The Need for Legible Landscapes: Environmental History and NPS Management at Apostle Islands National Lakeshore

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In 1930, the US National Park Service dispatched landscape architect Harlan Kelsey to the far northern tip of Wisconsin to assess the Apostle Islands as a potential national park. Civic and business leaders from the surrounding towns had requested the evaluation, and they hoped that a favorable report from Kelsey would lead to the creation of a national park and the solution to a worrisome early-Depression economic question: what would replace logging at the heart of the region’s economy as timber resources ran out and sawmills shut down? Kelsey was not impressed with what he found. “What must have been once a far more striking and characteristic landscape of dark coniferous original forest growth has been obliterated by the axe followed by fire,” he reported. “The ecological conditions have been so violently disturbed that probably never could they be more than remotely reproduced.” Kelsey concluded that destructive logging practices of the previous half-century had robbed the islands of their value to the Park Service and that “the project does not meet National Park Service standards.” Kelsey’s comments effectively destroyed any chance that the Apostle Islands would become a national park.¹

But Kelsey was wrong, at least in his assessment of the area’s future. In 1970, Congress established 21 of the 22 islands as Apostle Islands National Lakeshore (AINL). Kelsey would no doubt have been shocked to learn that the “primitive conditions” and “wilderness character” of the islands provided the primary motivation for the creation of the park. Indeed, when NPS administrators published the lakeshore’s first management plan, they determined that the vast majority of the park should be managed as a wilderness.

The Apostle Islands certainly seem like wilderness today. Little evidence of the logging that so disturbed Harlan Kelsey remains evident to the casual observer. A rich forest mosaic covers the islands, including several areas of old growth—among the only remnant stands of old growth in the western Great Lakes. Empty beaches, delicate wetlands, and sandstone sea caves line the shores of the archipelago. Lake Superior envelops the islands, with its characteristically ferocious storms and magical sunsets. In November 2004, Congress designated 80% of the national lakeshore as the Gaylord Nelson Wilderness.²

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How did a logging- and fire-scarred wasteland become a wilderness in just a few decades? The simple explanation is that the island forests regenerated after logging and other resource extraction, creating characteristics suitable for wilderness designation. But it would be a mistake to think of the return of wilderness as solely a natural process. Rather, the rewilding of the islands occurred because of the complicated ways that natural and human history intersected and molded each other. The forests regenerated in ways profoundly influenced by the history of human use. Ongoing human choices about how to value and use the islands shaped the rewilding of the islands, too. As the state—in the form of both the state of Wisconsin and the National Park Service—consolidated its authority in the region, it managed the islands to create a landscape valued for its recreational and scientific qualities, a landscape today called wilderness. Government land managers promoted some activities at the expense of others, isolating nature tourism from other economic activities in the islands. This segregation of the recreational uses of nature, and the land-use choices associated with this segregation, created the conditions necessary for rewilding.

By segregating nature tourism and recreation from other uses of nature, the National Park Service and other agencies, both federal and state, have made the environmental history of the islands difficult to find. Treating the islands as a wilderness, and only as a wilderness, has made it harder to see and understand the resource production activities of the past—the fishing, farming, and logging that shaped today’s wild landscapes. Environmental history provides a context for understanding the past of wild places such as the Apostles. It
can help identify the individual choices about how to value, use, and manage island resources that shaped the modern wilderness as well as the social, political, and ecological conditions that constrained those choices. Environmental history also points towards ways of managing and interpreting these places in a manner that offers lessons about the consequences of human choices and the ongoing human role in the places we want to protect.

The identification of the Apostle Islands as a place for recreation and wilderness was the result of the attempts by land use managers to bring what might be called “legibility” to the environments of the Apostle Islands. Anthropologist and political scientist James C. Scott uses the concept of legibility, or simplification for easier state management, to explain practices as diverse as the creation of permanent last names, the drawing of maps, and the standardization of weights and measures. He explains each of these as a part “of the state’s attempt to make a society legible, to arrange the population in ways that simplified … classic state functions.” Efficient management required the simplification of complex social systems. This requirement intensified as the state became more powerful and more modern, and as the systems it sought to control grew more complicated.

Although the state officials who managed the Apostles did not use the term “legibility,” they applied its logic in their attempts to organize the islands for easier management. In the late 19th century, for example, officials working for the Wisconsin Fisheries Commission applied the principles of Progressive conservation to what they regarded as a chaotic and inefficient commercial fishery. They used closed seasons and equipment restrictions to limit and control who could fish, when and where they could do so, and how they could engage in market production. A 1909 regulation that all fishermen obtain a license represented a late step in this process. Licenses enhanced the ability of the state to manage both fishermen and fisheries. Fisheries experts could tabulate the number of fishermen, the equipment they used, and the types and amount of fish they caught. Licenses, in other words, made the fishery more legible.

Over the course of the 20th century, officials from many levels of government allocated increasingly scarce resources in the Apostles, determining how those resources could be used to maximize goals such as nature protection, economic stability, and opportunities for outdoor recreation. One of the land manager’s most effective tools for this purpose was the division of the landscape by use; specifying which activities could occur in any given area made the landscape more legible. In the Apostles, this process began in the 1930s, when the county government adopted rural zoning ordinances that classified most of the islands as suitable only for recreation and timber extraction. Permanent settlement, agriculture, and other uses were prohibited on all islands other than Madeline. Although logging continued in the islands until the 1970s, the segregation of the Apostles as a place valued for recreation had begun, a process that continued with the creation of AINL. The managers’ need for legibility has had significant consequences for the ways that modern visitors see and understand the environments of the Apostle Islands and places like them. It has obscured the islands’ history, and inhibited NPS from managing and interpreting the islands in a way that will bring out their most instructive and important legacies.

In the first management documents written after the designation of AINL in 1970, NPS planners began to apply a zoning system that was then becoming common across the Park
Service. In the 1960s and 1970s, NPS leaders placed a new emphasis on land classification and zoning. Although NPS had grown significantly in the postwar years, the agency faced sharp criticism from a variety of sources. The Outdoor Recreation Resources Review Commission (ORRRC) published a report in 1962 that criticized NPS management of recreational resources. Environmentalists complained that NPS focused too much on recreational development at the expense of nature protection. Agency planners hoped zoning would allow for more precise management of all kinds of resources—natural, cultural, and recreational. “In the master plan,” one NPS official explained, “the best useful purpose for each portion of land is established. Some lands or waters are suitable and absolutely needed for intensive public use; others may accommodate only moderate use without damage and must be used cautiously, if at all.” Through such planning and zoning measures, “the paradox between public use and preservation is resolved.” To further this purpose, NPS adopted a land classification system recommended by the ORRRC.5

In accordance with this new emphasis, the 1971 Master Plan for AINL divided the islands into management zones. All but three of the islands were designated “Primitive,” which meant that they would receive no development whatsoever. Sand, Rocky, and South Twin islands, as well as the mainland unit, were excluded from this category, ostensibly

Figure 2. The National Park Service maintains an active and effective cultural resource program, including the restoration and interpretation of this Manitou Island fish camp to its appearance in the 1930s. This program, however, reinforces the segregation between natural and cultural resources. Photograph courtesy of William Cronon.
because they had the most clearly visible human impact. These areas received the designation “Natural Environment,” a category that permitted “trails, interpretive devices, an occasional picnic table, and other such low-key developments.” The only exceptions to these two classifications were the quarry sites on Stockton and Basswood islands and five lighthouses, all designated in the “Historical and Cultural” category, and small enclaves on several islands set aside for “essential public use and development”—ranger stations, campgrounds, and other facilities. Over 90% of the park fell into the primitive or natural environment categories, and the newly zoned park became, for the purposes of management, a more legible one.6

The boundaries established for easier management took on added importance as NPS moved towards wilderness management in the Apostles. While NPS officials determined the wilderness status of the islands, they labeled most of the new park as a “potential wilderness.” The lakeshore’s second management document, published in 1977, placed 97% of the park within a “Wilderness Study Subzone.” NPS policy required the agency to manage areas like this to preserve their wilderness character, and even to take active steps to restore wilderness. These requirements applied, in particular, to areas with long histories of human use. The 1975 edition of National Park Service Management Policies provided guidance for the administration of areas with evidence of logging, grazing, and farming: “Where such uses have impaired wilderness qualities, management will be directed toward restoration of wilderness character.” Later versions of NPS Management Policies used more bureaucratic language, employing the term “non-conforming conditions” to refer to evidence of past human use: “The National Park Service will seek to remove from potential wilderness areas the temporary, non-conforming conditions that preclude wilderness designation.” The goal of this policy was to protect areas that might be designated as wilderness from potential development, and also to provide management guidance during the decades-long process of wilderness designation. Removing non-conforming conditions also made the management categories cleaner and simpler to administer.7

As the NPS crafted these servicewide wilderness management policies, it did so in response to a national wilderness movement that was surging in popularity in the 1960s. The wilderness movement secured landmark victories with the protection of Echo Park in Dinosaur National Monument in the late 1950s and with the passage of the Wilderness Act in 1964. Hikers and campers were in the process of adapting the way that they used the wilderness, stressing a “leave no trace” ethic that emphasized the apparently pristine qualities of wild nature. Removing non-conforming conditions and segregating different uses of nature thus brought NPS policy in line with an emerging ideal that emphasized wilderness as a place without people and satisfied the needs of modern, bureaucratic management for legibility.8

The Park Service’s construction of legible wilderness landscapes has had two significant consequences. One is an underappreciated tradition of wilderness restoration on lands managed by NPS. In all corners of the country, NPS management has brought the return of wilderness characteristics and the maintenance of healthy, vibrant environments.9 But for rewilding landscapes—places where wilderness characteristics have returned in ways
informed by long periods of intensive use—this tradition has had an important and ironic consequence: the oft-held view that history intrudes on the ecological integrity and significance of places valued for their natural characteristics. NPS has a long record of removing cultural resources from natural areas in the name of nature protection, particularly in wilderness areas. Parks as widely dispersed as Shenandoah National Park in Virginia, Point Reyes National Seashore in California, and Sleeping Bear Dunes National Lakeshore in Michigan have all followed this course. In many cases, NPS officials have used wilderness status as a mandate to remove shelters, cabins, or other artifacts without regard for their significance as historic resources. Or, they have simply allowed historic resources to fall into such disrepair that they are removed as safety hazards. There are practical concerns as well, such as the cost involved in maintaining and stabilizing old and collapsing structures. But in managing for a wilderness ideal that excludes humans, NPS has removed evidence of human history from wilderness areas.10

Changing wilderness ideals and the bureaucratic language of non-conforming conditions might seem abstract. But as in other wild places around the country, these concepts had on-the-ground consequences for the Apostle Islands. When NPS assumed control of the Apostles, it inherited almost two hundred structures—net reels, ruined logging camps, summer cottages, and other remnants of more than a century of Euroamerican use. Under wilderness management, these structures became non-conforming conditions and many were razed by maintenance crews. One AINL official explained the policy toward old cabins and other structures: “[The] National Park Service will remove them and allow the natural vegetation to return…. The plans of Apostle Islands National Lakeshore are to maintain the area in a near natural state.” Tearing down a fishing shack, planting native vegetation, and installing a rustic campsite enhanced the wilderness experience for visitors. Campers could stay on the islands, camp in clearings created by farmers and fishermen, but believe that they were exploring pristine nature.11

NPS policy thus creates what is in some ways an illusion—the appearance of untouched nature. This is what many visitors expect to find in the Apostles and in other wilderness areas, an expectation that is reinforced both by the dominant wilderness ideal and also by NPS management. The segregation of natural and cultural landscapes obscures the human stories buried in the wilderness, making it much harder to see the connections between nature and culture that created so many wild places.12

NPS does protect and interpret history at AINL, and it does so well. The park’s management of historic resources, however, reinforces the segregation of nature and culture. The interpretation of history is confined to small, isolated enclaves—the lighthouses and two restored fish camps—designated specifically for the management of cultural resources. This segregation occurred immediately after the establishment of the park. The 1971 Master Plan classified these areas as “Historic and Cultural Zones,” and this division has persisted. Historic sites that meet the criteria for listing on the National Register of Historic Places typically—although not necessarily—qualify for continued preservation within a wilderness area; those that do not are often classified as “non-conforming conditions” and targeted for removal. The park has ten sites on the national register, but only one lay within the potential
The idea of legibility is a useful tool in understanding how and why the NPS has managed the Apostle Islands and other places. But the bureaucratic demand for simplified landscapes has limited the Park Service’s ability to manage for and interpret the complex environmental histories of places like the Apostles, and it has often led to a set of policies that have obscured the histories of these places.

Staff at AINL now face the challenge of managing the park’s rewilding landscapes. Park planners have incorporated the concept of rewilding into the latest version of the lakeshore’s general management plan, although what this means on the ground has yet to be determined. It will certainly entail building on NPS’s strong tradition of protecting and restoring wilderness characteristics, but also deciding how to preserve buildings, stabilize ruins, and protect ecosystems in a way that evokes for visitors the complicated interactions between nature and history that have created these places. It means figuring out where to put signs and interpretive exhibits—and where not to. But most importantly, it means celebrating the Apostle Islands as a storied wilderness. If NPS management demands categorization, then perhaps AINL planners will pioneer a new category for the administration of such places, one that recognizes both natural and cultural history. A category that allows for shades of gray will be difficult to conceive, but might be necessary for a management regime that is historically
accurate, ecologically sound, and responsive to the richness and history of rewilding landscapes. Superintendent Bob Krumenaker sees the challenge as an opportunity: “I don’t think, if we do it right … that wilderness has to entail either balancing nature and culture—which suggests one gains while the other loses—or sacrificing one at the expense of the other. We can preserve both nature and culture at the Apostle Islands and should embrace the chance to do so.”

NPS can best meet this challenge by creating legible landscapes—but landscapes that are legible to the visitor, not the manager. The segregation of nature and culture in park landscapes not only obscures the history of these landscapes, it also hides the most important lessons that rewilding places can teach. A wilderness legible to visitors would reveal the connections between nature and culture that created so many wild places, and open for visitors a new way of thinking about the relationship between humans and the natural world. NPS interpretative and management efforts can inform visitors about the rich histories of the islands, their vibrant environments, and the ways that these two seemingly distinct categories overlap. Visitors would enter the wilderness armed with the ability to see its history, and emerge from it more able to recognize the consequences of human habitation in nature.

Visitors equipped with such information would not expect to find pristine wilderness, and they would be better able to understand the landscapes that they encounter. The forest clearing that once housed a Sand Island farm would no longer appear to be a field of wildflowers or pristine wild nature, but rather a rich historical landscape and a wilderness. The commercial fishing nets that still float in the channels between the islands would no longer be a commercial and extractive intrusion into the purity of the wilderness, but instead a clue about past and ongoing interactions with nature. The revegetation of disturbed landscapes in the wilderness would no longer seem like a paradox of management, but rather evidence of the continuing human role in the rewilding of the islands and the necessity of intervention to protect the places we value most. Parks like the Apostle Islands would become a place for reading the long history of human–natural interactions and the consequences of human choices.

Many other places teach the same lessons, especially areas east of the Mississippi River, places where...
wildness has returned after long periods of human use. But stories of nature and history inhabiting the same landscapes emerge in the West, too, as they do in the Phillip Burton Wilderness, located 40 miles north of San Francisco at Point Reyes National Seashore. Congress created the park in 1962, and it designated over 25,000 acres of the park as wilderness in 1976. The park is a favored destination for those seeking to escape the crowds and congestion of San Francisco. Visitors can hike over 140 miles of trails and explore “a serene and sternly beautiful expanse of rock-lined beaches and a forest of fir and pine broken by meadowlands….” As at AINL, this wilderness was created out of a historic landscape—those forests and meadowlands once housed dairy farms. Wilderness designation depended on an NPS policy of removing buildings, roads, and other structures, and even on minimizing knowledge and interpretation of the park’s human history, to foster the appearance of pristine nature.

Even at Grand Canyon National Park, one of the crown jewels of the national park system and one of the places most celebrated for its wilderness, historic and wild landscapes overlap. Over five 5,000,000 people visit the Grand Canyon each year, but the vast majority of them stay at the visitor complex on the South Rim. Few would consider this crowded area or the canyon’s most popular trails a wilderness. Those in search of a wilderness experience choose the other trails like the Grandview, the South Bass, or the Tanner. Yet these trails have a history not readily apparent to today’s hikers. Many of the trails carried Hopi and Havasupai Indians on trade routes; others were constructed by miners seeking a way to pack copper ore and asbestos out of mines located deep in the canyon. Hikers who follow the 3.2 steep and winding miles of the Grandview Trail to Horseshoe Mesa find the remains of the Last Chance mine—mining pits, ore cars, and other industrial machinery, surely an unexpected find in the middle of the Grand Canyon. On the Grandview and elsewhere, miners realized that it would be more lucrative to load their mules with tourists than ore. As in the Apostle Islands, wilderness at the Grand Canyon is layered with stories. So, too, are the designated wilderness areas at Yellowstone and Yosemite national parks, despite a popular understanding—and management plans—that obscure these histories.

The need for landscapes legible to the visitor extends beyond wilderness management. A management focus on creating legible landscapes could also help visitors understand exotic species—both the threat that they pose and the history that they represent. Dangerous invasive species such as purple loosestrife and garlic mustard (both of which threaten the Apostle Islands, among many other parks) can wipe out local endemic species and endanger entire ecosystems. But many other exotic species, less dangerous and invasive ones, grow in the islands, as well. A 1993 survey found 160 exotic species, or 21% of all recorded plants. The areas of the park with the most extensive human history have the most exotics—threats they might at times be, but exotic species also testify to the histories that shaped many of today’s wild places. Sheep sorel, orange hawkweed, Canada bluegrass, oxeeye daisy, and white clover are the most common exotics. Most of these plants inhabit the cultural landscapes of the lighthouse clearings, cabins, and old farm fields. Only experts will recognize some of these plants as non-native. The periwinkles that line the trail to the Sand Island lighthouse—escapees from a long-ago garden—seem to most visitors like nothing more than pretty wildflowers.
These plants do not threaten to disrupt native ecosystems—they are exotic species, but not invasive ones. They are likely never to be eradicated, even if NPS were to try. Like so much else in the rewilding islands, the periwinkles and clover challenge and complicate ideas about the relationship between wilderness and history. These exotic plants further demonstrate that the apparent dichotomy between these two categories is a false one. The settlers who brought these plants for their fields and gardens have long since left and their homes have disappeared, but the plants remain as a testament to their lasting impact on the land. Exotic plants and the history they represent do not necessarily compromise the wilderness or the value of the islands. Spotted knapweed and garlic mustard threaten park ecosystems and demand aggressive control; periwinkle and clover do not. These plants tell stories, tales about past human choices and their long-term effects. Purple loosestrife reminds us of the consequences of the global interconnection of ecosystems and the need for proactive management. The periwinkles testify to a gentler past, a story of making a home in nature. Ignoring or removing these stories in search of pristine—and easily managed—wilderness means that we forgo the chance to learn from them.

Recognizing the consequences of past human action becomes more important as those consequences become more ubiquitous. NPS is struggling to respond to environmental changes occurring at a global scale that threaten the lands that it manages at a very local level. From the disappearing glaciers of Glacier National Park to the dropping water levels of Lake Superior, NPS officials find their management choices constrained by a changing climate. The way that NPS reacts and adapts to these challenges will be the subject of much discussion over the coming years. But the ways that the parks interpret these changing landscapes, the ways that they make climate change legible to visitors, could play a significant role in shaping public discussions and responses to climate change. One of the reasons that the issue of climate change is so hard to deal with is the fact that is so hard to see. Climate change seems esoteric and global, but people more readily respond to the concrete and the local. NPS could make a concerted effort to document and interpret the impacts of climate change in the parks, and also show local contributions to it. This would create a form of legibility, and it could help people understand how global changes in the climate are shaping and changing the very local places that we visit and most want to protect. It would also rely on the insights of environmental history.

Our desire to treat the parks as pristine places without human histories, and the managers’ demand for simplified landscapes, make it difficult to address some of the most pressing issues facing NPS and other management agencies. Environmental history provides a tool that could make park management operations more legible, more transparent, and more instructive for visitors. Recognizing the environmental history of our parks will not compromise their value as wild places, or as wilderness. These places tell stories about past human choices and their consequences—stories about the destruction caused by logging and mining, but also tales of making a home and of protecting and restoring nature. In the Apostles and places like them, the actions of the fishermen, lumberjacks, and land managers of a century ago are imprinted on island landscapes, and will remain so deep into the future. As we come to recognize the long-term consequences of those actions, we can better predict the legacies that our own choices will leave and better protect the places that we cherish.
Endnotes


2. Apostle Islands National Lakeshore, General Management Plan: Apostle Islands National Lakeshore, Wisconsin (Denver: National Park Service, 1989). The area was originally designated as the Gaylord A. Nelson Apostle Islands Wilderness, but the name was changed in 2009.

3. James C. Scott, Seeing Like A State: How Certain Schemes to Improve the Human Condition Have Failed (New Haven: Yale University Press, 1998), 2. Scott argues that the need for legibility derives from what he terms “high modernism”: a fusion of scientific expertise, state authority, and nationalism that fueled modernization plans in highly autocratic governments in Russia, Brazil, Tanzania and elsewhere in the mid-20th century. Some of the same tendencies emerged in arguably gentler forms in the United States. The need for legibility did not emerge from the decisions of individual NPS managers, but rather from the functions of a modern and bureaucratic government using scientific expertise to achieve social and economic goals.


9. NPS is often perceived as being hostile to the Wilderness Act. Many scholars have noted the resistance to passage of the bill among NPS leaders, who resented the apparent infringement on the agency’s autonomy in land management. See, for example, Sellars,
Preserving Nature in the National Parks and Miles, Wilderness in National Parks.


12. Since the 1990s, scholars from a wide variety of fields have critiqued the wilderness idea, arguing that it is a cultural construct rather than an accurate description of lands that somehow avoided the impact of human activity. These critiques have sparked equally cogent defenses of the wilderness idea. Multiple perspectives on this issue, often called the wilderness debates, are included in J. Baird Callicott and Michael P. Nelson, eds., The Great New Wilderness Debate: An Expansive Collection of Writings Defining Wilderness from John Muir to Gary Snyder (Athens: University of Georgia Press, 1998).

13. The National Historic Preservation Act of 1966 requires all federal agencies to document the properties under their control for eligibility on the National Register of Historic Places. Listed properties receive special management consideration. Before taking any action that might affect a listed property, NPS must follow a consultation process to determine appropriate mitigation options. Nothing prohibits the inclusion of listed properties within wilderness areas, and listed properties can still be torn down or altered—so long as the consultation process has been followed. One byproduct of the listing process is that only places and stories thought to be historically significant at the time of the review are listed, although understanding of what is significant can change with new information or new interpretation. The way that we value and understand both nature and history changes over time. David Louter, personal communication, September 10, 2009; James W. Feldman and Robert W. Mackreth, “Wasteland, Wonderland, or Workplace: Perceiving and Preserving the Apostle Islands,” in Protecting Our Diverse Heritage: The Role of Parks, Protected Areas, and Cultural Sites, ed. David Harmon, Bruce M. Kilgore, and Gay E. Vietzke (Hancock, MI: George Wright Society, 2004), 271–275.

15. Western wilderness areas, too, have human pasts, and the environments long regarded as “pristine wilderness” in places such as Yellowstone and Yosemite national parks were shaped and reshaped by Native American agricultural practices and use of fire. Many Western parks were spared the relatively more disruptive agricultural and extractive practices of Euroamerican settlement and incorporation into the market economy. See, for example, Karl Jacoby, *Crimes against Nature: Squatters, Poachers, Thieves, and the Hidden History of American Conservation* (Berkeley: University of California Press, 2001) and Mark David Spence, *Dispossessing the Wilderness: Indian Removal and the Making of the National Parks* (New York: Oxford University Press, 1999).


17. Formal wilderness designation in the Grand Canyon has been held up by disputes over the management of motorized rafts on the Colorado River; 94% of the park is managed as potential wilderness. J. Donald Hughes, *In the House of Stone and Light: A Human History of the Grand Canyon* (Grand Canyon Natural History Association, 1978), 47, 54.


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