

An Idea in Trouble: Thoughts about the Future of Traditional National Parks in the United States

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Author's note: The national park concept grew initially out of attempts to preserve natural landscapes in the American West, and the national park idea, as originally defined, focused on perpetuating those landscapes. Out of this effort grew the early system of geographically large, scenic parks. In this essay, these are referred to as "traditional national parks." What follows focuses on the national park idea as it has evolved in reference to these founding units of the American national park system. The extensive list of cultural and recreational parks that constitute a major portion of the modern national park system presents a significantly different set of issues, and these questions are not addressed in this essay.

HISTORIANS POINT OUT THAT IDEAS, and the organizations associated with them, sometimes age and lose their relevance. Today, as the National Park Service (NPS) approaches the centennial of its establishment, the agency faces huge potential problems with its founding mission and subsequent land management policies. Senescence is not too strong a word to apply. The core national park idea, developed in the late 19th century, codified in 1916, and originally applied to the natural landscapes of the early Western parks, has been profoundly undermined by modern science. The heart of the national park promise, the "best idea America ever had," no longer works. The concept that a "fence of law" can be erected around a portion of an ecosystem and that the area contained within that hypothetical fence can be maintained forever "unimpaired for future generations," can no longer be defended.

Public discussion has begun about how the NPS centennial should be marked. Half a century ago, as the agency approached the golden anniversary of its founding, the Park Service envisioned and successfully found funding for an initiative known as "Mission 66." In those years, NPS managers saw the agency's problems as being mostly about not having adequate visitor facilities. Over the course of a decade, Mission 66 financed construction of numerous new visitor centers, campgrounds, bathrooms, maintenance yards, and ranger residences. What Mission 66 did not address was the need for the agency to reinvent itself intel-

lectually in order to catch up with evolving scientific thought. Fortunately, even as the mainstream management of the agency focused on facility improvement, a few far-sighted leaders in the Park Service and the Interior secretary's office commissioned the efforts that led to the Leopold and National Academy of Science reports (Leopold 1963; National Research Council 1963). The contents of these reports, even though resisted initially by many park managers, eventually led NPS into a new age of natural resources management. By adopting the doctrine that preserving natural processes would lead inevitably to "natural results" and thus perpetuate "unimpaired" resources, NPS natural resources management programs attempted to catch up with the biological sciences. This redefinition of *how* to achieve the national park dream on the ground allowed the unimpairment doctrine to remain firmly established as the agency's long-term goal. Indeed, the Leopold Report's famous reference to parks as "vignettes of primitive America" was, in its own way, an affirmation of the "unimpaired" standard.

Half a century later, the situation, the problem, and the opportunity appear much the same. Once again, science has moved on and left the Park Service behind. The cutting-edge management policies of the 1960s no longer ring true. Few ecologists still argue that "natural" processes will lead reliably to "natural" results in a world where anthropogenic climate change, pollution, and habitat fragmentation have changed the ecological operating rules. The need for a new definition of the national park idea is compelling.

Nate Stephenson, a research ecologist with the Western Ecological Research Center of the U.S. Geological Survey, has much to say on this subject (Stephenson, in press; Hobbs 2009). In presentations to park managers and in essays, Stephenson has described the traditional mission of the National Park Service as a "dinosaur" that must evolve. As an ecologist, Stephenson finds evidence nearly everywhere that destabilizing change in natural systems is accelerating quickly as a result of human activity. (Readers of *The George Wright Forum* will be familiar with these issues, and they will not be expanded upon here.)

Having thus concluded that full preservation of unimpaired natural systems has become impossible, Stephenson then turns his critical attention to the Park Service's fall-back policy of maintaining impaired systems in the "closest approximation of the natural condition" when they can no longer be sustain unimpaired (NPS 2006, section 4.1). Again, using his ecological knowledge, he points out potential problems with this goal. Artificially sustained ecological systems are likely, Stephenson predicts, to be inherently unstable.

Moving forward, Stephenson proposes a new approach to national park management. In this vision, the primary national park natural resource management goal of the 21st century would be to perpetuate as much of the remaining native biodiversity in our preserved wildlands as possible. Key to this new approach would be the concepts of resistance and resilience. Stephenson defines *resistance* as the "ability to resist stress" and *resilience* as the "ability to recover from stress."

Under a resistance/resilience strategy, national park managers would continue to do many of the things they do today, but in a fundamentally different context. Rather than moving forward under the 1916 assumption that everything can and must be saved, managers would act within a mindset that tells them that everything is at risk and that much will likely be lost. Work would continue to minimize intrusive threats such as chemical pollution, inva-

sive species, and disrupted fire regimes, but this work would be conducted within a context of accepting the inevitability of change. Such an approach would not assume stability in the ecological world, but instead would anticipate the unexpected. Monitoring, in this model, would inform a feedback loop intended to help managers preserve as much native biodiversity as possible. Wildland fires, for example, would be closely monitored to determine whether they lead to the perpetuation of native biodiversity or tend toward the reduction of ecosystems into landscapes dominated by a handful of disturbance-dependent (“weedy”) species. Proactive management elements that today would be clearly rejected, such as facilitating the migration of native species to new locales where they might survive in a changing climate regime, would become acceptable. The long-held dream of restoring damaged ecosystems to some pre-industrial condition would largely be abandoned as impossible.

Such an approach is sharply at odds with current National Park Service policy. In the most recent edition of the agency’s *Management Policies*, a key section still requires park managers to preserve *all* components and processes including “the natural abundance, diversity, and genetic and ecological integrity of the plant and animals species native to those ecosystems” (NPS 2006, section 4.1). The same paragraph forbids management to enhance individual species with the exception of listed threatened and endangered species. Stephenson sees such policies as laudable but doomed to fail in a world where human-caused ecosystem change has become both pervasive and inescapable.

Implied here is a degree of hands-on management of natural resources that rejects completely the 19th-century assumptions of the national park movement’s founders. That founding vision assumed that we could sustain the biological landscapes we value simply by preventing immediate damage and by leaving them alone. Mid-twentieth-century redefinitions modified this idea by adding the component of natural processes maintenance to the mix, but still posited that in the end, if properly protected, natural systems could perpetuate themselves within human-defined reservations. None of this now appears to be true.

Embedded here is a profound contradiction. The frankly interventionist management that Stephenson proposes would place natural resource management programs in direct conflict with *wildness* as a state of being. But note that “wildness,” as used here, conveys meanings that shift the word’s definition in a subtle but significant way. Traditionally, the NPS uses the adjective “natural” (and sometimes also the word “wildness”) to define an ideal state in which natural systems are both unmanaged by human actions and possessing ecological integrity. But what if these two values no longer travel reliably together, what if we must then begin to think about them separately? In this context, Stephenson, and some others, including the poet/natural philosopher Gary Snyder, have begun to use a new definition of “wildness” in place of “natural.” To Stephenson and Snyder “wildness” defines a biological system or landscape that proceeds in a manner that, while affected by humans, is nonetheless not directly managed (Snyder 1990).

Accepting this new definition of “wildness” as a goal implies accepting unmanaged change and its results. But what if the resulting changes move away from biodiversity? What if *wildness* in a world sorely wounded by global-scale human activity leads to ecological simplification and loss? Implied here is the fact that the twin goals of *biodiversity* and *wildness*

may not be compatible. On the ground, the tension between these two goals will be difficult to resolve. Finding a workable balance will require continuous resource monitoring, thoughtful analysis, and much on-the-ground experimentation. Critically, it will also require the development of new national park values and goals.

In the end, the menu of conceptual options for managing national park wildlands is surprisingly short. The strategy that Stephenson proposes might be summarized as “managing for change.” Its underlying logic assumes that the best path will be to study the processes of ecosystem and landscape change and then actively seek ways to preserve the things we value within this changing world.

But there are many professionals within the Park Service who recoil from this management prescription. They point out, citing much history, that attempts to manipulate ecosystems have seldom led to the desired results. How do we know, they ask, that we won’t just make a bad situation worse? Many in this school urge the Park Service to stick to a path of minimal intervention, to value *wildness*. Much will change, they admit, and things will be lost, but letting ecosystems find their own solutions will work out best on the long run. This school of thought defines a clear alternative path to “management for change” that centers instead on accepting *wildness* as the primary guiding premise. Under this approach, managers would step back from active management and allow natural systems to evolve toward new states. By definition, whatever resulted would be a success.

Both of these approaches accept the biological imperative of change, and from a scientific point of view either could be justified in a redefined national park setting. But there is something missing from this equation: any appreciation of the role of the traditional NPS mission in perpetuating public support for national parks. Visitors to Sequoia National Park, for example, come primarily to see the Big Trees. Will they still come if the Giant Forest loses its sequoias? And if they don’t come, then what will happen to the parks politically?

An obvious political answer would be a third natural resources management approach, a localized “ecosystem museum” strategy designed to perpetuate samples of key resources. Under this strategy, park managers would attempt to identify and sustain artificially key biological elements in national parks. Again, the Giant Forest of Sequoia National Park provides a useful setting for imagining how this might work. If managed as an ecosystem museum, the Giant Forest would be actively manipulated to sustain the continued presence of key stands of old-growth giant sequoia trees. This might involve supplemental irrigation, removal of invasive species, planting of species that fail to reproduce, and any number of other possible actions. In some ways, the grove would become an intensively managed botanical garden. Would this work? The answer, which comes as much from horticulture as from ecology, is “maybe,” but it is worth recalling that Stephenson warns us that such systems will be inherently unstable.

Significantly, as biologically flawed as an ecosystem museum may appear, it represents the logical outcome of current NPS policy when applied to the problems of the 21st century. As defined by the agency’s management policies, the prescribed NPS response to biological deterioration or collapse is restoration, which often looks much like artificial life support for ecosystems. Hawaii Volcanoes National Park provides an interesting example. In the mid-

dle years of the 20th century, the ecosystems that defined the park's tropical rainforests began to unravel. The natural systems of Hawaii had evolved many endemic life forms that prospered in the absence of competition. Once Hawaii lost its isolation, invasive plants and animals moved into these forests and established themselves at the expense of native organisms. The response of the NPS was to initiate an expensive program of ecosystem management that involved both continuous weeding of invasive plants and aggressive suppression of non-native fauna. This program, clearly an early example of ecosystem museum management, continues to this day.

It is easy to imagine Hawaii Volcanoes National Park's ecosystem museum as a model for many other critical national park features. In order to sustain public interest and support, the national parks may have no choice but to manage selected scenic resources in a manner that provides continuity and familiarity to the visiting public. Sometimes, as in the case of the Giant Forest of Sequoia National Park, this will take the form of sustaining key biological resources even if they are no longer able to survive without human intervention. Other NPS units with famous biologically based identities come to mind here, places like Redwood, Joshua Tree, and Saguaro national parks.

In other cases, the challenge may be not so much to establish an ecosystem museum as to preserve the general appearance of key scenic resources. Yosemite Valley, the High Sierra, Jackson Hole, the lake shores at Glacier, the Yellowstone Plateau, the Grand Canyon: even as these environments change biologically, the NPS may be forced for political reasons to manage them in a way that keeps them *feeling* familiar, a management strategy that would blend together something of wildness, management for change, and ecosystem museums into an entirely new mix. Perceptive readers will note that such an approach has deep historical roots in the Mather–Albright era of landscape management and a troubled history that has been documented by Richard West Sellars, among others (Sellars 1997).

Since 1916, national park managers have talked about the “dual mission” of the National Park Service, a mission that requires both preservation of resources and the facilitation of the appropriate enjoyment of those same resources. Now, even as the Park Service continues to wrestle with this venerable dichotomy, it faces a new dualism. This challenge requires the agency to develop the wisdom and the capacity to manage its resources for the long term in new and controversial ways while, at the same time, sustaining selected biological and landscape features that attract public support. A profound disconnect haunts this question. Attempting to preserve selected fragments of ecosystems may not work as a biological strategy; doing anything less, however, may fail as a political strategy.

Is the Park Service capable of sustaining wildness, managing to preserve diversity in a changing world, and also finding a way to sustain key resources artificially *in situ* in a manner that satisfies the needs of tourism? The question implies that the future management of the landscapes and ecosystems of our traditional national parks may have to be both more complex and more nuanced than anything seen to date. No single approach will meet all of society's needs. Conflicting needs may require that national parks be divided into management zones that allow the Park Service to pursue all three approaches at once but in different areas or even sometimes blended together. Supporting this imperfect but probably

inescapable compromise is the likelihood that a policy of non-intervention (*wildness*) will inevitably be tested on a massive scale. The reason is simple. Huge tracts will remain beyond the agency's physical and financial ability to manage. These landscapes will go where climate change and other environmental stresses take them. As a default strategy, *wildness* will almost certainly dominate the future of the parks.



EDUCATING THE PUBLIC TO ACCEPT CHANGE is perhaps the greatest challenge a government agency can face. For the National Park Service, the challenge is even greater since the agency has so long emphasized through its interpretation and public relations programs that its mission is to prevent change. This is a position the NPS must abandon. In this dynamic and increasingly unstable world, the NPS must begin talking about change as an inescapable part of the park world. Painful as it will be, the myth of "unimpaired for future generations" must be replaced with a more realistic vision.

Intensifying the challenge the Park Service faces as it attempts to engage the public in a new mission for national parks is the inescapable fact that the social role of nature-based parks in American society also has been changing. Park visitation, measured as a per capita function of national population, has been shrinking for nearly three decades (Pergrams and Zaradic 2007). Current trends suggest that the recreational role of national parks will continue to face difficult challenges. New and competing recreational worlds have blossomed. The virtual reality of the digital world offers much that attracts. One can be transported to another realm without having to travel or even sweat. Demographic change is critical as well, with growing segments of society having no tradition of national park use or even interest in nature within their experience. In many ways, traditional national park experiences are not competing well in the leisure-time market.

In a society where both public ideas and recreational lifestyles exist in a highly competitive marketing environment, national parks will only survive as significant institutions if they are appreciated and supported by an informed citizenry that understands their purpose and supports their management. Selling larger segments of society on the value of places where the long-advertised mission is no longer possible, where resources seem to be unraveling, where quality experiences require pre-acquired skills and knowledge to enjoy, and where significant blocks of time are required to recreate, will be anything but easy. Add the complication that this marketing must speak to people who have little or no tradition of national park use and little interest in nature, and the challenge becomes daunting. But there is no choice. In our society, ideas that do not compete well usually die.

In the autumn of 2009, the pre-eminent documentary filmmaker Ken Burns addressed this very question. In the twelve-hour-long PBS special, *The National Parks: America's Best Idea*, Burns and Dayton Duncan created a value-defined view of the national parks that sought to redefine the significance of the parks. Instead of focusing primarily on Mather's vision and its now doomed promises of "unimpaired forever," Burns and Duncan sought to position the national parks as a key expression of American democracy. In carefully measured segments, they expounded their theme that publicly owned parks, set aside for the ben-

effit of all, are indeed our republic's best expression of its true nature. Carefully omitted was any suggestion that the traditional national parks, which were the predominant focus of the film, are based on an unattainable goal.



EMBEDDED WITHIN THE SAME SECTION OF THE NPS ORGANIC ACT as the famous language about conserving the parks “unimpaired for future generations” is another much less-quoted concept. The act also instructs the Park Service to “promote” national parks. As perceptive critics like Denis P. Galvin and Robin Winks have noted in this journal, this legal instruction has received very little attention over the years. In the context of 1916, “promoting” national parks reflected Stephen Mather’s view that parks needed to be widely used if they were to be loved and supported. In the 21st century a different meaning offers itself. Pondering this question, Galvin recently concluded: “There remains a need to promote the parks, not to bring people to them, but to promulgate the values they have come to represent” (Galvin 2007).

The values Galvin emphasizes here rise far above management policies. In a culture that accepts accelerating human consumption of the earth as a necessity and where the natural world means less and less to each succeeding generation, national parks remain the best place to share the knowledge that will allow us to sustain biodiversity on this planet. In this new century, where nothing natural or wild seems beyond the reach of humankind, the cultural values associated with the traditional national parks may ultimately be their most important feature. If “unimpaired for future generations” must be abandoned as the holy grail of NPS natural resource management, a new purpose and vision, and a new set of values, must be offered. Finding words to match the strength of those written nearly a century ago will not be easy, but a redefined and achievable vision for the management of the national park system’s traditional Western units in this new era might read as follows:

The purpose of said parks shall be to preserve wildness, and as much as possible of the rich biological and cultural heritage of this planet, in a manner that will allow for the sustained, respectful, and non-consumptive enjoyment of these resources by the present and future generations.

Traditional national parks, if they are to survive as viable public institutions, will have to adapt to the realities of a fundamentally different world. Survival, Darwin discerned a century and a half ago, is ultimately about the ability to adapt. The lesson remains apt. Can national parks evolve successfully in a world where nearly all of their founding assumptions have been proven wrong? The answer to this question will be found in the ability of park professionals to embrace new goals and philosophies while at the same time convincing the public that the redefined national parks have enduring social value.

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