroad, which included digging 15 tunnels in terrain that climbed 6,000 feet in elevation over 40 miles to the cliffs of Donner Pass.

During the last several years of construction, there were approximately 10,000 Chinese workers among the 14,000 men working in round-the-clock shifts for the Central Pacific Railroad. Work was anything but easy. Many Chinese lost their lives during construction.

After completion of the Transcontinental Railroad in 1869, life for the Chinese did not get any easier. With increasing competition for work among both new and old immigrants in this country, the Chinese became a target for an increasing number of discriminatory acts.

The 1860s and 1870s saw an escalation of attacks against Chinese communities. Historian Jean Pfaelzer documents numerous cases in California where Chinese were imprisoned or killed, their homes and businesses looted or burned to the ground.[6] Mark Twain wrote,

> Any white man can swear a Chinaman's life away in the courts, but no Chinaman can testify against a white man. Ours is the 'land of the free'—nobody denies that—nobody challenges it. [Maybe it is because we won't let other people testify.] As I write, news comes that in broad daylight in San Francisco, some boys have stoned an inoffensive Chinaman to death, and that although a large crowd witnessed the shameful deed, no one interfered.[7]

Despite oppressive discrimination, the Chinese excelled wherever they could. Many worked in some of the least desirable, backbreaking jobs: blasting tunnels through hard rock, grading steep roads with hand picks and shovels, building rock walls on ranches, laying railroad tracks, and digging irrigation ditches through California's Central Valley among them.

### Road builders in Yosemite

In Yosemite, Chinese immigrants built several of the early stage wagon roads. In the summer of 1874, both the Coulterville Road and Big Oak Flat Road reached the Yosemite Valley. As a result, the Washburn brothers, owners of the Wawona Hotel, decided they needed to build a road from near the Mariposa Grove of Giant Sequoias to Yosemite Valley as quickly as possible. In order to not lose tourist business the following spring, they decided to build the road in the winter. They hired 50 Chinese laborers who began work in December 1874. The crew eventually grew to approximately 300 Chinese laborers. Working through the snowy winter, the workers completed in four and a half months an astonishing 23 miles of road that climbed 3,000 feet in elevation.

The *Mariposa Gazette* reported on January 9, 1875, "The newly projected road leading from the South Fork of the Merced River to the Yo Semite [sic] Valley, is being pushed forward with a determined zeal and energy … having at this time upwards of one hundred men engaged upon the work."[8] Their tools consisted of axes, shovels, picks, wheelbarrows, and black powder. A 300-yard gap near Inspiration Point remained until June. While the gap was being completed, workers helped dismantle stage wagons, carried the parts across the gap, and reassembled the wagons. For many tourists, it was the highlight of the trip.

In 1882, the Tioga Road, originally the Great Sierra Wagon Road, was constructed by the Great Sierra Mining Company to help supply equipment to mining towns along the route. Its terminus was at the mining town of Bennettville where the company believed there was the largest silver belt of the entire Sierra Nevada, rivaling the most profitable mines of the day. The *Homer Mining Index*, the local mining area's newspaper, reported on February 18, 1882, that

> [t]he embryo town ... is situated in a beautiful valley or cove at the base of Tioga Hill, 9,300 feet above sea level.... Bennett City, being centrally and beautifully situated, will be the principal town of the district, though when the mines are developed they will doubtless support one or two other towns of considerable size.... There is ample room on the gently rolling ground for a city of 50,000 inhabitants, with an abundance of wood and water of the best quality on the ground.[9]

The Tioga Road began at Crocker's Station at 4,200 feet above sea level and ended just beyond Tioga Pass, 9,945 feet above sea level. Approximately 250 Chinese and 90 Euro-American laborers completed the 56-mile road in 130 days in 1882–1883. The Chinese were paid $1.20 per day and the Euro-Americans $1.50 per day. Foremen were paid $2.00 per day. In addition, 100 Chinese were hired to blast through a three-quarter-mile stretch of granite rock along Tenaya Lake. The road was completed on September 4, 1883, but by November 1 the Great Sierra Mining Company ran out of money. It had expended $62,000 on the road and over $300,000 on a tunnel through the mountain in search of what was purported to be the largest silver ledge in the Sierra Nevada.

For many years, the wagon road was unmaintained, but was owned by the mining company. Nevertheless, many intrepid travelers and the United States Cavalry who patrolled the park used the road to access Yosemite's high country. In 1915, Stephen T. Mather was able to gather a group of philanthropists to buy the road for $15,500, and then they sold it to the National Park Service for a few dollars. Today, this road stands as the highest road across the Sierra Nevada and serves as one of the main roads in Yosemite National Park.

### Culinary wizards

Many Chinese also gained employment by hotel owners in Yosemite due to their culinary talents and strong work ethic. The Wawona Hotel employed around twenty Chinese to work in the laundry and kitchen, including an exceptional cook named Ah You. Employed as the head chef for 47 years until 1933, he prepared meals for presidents Rutherford B. Hayes, Benjamin Harrison, Theodore Roosevelt, and William Howard Taft. Born in China in 1848, Ah You came to California in 1869 at age 21. He worked in California in various jobs, including in San Francisco as a cook. He then moved to the San Joaquin Valley, working in hotels and mining camps, and then to Yosemite Valley where his cooking talent became well known. Henry Washburn, owner of the Wawona Hotel, hired him in 1886 to become the head cook. Ah You was especially famous for his pies. At its peak, the dining room served 450 people a night with 26 waitresses. With the exception of Ah You, who would on occasion meet important guests impressed with his cooking, the Chinese staff worked behind the scenes.

When the Washburn's hotel business was taken over by the Yosemite Park and Curry Company in 1932, all of the Chinese cooks and employees were let go. Thereafter, the Washburn family maintained a home in Merced for their former Chinese employees. Wawona Washburn, who spent her entire childhood growing up at the Wawona Hotel, had many fond memories of the hotel's Chinese staff. In Yosemite's archives is a small handwritten note by

her which reads, "Listening to the rise and fall of Chinese voices, the smell of pork and noodle stir-fry wafting out into the haze of the late afternoon heavy-fog laden evening air." When Ah You passed away, both Wawona Washburn and her father, Clarence Washburn, attended his funeral.

In addition to the Wawona Hotel, many if not all of the hotels in Yosemite's early years employed Chinese cooks, bakers, and laundry staff. A 1925 map of old Yosemite Village shows the "Chinese Quarters" located on the south side of Yosemite Valley, just east of today's Sentinel Bridge. Marjorie Cook, daughter of the Sentinel Hotel's proprietor, Jay Cook, remembers, "Each spring, I eagerly awaited my meeting with the Ah Clan. At an early age, I gratefully accepted a fragile, twenty-two piece green and gold tea set. I loved every dragon. The next spring, the head man, Ah Wong brought a gorgeous Chinese fan nearly half as tall as I."[10] Ah Wong, Ah Mow, Ah Toy, and several other Chinese returned yearly for the April 1 opening of the Sentinel Hotel. It was quite typical of Yosemite's workers to have only seasonal employment. Many Chinese worked in urban areas during their off-season.

Finally, another well-known chef was Tie Sing, head chef for the United States Geological Survey (USGS) from 1888 to 1918. Mather requested Tie Sing for his Mather Mountain Party trips, which included National Geographic Society director Gilbert H. Grosvenor and writer Robert Sterling Yard, who wrote in 1916:

> To me Tie Sing had assumed apocryphal proportions. The extraordinary recitals of his astonishing culinary exploits had been more than I could quite believe. But I believe them all now, and more. I shall not forget that dinner;—soup, trout, chops, fried potatoes, string beans, fresh bread, hot apple pie, cheese and coffee. It was the first of many equally elaborate, and equally appreciated.[11]

To honor their beloved chef, the USGS in 1899 named the 10,552-foot mountain peak along Yosemite's southeastern border Sing Peak.[12]

### Interpreting this history for visitors today

In the years leading up to the NPS centennial in 2016, several surveys and reports examined the agency's many challenges over the past century and set goals for the next. One challenge is the need for national parks to better connect with today's diverse population.[13] Many sectors of the public may not see their stories in national parks, and there is concern that without forging a connection between people and parks, parks can become irrelevant to future generations and lose their public support. In light of this, NPS has made a strong commitment to interpret more of these diverse stories and find further ways to connect with people from many different ethnic groups.

As an interpretive park ranger in Yosemite National Park, one of my main roles is to lead natural and cultural history programs with park visitors. Through ranger walks, evening programs, and campfire talks, I present programs on a variety of topics, including the history of the Chinese in Yosemite. I also wrote an article published in *Yosemite* journal and gave public presentations at the Oakland Natural History Museum, California Historical Society,

and other venues.[14] Additionally, I was interviewed by several radio, news, and print media. Through these opportunities to reach a broader audience, people who might not visit Yosemite National Park can still learn about Yosemite's diverse cultural history.

In 2011, I teamed up with Yosemite's park videographer and co-produced a park video on this history. For several summers, the video was shown weekly as part of an evening program series in Yosemite Valley that highlighted several different stories about the park. The video is easily accessible to the public on Yosemite National Park's official website and Yosemite's YouTube video series.[15] A year after the video was posted online, a visitor contacted me about the idea of organizing an annual gathering to honor Tie Sing and the Chinese who contributed to Yosemite's history. With support from NPS and the Chinese Historical Society of Southern California, we organized the first Yosemite–Sing Peak Pilgrimage event in July 2013. Annual Yosemite–Sing Peak Pilgrimages have occurred since then. Word of this yearly event is now spreading among the Asian American community and to the wider world (Figure 2).

## Conclusion

When I first started researching the story of early Chinese immigrants in Yosemite National Park, I felt only distantly connected to the experiences of these people who had come to America a century and a half earlier. Their experiences were different from those of my parents, who immigrated to America many decades ago, and of mine, having been born and raised in Southern California. But I soon realized, no matter when one's family first immigrated to this country, or to any other country for that matter, we all can relate to the human experience of migration. Somewhere in our immediate or distant past, immigration is there. We can understand and empathize with the human motivations to improve one's life and provide for ourselves and our loved ones.

**Figure 2.** Yosemite–Sing Peak Pilgrimage, 2017. Yenyen Chan and nephew Sean Chan with other members of the pilgrimage. Photo by Christine White Loberg.

The early Chinese pioneers experienced many difficulties and barriers to achieving success when they arrived on Gold Mountain. Yet, due to their efforts from the mid-1800s to the early 1900s in Yosemite and across the western United States, they made important contributions in society, including helping to lay the groundwork for so many roads, railroads, tunnels, and agricultural fields. Their hard work and determination also earned them the trust and respect of many of Yosemite National Park's early entrepreneurs and park leaders. They played an important, if mostly hidden, role in the experiences of early park visitors. Many of the cultural traditions that they brought to this country are embedded in American history.

The story of the Chinese who contributed to Yosemite's history reminds us that national parks provide an important gateway to sharing stories of the multitude of cultural groups who shaped this country's history through their willpower, strength, success, and sacrifice. National parks, designated for their natural and cultural significance, can challenge us to learn hard lessons from the past, as well as inspire us to strive for a better future. These stories are as relevant today as they ever have been.

## Endnotes

1. Horace Marden Albright and Marion Albright Schenk, *Creating the National Park Service: The Missing Years* (Norman, OK: University of Oklahoma Press, 1999), 54.
2. Iris Chang, *The Chinese in America: A Narrative History* (New York: Viking, 2003).
3. Charles V. Gillespie to Thomas O. Larkin, letter, March 6, 1848, as quoted in Irene D. Paden and Margaret E. Schlichtmann, *The Big Oak Flat Road* (San Francisco: Emil P. Schlichtmann, 1955), 67.
4. Mark Twain, *Roughing It* (Berkeley: University of California Press, 1995 [1872]), 369.
5. Gunther Barth, *Bitter Strength: A History of the Chinese in the United States, 1850–1870* (Cambridge, MA: Harvard University Press, 1964).
6. Jean Pfaelzer, *Driven Out: The Forgotten War Against Chinese Americans* (New York: Random House, 2007).
7. Twain, *Roughing It*, 369.
8. *Mariposa Gazette* [Mariposa, CA], January 9, 1875, 3.
9. *Homer Mining Index* [Lundy, CA], February 18, 1882.
10. Shirley Sargent, *Enchanted Childhoods: Growing Up in Yosemite, 1864–1945* (Yosemite, CA: Flying Spur Press, 1993), 24–34.
11. Susan Snyder, *Past Tents: The Way We Camped* (Berkeley, CA: Heyday Books, with the Bancroft Library, 2006), 106.
12. Francis Peloubet Farquhar, *Place Names of the High Sierra* (San Francisco: Sierra Club, 1926), 88.
13. National Parks Second Century Commission, *Advancing the National Park Idea* (Washington, DC: National Parks Conservation Association, 2009); Patricia A. Taylor, Burke D. Grandjean, and James H. Gramann, *National Park Service Comprehensive Survey of the American Public, 2008–2009: Racial and Ethnic Diversity of National Park System Visitors and Non-Visitors* (Fort Collins, CO: National Park Service, 2011).

14. Yenyen Chan, "A Hard Road on Gold Mountain," *Yosemite* [Association Members Journal] vol. 71, no. 3 (Fall 2009): 15.
15. Yosemite National Park video on the history of Chinese contributions in Yosemite National Park, online at https://www.nps.gov/media/video/view.htm?id=FBFACA82-9D03-D64F-E3C05B0F781BCD87; and YouTube video, online at https://www.youtube.com/watch?v=4kdyrfXGz90.

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# *Nānā I Ke Kumu* (Look to the Source)

*M. Melia Lane-Kamahele*

## Change is survival: Resources and a biocultural continuum

As curious, engaged, and often opinionated people, we spend an inordinate amount of time and energy handwringing, hair pulling, teeth gnashing, and struggling with how to capture the essence of something, someplace, somebody's story and share it—a never-ending drama that never finds a curtain call. The struggle to validate and make relevant the ways in which we capture and interpret a culture or community's place-based reference is challenging. It is an ongoing evolution to explore, acknowledge, respect, and validate multiple phases and periods of time, facets, and perspectives while remaining timely and honest. The evolutionary process is regularly and incessantly protested, prodded and questioned by parties wishing to hijack the messaging and the perspective. It is the continuing challenge to find balances between decolonization, cultural misappropriation, and the other extreme of "burning up on cultural re-entry"[1] that continues to evolve and test our collective thinking about how to explain, explore, and encapsulate components of increasingly complicated histories and stories.

When Congress and the president add to the collection of special places comprising the 400+ units of the National Park Service, places that were created and set aside in perpetuity for the enjoyment of all, what are we really aiding and abetting? Is it a process that captures a moment in time, or a period of significance, or should it be an evolving shared message about who we are, where we have come from, and where we are going, linked within a critical biocultural continuum that grounds us? It is about who we were, who we are, and who we want to become.

A biocultural continuum refers to the physical, biological, and human elements that strengthen a people's evolving relationship with a defined place and enables them to maintain their unique set of customs, beliefs, language, traditional knowledge, objects, and built environment, or biocultural resources.[2] It is critical to understand that many people perceive resources as being simply "natural" or "cultural." Resources are rarely viewed as integrated elements in a larger process, and the compartmentalization becomes an artificial and limited framework tied to resources, projects, budgets, and funding streams that bifurcate what

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should be a seamless perspective. In many ways, these simplistic definitions create the basic conundrum that challenges the process of interpretation and messaging about communities, cultures, and places.

The National Park Service (NPS), moving into its second century, still struggles to find a balance between interpreting events that have been captured static in time with being relevant and culturally competent and sensitive. Relevancy to a diverse, evolving population requires a major paradigm shift to share the perspectives of those communities and individuals about whose lands, culture, and generations institutions struggle to portray.

Agencies such as NPS have begun to reconsider their education and interpretive planning and programs from the perspective of shared authority. They are beginning to incorporate and share community-developed perspectives, and are beginning to include local voices in their materials across a variety of platforms (paper, web, film, social media). For instance, planning documents such as the foundation statement for Nez Perce National Historical Park incorporate native language and indigenous perspectives. To take another example, the foundation of Kaloko-Honokōhau National Historical Park on the island of Hawai'i began with a report to Congress by a group of primarily Native Hawaiians, who asked the legislators to establish a national park unit to perpetuate Native Hawaiian culture and resources.[3] Haleakalā National Park, on the island of Maui, now offers a park informational brochure that orients visitors and others to the park and its resources through the eyes of the community. Through their perspectives and through the integrated use of Hawaiian language and cultural concepts, the community is presenting what *they* want visitors to learn, understand, and know about their very special place, which is not necessarily the message that NPS shares. Different perspectives, but both valid and important.

When an organization acknowledges and incorporates intangible cultural heritage through traditional language and perspectives, the fundamental ways in which the biocultural continuum and traditional history are engaged and shared are completely different than a mere recounting of events. However, that process has been, and continues to be, a long, diverse series of critical conversations by and through management, indigenous employees, researchers, partners and stakeholders—and we are by no means done.

## Blending tradition, culture, and knowledge

National Park of American Samoa was established on October 31, 1988, and, in 1993, the U.S. government, through the Department of the Interior and the National Park Service, entered into a 50-year lease with the government of American Samoa and a number of the village councils. The park preserves and protects coral reefs, a paleotropical rain forest, fruit bats, and the Samoan culture, *fa'asamoa*. The concept of *fa'asamoa*[4] is integrated throughout all areas, including interpretation, education, visitor programs, science and research, and partnerships. In the past 25 years, the evolution of the park—the staff and the level of integration with community, projects, and programs—has been a study in patience, expectations, and politics, and amazing success stories.

At National Park of American Samoa, lands from multiple traditional village areas across the islands are included in the lease between the governments of the U.S. government and

American Samoa. Interpretive materials and programs at the visitor center are provided in both Samoan and English. Bilingual school curricula have been developed and are taught throughout local schools. They are part of a robust education and outreach effort that incorporates social media and engages hundreds of students from K–12 to learn traditional Samoan culture alongside programs that integrate frameworks for science and research and encourage holistic thinking. The next generation of scholars and scientists are blending *fa'asamoa* and scientific protocols in their learning, understanding, and research. As well as sharing knowledge about their environment and culture, they are also sharing and learning about biocultural resources, and incorporating presentations of historic events and interpretive programs reflecting both traditional and modern challenges.

The management of invasive species across park units has led to the development of specialized crews composed of village and community members, working in partnership with NPS staff to successfully implement a project to control invasive and alien tree species such as tamaligi, pulumamoe, and lopa[5] that threaten the native paleotropical forest and ecosystems. These Samoan crews deploy current technologies and safety programs to manage their forests, archaeological sites, and cultural landscapes. They preserve the cultural connections not only through their physical presence, the practice of cultural protocol, and acknowledgement of the resources daily, but also through the creation of an enduring link to the place, the resources, the villages, and the future of the island communities.

Ta'ū Island hosts the largest unit of the park, approximately 5,000 acres extending from ocean reefs to the cloud forest of Mount Lata. The island is believed to be the birthplace of the Samoan deity *Tagaloa* and of all Polynesian cultures. It was the island residence for the *TuiManu'a*, or King of the Manu'a Islands, until an American government was established in 1904. According to the records maintained by National Park of American Samoa, there are 139 archaeological features spread throughout the *Saua* site on the island of Ta'ū, which includes an ancient village site with scattered house foundations, cooking areas, stone-tool grinding features, traditional wells, habitation features, artifact scatters, and graves. Lopa and pulumamoe tree populations invaded these significant historic cultural sites, diminishing their value and destroying physical features. Preserving the sacredness of these cultural sites is one of the objectives of this project. The crew removed all known non-native pulumamoe trees from the island, because native fruit doves and bats consume fruits of the pulumamoe. These animals are capable of dispersing invasive seeds throughout Ta'ū. The field crew also treated the last known lopa tree populations on the remote south side of Ta'ū, adjacent to the historic *Taisamasama* water (Ancient Yellow Water). Taisamasama is where the last king of the Manu'a Islands, King Tuimanu'a, and King Malietoa from Western Samoa met in approximately 1840 and decided to align their communities within the Christian faith. The Ta'ū village council allowed the ecological restoration of the Taisamasama rainforest area after a consultation process with village *pulenuu* (mayors).[6]

Over many years, the invasive tree species project has provided not only a biocultural continuum within which history, site interpretation, and management activities are entwined. It also has supported and nurtured the concept of *fa'asamoa* that has been expressed by the program, the community, and their resources management. The patience and expectation

of using a culturally competent process and range of activities has created a win–win for the villages and for next generations of resource stewards living *fa'asamoa*, and deployed a tradition of utilizing knowledge from the past and the present to influence the future.

### Reclaiming *Kuleana*: Community, culture and place

The challenge to define and support relevant interpretation, and capture the nuances and importance of all the contributing components of a shared story and heritage, rests with the ability to remain flexible, communicate, question, and be open and receptive to inclusive explanations. An example is the long history of Hansen's Disease (leprosy) and the isolated community established in 1865 at Kalaupapa Peninsula on the Hawaiian island of Molokai, where 8,000 patients lived until 1969. The interpretive focus, as mandated by the park's enabling legislation, is the Kalaupapa Settlement and the tragic history of the patients. Only recently has there been an effort to identify and include the interpretive stories and place-based family connections for the lineal descendants of the Hawaiian community that was forcibly removed from the peninsula to make way for the Hansen's Disease patients. Multiple generations of Hawaiians were forcibly disconnected from their community and place.

Reclaiming those connections between community, culture, and place is critical to interpretation and understanding. Along the Ala Kahakai National Historic Trail on the west coast of the island of Hawai'i, families who are cultural and lineal descendants of people connected to historic places along the 175-mile corridor are finding new ways to confirm their place-based *kuleana* (personal responsibility and obligation) to stewardship by maintaining segments of the trail (including repair work, proper cultural protocol and ceremony, and connecting the stories and legends) in their *ahupua'a*.[7] By reconnecting with their past, and through self-determination and engagement, they are empowering their families and future generations. Projects like these in which the federal agencies and partners support the communities to plan, lead, and execute, serve to rebuild families, provide direct biocultural connections, and perpetuate responsible interpretation and sharing of important lessons.

History and interpretation across the first century of the National Park Service challenges us to make it better, make it more inclusive, make it multi-dimensional, and, in the process, create opportunities to share, learn, and support. We need to balance political realities with optics and individually find the courage to "step over the edge of 2000 years of Hawaiian and Pacific tradition."[8] It requires that we engage fully and with intent in our own communities of practice, encourage dialogue and create expectations of patience, accept and initiate collaboration, and develop interpretive materials that reflect the richness of the variety of perceptions of events, people, places, and communities.

The challenge of history and interpretation in the National Park Service is to revise the frameworks in which the work takes place. Agencies that work with communities need to find more respectful ways to share and collaborate. When preservation fund grants are provided to communities, it is critical to not only follow the guidelines and reporting requirements, but more importantly, to ensure that communication takes place to incorporate the outcomes and outputs that are of value and use to the community. That means the bean counting occurs *and* the products are in a format that is meaningful to the community—

traditional language documents and reports, materials and information collected in ways which are culturally competent, and done within a timeline that is respectful to the community.

The presence of specific cultural practices and knowledge in a community that may be valuable to both them and external partners represents a tremendous responsibility on both sides. The responsibility for the knowledge and for how it is collected, shared, used (or not used), evolves out of the commitment of time, trust, and sharing on all sides. Creating an expectation of patience is part of that process.

There are many models that can be used to define how these conversations and engagements occur. These entwined processes can be called organizations, partnerships, consortia, alliances, co-management structures, stakeholders, or agencies. When working together, they all face the additional challenges of sharing information and interpreting both biocultural processes with traditional science, data, and events, and making the information understandable, relevant, culturally competent, and sensitive.

The challenge is to recognize and balance the processes by which observation, theory, and deduction combine to provide more robust, grounded information that can be evaluated and used to inform decisions, outcomes, or possibilities. This process of deduction and application is intimately tied to sharing history as it is linked to a biocultural continuum. Interpreting history is not strictly telling the story of an event, a person, or a place. It is about the relationship between the components through a timeline that creates the connection and the *kuleana* to execute and continue. The concept of cultural ecosystem services in conjunction with place-based knowledge and communities of practice help define the careful relationships that have evolved over time and place. How those relationships are observed and explained internally and externally is part of the communication and interpretation challenge.

From a Pacific and indigenous perspective, whether *fa'asamoa* or through the presentation of an *'oli,*[9] we are linking historic events, how those events are interpreted or shared, and how we each relate to them, in them, and through them. Other examples might include the genealogical chants such as the *Kumulipo*, which binds perspective, evolution, biocultural resources, and environments to explain and describe a state of being. The *Kumulipo* is an 18th-century chant in the Hawaiian language, composed of 2,000 lines that tells a creation story and includes the genealogies of members of Hawaiian royalty.[10]

The recent completion of the Polynesian Voyaging Society's *Mālama Honua* (Care for the Earth) Worldwide Voyage by the traditional Hawaiian sailing canoe *Hōkule'a* represented the challenges not only of the ocean, but larger ones of connectivity, relevant messaging, interpretation, and education. The canoe utilized non-instrument navigation to circle the globe, a journey of four years and more than 40,000 nautical miles, encompassing 23 countries and territories, and calling at more than 150 ports. At each stop, the crew shared the importance of community, culture, the Promise to the *Pae'aina o Hawai'i,*[11] and a promise to future generations to inspire, learn about, and care for Mother Earth. In turn, they engaged and shared experiences with the local community. They also were able to provide real-time voyage tracking and coverage during cultural exchange events through the development of social media and web materials provided by the various crews during the different legs of

the voyage. The journey crossed lands, waters, time, space, and cultures, and continues to resonate and inspire locally and globally.

Following a brief maintenance overhaul, on August 16, 2017, the canoe and her support vessel, *Hikianalia*, departed Honolulu on the island of Oʻahu on the next leg of her voyage to inspire young people by traveling throughout the Hawaiian Islands to 40 ports and more than 80 communities to thank the people of Hawaiʻi for their support. They will engage with schools and organizations through outreach events, service projects, crew presentations, and canoe tours.[12]

The integration of our stories across generations, landscapes, and seascapes; the recognition and inclusion of cultural and political nuances; and our collective capacity to listen, share, and learn, will serve to create a community of practice that far exceeds our individual contributions. It is through grappling, curiosity, and critical conversations, along with a willingness to be flexible, open minded, and accepting of different perspectives, that we will truly tell our stories and celebrate our connections to culture, time, and place across the past, present, and future.

*ʻAʻohe pau ka ʻike i ka hālau hoʻokahi.*[13]
All knowledge is not learned in just one school (One can learn from many sources)

*The views and conclusions in this essay are those of the author and should not be interpreted as representing the opinions or policies of the National Park Service or the United States government.*

## Endnotes

1. Daniel Kawaiaea, personal communication, 1990.
2. Pacific Islands Climate Change Cooperative, Culture and Communities Working Group, 2011.
3. Honokoʻhau Study Advisory Commission, *The Spirit of Ka-loko-Hono-koʻ-hau, a Proposal for the Establishment of a Ka-loko Honoʻ-ko-hau National Cultural Park, Island of Hawaiʻi, State of Hawaiʻi* (Kailua-Kona, Hawaiʻi: National Park Service, 1974).
4. *Fa'asamoa* is the concept that captures the essence of Samoan culture: its places, communities, resources, and traditions. It can be viewed as a manifestation of a biocultural continuum.
5. Tamaligi (*Falcataria* spp.); pulumamoe (*Castilla elastica*); lopa (*Adenanthera pavonina*).
6. National Park of American Samoa, "American Samoa Partnership Grant Update, Annual Grant report: Invasive Species Removal," July 2017.
7. *Ahupuaʻa* is a land division that represents a biocultural continuum from the mountains down to the ocean and into the nearshore, encompassing a variety of integrated ecosystems and resources that were utilized, shared, and traded.
8. "Two thousand years of tradition have brought us to the edge—the next two thousand require that we step over" (Imaikalani Kalahele, 1998). Kalahele is a poet, playwright, artist, musician, and activist whose works are widely known throughout the Hawaiian Islands.

9. The oral tradition of recording information through chant for the purpose of passing it from one generation to the next.
10. The original printed text of the *Kumulipo* was published in 1889 from a manuscript copy in the possession of King David Kalakaua. The first English language translation was made and published in 1951.
11. The Promise to the *Pae'aina o Hawai'i* was a unique environmental initiative that brought together individuals and organizations across all sectors in a collective effort to achieve real improvements in protecting and caring for Hawai'i's unique environment. This effort was inspired by the Worldwide Voyage, and included actions towards effecting change on how oceans are valued, implementing policy measure for healthy oceans, and catalyzing long-term collaborative ocean management.
12. For more information about the Polynesian Voyaging Society and the *Mālama Honua* Worldwide Voyage, see http://www.hokulea.com.
13. Mary Kawena Pukui, '*Olelo No'eau: Hawaiian Proverbs and Poetical Sayings* (Honolulu, Hawai'i: Bishop Museum Press, 1983).

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# A Perilous View

*Shelton Johnson*

## Finding George

On May 18, 1903, at the Presidio of San Francisco, after three years of service with the Ninth Cavalry, Private George Metcalf of Frankfort, Kentucky, was discharged from the U.S. Army. What kind of day was it during his last hours as a soldier? Did fog roll in, obscuring Fort Point, and the thoughts of a man who found himself illuminated by a final sunrise? No more bugles. He could decide for himself what to do on the following day. There must've been a release, but also giddiness and fear accompanying *freedom.*

There were no parades in his honor, no confetti flung from the roof tops. No admiring throngs spoke his name. He was just another soldier, his duty done, moving on to new adventures. History would soon forget him. He would be reduced to a scribble on a ledger. On the muster rolls written for Troop "K", the notation stated:

> Discharged at Presidio of S. F. Cal., May 18, 1903 per expiration of term of service. Discharge and Final Statements given. Due soldier for clothing not drawn in kind Three dollars and Sixteen cents ($3.16) For deposits Ninety Dollars ($90.00). Character "Excellent."

Those few words can't measure the weight upon George Metcalf on that day. How would *you* have felt after three years in the Army? For three years your life belonged to others. Superiors determined *when* your day began, *what* you did while awake, *where* you slept at night, and *how* you might die tomorrow. You were a soldier. Follow orders. *God* was a first sergeant who hated you. *Home* was a place you went to when you slept. *Family* was Troop "K". They were *brothers*. You'd die for them. They'd die for you. This was survival. And now after three years of taking orders, a moment as thin as paper, you're on your own, no longer part of that family. You're an ex-soldier with choices to make.

Which did you decide, George Metcalf? Did you imagine a ranch in Montana, riding horses when *you* wanted to? Were you hoping to get back to Kentucky? Was there someone *there* waiting? What was her name? Or, did you just want to not move anymore, simply be

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*here?* Were these your thoughts on May 18, 1903? Could you have imagined that the only thing left of you on that day would be: "Character, excellent."

Certainly there is more written somewhere about Pvt. Metcalf, but until 2001, it was all that I knew of him. He was one of hundreds of Buffalo Soldiers who served in Yosemite and Sequoia national parks in 1899, 1903, and 1904. For each of these men a similar day would dawn, or perhaps they would die, still a soldier, alone, or with comrades close by. Whatever their final moments may have been, they all passed into this story. However scattered they may be now, history binds them together in death as surely as hard military discipline bound them together in life.

People whose history has been forgotten suffer a different kind of death. Not only are they physically absent, but their legacy also *disappears.* It's the void where lives collect in documents. Nothing organic remains, just shadows cast into faded paper, dumped in vaults, boxes, holes. Most of these soldiers are in a hole. They didn't dig it, or perhaps weren't even aware that it was being dug each and every day they were alive. Aware or not, their destiny was to fall into that hole. It's so dark in that hole that there's no memory of light.

Down there was George Metcalf. He probably would've remained there forever had it not been for Larry Montgomery, a seasonal ranger here in Yosemite Valley. In 2005, as I was sitting in my office going over Ninth Cavalry muster rolls, which are lists of soldiers in particular troops, and commentary about their status, Larry happened to stop by. Larry's from Kentucky. You can hear Kentucky when he speaks. Not just in his words; it's how his sentences move that's Kentucky. George Metcalf was from Frankfort, Kentucky, so I wondered if his speech sang in a similar way: "Hey, Larry," I said. "There's a soldier here from Kentucky, why don't you take a look?"

**Figure 1.** "Negro troopers of the 24th Infantry," photograph by Celia Crocker Thompson, 1899. Courtesy of Yosemite National Park Library.

I handed over the muster rolls and Larry read what was written and exclaimed, "George Metcalf! The Metcalfs? I know the Metcalfs from Frankfort. They've lived there for over 100 years!" I thought he was joking. He wasn't.

That summer I walked around Yosemite Valley presenting my living history program, aware that I'd found the relatives of one of Yosemite's Buffalo Soldiers, or one of those relatives, through Larry Montgomery, had found me. Do we discover history, or does history discover us?

Private Metcalf never served here in the Sierra Nevada Mountains, but he was a soldier with Troop "K", which ventured to Yosemite barely one month before he was discharged from the Ninth. George Metcalf remains part of that story. He was a veteran of the Philippine-American War, and was garrisoned at the Presidio of San Francisco. Like his peers, he was from the South. They'd served together, sharing hardships and death. The *memory* of George Metcalf journeyed through Yosemite though the *man* did not.

I'd found George, or had been found by him. George Metcalf claimed me just as surely as I've claimed him. My research had turned into a lifeline tossed into a dark hole, someone had tugged at the other end, and now, slowly, they were being pulled free. What must that feel like to be forgotten for a hundred years, and then to suddenly have people saying your name, wondering about you as if you'd never been forgotten? Of course, for the Metcalfs, George was always a part of family history.

A few days ago I spoke to Mr. Derrick Graham, the great-grandnephew of George Metcalf. Mr. Graham is a schoolteacher in Frankfort, Kentucky. He told me that George never married, and that he was the only brother of four sisters, but all I could think of in that moment was that I was on the telephone with a relative of Pvt. George Metcalf. In those few minutes, this history was no longer superintendent reports, patrol reports, muster rolls, letters, or miscellaneous correspondence, it was a conversation about someone real, someone who had sisters, who was remembered by people who were alive. Somewhere there was a heart beating, and a breath taken. There was blood flowing. Tears.

George was alive while I was talking to Derrick Graham, alive in a way that he had not been over years of research. Now it was personal. Now it was the way *he* walked, the way *he* spoke, how *he* held a cigar. Now it was the dreams *he* had. It was so different. George had found me. For years I had been reaching my hands out into darkness, and when I least expected it, someone had clasped them, held them. I was no longer solely in this time, and George was no longer a creature of that time. A bridge had been built beneath us, we had taken a few steps, and met amazed in the middle of that span.

Now the history no longer sleeps in yellowed documents, but shines in the eyes of George Metcalf. They look out into *this* world through his living cousins, nephews, and nieces. He was never forgotten in those households. What is it all made from, those *nails*, the *glue*, and *bolts* that keep a story together? It can all fall apart elsewhere, but in every family memories can be kept like heirlooms, without shelf or cabinet, there behind the eyes.

Yet, I have only found a part of George. The totality of a life can't be captured in a photograph. He stares out from a fragment of a time and a place. He can't be restored completely without the restoration of the world that he knew. But before the arrival of this gift, this

portrait that has bound us both in something living, there was little to hold. One day soon, perhaps, I shall look up from my desk, and there before me will be Derrick Graham, a man from Kentucky with a story to tell. He will extend his hand, and I will take it, and then, finally, I will have come as close as I can in this world to finding George.

Who now prays for George Metcalf, or the thousands who left the Old South to find something, or run from something that had no name? In what place today still dwell those ambitious, yet fearful shadows that eventually found refuge in the Old Army? One by one they drifted into that system like leaves to the sky and were reborn as privates, corporals, and sergeants. They became cavalrymen or infantrymen. They were given a new purpose. They rode, marched, drilled, fought, slept, and died. Each of those men has a story. Some of those stories bind Yosemite, Sequoia, and the Presidio of San Francisco into one narrative. The Buffalo Soldiers of the Sierra Nevada is just one of those stories. Throughout America, other George Metcalfs wait to speak.

When I peer into the muster rolls that house their names, I glimpse 400 other shadows that once were living men. They wait to be found. Most are from the Deep South, but some hail from northern cities like Boston, Philadelphia, and Chicago; or western cities like Kansas City, Denver, and San Francisco. What are *their* stories? Are flowers still strewn over their graves, or do they lie forgotten in the shade of trees?

Once upon a time, the Buffalo Soldiers rode into the Sierra. Lit by the granite around them, they built the first trail to the top of Mount Whitney, the first wagon road into Giant Forest, the first museum in the national parks*, and then they were gradually taken from our memory* even though they served as some of the first national park rangers in the world. Remembrance is the greatest honor that can be bestowed on any story. It's the shining of a light into the darkness. The shadow of Jim Crow could've erased the Buffalo Soldiers from history forever, but here in the present we can choose to reach back into those yesterdays, hold up to the light their service today, and secure a tomorrow where awareness of their contributions will become an inextinguishable flame.

## Finding George's voice

When you rediscover a legacy that has as its hallmark the building of the first usable wagon road into Sequoia's Giant Forest, the first trail to the top of Mount Whitney (the highest mountain in the United States in 1903), and the construction of the first museum in what would become the national park system, everything sounds great until you peer a little closer. The photograph that you're staring into is a window through which you see five men on horseback, somewhere in Yosemite. It was taken by a young woman named Celia Crocker Thompson in June of 1899. At first glance, you discern that they're wearing the same clothing, perceive that they all have carbines slung over their soldiers, and the combination of uniforms and weapons, forge an image of soldiers within seconds.

It's at this point that the viewer begins to make assumptions which distort the view. The photo is of a group of soldiers in Yosemite National Park, so it would be easy for some to assume that the soldiers are Euro-American, primarily because those are the images that we all have been fed for over 100 years, but this particular story of national park stewardship

by African Americans was forgotten, or to be precise, *untold* for nearly just as long. With the publication of the first western novel, Owen Wister's *The Virginian*, published in 1902, and the first western film, *The Great Train Robbery*, directed by Edwin Porter in 1903, Americans were introduced to a re-vision of the American West that essentially had no cultural diversity other than Native Americans.

The *real* West was quite the opposite, peppered with immigrants from all over the world, *and* African Americans. This condition has not only distorted our collective view of western history, it has created an environment within which it has become difficult to see the presence of people who have been there all along, but forced to the edges of photographs, letters, reports, diaries, memoirs, and other documents of the frontier period.

This ethnic *relocation* shaped my approach to interpreting the Buffalo Soldiers of the Sierra Nevada. I recognized at the outset that I would be telling a story that contradicted the historical perception of the majority of the people who would be attending my performances. African American visitors to Yosemite are a numerical minority, so I would be speaking to people whose perception of Yosemite during its pioneer period was very different from the vision of Yosemite that had been created for me as a result of my primary research into the military stewardship of Yosemite and Sequoia national parks, as well as my use of a different cultural lens. The racial attitudes that allowed for the disappearance of the Buffalo Soldiers from the memories of the dominant culture that surrounded them *yesterday*, also allow for the continuance of that invisibility which, to some degree, still cloaks their legacy *today*, for that's the power of Race in America.

To say that "the past isn't what it used to be" is a provocative statement, yet there's truth in that phrase. History itself, the history that was actually lived by those who participated in it, can never change, but for those of us who are reading these words right now, our orientation to that past is always subject to change as the experiences that we all undergo in our lives continue to reshape our sensibilities. We're all in the process of envisioning the world in new ways.

My own perception of Yosemite shifted instantly when I found out that Buffalo Soldiers served as park rangers over a decade before the creation of the National Park Service. It was astonishing to discover that African Americans had played a stewardship role in Yosemite, a UNESCO World Heritage Site, over a decade before Stephen Mather and Horace Albright became the first leaders of a new agency charged with safeguarding America's Best Idea. It was more disturbing to realize that there were more African Americans, by far, playing such a role in the Sierra 100 years ago than there are today. I am one of literally a handful of African American NPS employees stationed in Yosemite, but at the turn of the last century *there were hundreds.*

So, how best to tell this story? Should I tell it as a park ranger? Or, should I clothe myself in the uniform of a Buffalo Soldier? I tried the first, failed, and chose the latter out of necessity. The story needed to be told, and I realized why I had failed *once I became a Buffalo Soldier*. An African American man telling a story charged with the racial animus of the late 19th century, to an audience that was nearly completely European American ,was fraught with dangers both seen and unseen, so I discovered that it was much easier to tell that same history

from the inside out, rather than the outside in, through first-person living history. It's easy to debate another individual's perception of history, but it's much harder *to challenge someone's account of their own life*. As a ranger I could not only feel people's discomfort with what I was saying, *I was uncomfortable with the words that I had to use* in order to effectively render not only what America was like 100 years ago, but what words a U.S. Cavalry soldier, who was also a black Indian and a sharecropper's son, might've spoken describing his life growing up in the Jim Crow South, his service during the Indian Wars, the Philippine Insurrection, and finally his encounters with a Yosemite that was only thirteen years old.

In general, visitors have been willing to engage with Sgt. Elizy Boman, Troop "K", Ninth Regiment of Cavalry, and the result has been an illuminating experience for nearly everyone because my "character" accepts responsibility for his own condition. He's philosophical about his life, and non-accusatory in terms of assigning responsibility for the life that he has lived. Consequently, it's easier for the park visitor to really hear what Sgt. Boman is saying, and, more importantly, see the human being beneath that uniform. This is the foundation for the success of "Yosemite Through the Eyes of a Buffalo Soldier."

The voice that I use in the following fictional letter was inspired by the actual voices of Buffalo Soldiers who wrote their own letters to the "Colored" newspapers of the day from Cuba, and the Philippines, describing their experiences with war to loved ones back home. Many of these letters can be found in Willard B. Gatewood, Jr.'s book, *Smoked Yankees and the Struggle for Empire: Letters from Negro Soldiers, 1898 to 1902*.

But it will always be the photograph taken by Celia Crocker Thompson that drives this discovery, and the eyes of those Buffalo Soldiers staring out at me from the same park I work in today, but with the startling recognition that their Yosemite was vastly different from my Yosemite. As lovely, but far more perilous.

**A Buffalo Soldier writes from Yosemite**

October 1903

To the Editor, *Cleveland Gazette*:

I'm writing this letter to you because I want our people to know that there's a place for them here in California. I want to tell them that you don't have to die to get to the Promised Land. All you need is a good horse!

This place is a national park called Yosemite. My fellow soldiers and I rode to Yosemite from San Francisco—280 miles—in only 13 days. Every morning, the Sierra Nevada got bigger and bigger. The fact that these mountains were white with snow in May was mighty troubling for a boy from Georgia.

We arrived in the park's headquarters on May 7th. Camp Wood wasn't much to look at, just row after row of white tents, like corn planted in a field. It all seemed ordinary after riding through Mariposa Grove, where the giant sequoia stand. It was all so much to take in that I wanted to close my eyes, many times, and just catch my breath.

Well, soon enough I found myself so busy that there was no time to be breathless. Our camp was just to one side of the Wawona Road, which takes you up to Yosemite Valley from the south. It's a decent "path in the mountains," but it'd just be an alley back home in Macon. They call it a dirt road, but dust road is closer to the truth. Every time a wagon rolls by, the air turns so gray you can taste granite in your mouth.

My first duty was to stand on that road, stop people from coming in, and collect their firearms, it they had them. They could pick them up on their way out. But if they were leaving a different way, I'd have to seal them up and issue a permit to carry.

Lucky for me, I didn't spend too much time with that particular duty. Most of my days were spent on patrol in the high country. High country means snow stinging your face and winds that make your body ache. And even though you're riding with other men, just the size of Yosemite makes you feel alone, and, well, small.

There are posts or "substations" all over the wilderness. My captain, Captain Nance, visits each post once a month checking in on the condition of our horses and supplies. We live at one cabin for a month, and then another cabin someplace else for a month, all over the park.

Captain Nance reads our patrol ledgers to check up on the work we've been doing. We record all sorts of things in these ledgers. For example, we report on the sheep herds we brand with a "P." They aren't allowed to graze in these meadows anymore. We removed 15,000 sheep from the park this past summer, and their sheepherders, too. It was a mighty big job. I wish I could forget the look on the faces of some of those sheepherders. They were just trying to make a living, but they were just in the wrong place.

Our ledgers also report the forest fires we fight here. This summer we had 10. Only two were big enough to tell a story, and even those two fires only got a sentence or two in a ledger, something about fires "caused by the carelessness of campers or tourists." But was there any mention of us soldiers wielding axes, rakes, hoes, or shovels; soldiers sweating on a mountainside, choking on smoke, breathing fire, coughing up black spit? No, but it don't matter.

We give orders, and we obey commands. That's what you do when you're a soldier. We do what we are told to do, the best way we can. We have a sort of code: Do your duty. Don't complain. Help the man next to you if he needs it, 'cause one day he'll help you if you need it. Don't ask for anything you don't need. Take care of yourself and others. Most important of all, if you're cavalry take good care of your horse.

Did I mention that the "campers and tourists" in Yosemite are usually white? This might shock readers back East. Most white campers and tourists aren't used to taking orders from soldiers who look like us. In fact, they're not comfortable taking orders from Colored folk at any time.

It's not too comfortable giving the orders, either. If you're a Buffalo Soldier serving with the Ninth Cavalry in Yosemite, most likely you were born and raised in the South. You were taught at an early age that to disrespect a white person is to invite violence upon yourself.

The thing is, the mountains and the valleys—they don't care what color I am. That's why I love Yosemite. Whatever bad thing happens to me here is rarely personal. If a tree falls on me, it isn't because it's a bigot. If a grizzly bear mauls me, it isn't because my daddy and mama are sharecroppers, or were enslaved before that. If I fall off a cliff, it isn't because the ground thinks I "had it coming." Knowing all of this just makes me wake up to what's real and ignore the things that don't matter.

What's real is the sun climbing up over the edge of the world, how warm it feels on my face, holding me like my mama did when I was a boy. It's how the mountains catch fire every morning when the sky's clear and how calm it all is, like it's expected. This sunrise has been expected since the world began, and here I am on a horse, waiting for daylight to show me where I need to go.

What's lit up out there is Yosemite. All of what I see belongs to me as much as any man. My job is to protect it. I know I can't put it in my saddle bag, or stuff it in a haversack. But it belongs to me in a way that's deeper than anything bought with money. Maybe we lay greater claim to what we protect, to what we safeguard, and to what we hold dear.

Well, that's what Troop "L" has been doing here since May of this year. If you could tell all of your readers what I just said, I'll be happy!

Sincerely yours,

Pvt. Trezzant Jones
*Troop "L," Ninth Regiment of Cavalry*
*Reds Meadow Substation, near Devil's Postpile*
*Yosemite National Park, California*

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# Some Challenges of Preserving and Exhibiting the African American Experience: Reflections on Working with the National Park Service and the Carter G. Woodson Home National Historic Site

*Pero Gaglo Dagbovie*

Despite recent reports from the American Historical Association revealing a continuing decline in job opportunities for historians in academia, it appears that the vast majority of those who are enrolled in history graduate programs and who earn doctorates in history still have aspirations of one day securing highly coveted tenure-stream positions in the "ivory tower" as faculty members at colleges and universities. A distinct sub-field in the study of history, public history educates individuals who want to work in private enterprise, museums, government agencies, archives, and historic sites, as well as within historic preservation. Many historians, like myself, who were not exposed to public history during their graduate education sometimes encounter its practice through transformative events.

## Revisiting the painful aspects of African American history

In 2003, I served as a scholar-consultant for the permanent exhibit "And Still We Rise: Our Journey through African American History and Culture" at the Charles H. Wright Museum of African American History in Detroit, Michigan. With a group of about a dozen scholars with diverse expertise in African and African American history, life, and culture, I participated in a series of invigorating meetings convened by the museum's administrators and curators during which we talked through what this long-term exhibition should encompass and emphasize. We mulled over countless ideas and viable approaches and debated how this state-of-the-art museum could best present consequential episodes, historic icons, and prevailing themes in African American history to a variety of publics. It was in this setting that I first encountered in an up-close-and-personal manner the challenges faced when preserving and exhibiting the African American experience.

Despite our at-times divergent visions and assorted interpretations about what should be brought to the fore, we seemed to have reached the consensus that the exhibit should cel-

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ebrate the richness of African American culture and African Americans' remarkable abilities to persevere, while also laying bare the mind-boggling oppression that African descendants confronted and endured in the United States, especially before the enactment of monumental civil rights legislation in the 1960s. We agreed that the exhibit needed to strike a conspicuous balance between themes of resistance, triumph, and progress *and* ill-treatment, suffering, and injustice. This was in line with the museum's vision to create "a world in which adversity *and* achievement of African American history inspires everyone towards greater understanding, acceptance and unity!" Our notions of what the museum should feature, and how, was also undeniably influenced by the Motor City's large black community that in 2003 made up more than 80% of the city's population.

Several particular discussions left great impressions on me. Most importantly, we insisted that the exhibit illustrate two major genocides that profoundly shaped the black experience: the Middle Passage and lynching.

I distinctly recall that, during our discussions about how to best portray the Middle Passage, anthropologist and director of the New York African Burial Ground Project Michael Blakey not only supported the decision to construct a replica of a slave ship with wax figures of captured Africans jammed together on the lower decks, but he also suggested that the curators seriously consider working with an organic scent manufacturer to explore the possibilities of exposing visitors to what historian Sterling Stuckey described as "the smell of filth and stench of death" during the Middle Passage. Though Blakey's creative proposition was not earnestly pursued beyond our energizing dialogues, he underscored that the museum's curators mustn't shy away from graphically portraying these horrific experiences, which Stuckey argued were "the first real incubators of slave unity across cultural lines."[1]

When debating how best to portray lynching, we had no problem agreeing that Ida B. Wells' anti-lynching crusade needed to be spotlighted. We also eventually concurred that the museum should have on display a wax replica of a black man who was the victim of this once-common phenomenon. Images like those in the path-breaking book *Without Sanctuary: Lynching Photography in America* (2000), and that now may be found on countless websites, reveal the brutality of lynching, and we concurred that such images would be included in the exhibit. Yet, we reasoned that something more compelling was warranted. Like the reconstructed replica of the slave ship with life-like bodies crammed together and the eerie sounds of moaning, despair, and water rocking the ship playing from strategically placed speakers, the wax figure of a lynching victim provided, we concluded, a startling and dramatic representation of yet another "dark chapter" in American history that many Americans have heard about only in passing.

### Carter G. Woodson Home National Historic Site

My other impactful and more sustained introduction to the basics of public history—experiences that constitute the focus of this essay—began a decade ago when I was hired by the National Park Service (National Capital Region, National Capital Parks–East) and the Organization of American Historians to write the historic resource study (HRS) for Carter G. Woodson Home National Historic Site (NHS). On December 19, 2003, close to three

decades after it was designated a national historic landmark, Public Law 108-192 authorized acquisition of the Woodson Home, and it became part of the national park system. In 2005, NPS purchased the home from the Association for the Study of African American Life and History (ASALH) for $465,000, and on February 27, 2006, the building was dedicated as Carter G. Woodson Home NHS. Though ASALH no longer owns Woodson's home, the organization continues to play a leading role in conceptualizing its development.[2]

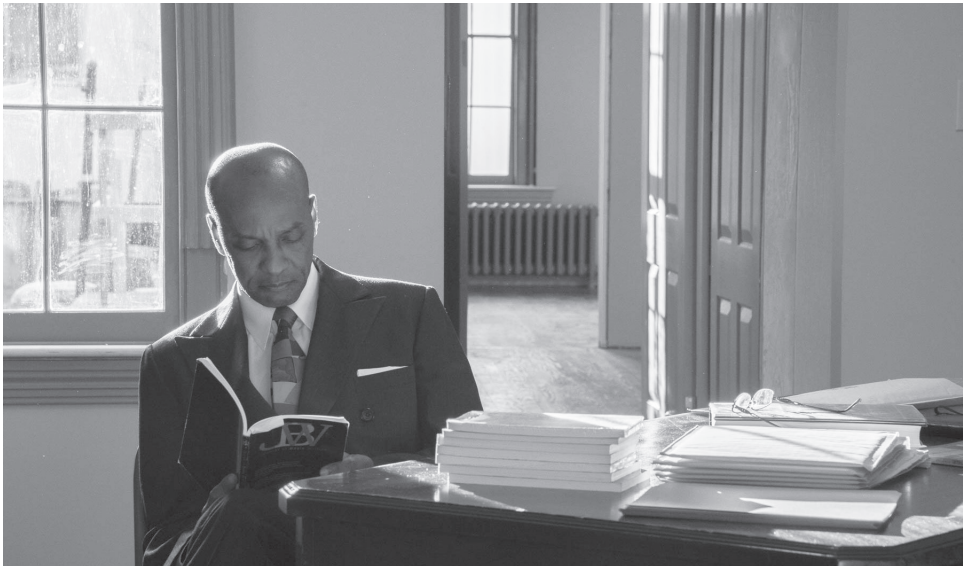
The Woodson Home has appreciable historic significance. In 1922, Woodson, appropriately dubbed "The Father of Black History," purchased the three-story, Victorian-style row house located at 1538 Ninth Street, NW, in Washington, D.C., for $8,000.00. Until his death in 1950, this space served as Woodson's "office home" (he lived in a small space on the third floor); the national headquarters of the Association for the Study of Negro Life and History (ASNLH, predecessor of ASALH); the place of business for *The Journal of Negro History*, Associated Publishers, Inc., and *The Negro History Bulletin*, an informal archive with thousands of valuable documents, artifacts, and memorabilia; "a training school for future historians"; and, in essence, the center of operations for the early black history movement (Figure 1). It must be kept in mind that this was all accomplished during the oppressive era of Jim Crow segregation.

**Figure 1.** Carter G. Woodson Home National Historic Site, 2017. The park visitor center is located in the building to the right. Courtesy of the National Park Service, National Capital Parks–East.

For more than a decade, NPS has been working on meticulously rehabilitating this building and determining how the site will operate. District of Columbia Congresswoman Eleanor Holmes Norton (who, in 1999, introduced legislation to establish the historic site) emphasized that the Woodson Home involved a unique set of NPS private–public partnerships. These partnerships have been manifested in varied ways. For instance, in 2016 NPS and Omega Psi Phi Fraternity, Inc., signed a formal agreement to collaborate on restoring the Woodson Home.[3] This arrangement was "the first of its kind between the NPS and a national African American organization."[4]

While funding issues currently still loom, according to NPS the complete restoration of the Woodson Home "is a high priority from both our regional and national leadership."[5] Tara Morrison, National Capital Parks–East superintendent, and Vince Vaise, chief of visitors services, National Capital Parks–East, have been very enthusiastic about the Woodson Home's future. On February 26, 2017, there was a "Special Preview" of the Woodson Home to celebrate the completion of Phase 1 of the restoration.[6] After an uplifting program that included the acknowledgement of Woodson's descendants, approximately 200 people had the opportunity to visit the home and attend a catered reception at the nearby Shiloh Baptist Church. The home was then re-opened from April 21 until April 23, 2017, for National Park Week. The group DMV Black History Field Trips offered its own tour of the home, declaring to potential participants: "Be one of the first visitors to step foot inside the Carter G. Woodson Home National Historic Site!" On weekends from Memorial Day until Labor Day, NPS offered guided tours of the site that, on occasions, included a performance by a talented Woodson re-enactor who bears an uncanny resemblance to Woodson (Figure 2). I

**Figure 2.** Carter G. Woodson re-enactor Dexter Hamlett sitting in the Woodson Home NHS during the "Special Preview" on February 26, 2017. Courtesy of the National Park Service, National Capital Parks–East.



was able to visit the home during the "Special Preview" and was impressed with the renovations, especially the winding staircase that Woodson walked up and down on a daily basis. I had been in the home before, but experiencing it in a more refurbished state helped me gain a better appreciation for the conditions under which Woodson worked. "If these walls could talk," I thought to myself as I ambled through Woodson's universe. It was a spiritual and transcendent experience for me. On December 17, 2017, I had another opportunity to visit the Woodson Home following the uplifting Carter G. Woodson Birthday Commemoration program held at Seaton Elementary School. On Thursdays and Saturdays, one can take an interpretive tour of the Woodson Home for 45 minutes with excellent rangers.

Typically speaking, the primary function of national historic sites like the Woodson Home—and museums such as the Charles H. Wright Museum of African American History—is to amass, display, protect, and exhibit historic materials and artifacts to the public for educational and entertainment purposes. "The completed site will provide a unique opportunity for visitors to experience the very place where Woodson lived and worked as he and ASALH brought African American history to life," the National Park Service projected several years before completing renovations. "Completion of the Carter G. Woodson Home National Historic Site will include a restoration and renovation of historic buildings; development, fabrication, and installation of interpretative exhibits; production and distribution of educational and interpretative materials and other site improvements such as parking, way-finding signs, wayside exhibits and much more." The ultimate purpose of this site is unambiguous: "to inspire and educate through the preservation of the home, life, and legacy of the preeminent historian and educator Carter G. Woodson."[7] Yet, how this is accomplished—namely during Phase 3 with the installation of the interpretive exhibits—is open for friendly debate, especially when considering how to frame the onerous context (i.e., Jim Crow segregation) within which Woodson labored.

### Thoughts on writing a NHS historic resource study

As the principal investigator for the site's HRS, I was part of the interpretation program. I was responsible for producing a comprehensive narrative "designed to serve managers, planners, interpreters, cultural resource specialists, and the interested public as a reference for the history of the region and resources within the park."[8] I felt a great sense of responsibility because, after all, my assessments would play a major role in the site's interpretive plans and park rangers' informational dialogues during tours. At the same time, I was given detailed instructions about exactly which archives to visit and what my HRS was to comprise in a lengthy "Scope of Study." This was something entirely new for me. Never before had I been hired to write a book with such specific directives. The peer-review system was also more tedious than I was accustomed to. After submitting an initial project outline for approval and before submitting the final version of the HRS, I delivered three drafts at 50%, 90%, and 100% levels of completion. Each incarnation, moreover, was reviewed by two NPS historians, the Organization of American Historians public history manager, the NPS site manager, and three to four members of the ASALH's Carter G. Woodson Home Committee, who focused

on my document's "organization, accuracy, quality, completeness, and compliance with project requirements."[9]

Central to my work was not only highlighting Woodson's life, contributions, and intricate personality, but, more importantly, unpacking the significance of the Woodson Home and his and others' relationships with this historic space. Spatial history—in simplest terms, the critical examination of how a space was used over time—was a central component of my HRS. Before embarking on this project, I had never before deeply contemplated or researched historic occupancy. In documenting Woodson's life in the home and in Washington, D.C.'s historic Shaw neighborhood, I acquired a more profound understanding and appreciation of his life and work. Entitled *"Willing to Sacrifice": Carter G. Woodson, the Father of Black History, and the Carter G. Woodson Home*, my HRS (approximately 80,000 words in length) is deliberately practical and comprehensive yet straightforward. With permission from NPS, in 2014 I published a condensed version of this study as *Carter G. Woodson in Washington, D.C.: The Father of Black History*.

### The crucial work of the Carter G. Woodson Home Committee

Since completing the final version of the HRS in June 2010, I have continued working as a volunteer scholar-consultant with NPS and as a member of ASALH's Carter G. Woodson Home Committee on helping develop the long-range interpretive plan (LRIP) for the Woodson Home.[10] The Carter G. Woodson Home Committee—at one level an offspring of the Carter G. Woodson House Use Committee that was founded in 1980 when ASALH renovated the home during the early 1980s—has been actively involved in working with NPS and the Woodson Home since it was designated a NHS. The current members of this committee, an active group of historians and Woodson enthusiasts, includeElizabeth Clark-Lewis, myself, Barbara Spencer Dunn, Bettye Gardner (chair), Cheryl Gooch, June Patton, and Alicestyne Turley. Other ASALH members, such as John Fleming (who from 1988 to1998 served as the director of the National Afro-American Museum and Cultural Center in Wilberforce, Ohio), Evelyn Brooks Higginbotham (the current national president of ASALH), and Sylvia Cyrus (executive director of ASALH) have been in conversation and worked with the committee.

This committee has been vital. As we have stressed, creating interpretive exhibits for African American historic sites calls for different approaches than more conventional sites do. I believe that we have contributed immensely to what the authors of *Imperiled Promise* called the agency's "history infrastructure."[11] Our work has also been complicated because of changes in the management of the Woodson Home and National Capital Parks–East, reorganizing that calls for revisiting previous plans and strategies. As one member of the committee whispered to me after meeting with NPS, "It is a blessing that we are so involved in this process"—a sentiment that we all shared.

At the various meetings that I have attended, I have learned a great deal about how public historians and NPS experts and staff grapple with identifying the most effective ways to establish key themes, programs, strategies, and resources in order to creatively and effectively educate different potential visitors. Unlike most professional historians operating in academia, NPS planners and specialists are most concerned with targeting different audiences,

especially the youth audience, who have specific needs and expectations. How these public historians reconstruct the complex past is largely shaped by their mission to make history accessible and usable for as many people as possible. In this advanced technological era, digital media and innovative geospatial technology will play an important role in educating those who visit the Woodson Home and other historic sites and museums built and upgraded during the 21st century.

Beginning in September 2008, NPS has been quite transparent in sharing—through a series of newsletters, meetings, online updates, tweets, and Facebook posts—the extensive processes involved in the three major phases of planning. Because "what the public thinks" is central to NPS, the project managers have actively sought input. "Have we missed the boat on the preliminary alternative concepts?" they even asked in a February 2009 newsletter.[12] According to NPS, "the public was expansive and enthusiastic in its suggestions." As the NPS managers amassed feedback from a diverse group of stakeholders (including community activists, amateur historians, and laypersons in the D.C. area) for their draft general management plan for the Woodson Home, they faced the challenge, I soon realized, of deciding what to include and what not to include in this important space. There is only so much information and so many artifacts that can be displayed in this three-story Victorian row house located in the heart of the historic Shaw neighborhood. As one who primarily disseminates interpretations of the black past in books and lectures, I do not usually face this predicament. What ends up being featured in the Woodson Home will be what NPS deems most important based upon the collaborative LRIP.

As already alluded to, because the vast majority of African Americans were denied their most basic human and civil rights during nearly 80% of the total black experience, the curators of black museums and historic sites face a significant challenge: to offer a snapshot of the African American experience that tactfully balances the prevailing themes of victimization and perseverance. In the late 20th and 21st centuries, this issue has preoccupied those involved in working with displaying black history.

Echoing many museum professionals, Max A. van Balgooy concluded: "African American history does contain certain difficult, controversial, and sensitive topics—as does all American history" and at our "historical museums and historical sites, we have a great responsibility to share all of the lessons of history, whether it moves through successes and failures, tragedy and delight, laughter and sadness. Favoring one without the other can mislead our listeners, giving them only an incomplete understanding of our past and present."[13] The founding director of the National Museum of African American History and Culture, Lonnie G. Bunch, III, described the underlying goal of the Smithsonian Institution's nineteenth museum: "I think the museum needs to be a place that finds the right tension between moments of pain and stories of resiliency and uplift." He continues, "There should be moments where visitors should cry as they ponder the pains of the past, but they will also find much of the joy and hope that have been a cornerstone of the African-American experience."[14] Bunch also revealed that some in the black community voiced to him their concerns that the museum not overlook the genocidal nature of anti-black violence, something that might shock white visitors and make them feel uncomfortable.

In late November 2015, NPS distributed the "Carter G. Woodson National Historic Site (CAWO) Foundation Section Long-Range Interpretive Plan" to members of the ASALH Carter G. Woodson Home Committee. In response to the report, we opened our comments by noting:

> Members of the committee have reviewed the report, discussed it amongst each other, and attended NPS sponsored planning meetings and workshops concerning CAWO, the most recent being the workshop on January 27 and 28, 2016. At this workshop, members of this committee shared their appraisals of and voiced their concerns regarding the LRIP. Recognizing the challenges involved in documenting the assorted remarks that the NPS received about the LRIP, the committee offers here some of our most important responses.[15]

In our response, we asked that the five interpretive themes be reviewed to match what was identified in previous deliberations. Beyond correcting a handful of historical inaccuracies, we were concerned about how the black struggle for liberation amidst pervasive racism and overt and violent racial oppression should be treated. The NPS staff, none of whom having expertise in African American history, was receptive to our feedback and incorporated some of our concerns into their revised and final LRIP (May 2017). Though our critical observations were not as elaborate as our previous feedback, we did seek further clarity and precision on several issues. Once again, we challenged the agency to more carefully integrate information from the HRS and to elaborate upon how what they called "scenes from nadir" (of black life) would be treated and how, in more specific terms, the contents of the space would prompt visitors, in their words, to "get angry with the racist scholarship that in part inspired Woodson."[16]

While we understood NPS's inclusive assertions that the site is connected "to the struggle for civil rights for *all* Americans" and that Woodson was a "multiculturalist," we underscored that Woodson's most pressing concern was the cause of blacks' civil and human rights during the era of Jim Crow segregation. Linked to this, we stressed that Woodson's work needed to be situated in what historian and chair of the ASALH's Woodson Home Committee Bettye Gardner called "the entrenched racism" of the Jim Crow era. By highlighting the difficult and even unfathomable times that inevitably molded Woodson and his contemporaries, we reasoned that visitors would better understand and appreciate what he accomplished. After all, as NPS highlights on its website for Teaching with Historic Places:

> [H]istoric places have powerful and provocative stories to tell. As witnesses to the past, they recall the events that shaped history and the people who faced those situations and issues. Places make connections across time that give them a special ability to create an empathetic understanding of what happened and why.

### Historical context is everything—some basic examples

The nation's capital fostered the development of a dynamic black intellectual community that rivaled that of the Harlem Renaissance, boasted a noticeable black middle class, and was home to Howard University, the nation's leading historically black college and university.

Black businesses were thriving in D.C. by the 1920s. The black community in the Shaw neighborhood where Woodson lived was especially vibrant. Yet, in the District African Americans still faced great challenges in terms of race relations, which should be adequately addressed in the Woodson Home. As points of departure, several examples suffice when speaking about the first decade after the founding of the ASNLH on September 15, 1915.

In July 1919, soon after ASNLH's second biennial meeting in Washington, D.C., a four-day race riot erupted because of a rumor that a black man had sexually assaulted the wife of a white man serving in the U.S. Navy. In retaliation, mobs of white men, including veterans, invaded black neighborhoods, beating down and murdering African Americans in their paths while the Metropolitan Police Department did virtually nothing to prevent the carnage. President Woodrow Wilson deployed about 1,200 troops to end the rioting. But, by then, the damage had been done. Estimates place the death toll as between six and thirty people, both black and white. Woodson was living in D.C. at the time of this "race war" and it certainly impacted his outlook as a scholar similarly to how W.E.B. Du Bois was affected by the Atlanta race riot of 1906. Moreover, shortly after Woodson purchased his "office home" in 1922, racism in the nation's capital was epitomized on August 8, 1925, when more than 30,000 members of the Ku Klux Klan marched in full regalia down Pennsylvania Avenue.

Though Washington, D.C., did not have elaborate "Jim Crow" laws on the books like quintessentially southern states, segregation and racism ran rampant by the time that Woodson purchased his home. As one scholar recently remarked, "from 1913 until 1921, President Wilson oversaw and endorsed unprecedented segregation in federal offices."[17] "Except for the haunts of bootleggers and other elements of the underworld, " historian Constance Green noted, "by 1923 the only places in Washington where racial segregation did not obtain were on the trolleys and buses, at Griffith Stadium, and in the reading rooms of the public library and the Library of Congress."[18] The city was elaborately segregated in the ensuing decades as well. "By 1950, segregation by law and by custom was firmly entrenched in Washington. Segregated restaurants were only one reflection of a racially divided city. Black Washingtonians encountered segregation in the most fundamental aspects of their daily lives."[19] Woodson himself was denigrated by the District's racist system. After being denied Pullman accommodations in late November 1932, Woodson, via an account in *The Norfolk Guide and Journal,* boldly indicted the Chesapeake and Ohio Railroad office in Washington, D.C.[20]

It is not an exaggeration to say that during the era of Jim Crow segregation "every institution in the United States—the academy, the churches, the courts, the sciences, even foreign policy—gave vent to the most violent forms of racism, including torture and lynching."[21] The U.S. historical profession was not an exception. Between 1882 and 1935, 2,005 doctorates in history were awarded in the U.S. By 1940, only fourteen blacks were awarded Ph.D.s in history.[22] Prior to World War II, many of the leading U.S. historians accepted the theory that blacks were inferior and had no history worth acknowledging. Historian Peter Novick has convincingly unveiled that a "consensual" and "near unanimous" racism connected white historians from across the nation during the Progressive Era, racialist thinking that extended into the era of Jim Crow segregation.[23]

Of course, I do not expect the Woodson Home to embrace the approach of America's

Black Holocaust Museum in Milwaukee, Wisconsin, or the soon-to-be opened Memorial to Peace and Justice (informally known as the national lynching memorial) in Montgomery, Alabama. All the same, the overt racism and anti-black behavior that profoundly shaped Woodson's and his contemporaries' lives warrants distinct and tactful attention in this national historic site. This will help visitors more fully appreciate Woodson's achievements.

## Conclusion

In comments directed to NPS, a member of the ASALH Carter G. Woodson Home Committee was blunt in articulating reservations about this agency of the U.S. federal government, indicating a hope that NPS would move beyond its "usual strategy."

What exactly this scholar meant by *usual* is open to interpretation. To me, this statement implies that the conventional or customary manner that NPS has portrayed African American subject matter would not, in this critic's mind, constitute a sufficient approach for the Woodson Home. The challenges that NPS has faced in terms of diversity and its checkered earlier history with African Americans have been discussed by scholars and social commentators. There are historical precedents that help better contextualize my colleague's skepticism.

In 1971, a decade after the first historic landmarks were designated by NPS, there were virtually no historic landmarks honoring African Americans, "an embarrassing circumstance at the time of increasing black awareness and empowerment."[24] During the 1970s, NPS instigated efforts to designate black historic landmarks by hiring the Afro-American Bicentennial Corporation (ABC), a group headed by brothers Robert and Vincent DeForrest with an advisory board that included several black political figures and many leading historians. From 1973 until the middle of 1976, the ABC received a total of $540,000 in "special funding" to identify, study, and nominate black historic landmarks throughout the country. By July 1974, thirteen black landmarks were named, and three years later there were sixty-one black historic landmarks approved by the National Park Service. This example of creating "official memory" was not accomplished without controversy. More than a few NPS workers surmised that the ABC "sought to nominate properties for as many individuals and events as possible, with little regard for the concept of site integrity and the significance of relationships between the sites and their subjects."[25] This was certainly not the case for Woodson's Home and others. Inspired by the Black Power era, these ABC activists sought to balance the historical scales, to memorialize their heroes and heroines who had for so long been ignored by white America. The fair and equal treatment of African American history and culture was delayed by the absence of African Americans among the leadership of the National Park Service. No African American held the position of director of NPS until Robert G. Stanton, who served from 1997 to 2001.

As revealed in reference books like the exhaustive *African American Historic Places*, there are seemingly countless significant African American historic sites throughout the nation.[26] According to the National Register of Historic Places, including the Woodson Home there are twenty-seven NPS units featuring African American history. Others focusing on famous black individuals include Booker T. Washington National Monument, Frederick Douglass NHS, George Washington Carver National Monument, Maggie L. Walker NHS, and

Mary McLeod Bethune Council House NHS. All of these historic icons, with the exception of Douglass and Bethune, were most active during "the nadir" of black life, and how these sites portray this devastating period in the African American experience is certainly open for debate.

When completed, the Woodson Home will undoubtedly play a leading role in memorializing the contributions of Carter G. Woodson to what he routinely called "the life-and-death struggle" for the cause of black history. I hope that NPS is able to judiciously situate Woodson without sugarcoating the realities of anti-black thought and racial violence during the era of Jim Crow segregation.

*The perspectives expressed in this essay are those of the author and should not be interpreted as representing the opinions or policies of the National Park Service or the United States government.*

## Endnotes

1. Sterling Stuckey, *Slave Culture: Nationalist Theory and the Foundations of Black America* (New York: Oxford University Press, 2013), 1.
2. Once the property is rehabilitated, NPS will provide ASALH administrative space at the historic site.
3. In 2011 the fraternity donated $5,000 to support the rehabilitation project.
4. "National Park Service Teams Up with Omega Psi Phi to Preserve Legacies of African American Leaders," National Park Service, Office of Communications, September 20, 2016. Online at https://www.nps.gov/orgs/1207/09-20-2016-oppf-partnership.htm (accessed November 22, 2017).
5. Carter G. Woodson Home NHS website, "Park Planning," as updated March 4, 2017. Online at https://www.nps.gov/cawo/getinvolved/planning.htm.
6. Liz Anderson, "Stepping Inside Home of Black History Champion Carter G. Woodson," radio broadcast, WTOP, Washington, D.C., February 27, 2017. Online at http://wtop.com/dc/2017/02/stepping-inside-home-black-history-champion-carter-g-woodson/slide/1/ (accessed August 9, 2017).
7. Carter G. Woodson Home NHS website, "Park Planning."
8. National Park Service, "Carter G. Woodson Home Historic Resource Study Scope of Work," July 2, 2008.
9. Ibid.
10. The final version of the HRS, with extensive oral histories, was made available to the public by NPS in April 2012.
11. Anne Mitchell Whisnant, Marla R. Miller, Gary B. Nash, and David Thelen, *Imperiled Promise: The State of History in the National Park Service* (Bloomington, IN: Organization of American Historians, 2011), 80.
12. "General Management Plan," in *Newsletter* #2, National Park Service, Carter G. Woodson NHS, February 2009.
13. Max A. van Balgooy, "Introduction," in *African American History and Culture at*

*Museums and Historical Sites,* Max A. van Balgooy, ed. (New York: Rowman and Littlefield, 2015), xiv.
14. Lonnie G. Bunch, III, "Making a Way Out of No Way," *Smithsonian* vol. 47 (September 2016): 28.
15. ASALH Carter G. Woodson Home Committee, "Feedback to the Carter G. Woodson Home National Historic Site (CAWO) Foundation Section Long-Range Interpretive Plan," February 8, 2016 (in author's possession).
16. National Park Service, *Carter G. Woodson Home National Historic Site: Long Range Interpretive Plan* (Harpers Ferry, WV: National Park Service: Harpers Ferry Center, December 2016).
17. Dick Lehr, "The Racist Legacy of Woodrow Wilson," *The Atlantic*, November 27, 2015. Online at https://www.theatlantic.com/politics/archive/2015/11/wilson-legacy-racism/417549/ (accessed on August 7, 2017).
18. Constance Green, *The Secret City: A History of Race Relations in the Nation's Capital* (Princeton, NJ: Princeton University Press, 1967), 201.
19. Marvin Caplan, "Eat Anywhere!: A Personal Recollection of the Thompson's Restaurant Case and the Desegregation of Washington's Eating Places," *Washington History* vol. 1 (Spring 1989): 26.
20. Carter G. Woodson, "Accuses C. & O. of Humiliating Negro Patrons," *Norfolk Journal and Guide*, December 10, 1932, 2.
21. Kenneth Goings, *Mammy and Uncle Mose: Black Collectibles and American Stereotyping* (Bloomington: Indiana University Press, 1994), 4.
22. August Meier and Elliot Rudwick, *Black History and the Historical Profession, 1915–1986* (Urbana: University of Illinois Press, 1986).
23. Peter Novick, *That Noble Dream: The "Objectivity Question" and the American Historical Profession* (Cambridge: Cambridge University Press, 1988), 74–84.
24. Barry Mackintosh, *The Historic Sites Survey and National Historic Landmarks Programs: A History* (Washington, DC: National Park Service, History Division, 1985).
25. Ibid., 73–75.
26. National Register of Historic Places, *African American Historic Places* (New York: John Wiley & Sons, Inc., 1994).

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# Exploring American Places with the Discovery Jounal: A Guide to Co-Creating Meaningful Interpretation

*Katie Crawford-Lackey and Barbara Little*

As America's story-teller, the National Park Service (NPS) has long influenced the practice of interpretive pedagogy by creating programs, exhibits, lesson plans, virtual tours, and more, addressing both natural and cultural resources. In the last decade, the National Park Service improved digital accessibility to park units, developed partnerships with local communities, and invited the public to become direct stakeholders in creating interpretation of the past.[1] The push for more engaging and diverse interpretation is a recent development within NPS. The 2011 report, *Imperiled Promise: The State of History in the National Park Service*, completed by the Organization of American Historians (OAH) at the invitation of NPS, identified a whole host of challenges in the workings of the agency. In addition to decentralized leadership styles and a lack of collaboration between park units, the report expounded upon the divide between historians and interpreters and how this impacts public perceptions and visitor experiences.[2]

When the National Park Service was founded in 1916, it was "primarily focused on nature and scenery."[3] Beginning in the 1930s, NPS became responsible for caring for a significant number of sites with historical significance. As a result, the federal agency began to hire historians to teach about these places and "connect visitors with physical resources."[4] With the establishment of the Division of Interpretation in the 1950s along with the passage of the National Historic Preservation Act (NHPA) in 1966, the historian's responsibilities began to shift.[5] Under the NHPA, the National Park Service became responsible for the newly established National Register of Historic Places. As a result, "the labors of NPS historians were gradually redirected to focus heavily upon preservation and legal compliance," instead of interpretation.[6] This created a disconnect between NPS historians and the interpretive content created for the public.

The OAH's report emphasized the need for departments within the National Park Service to collaborate across disciplines, resulting in the forging of new partnerships and the re-evaluation and improvement of interpretive techniques. Part of this evaluation entailed adopting a multi-vocal approach to the study of historical content.[7] The National Park Ser-

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vice recognized that the historical narrative was composed of diverse perspectives that speak to a shared American experience.[8] As a result, the agency expanded the focus of historical events and changed its strategy for interpreting this history to directly involve visitors and capture the diversity of perspectives in our collective past.

Now providing online discussion forums, facilitating digital and in-person training seminars, and disseminating resources with refined interpretive techniques, the National Park Service encourages interpreters to consider a more inclusive approach to historical inquiry, identify personal biases, and connect with the public on a deeper level. Resources such as the *Fundamentals of 21st Century Interpretation,*[9] *Knowledge of Self Training,*[10] and *The Arc of Dialogue*[11] prepare interpreters to explore meaning through facilitated dialogues, identify relevant historical themes and narratives that transcend time and place, and make connections with park units across the country. One of the most recent trends in interpretive pedagogy involves making historical content relevant to the public at museums and historic sites, as exemplified by The Empathetic Museum, a collaborative website for museum professionals, and Museum Hack, the alternative museum tour company.[12] One of the ways NPS is striving for relevancy is through audience-centered interpretation.

Audience-centered interpretation seeks to be relevant by providing opportunities for visitors to connect, contribute, collaborate, and co-create.[13] That is, members of an audience become participants in interpretation through opportunities to connect emotionally and intellectually with natural and cultural heritage, contribute to the process of making meaning out of a place and its history and social context, and collaborate with each other and with interpreters in dialogue or other interactions. Overall, the purpose is for interpreters and visitors alike to co-create the visitor experience. Such interpretation at historic sites and parks is usually focused on place, but it is not restricted to any particular place. Instead, it strengthens the meanings of a place by exploring connections—among places, across time, among disciplines, and across other boundaries.

## Discovery Journal

The Discovery Journal, a resource created through a collaboration of National Park Service professionals, provides a process for place-based interpretation. It provides space to write, draw, scribble, dream, and be intentional about how to transform the meaning of a place, to reveal excluded stories, and to facilitate healing and change.

In this article, we can share a little bit of the process by using a case study of the Tidal Basin in Washington, D.C. We are interested in exploring a current and promising trend in heritage interpretation that focuses on inquiry-based and audience-centered interpretation. Using a set of guided questions to discover and re-discover the Tidal Basin, we explore for ourselves how people unlock meaning for themselves. Such a process is, as Nina Simon argues, the very heart of relevance.[14] And there is nothing more relevant than relevance right now in the context of public presentation at museums and historic sites. The Discovery Journal has three main objectives:

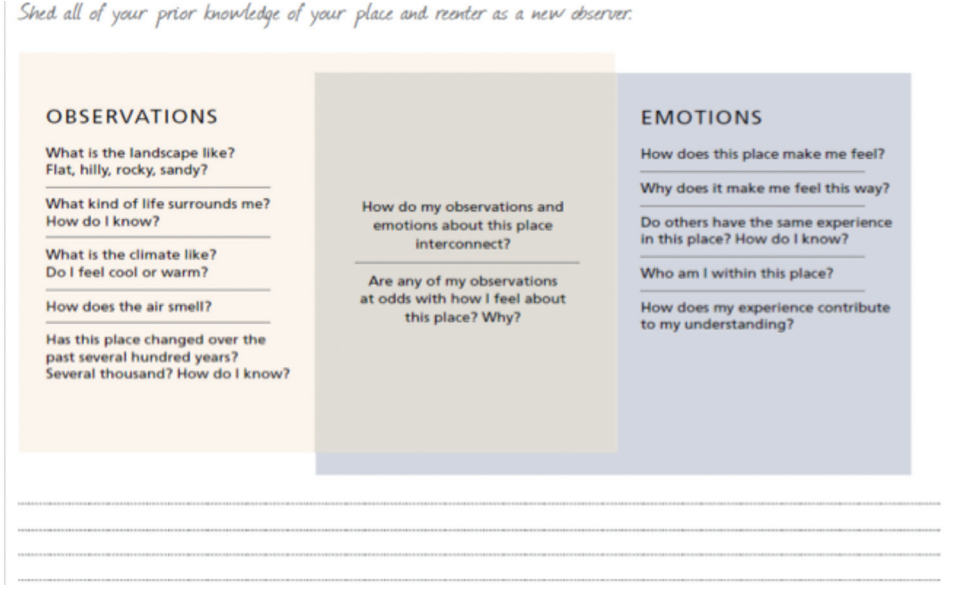
1. Identify core questions to ask about a place;

2. Learn methods to identify and explore connections to a place; and
3. Learn how to work within a team to create transformational place-based interpretation.

Beginning with an invitation to research, design, and co-create 21st-century interpretation, the Discovery Journal encourages further exploration of a place. Throughout this process, interpreters should feel inspired to continually revisit their place and experience the wonderment of the surrounding natural and cultural heritage. As "place" is the central theme, the Discovery Journal first asks a team of interpreters and resource specialists (historians, biologists, archaeologists, geologists, etc.) to go out into a place and experience it from a fresh perspective. Sometimes familiarity with a place can cause us to think too "inside the box." This activity (Figure 1), to be completed while out in the resource, is designed to spark a new line of inquiry about the significance and meaning of a place. Enlisting the help of the senses, these questions should cause us to wonder, "What is it about this place that compels me? What do I want others to know about it?"

Connecting with a place on a deeper level gets the creative juices flowing. But interpretation is most effective when created in collaboration with others. This requires gathering a team of experts with different knowledge, skills, and perspectives. The collaborative process is a powerful one. Interpretation isn't about one person telling a story; instead, it involves subject-matter experts, interpreters, and visitors creating meaning together. The Discovery Journal, therefore, suggests assembling a creative team and identifying what members can individually contribute to the process, the special qualities or insights they may have, and any tools or resources they bring to the table.

**Figure 1**. An activity included in the Discovery Journal that prompts a team to go out into a place of their choosing to rediscover it through a new lens.



Once the creative team is assembled, each individual should explore and connect with the place. In order to create place-based interpretation, all members of the team will need to explore the resource in order to identify and tell the untold stories of this place. This will also lend perspective later down the line when creating meaningful interpretation together.

### Our place: The Tidal Basin

Wanting a convenient location in Washington, D.C., to test out the Discovery Journal, we surmised that the Tidal Basin was a good spot to make connections between past and present, and between cultural and natural resources. We began our exploration simply by taking the time to experience it with our senses. On a chilly March morning, we pretty much had the place to ourselves. We walked the approximately two-mile loop around the basin, paying particular attention to what we heard, felt, and saw. The buds on the trees were barely visible and it was very windy and a little bit cold. The wind drowned out all other sounds and churned up small waves on the surface of the water.

As we walked, we asked ourselves, "What is at the heart of this place?" Our answer was that it depended on the time of year. The Tidal Basin is often associated with the cherry trees, but when the trees are not in bloom, it's easy to consider water as the heart of this place. We also spent time reflecting on some of our personal memories tied to this place.

> *Barbara:* I think about a memory of being here as a child, about 4 years old, and my brother teasing me by pretending he was going to push me into the water. And, so, I also think about how small children would experience this place, with the closeness of the water and lack of any railing that they might feel reassured by.

> *Katie:* I am reminded of a high school field trip to the Tidal Basin. New monuments have been added since my first visit to this place. I begin to wonder: "How do new monuments change the meaning of the place? Do the monuments give this place meaning? Or do the natural resources? What meaning do they create together?" I think about how the Tidal Basin has changed over time and what will be here in the future.

As we quietly took in our surroundings, our minds filled with questions about this place. We discussed them with one another and wrote down ideas to help guide our research later on. Acting as a team of two, we collaborated and co-created meaning as we brainstormed new ideas about how to best interpret this space.

We absorbed the essence of the Tidal Basin and slid back and forth between thinking of ourselves as visitors and researchers. That is, researchers in the sense of inquirers, as members of an audience might see themselves if they were participating in an audience-centered, inquiry-based exploration. We were guided by the National Park Service's "Curiosity Kick-Start," an online set of core questions meant to spark curiosity when visiting a place:[15]

- What is this place?
- What happens or happened here?

- Who and what lives here?
- Who and what lived here before?
- How is this place changing through time?
- How did it come to be this way?
- What will be here in the future?
- How is this place connected to other places?
- What does this place mean to me and to others?
- How do we know the answers to any of these questions?
- What don't we know and why?

These questions form the core of the Discovery Journal process. We delve into them in the context of the Tidal Basin in an article we co-authored for the journal *Open Rivers*.[16] We allowed the questions to lead us to further exploration and the kind of light research that any visitor could accomplish with a mobile phone while on-site.

Like many visitors, we came to the Tidal Basin with a vague knowledge of the place and a curiosity to learn more. The core questions fueled our intellectual appetite for more information about its history. Even without further research, we concluded that the Tidal Basin was a space for exploration—visitors can experience both natural and cultural heritage. Both locals and tourists have the opportunity to explore on land (via the walking path) and on the water (using rental boats).

While we were able to confidently answer "What is this place?", we struggled to address the remaining core questions. On-site interpretive signs provided a brief history of the Tidal Basin, giving us a general historical timeline, yet there was so much we still didn't know! We attempted to answer the core questions as thoroughly as possible during our visit; however, we recognized the need to conduct additional research later down the line.

Our initial responses to the questions included in the "Curiosity Kick-Start" centered on the monuments and the cherry trees. The Tidal Basin has an amazing setting and is surrounded by famous trees and quite a few national monuments. There are lots of fun facts and some interesting seeds of ideas that might take us beyond those trees and monuments. We also identified connections between natural (the cherry trees) and cultural resources (diplomatic relations with Japan). Yet we kept reminding ourselves that one of the main functions of the Discovery Journal is to inspire others to create interpretation based in healing and transformation. The answers we came up with to the core questions didn't really address healing.

How do we begin to think about healing and transformation? We re-evaluated and redefined the scope of our place. Instead of looking at the Tidal Basin as encompassing the monuments, the trees, and other features, we decided to focus on the water itself. Where might this extraordinary body of water take us?

### What is transformational?

We're leaving out a lot of steps in the Discovery Journal, but what really seems to be the key to freeing the creative process is this very simple tool (Figure 2) for thinking about connections and current relevant issues.

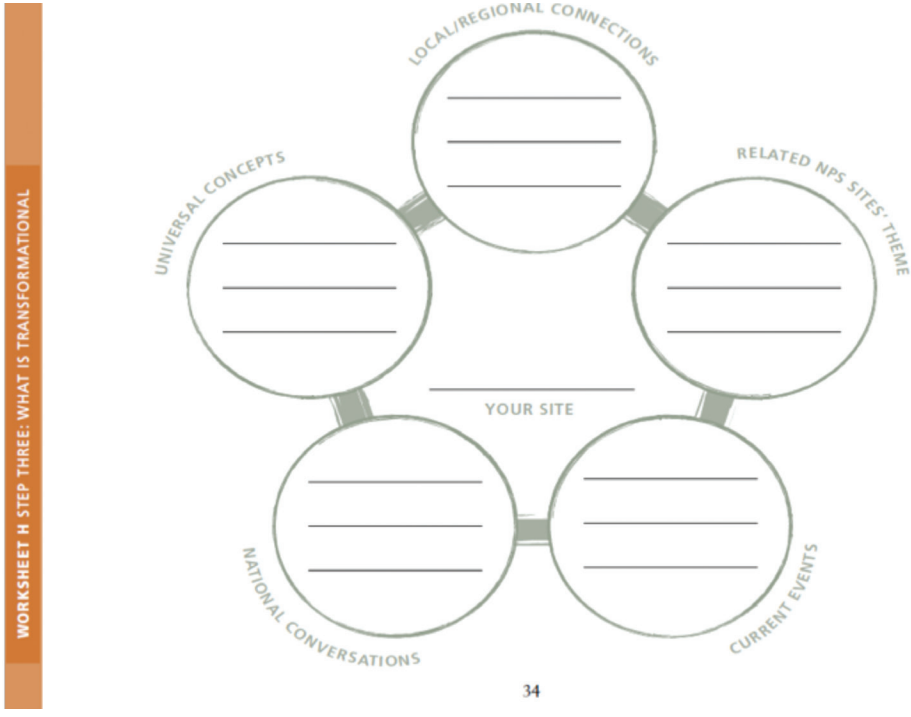



**Figure 2.** The place being explored is at the center of the diagram and the connecting circles are prompts for thinking about connections and current relevant issues.

The diagram encourages individuals and the team to think about how the stories of a place are relevant and how best to expand on them. It works when you have taken the trouble to learn something about the place and the time to consider and discuss. Here is our diagram with initial thoughts and then further thoughts from both of us added (Figure 3).

So, how has our visit to the Tidal Basin informed our exploration of inquiry-based and audience-centered interpretation? We used the core questions and a little bit of further research to discover the Tidal Basin as a place relevant to each of us, connected to environmental justice. Would others have come up with the same meanings for themselves?

We are both involved professionally in public history. After this exercise, we first jumped to thinking about how we might come up with ways to encourage visitors to discover the water and the ways in which it connects to other waters, especially waters that are not drinkable, swimmable, or fishable. We reasoned that wherever visitors are from, every one of them has a connection to water. We jumped too fast, but our reaction was instructive to us because it made us think about our roles and audience roles. Certainly, we want to acknowledge that there is value in using interpretive tools to engage visitors and raise their awareness. However, that is not what this set of core questions is about. Audience-centered means that the members of the audience are full participants, and it is their meanings that they are unlocking for themselves. It is not up to us to tell them what a place means to them.


**Figure 3.** We made connections between the Tidal Basin and other related sites, and identified how this place is relevant today.

There are many factors that influence what someone finds relevant in the core questions: prior knowledge, language skills, curiosity, companions, availability of materials or technology to research questions, and so much more. The very definition of the place, at the beginning, would influence the experience of inquiry-based exploration of it. At the Tidal Basin, the boundaries of the place being experienced are fluid. The place could be the Tidal Basin as we defined it, a grove of cherry trees, the paddle boats, the Jefferson or Roosevelt or Martin Luther King, Jr. memorials, the monumental core of the city, or something else.

The water of the Tidal Basin took us where our own curiosity and interests led us. Using the Discovery Journal in conjunction with the Tidal Basin, we were able to deepen our connection and understanding of this place. Guided by a core set of questions, we identified the meaning and significance of this place and were inspired (with a little help from the Discovery Journal) to create transformative interpretation based in collaboration and co-creation. Our experience taught us both about the Tidal Basin and about the realities and possibilities of inquiry-based, audience-centered interpretation.

## Endnotes

1. Anne Mitchell Whisnant, Marla R. Miller, Gary B. Nash, and David Thelen, *Imperiled Promise: The State of History in the National Park Service* (Bloomington, IN: Organization

of American Historians, 2011), *33–37*, details several of the National Park Service's recent efforts to engage the public. Manzanar National Historic Site, for example, reaches audiences virtually through its digital story-booklets, online photo galleries, and archived oral history interviews. The Lewis and Clark Bicentennial Traveling Exhibit and the Tent of Many Voices is another example of public engagement and co-creation on behalf of NPS. The Tent of Many Voices provided a space for representatives to share the story of Lewis and Clark through live demonstrations.

2. The report claims that the National Park Service's overall effectiveness is diminished by "the agency's weak support for its history workforce, by agency structures that confine history in isolated silos, by longstanding funding deficiencies, by often narrow and static conceptions of history's scope, and by timid interpretation," all of which impact the visitor's experience at park units; see *Imperiled Promise*, 5.
3. Ibid., 20.
4. A government reorganization in the early 1930s along with the 1935 Historic Sites Act resulted in a change in focus at the National Park Service. Once almost solely dedicated to natural resources, NPS was henceforward tasked with caring for cultural resources; see *Imperiled Promise*, 20.
5. Ibid., 21–22. 6. Ibid., 22. 7. Ibid. 8. Ibid., 6.
9. National Park Service, Interpretive Development Program (2017), online at http://idp.eppley.org/sites/default/files/Foundations%20of%20Interpretation-Version%202016-NPS-IDP-with%20cover.pdf.
10. National Park Service, *Knowledge of Self Training* (2016), online at http://idp.eppley.org/sites/default/files/Knowledge%20of%20Self%20Training%20Ideas-0416.pdf.
11. National Park Service, *Achieving Relevance in Our Second Century* (2014), online at https://www.nps.gov/getinvolved/upload/IEVStrategicPlan_FINAL.pdf. Adapted from International Coalition Sites of Conscience and The Tenement Museum materials.
12. The Empathetic Museum, http://empatheticmuseum.weebly.com/; Museum Hack, https://museumhack.com/
13. Nina Simon, *The Participatory Museum* (Santa Cruz, CA: Museum 2.0, 2010) and *The Art of Relevance* (Santa Cruz, CA: Museum 2.0, 2016); National Park Service, *Achieving Relevance in Our Second Century*.
14. Simon, *The Art of Relevance*.
15. National Park Service, "Telling All Americans' Stories, Consider a Place: A Curiosity Kick-Start," online at https://www.nps.gov/articles/taas-consider-a-place.htm.
16. Barbara J. Little and Katie Crawford-Lackey, "Where the Water Takes You: Unlocking Place-based Meanings through Inquiry at the Tidal Basin in Washington, D.C." *Open Rivers: Rethinking Water, Place & Community*, no. 7 (2017), online at http://editions.lib.umn.edu/openrivers/article/where-the-water-takes-you/.

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# Indigenous Cultural Landscapes: A 21st-Century Landscape-scale Conservation and Stewardship Framework

*Deanna Beacham, Suzanne Copping, John Reynolds, and Carolyn Black*

## Introduction

An "indigenous cultural landscape" (ICL) is a concept that depicts combined natural and cultural landscape features that together could have supported an indigenous community in its entirety. The concept originated as a way to translate intuitive environmental knowledge into defined criteria for which evidence-based data can be gathered today. For example, rich soils and varied topography are based on definitions around chemical composition and elevation change. Intuition about the landscape builds on observations gathered over millennia, and although unwritten, is scientific in its evidence-based nature. In pre-colonial times and today, the right combination of land and water characteristics creates optimal conditions to support a community and its cultural and spiritual identity.

Just as evidence and reflection informs intuition over time, years of applying scientific methods and observing the results enables subject-matter experts to develop intuition about their practice. A site visit can confirm or deny the validity of further study. An argument in this paper is that ICLs combine today's definitions of and methods for practicing science with the knowledge handed down through generations to reveal characteristics of the landscape that academic language has forgotten. The term "traditional ecological knowledge" captures this transfer of scientific knowledge into the language and tools we use to document environmental characteristics today.

While the ICL originated as a landscape-scale conservation concept in the Chesapeake Bay watershed, in its application the work has enriched tribal relations with public agencies and institutions. More importantly the ICL concept has enabled communities who have been dispossessed of their lands to benefit personally from the opportunity to visit them again and to establish relationships with landowners and managers. The impacts of this engagement approach transcend geographic areas and are translatable elsewhere.

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In addition, the concept can empower land management agencies at all levels to see, feel, and understand more fully indigenous cultures as real and existing rather than as vestiges of the past. It may also enable management practitioners and others to understand that indigenous peoples remain continuously connected even to now-colonized modern landscapes.

Finally, while involvement of a descendant community enriches the process of identifying indigenous places, in landscapes where no local or culturally affiliated tribe or descendant community claims aboriginal relationship, the concept can still provide an effective means for providing interpretation that expands the public's understanding and awareness of landscape features and systems. It can also add sensitivity to how these features and systems connect to support human communities. In this way, the ICL concept has tremendous power to transform the way that the public sees the world around them, without distinction between "natural" and "cultural" elements as a dichotomy.

This paper intends to summarize how the ICL concept has developed in the context of the Chesapeake Bay watershed (Figure 1), evolved and become more sophisticated when applied in a new landscape, and tested and strengthened the validity of the criteria used to define it. As we reflect on why this is the case and on what we've learned, it is our hope that these reflections help others to carry the concept further as it is applied formally and informally beyond the Chesapeake Bay watershed. We believe that the ICL concept affords valuable and useful opportunities to provide a structure and language to work with tribes who still live on or near their ances-

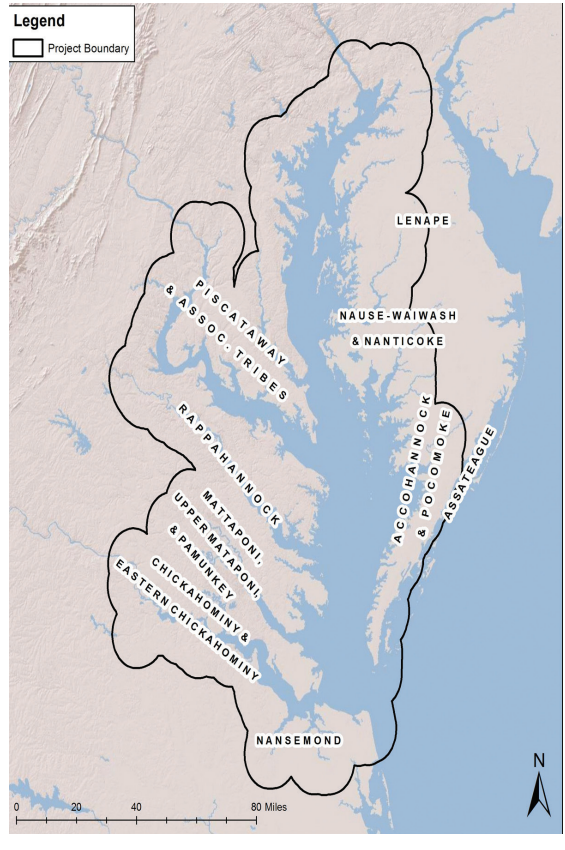



**Figure 1.** Major nearby watersheds of ICL significance and of ancestral importance to Chesapeake Bay Indians in present-day Maryland and Virginia. Each of these were settlements represented on Captain John Smith's 1612 map, which recognized the extent of Native occupation in the region while appropriated by the Crown to promote colonization. Current tribal communities along the Captain John Smith Chesapeake National Historic Trail are located within or nearby their ancestral watersheds. Map by St. Mary's College of Maryland for the Chesapeake Conservancy and the National Park Service.

tral lands, and above all supports situations where people want to move beyond archaeology, craft, and ceremony to identify and describe the totality of the indigenous connection with place.

## Origin of the ICL concept

The ICL concept originated as early as 2009 during meetings convened by the National Park Service (NPS) Chesapeake Bay Office regarding the protection of large landscapes. These meetings were held in response to Executive Order 13508, *Chesapeake Bay Protection and Restoration*, signed in May 2009. The order explicitly mandated coordinated implementation with the NPS-administered John Smith Chesapeake and Star-Spangled Banner national historic trails, and the Chesapeake Gateways and Watertrails Network. Thus, NPS's Chesapeake Bay Office was given the task of identifying landscapes of cultural significance to underrepresented groups, especially American Indians, in order to prioritize land conservation strategies.[1]

During early meetings on the National Park Service's response to the order, most members of the work group were unsure as to what constituted large indigenous landscapes. An indigenous person's perspective providing explanation of large indigenous landscapes at the time of European contact was presented, as this was pertinent to the time of Captain John Smith's voyages as well as to the descendant communities of the tribes who met Smith who are still in thriving communities throughout the watershed. This description of the large areas of land and water which an indigenous community would know intimately, because it contained most of what they needed physically and culturally, resonated with the work group and caught the imaginations of conservation, cultural, and education leaders. A short essay describing such landscapes was drafted in early 2010 at the request of group members.

## NPS adoption of the ICL concept

The ICL essay aptly described the features and characteristics of a type of cultural resource along the John Smith Chesapeake trail that the planning team concurrently drafting a comprehensive management plan (CMP) for the trail was struggling to define. The essay was incorporated into the CMP as one of seven trail-related cultural resources that collectively comprise the John Smith Chesapeake Trail, and to seed further definition and refinement as the concept was tested on the ground with tribes and other stakeholders.

Because the ICL concept was new to NPS but being used in an approved national historic trail plan as a trail-related cultural resource, an advisory group of NPS staff and management, officials of partner states, tribal members, academics, and staff from other federal agencies and non-governmental partners was formed to guide the concept's further definition and applications.

The first in-person meeting of the advisory group was held in October 2010. A set of criteria had been drafted previously by members of the group and these criteria were added to and adopted at the first meeting. Further discussion and subsequent conversations led to revisions in the essay through 2012. The concept and criteria were first presented publicly at the 2011 George Wright Society Conference. Over 25 presentations at national and regional

conferences have occurred since then to continually build awareness and test new thinking. Some of these presentations have taken place at land trust conferences where researchers explained that the concept does not have a legal preservation basis, but is meant to help inspire and motivate landowners and organizations working to conserve or preserve landscapes.

### Development of the ICL methodology

In 2012, NPS collaborated with the University of Maryland's (UMD's) Center for Applied Anthropology to develop and describe a prototype methodology for conducting ICL research. The methodology was then tested with subject-matter experts and descendant communities of the Nanticoke River watershed on the Chesapeake's eastern shore in Maryland and Delaware.

The methodology built on an extensive bibliography (included in the methodology document) containing literature about the character-defining features of cultural landscapes, methods for identifying and working in cultural landscapes, cultural landscape management policy and legislation, landscape interpretation, and indigenous and aboriginal concepts of cultural and natural resources.

The methodology report[2] describes a 15-step process for gathering and testing information about environmental and cultural considerations. Steps include data collection, collaborative mapping, multiple site visits, and data refinement. A list of representative features (Table 1) provides a starting point for data collection that is refined according to the availability of data and in response to conversations and site visits with tribal members and subject-matter experts. This list of environmental characteristics is intentionally general to

**Table 1.** Representative landscape features that serve as criteria for identifying an ICL in the Chesapeake Bay area (2016).

- Good agricultural soil (fine sandy loam, 1–2% grade)
- Freshwater source
- Transportation tributary adjacent
- Landing place (confluence of tributaries optimal)
- Marshland (supporting waterfowl, shellfish, reedy and tubular materials, muskrat, turtles)
- Brushy areas (supporting small game, berries)
- Primary or mixed deciduous forest (supporting larger game, nuts, bark, firewood)
- Proximity to known American Indian communities (documented through ethno-history or archaeology)
- Places known through subsequent written records to include paths, house sites, town sites, or other landmarks
- Terraced landform with protection from wind if near broader expanses of water
- Areas with recurrent use for food, medicine, materials acquisition
- Areas with high probability for ceremonial or spiritual use, or trading or meeting places
- Trails used as footpaths (usually became Colonial roads, then today's highways and local roads)
- Places that are spiritually or culturally important to a tribe

remain responsive to different situations. While the methodology specifically references the cultural and natural characteristics of a predominantly riverine ecosystem (including its upland relationships), it was designed to apply within other settings, not just the Chesapeake; features include high-quality growing soils, uplands for hunting and lowlands for fishing and gathering, a freshwater source, and proximity of grasses and wooded areas for building structures and objects.

The 15-step process was then tested along the Nanticoke River (Figure 2a). The watershed contains several excellent characteristics for conducting anthropological work. In addition to being a familiar landscape to UMD faculty and students, Nause–Waiwash and Delaware Lenape tribal leaders live within or just outside the watershed. Significant recreation and land protection opportunities exist for using the research to increase public access and conservation. Finally, historic preservation agencies and subject-matter experts from both states contributed their data and expertise.

The prototype methodology successfully held up when tested along the Nanticoke. It provided sufficient structure and flexibility to enable meaningful data collection and discussion, and generated mapping and data sets that have been incorporated into subsequent John Smith Chesapeake Trail planning work. The methodology has also held up in subsequent studies, as we will see below.

### Tweaking the ICL methodology: Applying the concept in a landscape still inhabited by the descendant community

In 2015, the ICL methodology was applied a second time, this time within a watershed area where descendant communities still live and work. The Nanjemoy Peninsula along the middle Potomac River (Figure 2b) offered different challenges and opportunities that enabled new insights and more sophisticated and meaningful mapping. Among the challenges were planning and logistics for multiple groups of tribal members and stakeholders, incorporating schedules for both meetings and tours. Opportunities included the use of datasets from multiple sources for mapping, and the ability to graphically represent and compare more data than previously. The project itself became a way for researchers and the NPS to directly interact with indigenous residents more closely.

Building on previous planning work to identify recreation and conservation opportunities along the middle Potomac shoreline, John Smith Chesapeake Trail staff were interested in better understanding Native connections to the landscape. St Mary's College of Maryland maintains trusted working relationships with tribal members, and has conducted extensive archaeological investigations at Zekiah Fort and on other Piscataway ancestral lands. Piscataway tribal members were pleased to participate in identifying and describing landscapes that they think need to be protected.

The Nanjemoy–Mattawoman Creek Watershed ICL study[3] incorporated geospatial predictive modeling, which was ground-truthed through site visits and Piscataway involvement and verification. The report is expected to fuel ongoing relationships with the Piscataway to identify interpretation, tourism, and conservation opportunities that can be funded through state and local appropriations and grants.

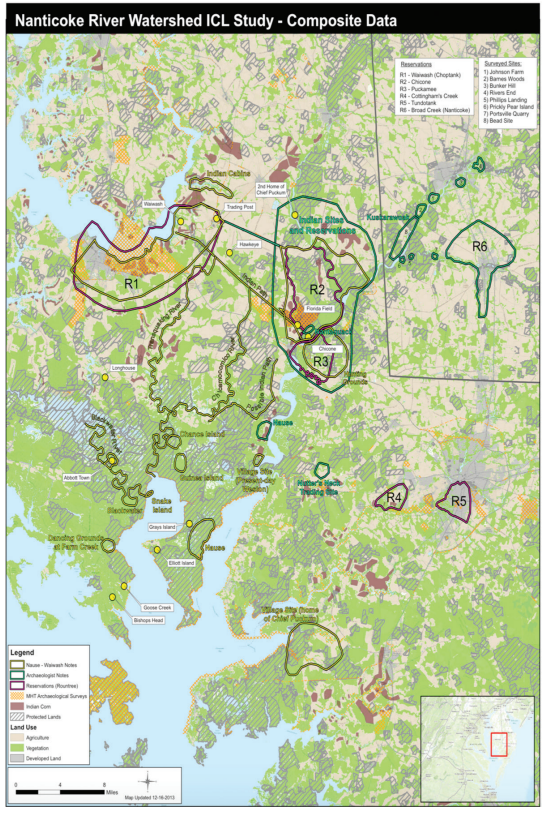
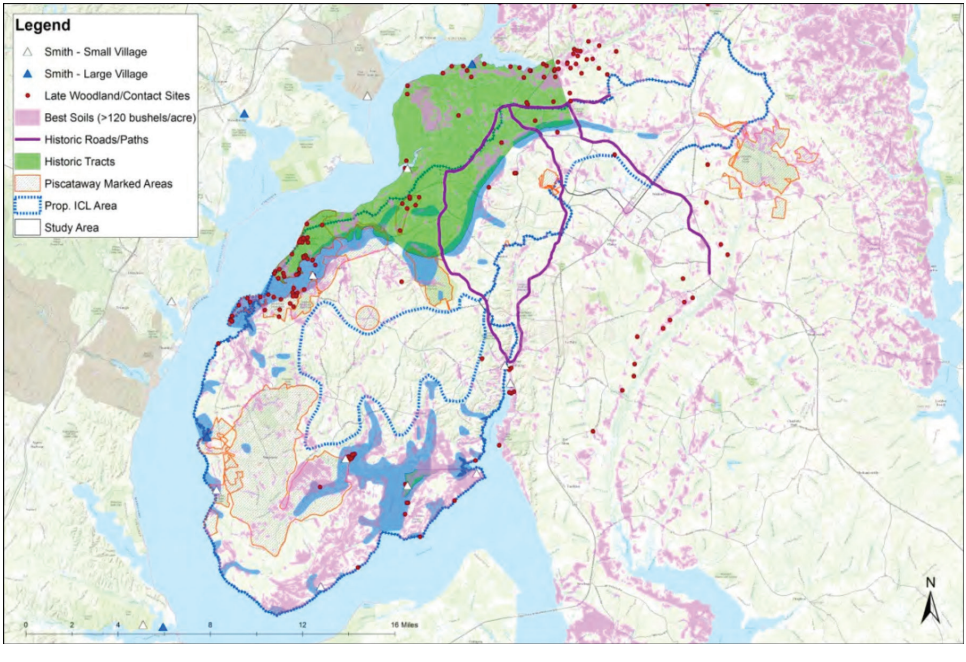



**Figure 2.** An ICL criteria composite map in the 2013 ICL Nanticoke River Watershed study (2a, right) compared with an ICL composite map in the 2015 ICL Nanjemoy and Mattawoman Creek Watersheds study (2b, below). Between these two early studies, the incorporation of GIS geospatial predictive modeling based on indigenous stakeholder involvement evolved ICL studies for a more concise final report. Maps by St. Mary's College of Maryland for the Chesapeake Conservancy and the National Park Service.



A third study conducted along the Lower Susquehanna River in 2014–2015[4] has tested the ICL concept in a natural-appearing (largely forested with rocky outcroppings) landscape that is predominant in a riverine ecosystem largely altered by a railroad line and a series of dams. The area also differs in that the Lower Susquehanna lacks a strong association with any particular nearby descendant community. Native nations of the Iroquoian-speaking Haudenosaunee Confederacy, based in upstate New York, claim the area within their ancestral territory as descendants of the Susquehannock Indians, with whom known archeological sites in the area are associated. Other indigenous communities beyond the watershed also claim ancestral connections that have inspired an interest in its protection.[5] Initial research focused on gathering archaeological data and information from subject-matter experts to identify high-probability areas for habitation and to articulate topics for further study. A follow-on study by Bucknell University[6] provides a detailed narrative of probable American Indian habitation and a bibliography of sources. In 2016, NPS produced a framing narrative synthesizing the findings of both and clarifying from the NPS perspective the follow-on research, interpretation, and educational opportunities that could be fostered in collaboration with the Onondaga Nation and other interested federally recognized tribes.[7]

A fourth study within the Rappahannock River watershed in Virginia was completed in 2017.[8] The study further refines the geospatial approach to modeling landscapes with a high probability of habitation and use. The report provides specific actions to increase public interpretation of important tribal lands, facilitate relationships and increased tribal access to private and limited-access federal lands, and bolster place-based education for tribal youth. Another outcome of the study was the return to the Rappahannock Tribe of a one-acre ancestral property on a landform known as Fones Cliffs.

### Establishing priorities for continued investigation of ICLs in the Chesapeake

Less than 10% of the potential ICLs along major tributaries of the John Smith Chesapeake Trail have been documented. Since NPS has been the primary funder of ICL work, a geospatial analysis was conducted in 2015 to identify priority areas for further investing in ICL documentation. A survey of the tidal Chesapeake used geospatial data to identify trail segments with the highest probability of indigenous habitation or use.[9] The report intends to define where limited funding would be most effective in supporting landscape protection, interpretation, and stewardship. The project team developed a series of assumptions about the land and water characteristics available to GIS analysts that could indicate a high probability of pre-colonial human habitation. The team then assembled and assessed GIS data on soil types, elevation, land cover, and archaeological sensitivity. The analysis identified 12 priority river segments that all have a strong correlation with pre-Contact/late Woodland period habitation, retain a sufficient level of natural-appearing landscape integrity to enable further protection and interpretation, and lie within the ancestral territory of one or more state- or federally recognized tribes.

Given existing funding and capacity constraints, the priority study enables a strategic focus on the landscapes and waterways most conducive to benefiting from the ICL concept—those where natural and cultural resources are most prevalent, and tribal interests enable

the concept to be fully expressed. The studies can also inform resource documentation and protection priorities articulated by the over 50 federal, state, and local agencies and regional and local nonprofit partners that comprise the Chesapeake Conservation Partnership.[10] In particular, the authors want sharing of these studies to further raise awareness of the potential for factors such as bias and the influence of white privilege that often damage attempts to create community partnerships within the environmental sector. Acting early and often with descendant communities is prioritized by the ICL concept, which "recognizes that these indigenous communities still exist and that respecting them and their cultures is a valid and central goal of any land/water conservation effort" (Beacham 2010; Figure 3).

### How can ICLs benefit our conservation and stewardship?

In at least two fundamental ways, the ICL concept challenges Western ideas of what constitutes a cultural landscape worthy of protection. One, it reminds us that cultural landscapes contain multiple layers of meaning beyond what may primarily be visible to an individual or group, and especially those who are looking for visible evidence of human-made character-defining features. Two, it forces us to recognize that "large landscapes" go beyond Western notions about property that typically require boundary delineations—property lines, jurisdictions, the edges of an ecosystem—as a prerequisite for assigning significance.

In a specific example, NPS has recently put the ICL concept to work in the landscapes and along the waterways of the York–Mattaponi–Pamunkey river system to generate a large-landscape context to inform site-level planning at the newly acquired Werowocomoco site. Project scoping (includ-

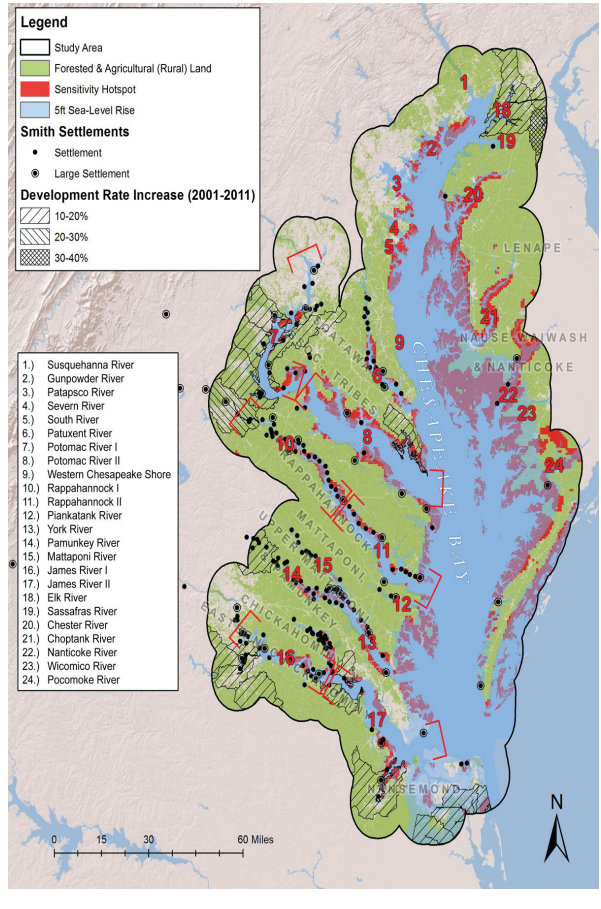



Figure 3. ICL criteria represented in project area watersheds and rivers of ancestral significance to Chesapeake Bay tribal communities. Map by St. Mary's College of Maryland for the Chesapeake Conservancy and the National Park Service.

ing defining geographic and temporal contexts) will be conducted in coordination with local tribes and stakeholders. Here, the ICL approach to documenting the area around Werowocomoco will allow for early discussions around collaborative stewardship, management, and interpretation that build on a shared understanding of the area's layered historical and contemporary meanings. These conversations will be imperative to ensure that the significance, meanings, and uses of Werowocomoco itself consider the range of expectations that tribes, researchers, NPS, and the public have for this place.

As this example illustrates, in practice the ICL concept has proven flexible in its ability to recognize and suggest new ways of managing layered landscape values, and is a reminder that inviting historically associated communities in from the beginning to describe what they see as meaning in a landscape does not necessarily de-value other existing values and considerations. Instead, it encourages other stakeholders (such as planning and tourism officials and private landowners) to shift their thinking and perceive the area more holistically, thereby adding more value and meaning. At the same time, the ICL doesn't currently fit within existing preservation constructs (such as the National Register for Historic Places in the US) that could trigger legal and/or policy protections for that resource. However, members of the advisory group have begun conversations about the intersection of the ICL with such existing constructs.

Six years after NPS's adoption of the ICL into a trail management document, we believe the concept has sufficiently matured to be adopted by others within and beyond the agency. How can we—the authors, the ICL advisory group, and scholars who have added clarity and validity to all of our efforts—spread the principles of the ICL broadly? This paper is one step in that effort. We also want to be clear that the concept is not proprietary, and neither NPS nor the Chesapeake region "owns" it. This concept is ready for others, inspired by what this approach has accomplished for tribes and NPS in the Chesapeake, to adapt and apply it as their own. Nor is the idea sanctioned or codified in such a way that it has become rigid and difficult to apply—and we think it should stay that way.

The authors are aware that the ICL is echoed in similar values-based processes being expressed around the US and the world. In the US, for example, the National Oceanic and Atmospheric Administration (NOAA), Bureau of Ocean Energy Management (BOEM), and partners have developed tribal cultural landscapes guidance that uphold ICLs in recognizing the fluidity of boundaries, integrating traditional definitions of cultural and natural resources, and recognizing the layered meanings of a place.[11] In a site-specific example, tribal involvement of the Salish community in surveying high roadkill rates of the animals important to them helped influence the design of a highway, illustrating a values-based approach to landscape evaluation.[12]

Assuming that NPS is serious about embracing new ways to integrate identification, documentation, and stewardship of natural and cultural resources, how can the ICL most effectively inform a holistic and community-centered approach to resource management? How do we amplify and convey the ICL's scientific credibility while continuing to honor its flexibility? How can the ICL help put people and culture back into the landscape within contexts where the Wilderness Act continues to drive science, and, in reality, where "untrammeled

by man" is virtually never attainable? How can the ICL concept be used to document and recognize the cultural aspects of a natural-appearing landscape within the construct of the National Register of Historic Places?

We hope that our recent (ongoing in 2017) efforts in the Chesapeake to test the character-defining features of ICLs related to a National Register Multiple Property Documentation submission for the John Smith Chesapeake Trail may inspire other discussion about the abilities of existing laws and policies to recognize emerging 21st-century cultural landscape values. We strongly urge that new efforts by our colleagues around the country test similar laws and policies intended to protect the cultural values of natural areas, and understand that the combination of cultural with natural is of greater meaning than either alone or both separately. We believe it is likely that, as subsequent studies take place, agency members, academics, professionals, and indigenous people will think of more nuanced information and methods of application, and thus the "science of ICL" will grow.

Virtually none of our country, as natural-appearing as it is, has been truly "untrammeled by man." As the ICL concept is applied within varied landscapes and water systems across the continent, we believe we can collectively start to shift the conversation about the characteristics, boundary definitions, and stewardship of large landscapes. We believe strongly that the ICL's elegant expression of integrated conservation values can help inform conservation priorities and the design of landscape solutions that honor the many motivations for retaining large landscape integrity.

## Endnotes

1. See https://executiveorder.chesapeakebay.net/.
2. Full reports available online at https://www.nps.gov/chba/learn/news/indigenous-cultural-landscapes.htm.
3. Full report available online at https://www.nps.gov/chba/learn/news/upload/NanjemoyMattawoman-ICL-FINAL-red.pdf.
4. Full report available online at https://www.nps.gov/chba/learn/news/upload/Contact-Period-Landscapes-of-the-Lower-Susquehanna-River-Barrett-Kramer-FINAL.pdf.
5. Federally recognized tribes, including the Oneida Nation and the Delaware Tribe of Indians, have proactively expressed interest in consultation in a project underway to explore the eligibility of the John Smith Chesapeake Trail for listing on the National Register of Historic Places.
6. Full report available online at https://www.nps.gov/chba/learn/news/upload/ICL-Study-of-CAJO-NHT_-Lower-Susquehanna-Area_Final.pdf.
7. Full report online available at https://www.nps.gov/chba/learn/news/upload/Framing-NarativefortheLowerSusquehannaICLMarch2016.pdf.
8. Full report online available at https://www.nps.gov/chba/learn/news/upload/RappahannockReport-Final.pdf.
9 Full report available online at https://www.nps.gov/chba/learn/news/upload/NPS-ICLPriority-FinalReport.pdf.
10. See http://www.chesapeakeconservation.org for more information.

11. *A Guidance Document for Characterizing Tribal Cultural Landscapes.* See https://www.boem.gov/2015-047/.
12. *Eliminating Roadkill.* See http://www.othernationsjustice.org/?p=9663.

## Reference

Harari, Noah Yuval. 2014. *Sapiens: A Brief History of Humankind*. New York: HarperCollins.

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# A Framework for Understanding Off-trail Trampling Impacts in Mountain Environments

*Ross Martin and David R. Butler*

## Introduction

Many people visit mountain environments each year for the solitude and the challenge that they provide. Outdoor recreation has been steadily increasing this century, with a 12% increase in visitor-days to primitive areas from 2000 to 2008 (Cordell et al. 2008). Often mountain environments that are in remote locations or that display great biodiversity are chosen as destinations. Many hiking, mountain biking, or equestrian enthusiasts plan vacation time to carry out their respective activity in a unique mountain environment. People may choose to live in or near mountain environments so they can have access to mountain trails every day. The characteristics that make mountain environments attractive to outdoor recreation enthusiasts are often the very traits that are most impacted by human interaction with the environment. To preserve these areas and maintain the remote and diverse mountain recreation experience, it is vital that human impacts are well understood.

Trail systems provide networks so that recreationists can traverse the landscape to experience nodes of interest. Formal trails are designed, built, and maintained by the land managers. However, sometimes formal trails do not provide access to a desirable location, and informal trails are created by the trail user. Informal trails exist in a range of conditions, from a path of broken vegetation created by the trampling effects of one person to a highly eroded trail. Informal trails are one type of off-trail trampling. This paper discusses general trampling impacts of recreationists in mountain environments with a particular focus on how they might be more sensitive to off-trail trampling and informal trail propagation.

## Mountain environments

Mountain environments were selected as the focus for this study based on the hypothesis that they are more sensitive environments, and therefore the impacts of off-trail trampling should be exacerbated there. The reality of this hypothesis will be discussed throughout this paper. Mountains exist as "islands' in the sky" that harbor biodiversity and sensitive species

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(Monz et al. 2010). Mountains exhibit high biodiversity with distinct changes in vegetation sequences or ecotones associated with changes in altitude (Brown 1994) or with specific geomorphic processes and settings (Butler et al. 2003). The distribution of vegetation on mountains exists primarily in lateral bands, with the most obvious boundary of vegetation change being the tree line (Butler et al. 2007).

Mountains have distinct weather and climatological patterns (Beninston 2006). Latitude determines amount and duration of sunlight. Altitude and topography result in orographic uplift and sometimes the rain shadow effect, where the slopes facing the incoming weather receive nearly all of the precipitation and the leeward side of the mountain receives little to no precipitation. This creates a contrast in vegetation with regard to aspect of the slopes.
No single factor can be used to empirically define a mountain. However, mountains are usually higher in elevation than the surrounding area, and have steep slopes, distinct zones of vegetation that change with elevation and microclimate, and a geologic origin.

## Methods

This study is a qualitative analysis of the literature, resulting in the creation of a conceptual framework to understand off-trail trampling and informal trail propagation. The analytical method of this research includes "inductive analysis and creative synthesis." According to Patton (2005), this type of qualitative method is characterized by "immersion in the details and specifics of the data to discover important patterns, themes, and interrelationships" and is "guided by analytical principles rather than rules" to produce a "creative synthesis" (Patton 2005: 40–41). In this case the literature comprises the *data*; the *patterns and themes* are the variations, rates, and impacts of trampling; and the *creative synthesis* results in the formulation of a conceptual model of the evolution of off-trail trampling and informal trail propagation.

Research about trampling impacts was reviewed with regard to vegetation and soil impacts, and comparisons of impacts from different types of trail users. Impacts on vegetation and soils were analyzed to understand generally what those impacts consisted of, and if mountain environments are more sensitive to them. Literature about different types of trail users in mountain environments was evaluated in order to understand if the degree of impact was influenced by the type of trail user. The literature reviewed explicitly identified the study area as mountain, montane, sub-alpine, or alpine (see Table 1).

Literature about informal trails was reviewed to explore how they are created and propagated. The focus was on how and why informal trails are created, and the impacts associated with their creation. Because there were so few articles that discussed informal trails in mountain environments, this portion of the literature was not confined to those environments.

## Formal and informal trails

Recreational trail systems function to connect nodes of interests or to provide routes across landscapes. From a management perspective, trails can be categorized either as artificially surfaced trails, or as naturally surfaced informal or formal trails (Marion and Leung 2011). Typically, surfaced trails exist in the highest-trafficked areas and are covered by gravel, as-

- *Mountain:* A general term, typically inclusive of all mountain ecologic zones.
- *Montane:* The ecologic zone generally marked by a transition from dense tree stands to sparser, hardier tree species (Price 1986).
- *Sub-alpine:* The ecologic zone immediately below the tree line; often krummholz are present.
- *Alpine:* The ecologic zone above the tree line; often includes meadows and tundra.

Table 1. Terms used to characterize areas identified for inclusion in this study.

phalt, or wood. Naturally surfaced trails, either formal or informal, stretch across the landscape and are often the only way to access remote areas. Natural surfaces connote that foreign material is not used on the trail surface; however, in some cases it may be reworked to facilitate water drainage. Formal trails function to concentrate and direct visitor traffic so their presence is more sustainable (Wimpey and Marion 2010). Informal trails are not subjected to a design process that considers environmental conditions, and in most cases they are not maintained (Wimpey and Marion 2010).

Wimpey and Marion (2010) found that informal trails in Great Falls Park, Virginia, have higher slopes, are located in steeper terrain, and are more closely aligned with the fall line than formal trails. Each of these factors add to the potential for trail incision and erosion by flowing water. Steep terrain and high slopes are obvious characteristics of mountain environments, so the potential for incision and erosion of informal trails is even greater there. Trail density also is a concern because trails can fragment landscapes and impact plants and wildlife (Knight 2000). Informal trails often result in duplicate routes that are in close proximity, which result in unneeded forest fragmentation (Wimpey and Marion 2011).

Informal trail creation begins with off-trail trampling. Off-trail trampling occurs when trail users go somewhere other than on a formal trail. Wimpey and Marion (2011) suggest seven reasons for off-trail trampling. Six are intentional: (1) to access areas unavailable to formal trails, (2) to avoid poor conditions on formal trails, (3) to explore, (4) to create a shortcut, (5) to investigate or photograph something, and (6) to engage in off-trail activities such as geocaching. The seventh reason is unintentional: people may go off-trail by accident, perhaps because of poor trail markings. These seven likely reasons for off-trail trampling do not include instances where people seek privacy (for any number of reasons), where users must step off the trail to allow others to pass, or where groups wait along the side of a trail. Thus, there are ten potential reasons for off-trail trampling. The results of off-trail trampling include trail widening and the creation of new trails.

The potential for degradation depends on topography, slope, and vegetation and soil properties. Depending on the resistance of the vegetation to trampling, only a few off-trail users can create a visual cue that subsequent users might interpret as a trail. Visual cues include broken vegetation and soil exposure. Once present, visual cues can lead to an increase of off-trail traffic, as trail users begin to identify a path or area as all right to use. In order to reduce the propagation of informal trails, the sensitivity of an area to off-trail trampling must

be considered by management. From a process perspective, informal trails are not any different than formal trails.

### Impacts on vegetation

Vegetation responds to trampling in many ways. The most obvious impact is the breaking of vegetation and reduction of vegetation cover. Other impacts include a change in species diversity and reduction in reproductive ability. Hill and Pickering (2009) compiled data from several vegetation studies (Cole 1995a, b; Liddle 1997; Monz et al. 2000; Littlemore and Barker 2001; Monz 2002; Gallet et al. 2004; Growcock 2005) to show that the montane zone was the most susceptible to trampling, followed by the alpine, subalpine, and temperate zones, with the subtropical zone being the most resistant.

Different vegetation types react to trampling differently (Cole 1995a, b; Whinam and Chilcott 2003; Barros et al. 2013). Plant height and morphological structure appear to be strongly associated with resistance to trampling (Sun and Liddle 1993). Under experimental conditions, Cole (1995b) showed that vegetation stature and physiognomic type (shrubs, graminoids, or forbs) explained the majority of the variance for the resistance to trampling. Under experimental conditions in a Mediterranean environment, Andres-Abellan et al. (2006) found that species composition had the greatest impact on the decrease of percent vegetation cover, number of species, and plant height response to trampling. They found that the plant species factor was followed by trampling intensity in terms of overall impact (Andres-Abellan et al. 2006). Whinam and Chilcott (2003) showed that plant morphology was the major factor in determining the impact of trampling regardless of slope, aspect, or altitude. Cole 1995(a) revealed that most types of vegetation experience constant, nearly linear, rates of loss, whereas more resistant species experience highly curvilinear rates of vegetation loss when compared with trampling intensity.

The general trend of resistance to trampling is graminoids > trees > forbs > shrubs (Yorks et al. 1997; Hill and Pickering 2009). Whinam and Chilcott (1999) found shrubs to be more vulnerable that grasses or graminoids in an alpine/sub-alpine environment on the Central Plateau of Tasmania. Their follow-up analysis of the same site (Whinam and Chilcott 2003) shows that shrubs, graminoids, and cushion plants experienced a sustained impact, whereas tufted graminoids and low-growing shrubs were more resistant to trampling. Under experimental conditions in a subalpine environment in northwest China, Mingyu et al. (2009) described areas with low shrub vegetation, which were highly vulnerable to trampling damage, whereas graminoid grasslands were more resistant. Barros et al. (2013) revealed that most grasses and shrubs were not as tolerant to trampling when compared with native herbs. They found that some native herb species responded positively to trampling, suggesting evolutionary adaptation to disturbance or a reduction in less resistant and competitive plant species. In post-trampling assessments, Whinam and Chilcott (1999, 2003) discovered that trampling increased species diversity at some sites, suggesting that the reduction in cover of some species gave competing species the opportunity to grow. In contrast, Rusterholz et al. (2011) found that species richness and total plant cover was reduced in trampled areas, with a larger proportion of the species found in trampled areas being more competitive and stress

tolerant. The changes in species richness are likely highly dependent on the types of vegetation and the degree of competition between types that naturally occur at any given location. The response by vegetation cover continues for some time after trampling impact, peaking days, weeks, or even a year after treatment, depending on the resistance of the vegetation (Cole 1993; Cole and Bayfield 1993).

In addition to the reduction of less-resistant vegetation by the mechanical forces of trampling, species richness can be impacted by changes in reproductive ability. Shorter growing seasons makes this an especially important consideration in mountain environments (Pickering and Growcock 2009). The potential for sexual reproduction can be reduced because of reduction in fruit production in trampled sites (Rossi et al. 2006, 2009). Under experimental conditions, Pickering and Growcock (2009) found trampling to reduce species height. They suggest that height has far-ranging impacts in mountain environments because it directly affects the photosynthetic area of the plant. This is especially crucial in the spring, when montane plants experience the most growth; with decreased photosynthetic area and correspondingly lower carbohydrate reserves, the plants may fail to produce seeds (Pickering and Growcock 2009).

A secondary impact of trampling on a plant's ability to reproduce is that it can affect seed dispersal. Trampling can distribute seeds of open-habitat species into the forest interior (Hamberg et al. 2010). The introduction of new plant species into a trampled area can change the competition dynamics. Rusterholz et al. (2011) showed that soil seed density was negatively correlated with trampling intensity.

### Impacts on soil

In mountain environments, soil disturbance by trampling is greatest in cols and on summit ridges because of the more limited development of soil horizons in these areas (Grieve 2000). In general, soil is less developed on high slopes, and increases downslope. When vegetation cover is reduced, the soil becomes impacted, which in turn affects future vegetation growth, thus triggering a feedback loop. For example, in alpine and subalpine zones of Aconcagua Provincial Park (Argentina), Barros et al. (2013) deduced that sedge abundance was reduced likely because of trampling-induced losses of soil moisture. Under experimental conditions in the northern Rocky Mountains, Cole and Spildie (1998) found that mineral soil exposure after trampling was dependent on vegetation type because the thickness of the soil organic-horizon was dependent on vegetation type.

Under experimental conditions, Korknac (2014) showed that short-term impacts have minimal impact on most soil properties, however, at a higher trampling intensity (200–500 passes) there was decreased total porosity and increased soil penetration resistance. Kutiel and Zheveleve (2001) documented a fourfold increase in soil compaction and a 21% decrease in soil moisture in a picnic area when compared with surrounding undisturbed forest. Scott et al. (2007) found that increased trampling intensity led to an increase of water loss. Lucas-Borja et al. (2011) noted higher compaction and carbon/nitrogen ratio on trampled trail areas compared with adjacent untrampled areas. De Gouvenain (1995) found that the soil of a trampling-impacted site had finer grains and more bare ground surface. In contrast,

Grieve (2000) found that unvegetated trampled sites had increased stone abundance and less organic matter, iron, and soil moisture. In Yosemite National Park (California, USA), Malin and Parker (1976) found a platelike hardpan structure 3–5 cm beneath trampled areas.

Soil compaction reduces infiltration and can initiate overland water flow. In mountain environments where slopes are abundant, any overland flow has the capacity to entrain sediments. This erosion can remove the top layer of soil and expose mineral horizons.

### Comparison of trampling types

In mountain environments several types of recreational activity can result in off-trail trampling. Horses, mountain bikers, and hikers are probably the most common trampling forces, especially in national and state parks and other preserved lands. Although all of these activities create and require trails, the impact of a specific user type is important to understand. Different user types express different forces on the landscape; however, the result still is characterized by the previously discussed trampling impacts to vegetation and soil. It is necessary to consider the mechanics of motion and weight distribution of various trampling agents. The differences in impacts of various user types are ones of scale or of how quickly the impact might occur.

Mingyu et al. (2009) showed that the user type is a more dominant factor than vegetation, although differences in user type are less drastic when more resistant vegetation species are involved. Under experimental conditions, Cole and Spildie (1998) compared hiker, horse, and llama trampling. They found that horse trampling impact was significantly higher than those of llamas and hikers, which were significantly similar. They found that vegetation type and trampling intensity played a role in vegetation cover loss, but if these two factors were accounted for, the horse impact on vegetation cover was substantially greater than that of either hikers or llamas. In shrub-type vegetation, no mineral soils were exposed by hikers or llamas, but mineral soils were exposed in as few as 25 passes by horses. Cole and Spildie concluded that because the weight of a horse is approximately six times greater than that of a person, and because the distribution of that weight is by means of a hoof that has half the surface area of person's boot or shoe, the horse impact is greater because of the increase in pressure per area.

Under experimental conditions, Whinam and Chilcott (1999) compared horse with hiker trampling and found that after 30 passes the percentage of broken biomass caused by hikers was 0.1% compared with 39.2% for horses. Reduction of vegetation cover by horses persisted longer, and one year after trampling there was a substantial difference in rates of recovery between horse and hiker impacts.

Pickering et al. (2011) showed in experimental trampling conditions that mountain bike riding produced a reduction in vegetation height in as few as 25 passes. Mountain biking also produced a reduction in percent vegetation cover and species richness similar to other trampling activities. The authors found that the impact of bikes was higher on slopes compared with flat ground. Bikers produced soil compaction much faster than hikers, but had a smaller impact on absolute cover of vegetation. Bikers had a greater impact on leaf litter, but these differences only occurred at the highest levels of trampling tested (500 passes).

### Summary of impacts

The literature suggests that mountain environments are indeed more sensitive to off-trail trampling. Vegetation response includes a reduction in species richness and abundance. Shrubs and forbs are more sensitive to off-trail trampling. Seed availability is also negatively impacted in trampled areas. If mountains are regarded as isolated "islands in the sky," the reduction of seed availability presents a unique challenge, since there is a smaller spatial extent of suitable species to provide replacement seeds and reproductive resources.

Soil impact, including compaction and loss of soil moisture, can negatively impact plant growth. Soil in mountains is less developed on slopes and those slopes provide more potential energy for downslope erosion of soils. The erosive capacity for overland water flow is greater because of the steeper slopes.

Horses cause the greatest impact because of their larger mass being distributed by means of a small hoof area. A mountain biker compacts the soils faster, possibly because a bike is in relatively constant contact with the ground, whereas hikers and horses leave gaps between their steps. The biker produces less impact on overall vegetation cover likely because the front tire is followed by the rear tire, creating a narrower tread width of a few inches, whereas hiker's feet move side by side, creating a wider tread path. Another factor that must be considered is how each trampling agent moves while in groups. The trampling pattern of two agents moving side-by-side will be different from one following another. Clearly, horse impact has the highest degree of impact, with hiker and biker impact roughly equal. However, it is likely that more hikers and bikers visit mountains for recreational purposes. Therefore, in many areas the greater net impact may be from many hikers and bikers, rather than a few horses.

### Trampling evolution

Trampling occurs in stages. To gain a broader understanding of trampling, it is useful to loosely define the stages of its impact. It should be noted that these stages are not discrete, but a convenient way to divide and describe a continuum of impact. Figure 1 provides a graphic depiction of the hypothetical trampling evolution model associated with hikers, bikers and horses. The first stage of trampling occurs with the first impact to vegetation. In this stage the trampling agent breaks or crushes the plants in the tread area. The degree to which impact occurs in this stage is dependent primarily on the trampling agent type, vegetation type, and the trampling intensity. As the trampling progresses, more vegetation is lost, with more-resistant species remaining longer than the less-resistant ones. As vegetation is lost, the trampled area becomes more visually apparent.

The second stage of trampling occurs as vegetation is lost and soils become exposed to impacts. At this point, the trampled area may visually be identified as a trail. This may cause impact to increase, because users are more likely to take a route that is recognizable as a path. In this stage there is further vegetation loss, dead plant matter may litter the trail, and the soil becomes compacted and loses its storage capacity. Compaction and reduction of storage capacity can cause further vegetation loss.

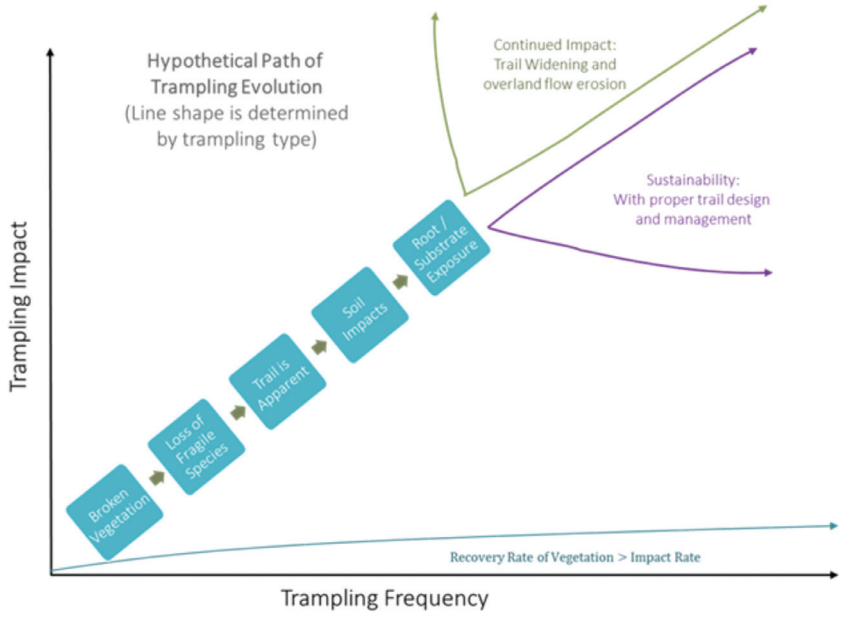


**Figure 1.** Hypothetical evolution of trampling.

What happens after these initial two phases is largely dependent on user type and intensity. At this point the trampling becomes an obvious trail, if it is a linear pattern of trampling. If the trampling was limited in scale, there is likely to be some recovery of vegetation. However, the extent of recovery is dependent upon the intensity of the trampling and on the vegetation type as well as climatic factors (Willard et al. 2007). If the trail is used often, it continues to experience soil and vegetation impacts along its margins. There is likely a threshold of trampling intensity that will determine if the trail will be characterized by recovery or continued impact. The threshold would be dependent on vegetation and substrate conditions.

Increased traffic widens and deepens a trail, the extent of which is dependent on both vegetation and substrate type (Morrocco and Ballantyne 2008). An increase in trail usage will likely cause an increase in likelihood that the margins of the trail become trampled. This can occur by having to pass someone going the same direction, by stepping off the trail to allow oncoming traffic to pass, or by walking or riding two or three abreast. The impacts of this stage are the same impacts that occur in the initial stages—soil compaction and reduction of vegetation—only now the impact spreads to adjacent areas. The further evolution of the trail is now dependent on the use type and the terrain sensitivity. Morrocco and Ballantyne (2008) indicated that the terrain sensitivity is dependent on vegetation and substrate.

Two critical thresholds exist in regard to off-trail trampling and informal trail creation. These thresholds are difficult to quantify and likely vary greatly across different environments. The literature, as previously discussed, makes it clear that the initial impact to vegeta-

tion is reduction in height and breakage, which occurs after relatively few passes. Vegetation sensitivity plays a major role in how many off-trail trips create visual cues. However, the type of trampling agent (or trail user) plays the biggest role in how much off-trail trampling it takes to create visual cues. The visual cues afforded by the reduction of vegetation represent the initial threshold in off-trail trampling. If those visual cues present themselves, additional off-trail trampling is likely to occur as other trail users now identify it as a trail, or as a place that is "okay" to go to. However, vegetation can recover from this low-level impact, and with expedient management efforts the trampled vegetation will recover. If, however, there is continued trampling, there will be a reduction in vegetation abundance in addition to further breakage, and soils begin to be impacted. The impact to soils represents the second crucial threshold. Impacted soils can reduce vegetation growth, and it takes much longer for soils to recover. With broken vegetation, impacted soils, and reduced vegetation growth, the area is certainly visibly acknowledged as a trail and it will continue to be used as such unless management strategies are put in place to prevent use and restore vegetation.

One of the general impact-use patterns observed in the field of recreation ecology is the sigmoidal response curve, show in Figure 2 (Monz et al. 2013). This research suggests that off-trail trampling in mountain environments follows that curve, with the vegetation impact and soil impact represented by the primary and secondary inflection points.

Mountains are unique environments, and because of their extreme conditions trampling impacts can be amplified. The initial impacts that lead to the first inflection point occur with only a few off-trail tramplers. By damaging vegetation and soils, areas of off-trail trampling become more attractive to other trail users. The secondary threshold is crossed, resulting in informal trail creation and further degradation. These thresholds are both visual and physical, and are present because of impact to vegetation and soil.

### Management strategies

Insights into how trampling changes a landscape and how that impact can change over time can be very valuable to trail management initiatives. Proper management of recreational trampling-related activities is crucial. Management techniques and considerations that may reduce impact and increase the sustainability of mountain recreational trampling activities are considered here.

One important concept to define is the difference between plant *resistance to trampling* and *resilience*. Resistance to trampling is how the plant reacts to the initial trampling

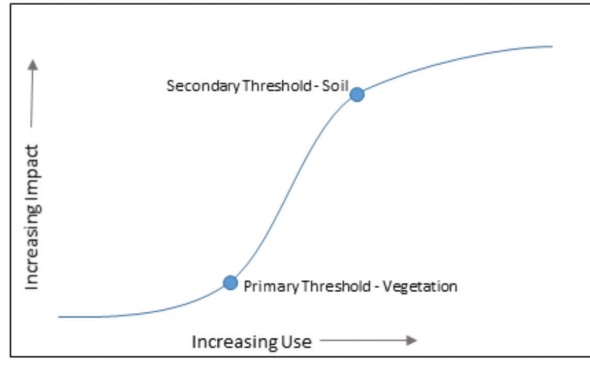


**Figure 2.** Generalized use-impact response curve. Adapted from Monz et al. 2013.

force, whereas resilience is how quickly that plant community can rebound if the trampling force is removed (see Cole 1995b). For example, Pickering and Growcock (2009) noted that in their Australian alpine study location there was a moderate resistance to trampling but low resilience, meaning that a few initial trampling activities have minimal impact, but once the impact is present it is difficult for the vegetation to rebound. In situations such as this, it is important to make sure that users stay on the trail. Barros et al. (2013) suggest signage and visual trail boundaries to reduce trail widening and the formation of informal trails, especially in alpine meadows. Kim and Daigle (2012) also suggest that defining trail boundaries is crucial to re-establish vegetation, referring to vegetation recovery in areas up to 70–80m away from the formal trail. In an interesting result, Barros et al. (2013) found that braided trails in meadows were twice as wide as trails in steppe sites. The control sites showed nearly complete vegetation coverage in the meadows and approximately two-thirds coverage in the steppe sites. They deduced that the woody vegetation in the steppe sites restricted trail users to narrower paths, while the meadow vegetation did not restrict users in that way, resulting in lateral spreading of impacts.

Horses are shown to have the biggest impact on soils and vegetation, with bikers having only slightly higher overall impact that hikers. It is common practice for trail systems to require bikers to yield to all other users. When a biker has to yield to a hiker, the biker must decelerate much more quickly than a hiker. The deceleration can be associated with skidding and increased shear stress, resulting in erosion of the trail surface. Then, one of the parties, usually the person yielding, must step off-trail to allow the other to pass. In sensitive mountain environments, this study suggests that perhaps this rule should be re-evaluated, since the impact of a hiker coming to a stop and stepping off-trail is a lesser impact than that of a biker being forced to do so.

Whinam and Chilcott (1999) show that the rotation or temporary closure of trails is sometimes not a useful form of management because of very slow recovery rates of some types of vegetation. However, if trail closure is chosen as a management strategy, the condition of soils should be considered before reclamation or restoration of trampled sites is undertaken, because the changes in soil characteristics may provide a better habitat for plant species other than those present before the trampling disturbance (de Gouvenain 1995). Restoration and management efforts should consider re-establishing vegetation from nearby populations and from seeds collected on site (Rossi et al. 2006), and forethought exercised in establishing seed banks at impacted recreation areas (Rossi et al. 2009).

Geographic Information Systems (GIS) and other geospatial technologies provide powerful tools that can be used to describe environmental sensitivity and monitor restoration efforts. Tomczyk (2011) demonstrated a method of GIS assessment of environmental sensitivity that includes the USLE (Universal Soil Loss Equation). This assessment showed areas of potentially increased soil erosion. A study by Morrocco and Ballantyne (2008) found relationships between terrain (vegetation and substrate) and trail morphology. Although they did not discuss the use of GIS in their paper, the terrain index analysis they employed is very friendly to GIS applications. Their analysis could be easily taken to the next level of predicting trail morphology, at least qualitatively, based on terrain index. Remote sensing could be

used to analyze vegetation trends and mineral soil surface exposure. Kim and Daigle (2012) successfully demonstrated a methodology using NDVI (Normalized Difference Vegetation Index) and GIS to monitor vegetation impact and recovery in sub-alpine Cadillac Mountain at Acadia National Park, Maine, USA.

## Conclusions

In terms of physical processes, the dichotomy of informal and formal trails holds little meaning. Trails exist on a continuum from lightly trampled vegetation to highly incised and eroded pathways. The primary difference is that the formation process of informal trails is unlikely to consider environmental conditions. In highly trafficked parks and wilderness areas, it is important to minimize informal trail formation to reduce negative impacts such as habitat fragmentation and erosion. When discussing trampling impact and off-trail trampling in mountain environments, the evolution of a trail must be considered. Because vegetation is more sensitive in mountain environments, fewer off-trail passes may result in the visual appearance of a trail that may entice other recreationists to also traverse that route.

Consideration must be given to the processes involved in trampling impact. It is possible to mitigate negative recreational impacts by recognizing the processes of trampling evolution in mountain environments. More research into the impact of specific user types in various terrain types is needed. Future research should consider the applicability of utilizing GIS and remote sensing to monitor trampling impact in remote mountain areas. Additionally, by approaching trampling within a biogeomorphic framework, it may be possible to predict trail conditions for an area before enabling recreation enthusiasts to use it, allowing land managers to avoid trampling impact in the most sensitive environments.

## References


Andres-Abellan, Manuela, Francisco R. Lopez-Serrano, Francisco A. Garcia-Morote, and Antonio Del Cerro-Barja. 2006. Assessment of trampling simulation impacts on native vegetation in Mediterranean sclerophyllous forest. *Environmental Monitoring and Assessment* 120: 93–107.

Barros, Agustina, Jorge Gonnet, and Catherine Pickering. 2013. Impacts of informal trails on vegetation and soils in the highest protected area in the southern hemisphere. *Journal of Environmental Management* 127: 50–60.

Barry, R.G. 1994. *Past and Potential Future Changes in Mountain Environments*. London and New York: Routledge.

Beniston, M., Mountain weather and climate: A general overview and a focus on climatic change in the Alps. *Hydrobiologia* 562: 3–16.

Brown, D.G. 1994. Comparison of vegetation–topography relationships at the alpine treeline ecotone. *Physical Geography*15: 125–145.

Butler, David R., George P. Malanson, Stephen J. Walsh, and Daniel B. Fagre. 2007. Influences of geomorphology and geology on alpine treeline in the American West—More important than climatic influences? *Physical Geography* 28(5): 434–450.

Butler, David R., Lynn M. Resler, Dianna A. Gielstra, and Dawna L. Cerney. 2003. Ecotones in mountain environments: Illustrating sensitive biogeographical boundaries with remotely sensed imagery in the geography classroom. *Geocarto International* 18(3): 63–72.

Cole, David N. 1993. *Trampling Effects on Mountain Vegetation in Washington, Colorado, New Hampshire and North Carolina.* Research Paper INT-464. Ogden, UT: US Department of Agriculture–Forest Service Intermountain Research Station.

———. 1995a. Experimental trampling of vegetation: (2) Predictors of resistance and resilience. *Journal of Applied Ecology* 32: 215–224.

———. 1995b. Experimental trampling of vegetation: (1) Relationship between trampling intensity and vegetation response. *Journal of Applied Ecology* 32: 203–214.

Cole, David N., and Neil G. Bayfield. 1993. Recreation trampling of vegetation: Standard experimental procedures. *Biological Conservation* 63: 209–215.

Cole, David N., and D.R. Spildie. 1998. Hiker, horse and llama trampling effects on native vegetation in Montana, USA. *Journal of Environmental Management* 53: 61–71.

Cordell, H. Ken, Carter J. Betz, and Gary T. Green. 2008. Nature-based outdoor recreation trends and wilderness. *International Journal of Wilderness* 14(2): 7–13.

de Gouvenain, Roland C. 1996. Indirect impacts of soil trampling on tree growth and plant succession in the north Cascade Mountains of Washington. *Biological Conservation* 75: 279–287.

Gallet, S., S. Lemauviel, and F. Roze. 2004. Responses of three heathland shrubs to single or repeated experimental trampling. *Environmental Management* 33: 821–829.

Grieve, Ian C. 2000. Effects of human disturbance and cryoturbation on soil iron and organic matter distributions and on carbon storage at high elevations in the Cairngorm Mountains, Scotland. *Geoderma* 95: 1–14.

Hamberg, Leena, Minna Malmivaara-Lamsa, Susanna Lehvavirta, Robert O'Hara, and Johan Kotze. Quantifying the effects of trampling and habitat edges on forest understory vegetation: A field experiment. *Journal of Environmental Management* 91: 1811–1820.

Hill, Rachel, and Catherine Pickering. Differences in resistance of three subtropical vegetation types to experimental trampling. *Journal of Environmental Management* 90: 1305–1312.

Hunt, C.B. 1958. *How to Collect Mountains.* San Francisco: W.H. Freeman.

Kim, Min-Kook, and John J. Daigle. 2012. Monitoring of vegetation impact due to trampling on Cadillac Mountain Summit using high spatial resolution remote sensing data sets. *Environmental Management* 50: 956–968.

Korkanc, Selma Yasar. 2014. Impacts of recreational human trampling on selected soil and vegetation properties of Aladag Natural Park, Turkey. *Catena* 113: 219–225.

Kutiel, Pua, and Yelena Zhevelev. 2001. Recreational use impact on soil and vegetation at picnic sites in Aleppo pine forests on Mount Carmel, Israel. *Israel Journal of Plant Sciences* 49: 49–56.

Liddle, M.J. 1997. *Recreation Ecology*. London: Chapman & Hall.

Littlemore, J., and S. Barker. 2001. The ecological response of forest ground flora and soils to experimental trampling in British urban woodlands. *Urban Ecosystems* 5: 257–276.

Lucas-Borja, M.E., F. Bastida, J.L. Moreno, C. Nicolas, M. Andres, F.R. Lopez, and A. Del Cerro. 2011. The effects of human trampling on the microbiological properties of soil and vegetation in Mediterranean mountain areas. *Land Degradation & Development* 22: 383–394.

Malin, L., and A.Z. Parker. 1976. National ecological carrying capacity research: Yosemite National Park. III. Sub- alpine soils and wilderness use. US Department of Commerce, National Technical Information Center PB-27-957.

Mathieu, J. 2011. *The Third Dimension: A Comparative History of Mountains in the Modern Era.* Cambridge, UK: White Horse Press.

Mingyu, Yang, Luc Hens, Ou Xiaokun, and Robert De Wulf. 2009. Impacts of recreational trampling on sub-alpine vegetation and soils in northwest Yunnan, China. *Acta Ecologica Sinica* 29: 171–175.

Monz, C.A. 2002. The response of two Arctic tundra plant communities to human trampling disturbance. *Journal of Environmental Management* 64: 207–217.

Monz, C. A., David N. Cole, Yu-Fai Leung, and Jeffrey L. Marion. 2010. Sustaining visitor use in protected areas: Future opportunities in recreation ecology research based on the USA experience. *Environmental Management* 45(3): 551–562.

Monz, Christopher A., Catherine M. Pickering, and Wade L. Hadwen. 2013. Recent advances in recreation ecology and the implications of different relationships between recreation use and ecological impacts. *Frontiers in Ecology and the Environment* 11(8): 441–446.

Monz, C.A., T. Pokorny, J. Freilich, S. Kehoe, and D. Ayers-Baumeister. 2000. The consequences of trampling disturbance in two vegetation types at the Wyoming Nature Conservancy's Sweetwater River Project Area. *USDA Forest Service Proceedings* 5: 153–159.

Morrocco, Stefan, and Colin K. Ballantyne. 2008. Footpath morphology and terrain sensitivity on high plateaux: The Mamore Mountains, western highlands of Scotland. *Earth Surface Processes and Landforms* 33: 40–54.

Newsome, David, and Claire Davies. 2009. A case study in estimating the area of informal trail development and associated impacts caused by mountain bike activity in John Forrest National Park, Western Australia. *Journal of Ecotourism* 8(3): 237–253.

Ollier, C., and C. Pain. 2000. *The Origin of Mountains.* London: Routledge.

Pickering, Catherine M., and Andrew J. Growcock. 2009. Impacts of experimental trampling on tall alpine herb fields and subalpine grasslands in the Australian Alps. *Journal of Environmental Management* 91: 532–540.

Pickering, Catherine M., Sebastian Rossi, and Agustina Barros. 2011. Assessing the impacts of mountain biking and hiking on subalpine grassland in Australia using an experimental protocol. *Journal of Environmental Management* 92: 3049–3057.

Price, Larry W. 1986. *Mountains and Man: A Study of Process and Environment.* Berkeley and Los Angeles: University of California Press.

Rossi, G., G. Parolo, and T. Ulian. 2009. Human trampling as a threat factor for the conser-

vation of peripheral plant populations. *Plant Biosystems* 143: 104–113.
Rossi, Graziano, Gilberto Parolo, Laura A. Zonta, Julie A. Crawford, and Andrea Leonard. 2006. Salix Herbacea L. fragmented small population in the N-Apennines (Italy): Response to human trampling disturbance. *Biodiversity and Conservation* 15: 3881–3893.
Rusterholz, Hans-Peter, Christine Verhoustraeten, and Bruno Buar. 2011. Effects of long-term trampling on the above-ground forest vegetation and soil seed bank at the base of limestone cliffs. *Environmental Management* 48: 1024–1032.
Scott, David, Neil G. Bayfield, Alexander Cernusca, and David A. Elston. 2002. Use of a weighing lysimeter system to assess the effects of trampling on evapotranspiration of montane plant communities. *Canadian Journal of Botany* 80: 675–683.
Sun, D., and M.J. Liddle. 1993. A survey of trampling effects on vegetation and soil in eight tropical and subtropical sites. *Environmental Management* 17: 497–510.
Tomczyk, Aleksandra M. 2011. A GIS assessment and modelling of environmental sensitivity of recreational trails: The case of Gorce National Park, Poland. *Applied Geography* 31: 339–351.
Whinam, J., and N. Chilcott. 1999. Impacts of trampling on alpine environments in central Tasmania. *Journal of Environmental Management* 57: 205–220.
Whinam, J., and N.M. Chilcott. 2003. Impacts after four years of experimental trampling on alpine/sub-alpine environments in western Tasmania. *Journal of Environmental Management* 67(4): 339–351.
Willard, Beatrice, David J. Cooper, and Bruce C. Forbes. 2007. Natural regeneration of alpine tundra vegetation after human trampling: A 42-year data set from Rocky Mountain National Park, Colorado, U.S.A. *Arctic, Antarctic, and Alpine Research* 39: 177–183.
Wimpey, Jeremy, and Jeffrey L. Marion. 2011. A spatial exploration of informal trail networks within Great Falls Park, VA. *Journal of Environmental Management* 92(3): 1012–1022.
Yorks, T.J., N.E. West, R.J. Mueller, and S.D. Warren. 1997. Toleration of traffic by vegetation: Life form conclusions and summary extracts from a comprehensive data base. *Environment Management* 21: 121–131.

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# Seeking Park-based Science Information: Interpreters at the Gate

*Martha Merson, Cynthia Char, Nickolay Hristov, and Louise Allen*

## Introduction

During the 2015 George Wright Society Conference panel "Redrawing the Boundaries: Science Communication in the National Park Service (NPS)," Park Service leaders discussed the shared responsibility for communicating science across job categories. Tim Watkins, science and education coordinator, and Julia Washburn, associate director for interpretation and education, acknowledged that making science prominent at parks has historically been neither an established nor a high-profile priority, and recommended scientist–educator partnerships to help increase science learning at parks. Interpretive rangers' contacts with the public number in the millions annually. Clearly they are in a strong position to be part of initiatives that convey park-based science to the public (National Park Service 2015).

The most logical place for interpreters to gain familiarity with park-based scientific research is in the park. Resource managers are in the position of gate-keepers, or, preferably, gate-openers. They keep the calendar of scientists' presence at the park, review permit applications, and generally have the technical background to appreciate the findings in annual and final reports. If the resource managers and leaders at parks facilitate communication with interpreters about independent researchers' work and its relevance to management decisions, interpreters can highlight parks as our nation's laboratories. Visitors stand to gain respect for national parks as active sites of research as well as lands set aside for scenic and historic preservation. Increased contact among researchers and interpreters can also increase interpreters' and visitors' science literacy—how we know what we know, build respect for the scientific process, and communicate important ideas about science, such as the fact that it can happen collaboratively, in beautiful outdoor settings.

When communication between divisions about the research on park resources is lacking, interpreters are at risk of disseminating information that is dated or only partially true, or of avoiding conversations with visitors about cutting edge science taking place at the park altogether. Two of the co-authors of the present article (Allen and Hristov) witnessed moments

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of misinformation when they were conducting research on the bat emergence at Carlsbad Caverns. To address these, they collaborated with park staff on a fact sheet, a living document about bats, which was circulated among interpreters. Further, they conceived of professional development that combined details about their studies with fieldwork. With funding from the National Science Foundation (NSF; DRL #1323030), Hristov, Allen, and a third co-author of this article (Merson) piloted their professional development model as an NSF Pathways project, Interpreters and Scientists Working on Our Parks (iSWOOP).

The purpose of this article is to demonstrate the need to bring interpreters into direct and frequent contact with those conducting park-based or park-relevant research (hereafter referred to as "scientists" or "researchers," though this label is intended to encompass resource managers and can include historians, monitoring teams, or other researchers as well as scientists). The focus is on interpreters' response to survey questions about their access and need for information, the frequency and type of interactions they have with scientist, and the benefits they perceived when they did have opportunities to interact with scientists. Although survey data reported here were collected as part of the iSWOOP project, this article is not primarily about iSWOOP's intervention, features, or professional development model. Rather, it is intended to share insight into interpreters' perspectives on missed opportunities and on the potential rewards for greater understanding of park-based research.

National Parks are important venues for science, technology, engineering, and math (STEM) learning as well as civic engagement. In its *Call to Action for the 21st Century: Preparing for a Second Century of Stewardship and Engagement* (National Park Service 2012) and *Vision Paper: 21st Century National Park Service Interpreter Skills* (National Park System Advisory Board Education Committee et al. 2014), the Park Service articulated a commitment to scholarship and stated its intention to be a stage for informal science learning. With these commitments, NPS has set high expectations of interpretive staff, whose mission is to facilitate visitors' emotional and intellectual connections with the nation's collective heritage and natural resources (Tilden 1957). Common sense suggests that knowledge of the resource is highly important. Recent studies offer evidence for a more nuanced understanding of what knowledge of a resource entails.

Stern and Powell (2013) offer a definition of "apparent knowledge": the degree to which the interpreter appears well-versed in the content, capable of providing the answers to visitors' questions, as well as knowledgeable about the area and its resources. To be perceived as knowledgeable is a key element of establishing competence and credibility.

Knowledge about the resource comes from a variety of sources, including resource managers. According to a survey conducted by the San Francisco Bay Area Network, the primary means for sharing information was personal communication between staff members (DeBacker et al. 2009). Staff from the park's Division of Resource Management familiarize new staff with the resource and critical management issues. At some parks, resource managers and science or education coordinators arrange for scientists to present their relevant research (Abe Miller-Rushing and Bruce Connery, pers. comm., 2015).

After orientation, interpreters are expected to take charge of their own learning. Interpreters can turn to a virtual storehouse of scientists' permits and annual reports maintained

by the Park Service. Respondents to a survey by O'Herron (2009) had not heard of some information sources and most found it hard to get information, as it was scattered among various websites and local network drives. Science coordinators at Research Learning Centers make research briefs available to staff, though their use appears uneven according to emails exchanged in 2016 by NPS employees Tara Carolin, David Shelley, Paul Super, and Shannon Trimboli. Conducting internet searches yields article abstracts, but accessing full texts quickly becomes prohibitive. Clearinghouses charge fees, often $50 or more per article.

Pursuing new information is in keeping with the Park Service's Interpretive Development Program (IDP) stance on professional development, which is explicitly in favor of ongoing, career-long learning (https://www.nps.gov/idp/interp/theprogram.htm). Interestingly, in its *Foundations of 21st Century Interpretation*, the IDP has shifted its emphasis. Knowledge about resources still has a place, but increasingly one that serves audience engagement and audience-centered interpretation (National Park Service 2016).

After conducting interviews with visitors who participated in ranger-led interpretive programming at six NPS sites, Forist and Knapp (2013) found visitors were more likely to recall information when interpreters took advantage of timing and location to impart information. For example, visitors who encountered a lizard while hiking and heard about it remembered it more vividly than visitors who participated in a patio talk about lizards. This finding amplifies the need for interpreters to have depth of knowledge about the resource (and park-based research studies) that they can coordinate with activities, wildlife sightings, and locations within the park.

In a different study of interpreters' programs, Stern and Powell (2014) aimed to identify the techniques and features of ranger-led programs that led to high levels of visitor satisfaction. Knowledge played a foundational role. The authors posited that presenters who are more familiar with their topics generally experience less anxiety and therefore project more confidence. When interpreter confidence was perceived as low, it stood out as one of the characteristics associated with participants leaving ranger-led programs before the program's conclusion. However, too much knowledge could be a liability as the perception of someone as a "walking encyclopedia" also surfaced as a characteristic associated with attrition.

The most recent effort to identify the training needs of NPS personnel points to the need for knowledge alongside the need for science communication strategies (Powell et al. 2014). Respondents assigned a level of importance from 1 (unimportant) to 7 (extremely important) to each of 80 specific competency questions related to six overarching categories. Among items in the "Finding and Assessing Knowledge" category, those interpreters with 3–5 years of experience assigned the highest importance to "Developing ongoing collaborative relationships with subject matter experts to remain current with issues and research." They also attributed high importance to articulating "complex concepts in layman's terms without using jargon or losing accuracy." These areas of importance are very much in line with the survey responses the iSWOOP project gathered from Carlsbad Caverns interpreters.

### Research questions

At the beginning of iSWOOP's work with interpreters at Carlsbad Caverns, the project staff

and evaluator wanted to know about interpreters' science background, opportunities they have had to learn on the job, and how they have informed themselves about park-based science research. This information helped the project understand the ways iSWOOP was bringing new approaches and content to interpreters. The data are useful apart from the project, yielding a more nuanced picture of:

- The challenges interpreters said they faced in accessing and understanding park-based scientific research;
- The frequency with which interpreters sought information;
- The sources they relied on; and
- The advantages interpreters cited as a result of greater contact with scientists.

### Setting and project overview

Carlsbad Caverns National Park is famous for its dramatic cave formations and the spectacle of bat emergence and return. The park has been the site of landmark scientific work on rabies and population dynamics. Co-principal investigators Hristov and Allen have conducted scientific research at Carlsbad Caverns and in other caves in the region since 2004 (e.g., Betke et al. 2008; Allen et al. 2009; Kunz et al. 2009; Hristov et al. 2010). Their research on the Brazilian free-tailed bat formed the centerpiece for the professional development sessions. They shared a collection of scientific visualizations that interpreters could show visitors to make prominent the research on this charismatic species. Fourteen interpreters participated in the iSWOOP project's first two rounds of training in January and June 2014. As a result of training, interpreters crafted a program using a subset of the material in the visual library that they subsequently drew on in their interactions with visitors (Figure 1).

### Sample, methods, and analysis

The sample consisted of 14 interpreters who participated in approximately 20 hours of iSWOOP professional development. A mixed methods approach was used, with data sources including pre- and post-project interpreter surveys, observations of visitor programs, and


**Figure 1.** Wildlife biologist Nickolay Hristov shows Carlsbad Caverns National Park interpreters an improvised tripod and reflective sphere. Interpreters and scientists strategically placed 72 spheres as reference points for laser scans of the cave. Photo courtesy of Isaac Banks.

open-ended feedback forms interpreters submitted that described visitor learning occurring during programs. Of interest here are the survey responses from the 14 interpreters (100% return rate) who completed surveys online prior to the first day of training, and post-program surveys after they had at least ten weeks in which to implement iSWOOP visitor programs. Interpreters answered a mix of open-ended short-answer, multiple choice, and rating-scale items on the surveys (18 pre-program items; 22 post-program items). Several items were designed to capture the working knowledge and prior experience that interpreters might draw on to explicate science processes or to build science literacy with visitors. Quantitative survey data were analyzed using descriptive statistics and frequency distributions. Open-ended prose responses were coded for emergent themes (Charmaz 2006), and cross-checked among two researchers to establish consensus on the coded data.

Supervisors did not have access to individuals' survey responses and there was no financial benefit for participating in either the project or the evaluation. Thus interpreters were not under pressure to give impressive answers or to over-state their competence in finding and interpreting science. In reports and articles, including this one, interpreters are given pseudonyms.

### Participants: Interpreters' backgrounds

As a group, the iSWOOP interpreters constituted a relatively young workforce. Most of the 14 were in their twenties or thirties; two were in their fifties. Over half (8) had worked in national parks for five or fewer years. Interpreters had worked at a number of different national parks. Over half (9) had experience in four or more different parks across the country with just four mentioning working at only one or two parks total. Only four had been working at the caverns continuously for four or more years. However, four of the seven seasonal staff participating had worked at the caverns previously.

Almost two-thirds of the interpreters held degrees and training in the sciences (e.g., wildlife science, park management and conservation, bioenvironmental sciences, earth science). One-third had non-STEM backgrounds with degrees in history and anthropology, for example. In their off-hours, nearly all pursued activities related to their park work (e.g., trail restoration, doing talks for school groups, photography, hiking and caving, and reading magazines about science and nature.) Thus, individuals were engaged in learning and doing in fields related to their paid positions as park guides (the GS-5 pay grade).

### Findings

The interpreters' responses in their surveys provided a window into how they informed themselves about park-based research. To supplement their working knowledge of park phenomena, interpreters sought information out weekly or more often, relying mostly on on-line sources. Contact with scientists was rare. However, when interpreters had conversations with scientists, they reported benefits, anticipating they would draw on these conversations for content and stories in their work with the public. Survey responses also suggested actions from resource managers and scientists that could be helpful to support interpreters in their work.

Interpreters mentioned a wide range of challenges, starting with simply knowing that scientific research is going on at all. Kate, a seasonal interpreter, said, "There is a massive dividing line between outside research and our interp divisions, at most parks. Simply knowing that research is happening is the toughest hurdle to overcome." However, Nancy, a permanent staff member, felt that "maintaining regular communication between researchers and interpreters, so we have the most up-to-date research to interpret" is a challenge. While Nancy and Kate located the challenge outside themselves, Winston made it personal: "The biggest challenge for me is my ability to understand the science research so that I may incorporate it into programs. I find that science research now is very specialized and complicated." Thus, interpreters stated a range of challenges, starting with simply knowing that scientific research is going on at all, to being kept up-to-date on it, and finally being confident in interpreting it.

In pre-program surveys, interpreters described their pressing needs for scientific information about park phenomena. The vast majority of interpreters reported frequent searches for scientific information. Half (7) indicated that they searched for information several times a week, while an additional five reported that they did so "almost weekly."

Interpreters tended to rely most heavily on the Internet, followed by materials prepared by others for use in the park, and then, scientific journal articles related to science in the park (Figure 2).

Interpreters indicated that they were generally successful in finding the information they sought. Some reported having strong research skills. One interpreter (Jill) commented, "Sometimes it feels like a wild goose chase, but I usually find what I'm looking for." Some interpreters mentioned their strategies, such as consulting co-workers, which significantly heightened their success.

For most interpreters, direct contact with scientists was rare. A large majority reported the frequency of contact as "a little" to "none" regarding public lectures by scientists at the park, participating in actual scientific data collection for park-based research, or regular ongoing exchanges (in person or by email) with scientists (Figure 2). Briefings by scientists about a particular species or habitat were also quite rare. In commenting on the dearth of

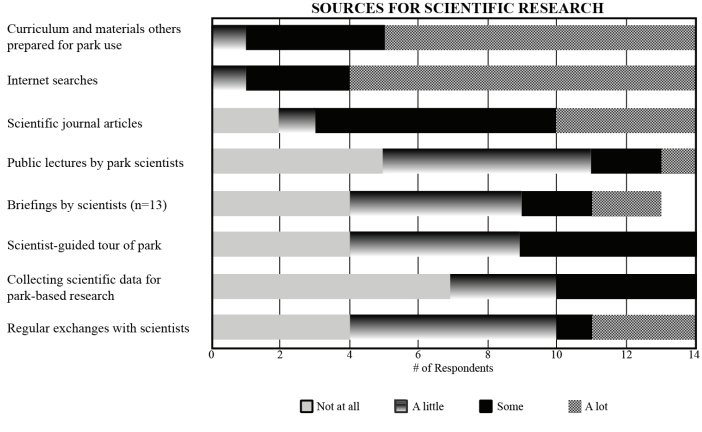


**Figure 2.** Sources for scientific research.

information, one interpreter (Samuel) observed: "It seems that often research being done is being kept for the scientists while the interpreters are being left with the public domain information." An interpreter (Rico) pointed out that in their initial training, there is lots of contact with researchers, but that future contact only seems to occur when he is seeking answers to questions. Such comments show that interpreters are aware that they are missing out.

When information flowed, interpreters noticed and appreciated this. Abe said: "At [one park] there was a great deal of informal contact between resource management and other park employees and I would credit those individuals with keeping people informed of projects and offering opportunities … to assist.". Interpreters made suggestions for increasing their contact with scientists. A seasonal employee (Yvonne) wrote that "I would love it if short talks and briefings with park staff would be built into research permits…."

When commenting on engaging the public, some interpreters highlighted the challenge of offering effective translation, while others focused on the challenge of encouraging visitors to listen and engage. Comments about effective translation were grounded in awareness of the audience, their prior knowledge, and their background. "Interpretive programming must effectively translate scientific research in a limited time frame to an audience with possibly little to no background in a topic or even the processes of research," Yvonne commented. Her colleague Jill wrote: "The biggest challenge is avoiding the trap of jargon! Science research can sound like a foreign language to many people, and I have to remind myself that while I may be familiar with certain concepts and vocabulary now, it is the visitor's first time hearing it."

Most of the interpreters acknowledged the challenge in actively engaging visitors by encouraging them to share their thoughts and questions. Provocation is a part of the interpretive tradition (Larsen 2003) and iSWOOP encouraged interpreters to elicit visitors' reactions. Two comments spoke to the tension that can surround the invitation to visitors to participate actively. Lena's comment highlighted the expectations or norms that govern the interpreter–visitor interaction: "I think visitors are used to being talked to and not involved in the scientific process. Children were more willing to answer questions but adults have a few more inhibitions." Patricia 's comment suggests that the unpredictability of park audiences was an obstacle: "As a presenter we need to tailor our talk to our audience, but the audience can be inquisitive or not and you don't want to expect them to do the lifting if they don't want to."

Rico summarized the progression of challenges in the following way: "The biggest challenge is presenting research that can capture an audience's attention to begin with, to present it in a way that keeps the information in lay terms, and allows the visitor to understand the 'so what?' factor—why it's meaningful to [the] place and to themselves." This comment shows that there is not just one challenge to surmount, but rather a series of challenges that require attention and on-the-spot adjustment.

iSWOOP professional development offered approximately 20 hours of direct contact with researchers and access to the researchers' scientific visualizations, as well as strategies and techniques to promote visitor interaction. When asked to reflect on how iSWOOP had benefited them, most interpreters cited access to scientific research being conducted at the park. All but one indicated an increase in their understanding of the kinds and extent of onsite research being conducted at the park, and of the scientific techniques and technological

tools used to conduct that research. Comments from interpreters fell into two categories: one that named their own better understanding of science process and the other that referenced expanding visitors' ideas about parks (Table 1). Several interpreters linked gains in their own understanding to improving or expanding interactions with visitors. This is most clearly evident in Patricia's words: "We are all inquisitive and curious.… I am helping visitors explore the possibilities and ways in which technology has advanced our understanding of bats [in this case] and how we interpret/process what we see."

In summary, interpreters in the iSWOOP pilot were dedicated to their craft—conducting online searches, seeking out information from co-workers, and spending personal time on related activities. They struggled with the challenges of access and commented on the lack of opportunities to connect with scientists and resource managers. When offered, these conversations were appreciated. Interpreters welcomed information that is not readily available to the public and expressed wanting to pass on their enthusiasm for it to visitors. Interpreters said that contact with scientists increased their understanding of the research.

## Discussion

Survey responses enabled the iSWOOP team to gain insight into this small subset of early-career interpreters' perspectives and experience interpreting scientific research. NPS priorities such as its commitment to scholarship and providing a venue for lifelong learning carry an obligation for interpreters who have to turn NPS priorities into interpretive opportunities. Without access to researchers, interpreters spend time searching out relevant resources. As

**Table 1.** Benefits of direct contact with scientists.

| *Theme & Key Ideas* | *Examples in Survey Responses (Quotes from Interpreters)* |
|---|---|
| *Insight into science process* | |
| Deepening understanding of the scientific method, how research is done, and the scientist's personal experience in research | "My understanding of scientific method was not very deep. Being part of iSWOOP definitely added to my knowledge of how scientific research is being done and the details that go along with it, as well as the scientist's personal experience in the research." (Lena) |
| Increased understanding of the tools used to study bats | "I have a greater understanding of the tools used by researchers to study the bats. I knew the results of the research but now I have a better understanding of the data that was gathered to come to that understanding." (Patricia) |
| Better understanding of data gathered to come to new understandings | "… We are all inquisitive and curious.… I am helping visitors explore the possibilities and ways in which technology has advanced our understanding of bats [in this case] and how we interpret/process what we see." (Patricia) |
| Perception of research as happening behind the scenes, behind the curtain. Understanding the process, contrasted with taking findings on faith | "In many parks it [research] happens behind the scenes and the interpreters are only told about the end result. We are asked to talk about something we are expected to take on faith." (Samuel) |
| *Expanding visitors' ideas of parks* | |
| Parks synonymous with active research | "I want all visitors to see their parks as hotbeds of active research!" (Yvonne) |
| Scholars use parks for their work | "I think the most beneficial thing from my experience is that it has led me to take a step back and see this park not only as a precious resource and visitor attraction, but also as a site for research. This is a theme which … makes our parks seem more fresh and alive, if we can alert our visitors to the fact that many scholars use the NPS locations on a continuing basis for their work." (Winston) |

noted in the literature, interpreters' apparent knowledge is tied to credibility and influences visitor satisfaction and outcomes. Finding and assessing knowledge on park resources is an ongoing part of interpreters' work. Yet interpreters at Carlsbad Caverns faced challenges in finding, accessing, and understanding park-based scientific research. They saw advantages to having contact with scientists and resource managers, and envisioned how such contact could translate into communication of science with the public. Survey responses contained implied and explicit requests, naming actions from resource managers and scientists that would be helpful in their work.

***Challenges to finding out and using park-specific research.*** To be effective interpreters, rangers need appropriate techniques and knowledge of the resource. To those who say that everything is online nowadays, this over-simplification of access obscures several challenges. First, the available content is daunting. There is so much to wade through. Even those with stellar research skills have limited time to sift through and make sense of search results. Second, for those seeking out scientists' papers, steep fees often apply to accessing peer-reviewed journal articles. Third, once in hand, most journal articles assume a readership with a technical background, making the text impenetrable for a person with a different academic background. Though many interpreters felt equal to the challenge and successful in finding pertinent scientific information, a level of uncertainty plagued some interpreters, who questioned whether they were interpreting the studies correctly.

Feeling uncertain about park-based research can affect interpreters' interactions with the public. Visitors who perceive a lack of confidence or competence may choose to leave a program (Powell 2013). Without confidence in their knowledge and the ability to reveal something special about the resource, interpreters may choose to say nothing about park-based research, falling back on facts or trivia, which perpetuates the idea that science is a collection of established facts rather than a process driven by questions.

Interpreters displayed a nuanced understanding of the challenges in communicating about scientific research in an interactive way. Interpreters described challenges related to complexity of the material, visitors' expectations for involvement, visitors' background knowledge, and motivation for participating. When tracking down research studies becomes consuming, little time is left to plan how best to convey the content to visitors and establish a dynamic that welcomes and fosters questions.

***Advantages to contact with scientists.*** Interpreters attributed increased understanding, first-hand experience, and enthusiasm about on-site scientific research happening at their parks to direct contact with scientists. An external evaluator of the iSWOOP project found that on-site professional development with scientists over a number of hours, both in seminar style and in the field, were rarely utilized forms of contact and collaboration (Char 2015). Even seasoned rangers with multiple years of experience at the park welcomed the on-site, place-specific professional development. This finding echoes the needs assessment in which "developing ongoing, collaborative relationships with subject matter experts to remain current with issues and research" was seen as important (Powell et al. 2014). While not the focus of this article, it is important to note that these benefits do not accrue solely from contact

between interpreters and scientists, and from access to scientists' visual images. Structuring mutually beneficial interactions takes time and planning. Further, iSWOOP modeled the use of interactive techniques to communicate science. Reflecting on iSWOOP professional development, interpreters expressed not only fewer concerns about their own access to information but revealed a heightened awareness of techniques appropriate for engaging visitors with scientific research. Interpreters stated that iSWOOP had helped them better engage visitors in the ongoing research occurring at their park and for conveying the process of doing science, including researchers' applications of cutting-edge technology. Most interpreters also reported that they more actively seek to engage visitors in conversation, rather than focusing on delivering their message.

***Helpful practices and directions for future research.*** Practices that are common at individual park units could be adopted more widely, customized, and refined. Early in the process for approval or initiation of a new study, park staff and scientists could:

- Agree to scheduling briefings for staff at a variety of times to accommodate schedules.
- Generate a list of images and artifacts to share with interpreters and the public to support explanations of the process and technology or instruments.
- Shape opportunities for interpreters to accompany scientists into the field, thereby increasing their first-hand knowledge and supporting the scientists' on-site work.
- Co-create and design mutually beneficial research activities from an educational and management perspective.
- Seek input from interpreters on their preferred format for research briefs.

These suggested practices, which are similar to those listed in a summary of a panel discussion on science communication held at the 2009 George Wright Society Conference (DeBacker et al. 2010), seek to increase opportunities for personal communication and create predictable mechanisms for communication. Adopting these practices would increase interpreters' access to active site-based (place-based) science research.

An effort to understand the value interpreters give to such opportunities would be helpful in establishing priorities. NPS Research Learning Centers have experimented with producing condensed summaries of studies. To the authors' knowledge, however, there has been no formal investigation into how interpreters use these. Observations, interviews, and even surveys could reveal how distilled versions of scientists' work are referenced and woven into programs for the public. As the iSWOOP project progresses, we hope to share with the field how opportunities to interact with scientists informs interpreters' programs and informal interactions. Perhaps there will be multiple factors that influence the translation, the level of detail, and the confidence of interpreters as they communicate about park-based scientific studies with visitors.

## Conclusion

Interpreters have a pressing need for park-based science to augment their understanding of park resources. With proper background, they can present on active park-based scientific

research to the public with more credibility and confidence. Their messages about preserving public lands can include the importance of having sites that host cutting-edge science research as well as providing recreation, enjoyment, and habitat protection.

Challenges abound for park interpreters who seek information on park-based scientific studies. Peer-reviewed articles are costly to access and require time to vet for relevance. Like annual reports and permit applications, they tend to assume that the reader has the necessary technical background, which can leave interpreters unsure if they have fully grasped the findings. Contact with scientists and resource managers can help bypass these obstacles, creating a pathway for interpreters to inquire about research questions, methods, findings, and relevance.

Resource managers and park leaders tempted to ignore or defer professional development needs of interpretive staff do a disservice to their colleagues and the public. If the time is taken to build a robust understanding of park-based research among interpreters, they can maximize opportunities in their interactions with the public to convey that understanding of the park's resources and their significance. Interactions between interpreters and visitors can add to the public's awareness of foundational research as well as predicted impacts of climate change. In the long term, these formal and informal interactions have the potential to increase engagement in strategic decisions.

Resource managers can be gate-openers, using various ways to bring scientists and interpreters together. They can facilitate more opportunities for contact between these groups and elevate their communicators as conduits for research stories in parks. iSWOOP interpreters at Carlsbad Caverns National Park now have a model for bringing content and strategies together to increase visitors' awareness and curiosity about scientific research on public lands.

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## References

Allen, Louise A., C.S. Richardson, G.F. McCracken, and Tom Kunz. 2010. Birth size and postnatal growth in cave- and bridge-roosting Brazilian free-tailed bats. *Journal of Zoology* 280: 8–16.

Betke, Margrit, Diane E. Hirsch, Nicholas C. Makris, Gary F. McCracken, Marianne Procopio, Nickolay I. Hristov, Shuang Tang, Angshuman Bagchi, Jonathan D. Reichard, Jason W. Horn, Stephen Crampton, Cutler J. Cleveland, and Thomas H. Kunz. 2008.

Thermal imaging reveals significantly smaller Brazilian free-tailed bat colonies than previously estimated. *Journal of Mammalogy* 89(1): 18–24.

Char, Cynthia. 2015. *To Be More Inquisitive in then Natural World: Evaluation of the Interpreters and Scientists Working on Our Parks (iSWOOP) Pathways Project*. Online at http://iswoopcave.com/?page_id=32.

Charmaz, Kathy. 2006. *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. London: Sage.

DeBacker, Michael, Bruce Lombardo, Sara Melena, Sherry Middlemis-Brown, Michelle O'Herron, Lindsay Paulding, Adam Prato, and Dafna Reiner. 2010. Science Communications: Successful Strategies for Collaboration (panel discussion summary). In *Rethinking Protected Areas in a Changing World: Proceedings of the 2009 George Wright Society Biennial Conference on Parks, Protected Areas, and Cultural Sites*. Samantha Weber, ed. Hancock, MI: George Wright Society, 37–40. Online at http://www.georgewright.org/0906debacker.pdf.

Forist, Brian, and Doug Knapp. 2013. Leaving Muir and Tilden behind: Visitor-centered interpretation through dialogue. Paper presented at the National Association for Interpretation National Workshop, 8 November. Online at http://www.storylinedesigns.co.uk/blog/files/tilden-forist-knapp-ppt.pdf

Hristov, Nickolay I., Margrit Betke, Diane E.H. Theriault, Angshuman Bagchi, and Thomas H. Kunz. 2010. Seasonal variation in colony size of Brazilian free-tailed bats at Carlsbad Caverns based on thermal imaging. *Journal of Mammalogy* 91(1): 183–192.

Kunz, Thomas H., Margrit Betke, Nickolay I. Hristov, and Maarten J. Vonhof. 2009. Methods for assessing colony size, population size, and relative abundance of bats. In *Ecological and Behavioral Methods for the Study of Bats*, 2nd ed. Thomas H. Kunz and Stuart Parsons, eds. Baltimore: Johns Hopkins University Press, 133–157.

Larsen, David L. 2003. Be relevant or become a relic. *Journal of Interpretation Research* 7(1): 17–23.

National Park Service. 2014. *A Call to Action: Preparing for a Second Century of Stewardship and Engagement*. Washington, DC: NPS. Online at https://www.nps.gov/calltoaction/PDF/C2A_2014.pdf.

———. 2016. *Servicewide Interpretive Report.* Washington, DC: NPS.

National Park Service, Interpretive Development Program. 2016. *Foundations of 21st Century Interpretation—Version 2016—Foundational Competencies for NPS Interpreters*. Washington, DC: NPS. Online at http://idp.eppley.org/sites/default/files/Foundations of Interpretation-Version 2016-NPS-IDP-with cover (1).pdf.

National Park System Advisory Board Education Committee, National Education Council, and George Washington University. 2014. *Vision Paper: 21st Century National Park Service Interpreter Skills*. Online at http://www.nps.gov/resources/upload/REPORT-Interpretative-Skills-05-22-14.pdf

O'Herron, M. 2009. San Francisco Bay Area Network Natural Resources Communication Strategy. Natural Resource Report NPS/SFAN/NRR-2009/169. Fort Collins, CO: NPS. Online at http://www.nature.nps.gov/publications/NRPM/nrr.cfm.

Powell, Bob, Brett Wright, and Gina L. Depper. 2014. *National Park Service Interpretation and Education Training Needs Assessment*. Clemson, SC: Clemson University Department of Parks, Recreation and Tourism Management. Online at http://idp.eppley.org/sites/default/files/NeedsAssessmnt-NPS_IE_Final_Report_10-15-14.pdf.

Stern, Marc J., and Robert B. Powell. 2013. What leads to better visitor outcomes in live interpretation? *Journal of Interpretation Research* 18(2): 9–43.

Tilden, Freeman. 1957. *Interpreting Our Heritage*. Chapel Hill: University of North Carolina Press.

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# Status and Extent of Aquatic Protected Areas in the Great Lakes

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## Introduction

The Laurentian Great Lakes are immensely important to the environmental, economic, and social well-being of both Canada and the United States (US). They form the largest surface freshwater system in the world. At over 30,000 km long, their mainland and island coastline is comparable in length to that of the contiguous US marine coastline (Government of Canada and USEPA 1995; Gronewold et al. 2013). With thousands of native species, including many endemics, the lakes are rich in biodiversity (Pearsall 2013). However, over the last century the Great Lakes have experienced profound human-caused changes, including those associated with land use changes, contaminants, invasive species, climate change, over-fishing, and habitat loss (e.g., Bunnell et al. 2014; Smith et al. 2015). It is a challenging context in terms of conservation, especially within protected areas established to safeguard species and their habitat.

According to the International Union for Conservation of Nature (IUCN), a *protected area* is "a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values" (Dudley 2008). Depending on the management goals, protected areas can span the spectrum of IUCN categories from highly protected no-take reserves to multiple-use areas (Table 1). The potential values and benefits of protected areas are well established, including conserving biodiversity; protecting ecosystem structures and functions; being a focal point and context for public engagement, education, and good governance; supporting nature-based recreation and tourism; acting as a control or reference site for scientific research; providing a positive spill-over effect for fisheries; and helping to mitigate and adapt to climate change (e.g., Lemieux et al. 2010; Burt et al. 2014).

Given their size and importance, the Great Lakes are often included in the designs of marine protected area systems of both nations (Government of Canada 2011; NMPAC 2015).

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| Designation | Brief Definition | Great Lakes Examples |
|---|---|---|
| IUCN Ia: Strict nature reserve | Protects biodiversity and possibly geological/geomorphical features, where human visitation, use, and impacts are strictly controlled and limited. | Nature reserves, migratory bird sanctuaries (e.g., Nature Conservancy of Canada Baptist Harbour Reserve, Mississagi Delta Provincial Nature Reserve). |
| IUCN Ib: Wilderness area | Usually large unmodified or slightly modified area managed to preserve its natural condition. | National wilderness areas, wilderness-class provincial parks (e.g., Isle Royale National Park). |
| IUCN II: National park | Protects large-scale ecological processes and species, and provides a foundation for environmentally and culturally compatible spiritual, scientific, educational, recreational, and visitor opportunities. | National parks, conservation reserves, provincial parks, state parks (e.g., French River Provincial Park, Point Pelee National Park). |
| IUCN III: Natural monument or feature | Protects a specific natural monument (e.g., landform, seamount, cave, ancient grove). Generally a small area, highly valued by visitors. | Provincial parks (e.g., Inverhuron, Agate Island Wilderness Area, Michipicoten Provincial Park). |
| IUCN IV: Habitat/species management area | Protects and manages a particular species or habitat. | National wildlife refuges, national wildlife areas, state nature preserves (e.g., Detroit River International Wildlife Refuge, Nayanquing Point Wildlife Area). |
| IUCN V: Protected landscape/ seascape | The interaction of people and nature produces an area of distinct character with significant, ecological, biological, cultural and scenic value. Safeguarding this interaction is vital to protection and sustaining the area. | US forest reserves, national lakeshores, conservation areas, state parks (e.g., Sleeping Bear Dunes National Lakeshore, Thunder Bay National Marine Sanctuary, Apostle Islands National Lakeshore). |
| IUCN VI: Protected area with sustainable use of natural resources | Conserves ecosystems and habitats together with associated cultural values and traditional natural resource management systems. Use of resources compatible with nature conservation. | National marine conservation areas, state forest areas (e.g., Fathom Five National Marine Park, Superior National Forest). |
| Other: Fish refuge | Area closed to the harvest of all or some species of fish (e.g., walleye or lake trout), usually by fishery regulation, lacking the permanence of an act. May serve as an effective area-based conservation measure. | Fish sanctuaries (e.g., Six Fathom Bank–Yankee Reef, Drummond Island, Parry Sound), fisheries research areas. |
| Other: *De facto* protected area | Designated for other purposes, such as to manage vessel traffic, they accomplish goals similar to traditional protected areas. | Security zones, regulated navigation areas, danger zones (e.g., Erie Ordnance Depot, Lake Huron South Channel, Volk Field). |
| Other: Cultural heritage sites | Manages and protects submerged cultural resources. An area of enhanced appreciation and understanding that may or may not influence natural heritage conservation. | State bottomland preserves (e.g., Alger Great Lakes State Bottomland Preserve, Manitou Passage Great Lakes State Bottomland Preserve). |

**Table 1.** Protected area designations. IUCN categories summarized from Dudley (2008) and de facto areas as recognized by NOAA (2010).

For instance, Canada's national marine conservation area system and the US's national marine sanctuary system both include freshwater protected areas within the Great Lakes (Mercier and Mondor 1995; NOAA 2009). Efforts to plan, establish, and more effectively manage freshwater protected areas are broadly supported by the World Summit on Sustainable Development (United Nations 2002), the 2014 World Parks Congress (IUCN 2014), and other high-level international meetings (e.g., Saunders et al. 2002; Fitzsimons and Robertson 2005; Abell et al. 2007; Nel et al. 2009; Strayer and Dudgeon 2010). The Convention on Biological Diversity's (CBD's) Aichi Target 11 specifically commits Canada to the conservation of at least 17% of its terrestrial lands and inland waters by 2020 "through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures" (SCBD 2010). (Of note, the US is one of just two countries—the other is the Vatican State—that have not ratified or otherwise accepted the treaty; SCBD 2017.)

Although a Great Lakes-wide protected area strategy does not exist, there are examples of binational mechanisms that could support such a strategy. For instance, the Great Lakes Water Quality Agreement (GLWQA), as renewed in 2012, facilitates cooperative actions to restore and protect the Great Lakes, and includes a species- and habitat-specific annex (Governments of the United States and Canada 2012). The Great Lakes Fishery Commission coordinates fishery research and cooperative fisheries management, and has examined the

use of protected areas as a fisheries management tool (Hedges et al. 2011). Sub-nationally, all eight states bordering the Great Lakes, the province of Ontario, and regional and local governments have variously established protected areas. Dedicated nongovernmental organizations (NGOs) and private interests have also actively acquired lands for conservation and advocated for better protection.

At a quick glance there appears to be hundreds of protected areas managed by a multitude of authorities, often working independently of each other. To advance conservation efforts and network thinking, we developed a database of coastal and in-lake protected areas for the Great Lakes.

## Methods

The geospatial database for coastal and in-lake protected areas was built on a 1:24,000 scale Great Lakes GIS map layer (USGS 2014b). This high-resolution layer included the mainland and island coasts for each lake, excluding the St. Marys, Niagara, and St. Lawrence rivers. Available protected area databases (NOAA 2010; GLAHF 2014; USGS 2014a; CCEA 2015; IUCN and UNEP–WCMC 2015) were accessed, cross-referenced, and compiled into a single geodatabase layer. Government agencies responsible for parks and protected areas, and NGO conservation organizations, were also queried for additional geospatial data or information. The imported data were assessed for errors in spatial and attribute quality, and scale inconsistencies and, where necessary, geometries were corrected to ensure that boundaries were accurate, properly intersected, or coincided with the shoreline layer. In cases where digital data were absent (e.g., boundaries described in literature through coordinate references), feature polygons were digitized for individual protected areas. The attribute table for the geodatabase included the site name, management authority, designation type, IUCN category, and geometry (e.g., length or area) for each feature. If an IUCN category was not already assigned to a protected area in the imported data or by the agency source, it was designated as "not reported." A feature was designated "no protected area" if it did not meet the IUCN definition (Dudley 2008). Also included were areas not designated as protected areas, but which may provide partial protection or serve as "other effective area-based conservation measures" (refer to SCBD 2010), including fish refuges, cultural heritage sites, and de facto sites (see Table 1). Although inland areas will affect the health and ecological integrity of the lakes, the scale of focus for this analysis was coastal lands and the Great Lakes proper.

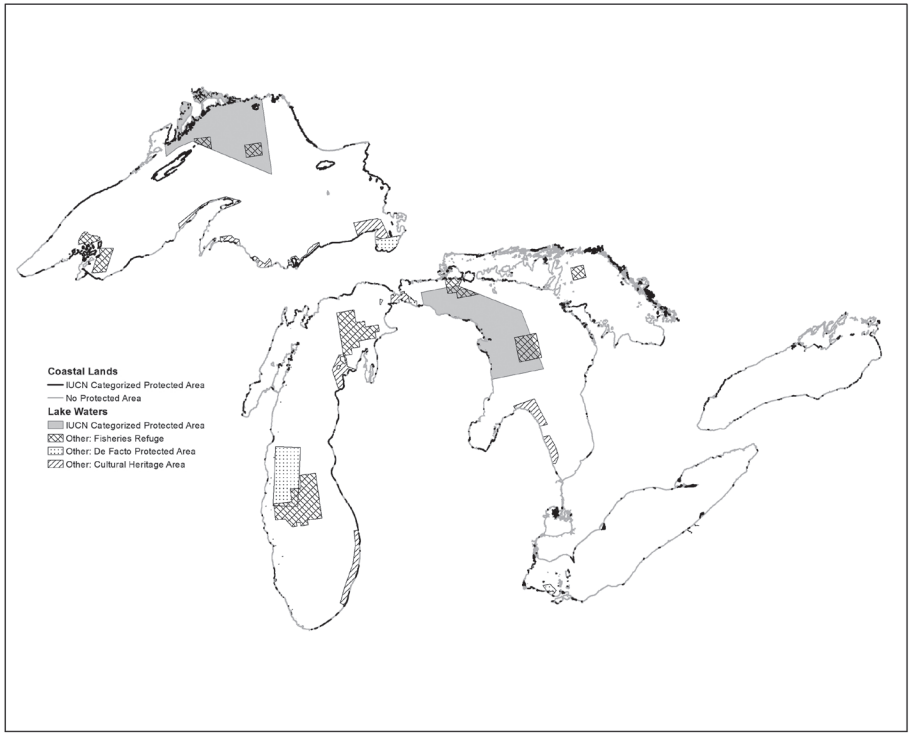
The extent of coastal protection was measured as the length of shoreland protected at the water's edge; the extent of in-lake protection, as the area within a protected area. The extent of protected and no-protected coast was calculated using the ESRI ArcGIS Desktop 10.3 "intersect" command using the 1:24,000 shoreline feature-class and comprehensive protected areas feature-class as inputs. The output polyline feature-class was segmented to represent lengths of shoreline coincident with areas protected and not protected. The length of each protected and no-protected coast segment was calculated using the "calculate geometry" function within ESRI ArcGIS and output with meters as the units using the North America Lambert Conformal Conic projection.

## Results

Of the databases that were accessed, none provided complete and comprehensive representation of protected areas. Refinement of feature geometries (e.g., snapping and clipping) was often required to accommodate the higher-resolution scale of this project. There were very few examples of contiguous land–lake protected areas. The shoreline, as defined by the ordinary high-water mark or water's edge, generally served as the boundary for terrestrial protected areas along the coast.

***Great Lakes coastal protected areas.*** Over 370 protected areas representing IUCN categories I–VI were found to protect 27% of the length of the Great Lakes coast (Figure 1; Table 2). The largest category was "IUCN II National Park," with 68 areas cumulatively representing 11% of the coast; the longest individual area was French River Provincial Park (979 km of Lake Huron). The most commonly assigned category was "IUCN V Protected Landscape" with 156 areas representing 4% of the coast length. Of the 558 km of coast protected within 110 "IUCN Ia Strict Nature Reserves," the majority of areas (n=74; 313 km) were established by NGOs (e.g., The Nature Conservancy, Nature Conservancy of Canada). The "IUCN Not Reported" category was assigned to 232 areas, representing 1.4% of the coast. Of the coastline consisting of "No Protected Area" (i.e., distance between protected areas), 62 coastal segments were >50 km in length, including one segment in Lake Ontario

**Figure 1.** Great Lakes coastal and in-lake protected areas.



| Designation | # | Lake Superior US | Lake Superior Can | Lake Huron US | Lake Huron Can | Lake Michigan | Lake St. Clair US | Lake St. Clair Can | Lake Erie US | Lake Erie Can | Lake Ontario US | Lake Ontario Can | Great Lakes Total | Great Lakes % |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IUCN Ia | 110 | 24 | 126 | 20 | 213 | 21 | | | 14 | 116 | | 25 | 558 | 1.9 |
| IUCN Ib | 7 | 637 | | 15 | 57 | 6 | | | 2 | | | | 717 | 2.4 |
| IUCN II | 68 | 13 | 996 | | 1,972 | | | | | 144 | | 66 | 3,191 | 10.7 |
| IUCN III | 3 | | 8 | | 4 | | | | | | | | 12 | 0.04 |
| IUCN IV | 47 | 37 | | 105 | | 282 | 269 | 7 | 125 | 2 | | | 827 | 2.8 |
| IUCN V | 156 | 620 | 10 | 107 | 18 | 344 | 17 | | 92 | 2 | 35 | 9 | 1,255 | 4.2 |
| IUCN VI | 14 | 142 | 444 | 58 | | 54 | | | | 450 | | | 1,147 | 3.8 |
| Not Reported | 232 | 43 | 22 | 10 | 65 | 13 | 70 | | 69 | 0.4 | 51 | 72 | 416 | 1.4 |
| No Protected Area | — | 1,076 | 1,863 | 1,542 | 10,269 | 1,936 | 680 | 863 | 876 | 994 | 518 | 1,222 | 21,838 | 72.9 |
| Total Area | — | 2,592 | 3,469 | 1,857 | 12,598 | 2,656 | 1,036 | 870 | 1,178 | 1,708 | 604 | 1,394 | 29,961 | 100 |

**Table 2.** Coast length of Great Lakes protected areas. Terrestrially based coastal protected areas as measured in km along the shoreline at 1:24,000 scale. The column marked "#" represents the sum of individual sites (e.g., Hiawatha National Forest is reported as one site, although it has 56 different coastal sections).

exceeding 400 km, and five segments in Lake Huron and two segments in Lake Superior that exceeded 150 km in length.

***In-lake protected areas.*** Five protected areas representing three IUCN categories protected 8.7% of the Great Lakes proper (Figure 1; Table 3). Similar to the coast, the in-lake waters of the upper Great Lakes (Lake Superior, Lake Michigan, and Lake Huron) contained greater coverage of protected areas than the lower Great Lakes (Lake Erie and Lake Ontario), with Lake Ontario having no in-lake IUCN category of protected area. The largest category represented was "IUCN V Protected Seascape" at 4.4% of the Great Lakes assigned to two areas, with Thunder Bay National Marine Sanctuary (TBNMS) in Lake Huron being the largest (11,060 km$^2$). The "IUCN VI Protected with Sustainable Use" category was second largest, protecting 4.3% of the Great Lakes in two areas, with Lake Superior National Marine Conservation Area being the largest (10,840 km$^2$). A total of 121 protected areas not assigned an IUCN class were identified, covering 8.3% of the lakes proper. These areas included: 12 fish refuges, mostly lake trout (*Salvelinus namaycush*) or walleye (*Sander vitreus*) spawning sanctuary areas, that accounted for 4% of the Great Lakes area, two of which are partially located within TBNMS; 47 cultural heritage areas, including shipwreck sites and bottomland preserves that accounted for 2% of the Great Lakes area; and *de facto* areas (see Table 1 for examples) that accounted for 2.3% of the Great Lakes area.

## Discussion

***IUCN classification.*** With over 100 management authorities and 40 general designations (e.g., state park, migratory bird sanctuary, conservation easement, national marine sanctuary) within the Great Lakes, assessing the status and extent of protection would have been difficult without the consistency and standardization provided by the IUCN protected area classification system (Dudley 2008). It is an important mechanism to assist in communication and cooperation among the various protected area agencies and interests (e.g., Gray et al. 2009). For this project, we utilized the assigned IUCN category found within the accessed data. However, we noted areas that have not been classified and may in fact be protected areas

| | | Lake Superior | | Lake Huron | | Lake | Lake St. Clair | | Lake Erie | | Lake Ontario | | Great Lakes | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Designation | # | US | Can | US | Can | Michigan | US | Can | US | Can | US | Can | Total | % |
| IUCN IV | 1 | | | | | | | | 2 | | | | 2 | 0.0 |
| IUCN V | 2 | 11 | | 11,060 | | | | | | | | | 11,072 | 4.4 |
| IUCN VI | 2 | | 10,840 | | 114 | | | | | | | | 10,953 | 4.3 |
| Other: Fish Refuge | 12 | 1,099 | | 2,089 | 313 | 5,508 | | | 0.5 | | | | 10,174 | 4.0 |
| Other: De Facto | 62 | 1,085 | | 1,179 | | 3,273 | | | 206 | | 3 | | 5,747 | 2.3 |
| Other: Cultural | 47 | 2,292 | | 1,160 | | 1,701 | | | | | | | 5,154 | 2.0 |
| No Protected Area | — | 49,761 | 18,186 | 8,798 | 36,611 | 50,287 | 555 | 832 | 13,581 | 13,517 | 9,404 | 10,317 | 211,850 | 84 |
| Total Area | — | 54,248 | 29,026 | 24,286 | 37,038 | 60,769 | 555 | 832 | 13,790 | 13,517 | 9,407 | 10,317 | 254,952 | 100 |

**Table 3.** Area of in-lake Great Lakes protected areas. The column marked "#" represents the sum of individual sites; all other values represent area in sq km.

(e.g., many of Ontario's conservation areas, NGO-run nature preserves), plus protected areas with multiple zones that were only assigned a single category, and partially protected areas (e.g., fish refuges, municipal lands) that are important for conservation, but do not fit the IUCN assessment framework. Given these specialized contexts, there is merit in developing guidance for the application of IUCN categories (similar to inland water protected areas, as discussed in Dudley 2008) and "other effective area-based conservation measures" for the Great Lakes.

Such guidance could also assist in evaluating the performance and management effectiveness of a protected area to meet its IUCN designation and demonstrate how it will "achieve the long-term conservation of nature." An assessment exercise could help to integrate and align fisheries and protected area management efforts to restore, protect and, where permitted, ensure sustainable use (e.g., to facilitate recovery of deepwater fishes; Zimmerman et al. 2009).

***Do Great Lakes protected areas work?*** Although poorly studied and far fewer in existence, freshwater aquatic protected areas have demonstrated conservation benefits similar to those of their marine counterparts in terms of species and habitat protection (e.g., Hedges et al. 2010). Key to such effectiveness, as evident from marine protected areas in other regions of the world, is the need to include areas of full protection—"no-take" zones (Edgar et al. 2014). The effectiveness of individual lake trout refuges (Swanson and Swedberg 1980; Bronte et al. 1995, 2007; Edsall et al. 1995; Hansen et al. 1995; Holey et al. 1995; Schram et al. 1995; Madenjian and DeSorcie 1999; Reid et al. 2001; Desorcie and Bowen 2003; Madenjian et al. 2004; Reid et al. 2004; Pollock et al. 2007; Madenjian et al. 2008) and a smallmouth bass (*Micropterus dolomieui*) refuge (Sztramko 1985) in the Great Lakes has been examined. All of the evaluations concluded that the refuges were having a positive effect on the target population or species, regardless of the metric used in the assessment (e.g. number of spawning adults, body size, local abundance) (Hedges et al. 2011). However, most aquatic protected areas in the Great Lakes do not have full protection areas for fishes, and fisheries are generally managed independently of the protected area authority. As has been mentioned, better integration of fisheries management areas and protected areas for a common conservation goal is clearly needed.

As identified by Hedges et al. (2011), in the Great Lakes there is considerable variation in protected area size, type of protection afforded, and level of enforcement, among other

factors. These authors concluded that the existing matrix of protected areas provides ample opportunities to examine the relative effectiveness of different protection measures, but such analyses are scarce. To evaluate effectiveness, surveys are required that quantify current distributions of species, habitats, and ecosystem threats. Research gaps and associated research priorities related to the design, establishment, effectiveness, and current protection needs are found in Table 4.

***Network thinking.*** A *protected area network* is "a collection of individual protected areas that operates cooperatively and synergistically, at various spatial scales, and with a range of protection levels, in order to fulfill ecological aims more effectively and comprehensively than individual sites could alone" (IUCN–WCPA 2008). As demonstrated in the design features of successful networks, there needs to be the incorporation of representation, replication, and connectivity of ecosystem structures and functions; good governance; and an ability to mitigate human impacts (IUCN–WCPA 2008; Gleason et al. 2013; Burt et al. 2014). To be functional, networks are organized around different tasks, including those focused on: (1) establishment and planning; (2) management and monitoring; and (3) communication and awareness. Although there is no single, coordinated Great Lakes-wide protected area strategy or network, there are inspired examples from specific regions and initiatives, such as the coordinating role of the US Marine Protected Areas Center (http://marineprotectedareas.noaa.gov), the collaborative partnership of the Upper Midwest and Great Lakes Landscape Conservation Cooperative (https://greatlakeslcc.org/), the regional efforts of the Georgian Bay Biosphere Reserve (http://www.gbbr.ca), and the binational cooperation demonstrated by the Detroit River International Wildlife Refuge (https://www.fws.gov/refuge/detroit_river).

**Table 4.** Research gaps and opportunities, revised from Hedges et al. (2011).

| | |
|---|---|
| **1.** | **Design factors:** |
| a. | How effective is habitat protection alone? |
| b. | Which species require networks? How are such networks designed? |
| c. | How effective are the different government, NGO, and private strategies at protecting coastal ecosystems? |
| d. | What are the size, shape, representation, and replication considerations of a protected area? |
| **2.** | **Realistic outcomes:** |
| a. | Do Great Lakes protected areas increase the desired resilience of a social–ecological system? |
| b. | Are protected ecosystems more resistant to invasive species? |
| c. | Do no-take areas have cascading effects throughout the aquatic food web and region? |
| d. | Are management plans adaptive and responsive to climate change and system novelty? |
| **3.** | **Current needs:** |
| a. | Do a gap analysis of species, habitats, and threat distribution to identify under-protected areas. |
| b. | Conduct pre- and post- establishment comparative studies to examine factors affecting the effectiveness of a protected area. |
| c. | To answer the question "Is the IUCN protected area classification being properly applied?", complete an assessment of effectiveness of the various types. |
| d. | Determine whether there are societal impediments to the creation of Great Lakes protected areas and networks. If so, how can the impediments be overcome? |

In the Great Lakes, some species show strong site fidelity as adults (e.g. *Micropterus* spp.), but many of the species targeted by commercial and recreational fisheries are more mobile (e.g., walleye and lake trout). Johnson et al. (2015) highlighted the lakewide home range of large predatory fish species and how differently we should consider refuge and corridor concepts. Protecting critical life stages and viable populations and enabling post-disturbance colonization (e.g., recovery of coastal wetlands from low-lake-level events) through protected area networks are evident in many areas of the world. For instance, the state of California increased its marine protected areas from 2.7% of state waters and 0.2% in "no-take" zones in 1999 to 16% and 9.4%, respectively, by 2013, with associated social and ecological gains. The state protected representative key habitats (and replicates thereof) spaced to maintain ecological connectivity (e.g., at intervals of 50–100 km), with a 5–20 km alongshore span extending from intertidal to deeper waters (~5km). This redesigned network reflected effective integration of science, governance, and interests of communities and other stakeholders. The average alongshore span of coastal protected areas in the Great Lakes is 9 km, with a 24-km separation between them. As much as this current situation in the Great Lakes is a promising beginning, more desirable in terms of protected area development would be: an increase in total area protected, particularly under full protection; a land–lake linkage (shore to deep waters); a framework based on representivity and replication (e.g., Brock 2015); and an integrated planning process involving federal, state/provincial, Indigenous, regional, and local partners.

***Considerations.*** At the international level, it is important to note that the Aichi targets for protected areas includes inland waters. An optimal manner in which to meet this target is to protect 17% of each representative ecosystem within that nation's jurisdiction. For the Great Lakes, Canada has established 12.1% within protected areas (in two of the four Canadian Great Lakes); this amount increases to 12.4% if fish refuges are included. The US has established 6.8% within protected areas; 18.9% if fish refuges, cultural sites, and *de facto* areas are included. The Aichi target includes provisions for "other effective area-based conservation measures." MacKinnon et al. (2015) helped define and operationalize these measures to ensure that candidate areas are included for having achieved evidence-based conservation gains. The fish refuges included in the database for this exercise appear to meet the definition, and it would be beneficial to bring them into the broader conversation on, and planning for, protected areas.

The GLWQA and associated activities, including lakewide action and management plans (LAMPs), biodiversity conservation strategies, coordinated science and monitoring initiatives, nutrient and contaminant management, climate change response, nearshore frameworks, and actions under the species and habitat annex (Governments of the United States and Canada 2012; Pearsall et al. 2013) provide a binational framework to restore and protect the Great Lakes. Although a protected area system or network plan is not explicitly identified as part of the GLWQA, protected areas do serve as the cornerstone for many of the agreement's place-based conservation efforts. Perhaps a Great Lakes-wide protected area collaborative will emerge, but in the interim we feel that the GLWQA, and its LAMP processes in particular, may be a good forum in which protected area managers can engage

on conservation matters and explore future network prospects with other organizations and governments.

## Conclusion

Given the large number and diversity of protected areas in the region, Canada and the United States are well on their way to meeting their international and national obligations for protecting the Great Lakes. To maximize their effectiveness, new protected areas need to be strategically planned to expand and complete networks across various scales in the Great Lakes. Such planning should be informed by research on the design, establishment, effectiveness, and protection needs in the Great Lakes. Although a single, coordinated Great Lakes-wide protected areas strategy is lacking, there are existing conservation initiatives, including the GLWQA, the Great Lakes Fishery Commission, and the Upper Midwest and Great Lakes Landscape Conservation Cooperative, that effectively demonstrate the collaborative spirit and tools needed to advance such an effort.

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## References

Abell, R., J.D. Allan, and B. Lehner. 2007. Unlocking the potential of protected areas for freshwaters. *Biological Conservation* 134(1): 48–63.

Brock, R.J. 2015. *Representativeness of Marine Protected Areas of the United States.* Silver Spring, MD: National Oceanic and Atmospheric Administration, National Marine Protected Areas Center. Online at http://marineprotectedareas.noaa.gov/dataanalysis/mpainventory/rep-report15.pdf.

Bronte, C.R., M.E. Holey, C.P. Madenjian, J.L. Jonas, R.M. Claramunt, P.C. McKee, M.L. Toneys, M.P. Ebener, B. Breidert, G.W. Fleischer, R. Hess, A.W. Martell, and E.J. Olsen. 2007. Relative abundance, site fidelity, and survival of adult lake trout in Lake Michigan from 1999 to 2001: Implications for future restoration strategies. *North American Journal of Fisheries Management* 27(1): 137–155. doi:10.1577/m05-214.2.

Bronte, C.R., S.T. Schram, J.H. Selgeby, and B.L. Swanson. 1995. Density-independent survival of wild lake trout in the Apostle Islands area of Lake Superior. *Journal of Great Lakes Research* 21: 246–252.

Bunnell, D.B., R.P. Barbiero, S.A. Ludsin, C.P. Madenjian, G.J. Warren, D.M. Dolan, T.O. Brenden, R. Briland, O.T. Gorman, J.X. He, T.H. Johengen, B.F. Lantry, B.M. Lesht, T.F. Nalepa, S.C. Riley, C.M. Riseng, T.J. Treska, I. Tsehaye, M.G. Walsh, D.M. Warner, and B.C. Weidel. 2014. Changing ecosystem dynamics in the Laurentian Great Lakes: Bottom-up and top-down regulation. *BioScience* 64(1): 26–39. doi:10.1093/biosci/bit001.

Burt, J.M., P. Akins, E. Lathem, M. Beck, A.K. Salomon, and N.C. Ban. 2014. *Marine Protected Area Network Design Features that Support Resilient Human–Ocean Systems—Applications for British Columbia, Canada*. Vancouver, BC: Simon Fraser University. Online at http://www.sfu.ca/coastal/research-series/listing/marine-protected-area-network-design-features-that-support--resi.html.

CCEA [Canadian Council on Ecological Areas]. 2015. CARTS (Conservation Areas Reporting and Tracking System) geodatabase. CARTS_Update_31122015.gdb. Online at http://www.ccea.org/carts/.

Desorcie, T.J., and C.A. Bowen. 2003. Evidence of offshore lake trout reproduction in Lake Huron. *North American Journal of Fisheries Management* 23(4): 1253–1256. doi:10.1577/m02-129.

Dudley, N., ed. 2008. *Guidelines for Applying Protected Area Management Categories*. Gland, Switzerland: International Union for Conservation of Nature.

Edgar, G.J., R.D. Stuart-Smith, T.J. Willis, S. Kininmonth, S.C. Baker, S. Banks, N.S. Barrett, M.A. Becerro, A.T.F. Bernard, J. Berkhout, C.D. Buxton, S.J. Campbell, A.T. Cooper, M. Davey, S.C. Edgar, G. Forsterra, D.E. Galvan, A.J. Irigoyen, D.J. Kushner, R. Moura, P.E. Parnell, N.T. Shears, G. Soler, E.M.A. Strain, and R.J. Thomson. 2014. Global conservation outcomes depend on marine protected areas with five key features. *Nature* 506(7487): 216–220. doi:10.1038/nature13022.

Edsall, T.A., M.E. Holey, B.A. Manny, and G.W. Kennedy. 1995. An evaluation of lake trout reproductive habitat on Clay Banks Reef, northwestern Lake Michigan. *Journal of Great Lakes Research* 21: 418–432.

Fitzsimons, J. A. and Robertson, H. A. (2005). Freshwater reserves in Australia: directions and challenges for the development of a comprehensive, adequate and representative system of protected areas. *Hydrobiologia, 552*(1), 87-97.

GLAHF [Great Lakes Aquatic Habitat Framework]. 2014. *Great Lakes Aquatic Habitat Framework Administrative Boundaries Database*. Online at http://glahf.org/.

Gleason, M., E. Fox, S. Ashcraft, J. Vasques, E. Whiteman, P. Serpa, E. Saarman, M. Caldwell, A. Frimodig, M. Miller-Henson, J. Kirlin, B. Ota, E. Pope, M. Weber, and K. Wiseman. (2013). Designing a network of marine protected areas in California: Achievements, costs, lessons learned, and challenges ahead. *Ocean & Coastal Management* 74: 90–101. doi:10.1016/j.ocecoaman.2012.08.013.

Government of Canada . 2011. *National Framework for Canada's Network of Marine Protected Areas*. Ottawa: Fisheries and Oceans Canada. Online at http://www.dfo-mpo.gc.ca/oceans/publications/dmpaf-eczpm/framework-cadre2011-eng.asp.

Government of Canada and USEPA [US Environmental Protection Agency]. 1995. *The Great Lakes: An Environmental Atlas and Resource Book*, 3rd ed. Ottawa and Washington, DC: Government of Canada and USEPA.

Governments of the United States and Canada. 2012. *Great Lakes Water Quality Agreement 2012.* Online at https://binational.net/.

Gray, P.A., D. Paleczny, T.J. Beechey, B. King, M. Wester, R.J. Davidson, S. Janetos, S.B. Feilders, and R.G. Davis. 2009. *Ontario's Natural Heritage Areas: Their Description*

*and Relationship to the IUCN Protected Areas Classification System (A Provisional Assessment)*. Peterborough, ON: Queen's Printer for Ontario.

Gronewold, A.D., V. Fortin, B. Lofgren, A. Clites, C.A. Stow, and F. Quinn. 2013. Coasts, water levels, and climate change: A Great Lakes perspective. *Climatic Change* 120(4): 697–711. doi:10.1007/s10584-013-0840-2.

Hansen, M.J., J.W. Peck, R.G. Schorfhaar, J.H. Selgeby, D.R. Schreiner, S.T. Schram, B.L. Swanson, W.R. MacCallum, M.K. BurnhamCurtis, G.L. Curtis, J.W. Heinrich, and R.J. Young. 1995. Lake trout (*Salvelinus namaycush*) populations in Lake Superior and their restoration in 1959–1993. *Journal of Great Lakes Research* 21: 152–175.

Hedges, K.J., M.A. Koops, N.E. Mandrak, and O.E. Johannsson. 2010. Use of aquatic protected areas in the management of large lakes. *Aquatic Ecosystem Health & Management* 13(2): 135–142. doi:10.1080/14634981003788912.

Hedges, K.J., M.A. Koops, N.E. Mandrak, and O.E. Johannsson. 2011. *Great Lakes Aquatic Protected Areas*. Ann Arbor, MI: Great Lakes Fishery Commission. Online at http://www.glfc.org/research/APA%20final%20white%20paper%202011.pdf.

Holey, M.E., R.W. Rybicki, G.W. Eck, E.H. Brown, J.E. Marsden, D.S. Lavis, M.L. Toneys, T.N. Trudeau, and R.M. Horrall. 1995. Progress toward lake trout restoration in Lake Michigan. *Journal of Great Lakes Research* 21: 128–151.

IUCN [International Union for Conservation of Nature]. 2014. *The Promise of Sydney*. Statement from the IUCN World Parks Congress, Sydney, Australia.

IUCN and UNEP–WCMC [United Nations Environment Programme and World Conservation Monitoring Centre]. 2015. *The World Database on Protected Areas (WDPA)*. Online at www.protectedplanet.net.

IUCN–WCPA [World Commission on Protected Areas]. 2008. *Establishing Resilient Marine Protected Area Networks—Making It Happen*. Washington, DC: IUCN–WCPA, National Oceanic and Atmospheric Administration, and The Nature Conservancy. Online at http://cmsdata.iucn.org/downloads/mpanetworksmakingithappen_en.pdf.

Johnson, J.E., J.X. He, and D.G. Fielder. 2015. Rehabilitation stocking of walleyes and lake trout: Restoration of reproducing stocks in Michigan waters of Lake Huron. *North American Journal of Aquaculture* 77(3): 396–408. doi:10.1080/15222055.2014.993488.

Lemieux, C. J., Beechey, T. J., Scott, D. J., and Gray, P. A. (2010). *Protected Areas and Climate Change in Canada - Challenges and Opportunities for Adaptation*. Canadian Council on Ecological Areas (CCEA). Retrieved from http://ccea.org/Downloads/en_papers_occasional19.pdf.

MacKinnon, D., C.J. Lemieux, K. Beazley, S. Woodley, R. Helie, J. Perron, J. Elliott, C. Haas, J. Langlois, H. Lazaruk, T. Beechey, and P. Gray. 2015. Canada and Aichi Biodiversity Target 11: Understanding "other effective area-based conservation measures" in the context of the broader target. *Biodiversity and Conservation* 24(14): 3559–3581. doi:10.1007/s10531-015-1018-1.

Madenjian, C. P. and T.J. DeSorcie. 1999. Status of lake trout rehabilitation in the northern refuge of Lake Michigan. *North American Journal of Fisheries Management* 19: 658–669.

Madenjian, C. P., T.J. Desorcie, J.R. McClain, A.P. Woldt, J.D. Holuszko, and C.A. Bowen II. 2004. Status of lake trout rehabilitation on Six Fathom Bank and Yankee Reef in Lake Huron. *North American Journal of Fisheries Management* 24(3): 1003–1016.

Madenjian, C.P., M.P. Ebener, and T.J. Desorcie. 2008. Lake trout population dynamics at Drummond Island Refuge in Lake Huron: Implications for future rehabilitation. *North American Journal of Fisheries Management* 28(4): 979–992. doi:10.1577/m07-083.1.

Mercier, F., and C. Mondor. 1995. *Sea to Sea to Sea: Canada's National Marine Conservation Areas System Plan*. Ottawa: Parks Canada.

Nel, J.L., D.J. Roux, R. Abell, P.J. Ashton, R.M. Cowling, J.V. Higgins, M. Thieme, and J.H. Viers. 2009. Progress and challenges in freshwater conservation planning. *Aquatic Conservation: Marine and Freshwater Ecosystems* 19(4): 474–485.

NMPAC [National Marine Protected Areas Center]. 2015. *Framework for the National System of Marine Protected Areas of the United States of America*. Silver Spring, MD: NMPAC.

NOAA [National Oceanic and Atmospheric Administration]. 2009. *Thunder Bay National Marine Sanctuary Final Management Plan*. Silver Spring, MD, and Lansing, MI: NOAA and State of Michigan. Online at http://thunderbay.noaa.gov/.

———. 2010. *De Facto Marine Protected Areas*. Online at http://marineprotectedareas.noaa.gov/dataanalysis/defacto/.

Pearsall, D.R., M.L. Khoury, J. Paskus, D. Kraus, P.J. Doran, S.P. Sowa, R.F. Taylor, and L.K. Elbing. 2013. Environmental reviews and case studies: "Make no little plans": Developing biodiversity conservation strategies for the Great Lakes. *Environmental Practice* 15(04): 462–480. doi:doi:10.1017/S1466046613000410.

Pollock, K.H., J. Yoshizaki, M.C. Fabrizio, and S.T. Schram. 2007. Factors affecting survival rates of a recovering lake trout population estimated by mark-recapture in Lake Superior, 1969–1996. *Transactions of the American Fisheries Society* 136(1): 185–194. doi:10.1577/t05-317.1.

Reid, D.M., D.M. Anderson, and B.A. Henderson. 2001. Restoration of lake trout in Parry Sound, Lake Huron. *North American Journal of Fisheries Management* 21(1): 156–169.

———. 2004. The use of a refuge area in the restoration of lake trout in Parry Sound, Lake Huron. In *Aquatic Protected Areas as Fisheries Management Tools*, vol. 42, J.B. Shipley, ed. Bethesda. MD: American Fisheries Society.

Ricciardi, A., and J.B. Rasmussen. 1999. Extinction rates of North American freshwater fauna. *Conservation Biology* 13(5): 1220–1222.

Saunders, D.L., J.J. Meeuwig, and A.C.J. Vincent. 2002) Freshwater protected areas: Strategies for conservation. *Conservation Biology* 16(1): 30–41.

SCBD [Secretariat of the Convention on Biological Diversity]. 2010. *Convention on Biological Diversity: COP-10 Decision X/2. The Strategic Plan for Biodiversity 2011–2020 and the Aichi Biodiversity Targets*. Online at https://www.cbd.int/decision/cop/?id=12268.

———. 2017. List of parties. Online at https://www.cbd.int/information/parties.shtml.

Schram, S.T., J.H. Selgeby, C.R. Bronte, and B.L. Swanson. 1995. Population recovery and

natural recruitment of lake trout at Gull Island Shoal, Lake Superior, 1964–1992. *Journal of Great Lakes Research* 21: 225–232.

Smith, S.D.P., P.B. McIntyre, B.S. Halpern, R.M. Cooke, A.L. Marino, G.L. Boyer, A. Buchsbaum, G.A. Burton, L.M. Campbell, J.J.H. Ciborowski, P.J. Doran, D.M. Infante, L.B. Johnson, J.G. Read, J.B. Rose, E.S. Rutherford, A.D. Steinman, and J.D. Allan. 2015. Rating impacts in a multi-stressor world: A quantitative assessment of 50 stressors affecting the Great Lakes. *Ecological Applications* 25(3): 717–728. doi:10.1890/14-0366.1.

Strayer, D.L., and D. Dudgeon. 2010. Freshwater biodiversity conservation: Recent progress and future challenges. *Journal of the North American Benthological Society* 29(1): 344–358. doi:10.1899/08-171.1.

Swanson, B.L., and D.V. Swedberg. 1980. Decline and recovery of the Lake Superior Gull Island Reef lake trout (*Salvelinus namaycush*) population and the role of sea lamprey (*Petromyzon marinus*) predation. *Canadian Journal of Fisheries and Aquatic Sciences* 37(11): 2074–2080. doi:10.1139/f80-248.

Sztramko, L.K. 1985. Effects of a sanctuary on the smallmouth bass fishery of Long Point Bay, Lake Erie. *North American Journal of Fisheries Management* 5: 233–241.

United Nations. 2002. *Report of the World Summit on Sustainable Development*, Johannesburg, South Africa. New York: United Nations.

USGS [US Geological Survey]. 2014a. *Protected Areas Database of the United States (PADUS): Version 1.3*. Online at http://gapanalysis.usgs.gov/padus/.

———. 2014b. *US National Watershed Boundary Dataset (WBD) 20140924 National FileGDB 10.1*. Online at ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Hydrography/WBD/National/GDB/.

Zimmerman, M.S. and C.C. Krueger. 2009. An ecosystem perspective on re-establishing native deepwater fishes in the Laurentian Great Lakes. *North American Journal of Fisheries Management* 29(5): 1352–1371. doi:10.1577/m08-194.1.

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# The National Park Service LGBTQ Heritage Initiative: One Year Out

*Megan E. Springate*

> We, lesbian, gay, bisexual, transgender, queer people (LGBTQ), all the subdivisions of the sexual and gender minority community, exist in America. The places we remember and hold dear, those places that have become part of our identity, also exist. Still. Many of them. — *Mark Meinke, 2016*

## Introduction

On October 11, 2016, National Coming Out Day, Secretary of the Interior Sally Jewell stood at a lectern in the Main Interior Building in Washington, DC, and, in front of a large in-person audience as well as a virtual audience from across the country, announced the release of *LGBTQ America: A Theme Study of Lesbian, Gay, Bisexual, Transgender, and Queer History* (Figure 1; Springate 2016). This document provides a broad context for identifying, evaluating, and preserving places important to LGBTQ history across the United States. Its release was a milestone for the National Park Service (NPS) LGBTQ heritage initiative that began in earnest in 2014 with the donation of $250,000 from the Gill Foundation (an LGBTQ non-profit) to the National Park Foundation (NPF), which is the official friends group and fundraiser for the NPS. This was the first time ever that a federal government agency has looked at LGBTQ history at a national level (the Pride of Place project in the UK began shortly after the NPS initiative). In this paper, written one year after the release of *LGBTQ America*, I reflect both on the process and the impact of the work, and try my hand at telling the future, looking at its influence into 2018 and beyond.

The LGBTQ heritage initiative was part of broader work that the NPS was doing in the areas of Civil Rights (National Park Service 2008) and in recognizing and addressing the fact that the histories of several communities were underrepresented in NPS parks and programs, including on the National Register of Historic Places and as National Historic Landmarks (NHLs).[1] For example, when the LGBTQ heritage initiative kicked off in May 2014, out of the over one million individual places on the National Register only five were listed for their

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**Figure 1.** The cover of LGBTQ America. Design by Beth Pruitt.

association with LGBTQ history; one of these was the Stonewall Inn in New York City, which was the sole LGBTQ NHL (see Table 1). The Underrepresented Community Grants program, as well as the Women's History, Asian American and Pacific Islander, and Latino heritage initiatives, have also been part of the NPS response to this lack of representation of all American stories.

### Origins and initial development

In 2012, as a PhD student at the University of Maryland, I began two years of independent study coursework with the NPS cultural resources directorate in the Washington office. Building on work begun by the agency in 2010, I began gathering community input about places with LGBTQ history across the USA. Several hundred places, both rural and urban, were identified by members of the public. Information compiled about these places included important dates, street address, and a brief statement of history. This information was initially compiled in a spreadsheet. As the spreadsheet grew, it became increasingly difficult to conceptualize the scope: how many properties, their location, how many were already on the National Register for LGBTQ history, which ones were on the National Register but whose nomination excluded mention of its LGBTQ history, and which places were not listed on the Register at all. On a whim, I mapped the places to Google Maps (Figure 2), providing exact locations whenever possible, except for private residences, where approximate locations were indicated. The map markers were then color coded based on listing status, and a short entry on the LGBTQ importance of the place was provided. The result was a powerful visualization of the data that people could connect with. The message? To paraphrase Mark Meinke (2016) from his prologue to *LGBTQ America,* we (LGBTQ people) exist. Everywhere. So do our places. And that LGBTQ history *is* American history, part of the fabric of our nation from coast to coast, urban and rural, north to south.

I made the map publicly visible on Google Maps, and began sharing the link, inviting people to submit places to be added. The list quickly grew to over 750 places, with people volunteering to fill in those regions not already represented. It was never a stretch to find LGBTQ historic places to add to the map; it was simply a matter of looking. An incredible amount of information on specific places is available online, in archived LGBTQ community

| | Place Name | Location | Designation* |
|---|---|---|---|
| 1 | Alice Austen House (Clear Comfort) | Staten Island, NY | NRHP Amendment (3/23/2017) |
| 2 | Bayard Rustin Residence | New York City, NY | NRHP (3/8/2016) |
| 3 | Carrington House | Cherry Grove, NY | NRHP (1/8/2014) |
| 4 | Cherry Grove Community House and Theatre | Cherry Grove, NY | NRHP (6/4/2013) |
| 5 | Dr. Franklin E. Kameny Residence | Washington, DC | NRHP (11/2/2011) |
| 6 | Edificio Comunidad de Orgullo Gay de Puerto Rico (Casa Orgullo) | San Juan, PR | NRHP (5/1/2016) |
| 7 | Elks Athletic Club (Henry Clay Hotel) | Louisville, KY | NRHP Amendment (10/25/2016) |
| 8 | Furies Collective House | Washington, DC | NRHP (5/2/2016) |
| 9 | *The Great Wall of Los Angeles / The History of California* Mural | Los Angeles, CA | NRHP (9/18/2017) |
| 10 | Henry Gerber House | Chicago, IL | NHL (6/19/2015) |
| 11 | James Merrill House | Stonington, CT | NRHP (8/28/2013)<br>NHL (10/31/2016) |
| 12 | Julius Bar | New York City, NY | NRHP (4/21/2016) |
| 13 | Mitchell Camera Co. Building (Studio One/The Factory) | West Hollywood, Los Angeles, CA | NRHP DOE (2/7/2017) |
| 14 | Pauli Murray Family Home | Durham, NC | NHL (1/11/2017) |
| 15 | Stonewall | New York City, NY | NM (6/24/2016)<br>NHL (2/16/2000)<br>NRHP (6/28/1999) |
| 16 | Whiskey Row Historic District | Louisville, KY | NRHP Amendment (1/25/2017) |

* NRHP = National Register of Historic Places; NHL = National Historic Landmark; NM = National Monument; DOE = Determination of Eligibility

**Table 1.** Places recognized by NPS programs for their LGBTQ history as of October 2017.

newspapers, in LGBTQ travel guides (some dating back to the 1940s), and in the memories of community members across the country.

On May 30, 2014, Secretary Jewell stood outside New York City's Stonewall Inn to kick off the NPS LGBTQ Heritage Initiative. Place is important, and as a recognition of the support of NPS for this project, Jewell chose to make her announcement at Stonewall, site of the 1969 riots against police harassment that marked a turning point in the struggle for LGBTQ civil rights. In 1999, Stonewall became the first place listed on the National Register for its LGBTQ history; in 2000, it was the first such place to be designated an NHL. Webpages introducing the LGBTQ Heritage Initiative were launched on nps.gov, and both a dedicated, publicly available email and a public comment portal on the NPS Planning, Environment and Public Comment system were made available.

## Scholarly involvement

Continuing my work with the NPS, I assisted the agency in convening a scholars' roundtable to help chart the way forward. Selecting which scholars to invite was a challenge. We needed folks who were experts in LGBTQ history and place; we needed to ensure that all of the communities under the LGBTQ umbrella were included; we wanted folks who had had long careers in this field, and we wanted some newer faces; we needed the voices not just of academics but also of preservation professionals and community activists; and we wanted to have geographic representation from across the country. Through conversations, I found out that several invitees were reluctant to accept, afraid that their attendance would be little more than a political "stunt" for LGBT Pride Month. Their fears were not without precedent: the


**Figure 2.** Detail of the Google map showing places with LGBTQ history.

federal government had, until not that long before, fought against LGBTQ rights, including in the armed services, employment protections, and marriage. We immediately drafted an email to send to all the invitees acknowledging their concerns, letting them know that I identified as queer, and that the project had actually been in the works for the two previous years—this was no flash in the pan.

Over 20 scholars came to Washington, DC, in June 2014 for an intense day of work and a panel presentation where the public had the opportunity to ask questions (which formed the basis for a Frequently Asked Questions page on the initiative's website).[2] Working together, the scholars charted a bold agenda for the LGBTQ Initiative:

- *It needed to be inclusive and intersectional.* The unique histories of as many LGBTQ communities as possible needed to be included. Much of the popular narrative around LGBTQ history focuses predominantly on the history of the white, urban, middle-class, cis-gender gay male experience.[3] Missing are the histories of transgender folk, lesbians, bisexuals, people living in rural areas, and people of color. The scholars' panel charged us to include the interwoven story of all of these people, as well as to represent the different LGBTQ histories experienced by these groups. For example, the history of African American LGBTQ people is different from that of white LGBTQ people, because African American history is different from white history in America. The history of queer people in Miami, Florida, is different from that of queer people in Chicago, Illinois, because those two places have different histories. There is no single LGBTQ community, but many communities that need to be recognized. As well as being inclusive throughout, there was a call for community histories of places beyond San Francisco and New York City, and for historical contexts including African American, transgender, and Native American communities.

- *The theme study needed to be organized thematically, not chronologically.* A single chronological telling (such as "Pre-Stonewall," "Stonewall to HIV," "HIV to Activism") erases the complex overlapping and interdependent histories of America's LGBTQ communities. Themes including "health," "the military," "community formation," "historic preservation," and "leisure" were identified.
- *The "Q" (queer) had to be included.* The LGBTQ Heritage Initiative was originally the LGBT Heritage Initiative. Recognizing that some still consider "queer" to be a hurtful term—the name people called you when harassing or beating you on the streets—the scholars argued for its inclusion (1) to acknowledge that gender and sexual identities fall along a spectrum, and so to include those who do not identify as male or female, gay or lesbian, but either specifically as queer or as another identity not captured by "lesbian," "gay," "bisexual," or "transgender"; and (2) to acknowledge the reclaiming of the term by many within the LGBTQ communities and its use in mass media as an important historic turning point in the 1990s (Queer Nation, Queer Eye for the Straight Guy, etc.).
- While most theme studies focus on properties where historic events took place more than 50 years ago, the LGBTQ theme study needed to include more recent history. We could not write a historic context for LGBTQ experience in the United States and not include Stonewall, the Gay Liberation Front, the several marches on Washington, HIV/AIDS, or the push for the rights of LGBTQ people to serve in the military and marry—all of which happened within the last 50 years.

The scholars also confirmed the broad goals of the heritage initiative: (1) to engage scholars, preservationists, and community members to identify, research, and tell the stories of LGBTQ-associated properties; (2) to encourage national parks, national heritage areas, and other areas affiliated with NPS to interpret LGBTQ stories associated with them; (3) to increase the number of places included on the National Register for their LGBTQ history, through new or amended nominations; and (4) to increase the number of places designated as NHLs for their LGBTQ history, through new and amended nominations. The capstone of the project would be the production of the LGBTQ theme study. These goals not only charted a path forward, but also incorporated a means of evaluating the success of the initiative (increased LGBTQ interpretation and representation). Following the scholars' roundtable, I accepted an offer to contract with the National Park Foundation as the prime consultant for the LGBTQ Heritage Initiative.

## Response

Response to the announcement of the initiative was overwhelmingly positive. The few negative comments we received throughout the project were predominantly from those who did not understand that the National Park Service is obligated to represent all Americans, and from those who, not understanding that the initiative was privately funded, said they did not believe that the government should be spending funds for this work. Many, many LGBTQ people and their friends, family, and allies—including myself—have become extremely emo-

tional when they found out about the project, and tears have not been uncommon. The power of being seen and acknowledged cannot be overstated.

One comment in particular from a member of the LGBTQ public triggered a change in how we were working. I was pointed to a blog post that decried a lack of transparency in the initiative process. Echoing the early apprehensions of some of the scholars, this person was afraid that the endeavor was for political show, holding up as evidence the "secrecy" surrounding who was involved. Recognizing this as a potential barrier to the involvement of LGBTQ communities more broadly, we committed to full transparency for the project, and a list of the scholars and their affiliations was published online.

Shortly after the scholars panel, potential authors were approached to write the various chapters. Authors were instructed to write for a general (non-academic) audience; to tell their piece of the story using place (i.e., tying it to specific places that could be visited, rather than generic regional overviews); to be inclusive in terms of time, geography, LGBTQ identities, and ethnicities; to avoid erasing bisexuality;[4] and to aim for 5,000 to 6,000 words. They were also told that each chapter would be peer reviewed by at least two subject-matter experts. The names of authors and the chapters they were writing were all posted online, as was the list of peer reviewers (without noting which chapters they reviewed). Authors and peer reviewers self-identified as queer, lesbian, gay, bisexual, transgender, and straight; Native American, Hawaiian, Pacific Islander, Latino, African American, white, and Asian American; and as historians, geographers, archaeologists, historic preservationists, clergy, community activists, and journalists.

## Outreach and concerns

As writing began, community outreach about the LGBTQ heritage initiative continued. Community members were reached through a network of personal and organizational contacts, who often also shared information throughout their networks; stories in the LGBTQ and mass media; via social media; and in-person community outreach in cities including San Francisco, DC, and Chicago. A seven-page "how to get involved" guide was published in hard copy and online, encouraging people to engage on many different levels with LGBTQ history in their communities and beyond.[5] Without question, community engagement shaped the initiative, confirming the scholars' roundtable call for intersectionality and inclusion, providing additional information on places with LGBTQ history, and resulting in the addition of several additional chapters beyond those initially planned. Because of this involvement throughout the process, the theme study was much broader, more inclusive, and stronger than it otherwise would have been.

Commonly expressed concerns included that it would be hard to address those who were closeted or, because of history, would not have identified themselves as LGBTQ; that transgender folk—especially transgender people of color—would be excluded and bisexuality erased; and that only a "sanitized" history would be told. In San Francisco, people at the community meeting took umbrage on behalf of Los Angeles because LA was not going to be included as a city-level case study. In response to these concerns, I was able to talk about our approach of discussing people's relationships rather than their identities (unless

they self-identified), which addressed the relatively recent history of LGBTQ as identities as well as the problem of bisexual erasure; that the theme study would not be "sanitized," but that, without being explicit, topics such as bathhouses, physique magazines, cruising, and safer sex programs would be discussed as important parts of our histories and community formation; and I was able to show the map of hundreds of places and communities across the country with LGBTQ history and explain that the few cities represented in the theme study were case studies only, examples of telling queer history using place at the city level.

### The theme study

The audacious goal was to have the theme study completed and available to the public by June 2016, one year after the scholars' roundtable. Logistically, that proved to be a little bit too ambitious a goal, but by October 2016, only 18 months from the announcement of the NPS LGBTQ Heritage Initiative, the theme study, *LGBTQ America,* was released—a testament to the commitment to the project by the authors, peer reviewers, and production staff. It consists of 32 chapters, fills over 1,200 pages, and mentions over 1,300 places associated with LGBTQ history across the United States. The sheer size of the volume precluded the production of print copies; it is available for free download on the NPS website.[6]

What the theme study does *not* do is identify places that are eligible for listing on the National Register or for designation as NHLs (a limitation dictated by time and money). Nor does mention in the theme study mean that a place is automatically or will automatically be listed (which is true of all theme studies). The theme study was designed to be a catalyst for the identification and preservation of LGBTQ historic places across the country, providing information and context so that National Register and NHL nominations could be written by members of the public and properly evaluated by historic preservation officers and other staff who shepherd and manage the nomination process.

### Other products

The theme study was not the only product of the LGBTQ Heritage Initiative. Its announcement spurred LGBTQ historic preservation actions across the country. From May 30, 2014, to October 11, 2016:

- Stonewall was proclaimed a National Monument (June 24, 2016).
- The number of places listed on the National Register for their LGBTQ history went from five to nine.
- One new NHL was designated.
- Rosie the Riveter/WWII Home Front National Historical Park in California produced an exhibit on LGBTQ experiences on the WWII home front, based on oral histories the park had been collecting since before the initiative was announced.
- Independence National Historical Park hosted a temporary exhibit on the 50th anniversary of the Annual Reminders, LGBTQ demonstrations at Independence Hall every July 4th from 1965 to 1969 reminding people that not all Americans benefitted from the same rights guaranteed by the Constitution.

- I answered numerous emails and phone calls from people looking to get involved with the project, and was able to direct them to resources for preparing local histories and/or nominations.
- Too cumbersome to continue to be managed by a single person, the use of the Google Map was retired. Instead, a crowd-sourcing/citizen-science project was begun on the Historypin platform.[7] This allows people to mark their own histories on an interactive map without going through an intermediary. The *LGBTQ America* Historypin project allows people and community groups to add a single place or an entire set of places organized by theme or region. Interns and independent study students pre-populated the Historypin project with places from the original Google Map, as well as creating additional entries, so that the project would have content when it was announced to the public. A "Find Your Place" booklet, introducing people to queer historic places and some of the broad themes that were emerging from the theme study, was written and published online.[8]
- The Historic American Building Survey (HABS), an NPS program, documented the Furies Collective House and published a poster featuring an image of its exterior.
- Inspired by the heritage initiative, a woman in Texas successfully petitioned the state for two LGBTQ historic markers: one for Gloria Anzaldua (an influential Chicana cultural theorist who had relationships with men and women), and one for Barbette (a female impersonator and internationally acclaimed high-wire and trapeze artist).
- In communities such as Galveston, Texas, Washington, DC, and Philadelphia, as well as in Nevada and Virginia, project organizers have acknowledged the role of the LGBTQ initiative in inspiring them to begin recording and preserving their histories.
- Grants for LGBTQ historic preservation were awarded as part of the Underrepresented Community grants program managed by the National Park Service, including for projects in New York City and Louisville, Kentucky.
- The Northeast Region of the National Park Service began work identifying significant LGBTQ sites on a region-wide scale, as has the National Capital Region.

### A year out

The level of activity in the year since the theme study was introduced has remained high, and a lot has happened. In October 2016, I was hired by NPS as a federal employee. This change resulted in a different way of working for me. For example, being a federal employee means limitations on travel and having to clear publications and press interviews beforehand, as well as strict ethics rules about political engagement and favoritism (and the appearance of these) while "on the clock." It also opened up possibilities for expanded engagement within NPS.

By several measures—including increased LGBTQ interpretation in NPS, and an increase in the number of places listed for their LGBTQ history on the National Register of Historic Places and designated as NHLs—the LGBTQ Heritage Initiative has been a success.

Since October 11, 2016, seven additional properties have been added to the National Register or designated as NHLs, bringing us to a total of 12 places listed on the National Register for their LGBTQ history (an additional property has been deemed eligible, but not

officially listed because of owner opposition), three NHLs, and one National Monument. These places represent civil rights struggles, the arts, social life, and community building; women, men, and transgender folks; Black, white, and Latino folks; the Northeast, Mid-Atlantic, South, Midwest, and California. More representation is needed, but it is a start—and more nominations are in the works. The HABS program prepared a historic context report for LGBTQ nightlife in Washington, DC, and conducted preliminary surveys of five associated properties (Bailey 2016); the Asian American Pacific Islander theme study chapter by Amy Sueyoshi is being translated into Japanese for inclusion in a volume there; and a contract has been signed with Berghahn Books for a series of three historic preservation textbooks based on the theme study to be published in 2018: *LGBTQ Identity and Place; LGBTQ Community and Place;* and *LGBTQ Preservation and Place*. For Transgender Day of Remembrance in November 2017, New Bedford Whaling Historical Park partnered with local groups to present a screening and discussion of the documentary film *The Death and Life of Marsha P. Johnson* (France 2017). Staff at Eleanor Roosevelt National Historic Site has received training on engaging with visitors and interpreting LGBTQ history, and a three-day training on LGBTQ interpretation for NPS interpreters nationwide was held this December in Philadelphia. The theme study has been downloaded over 12,500 times from the NPS website since its release in October 2016, including a bump in July 2017 after a post about the theme study went viral on tumblr, "loved" and viewed over 73,000 times.

## Conclusion

Without question, the NPS LGBTQ Heritage Initiative and *LGBTQ America* have been a success. Even a year out, they continue to catalyze research on and conversation about LGBTQ history and heritage across the nation. Perhaps the greatest measure of success is that, a year out, LGBTQ history and heritage are no longer confined to an NPS initiative. It is part of what we do, "Telling All Americans' Stories."[9] Keys to this success, in my opinion, were community-driven design and direction, organizational transparency, the serendipitous visualization of data in Google Maps, and a commitment to intersectionality.

The project was not without its challenges. In particular, the scope of the work was both a strength and an obstacle. As inclusive as we tried to be, it was impossible to include chapters focusing on every LGBTQ community. There is, for example, no chapter dedicated to women's experiences, or to violence against LGBTQ people, or to drag, the LGBTQ press, the rise and importance of LGBTQ campus organizations, rural LGBTQ histories, or to any number of communities with large LGBTQ communities with deep roots. Looking forward, I see continued use of the theme study as a jumping-off point to writing community histories tied to specific places; to nominating increasing numbers of places to the National Register and the NHL program, as well as to local and state historic marker programs; and to further incorporating LGBTQ history into American history, where it belongs.

## Acknowledgments

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*The views and conclusions contained in this article are those of the author and should not be interpreted as representing the opinions or policies of the US government. Mention of trade names or commercial products does not constitute their endorsement by the US government.*

## Endnotes

1. Administered by NPS, the National Register of Historic Places is a list of historic places (both publicly and privately owned) deemed worthy of protection. Places can be listed on the National Register for their local, state, or national significance. The National Historic Landmarks program is also managed by NPS, and recognizes places that have exceptional integrity and historical significance.
2. https://www.nps.gov/articles/lgbtqheritageadminhist.htm.
3. "Cis-gender" means that your internal feeling of gender aligns with the gender you were assigned at birth. It is the opposite of "transgender," which is when someone's internal feeling of gender does not align with the gender they were assigned at birth. The prefixes "cis" and "trans" are descriptors from chemistry, meaning "same" and "opposite," respectively.
4. Bisexual erasure happens when a bisexual person who is in a same-sex relationship is identified as homosexual, and when in an opposite-sex relationship is identified as heterosexual. This effectively erases their bisexual identity.
5. https://www.nps.gov/articles/upload/GetInvolvedFinalversion-508-compliant.pdf.
6. https://www.nps.gov/subjects/tellingallamericansstories/lgbtqthemestudy.htm.
7. https://www.historypin.org/en/lgbtq-america/.
8. https://www.nps.gov/articles/upload/LGBTQ-Finding_Our_Place-508-compliant.pdf.
9. https://www.nps.gov/subjects/tellingallamericansstories/index.htm.

## References

Bailey, Amber. 2016. *LGBTQ Nightlife in Washington, DC.* Washington, DC: Historic American Buildings Survey, National Park Service. Online at https://www.nps.gov/articles/lgbtq-nightlife-in-washington-dc.htm

France, David (director). 2017. *The Death and Life of Marsha P. Johnson.* Film. Netflix.

Meinke, Mark. 2016. Prologue: Why LGBTQ historic sites matter. In *LGBTQ America: A Theme Study of Lesbian, Gay, Bisexual, Transgender, and Queer History.* Washington, DC: National Park Foundation and National Park Service. Online at https://www.nps.gov/articles/lgbtqtheme-prologue.htm

National Park Service. 2008. *Civil Rights in America: A Framework for Identifying Significant Sites*. Washington, DC: National Park Service.

Springate, Megan E., ed. 2016. *LGBTQ America: A Theme Study of Lesbian, Gay, Bisexual, Transgender, and Queer History*. Washington, DC: National Park Foundation and National Park Service. Online at https://www.nps.gov/subjects/tellingallamericansstories/lgbtqthemestudy.htm.

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