A National Park System for the 21st Century

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In anticipation of the National Park Service centennial, we prepared A Thinking Person's Guide to America's National Parks, a very different type of guidebook to the national parks. Our objective was to celebrate the growing diversity and values of the national parks, but at the same time to offer a sober assessment of the increasingly urgent issues facing the parks, now and in the second century of the National Park Service. As the title suggests, this book is for thinking people such as those who support the George Wright Society, people who appreciate the parks, but understand the implicit obligation to help sustain them. All royalties from the book go directly to the George Wright Society. In preparing the book, we asked more than 20 people with deep connections to the national parks—a mix of practitioners and academics—to write about the "big ideas" that bind the national parks into a national park system. These ideas include biological and cultural diversity, democracy, civil rights, conservation, indigenous voices, wilderness, sustainability, and much more. In the last chapter of the book, we focus on the future of the national parks and the work that will be needed to meet the associated challenges. In the following paper, we offer an edited, stand-alone version of this chapter in which we allow the voices of our authors to speak for themselves. For more on the book, including the complete table of contents, go to http://thinkingpersonsguide.info/.

THERE IS MUCH TO CELEBRATE ABOUT AMERICA'S NATIONAL PARKS. We can be grateful that our country, as it emerged from the Civil War with "a new birth of freedom," had the foresight to profoundly reinterpret and expand our concept of democracy by embracing a new responsibility for government: the protection of special places for the benefit of all. That momentous decision in 1864, reserving Yosemite Valley and the Mariposa Grove of giant sequoias, set the stage for the establishment of Yellowstone National Park in 1872, widely recognized as the

first time a society permanently set aside a large area of its land for the benefit of all its people, not just a privileged elite. We can also celebrate the fact that we have a professional, dedicated National Park Service, created in 1916 to manage America's growing national park system.

Our national park system is impressive by any standard: more than 400 parks covering over 84 million acres, tens of thousands of historic structures and cultural sites, and over 120 million natural objects and historic artifacts in its museum collections, drawing more than 300 million visitors a year. In addition to managing the national parks, the National Park Service administers an extensive system of national rivers and trails and a suite of programs that deliver funding and technical assistance to local communities for recreational and historic preservation projects. The work of the National Park Service's 20,000 full-time employees wouldn't be possible without the support of an extensive network of seasonal workers and volunteers, as well as a network of partners—friends groups, concessionaires, universities, generous donors. Another reason to celebrate the national park system: it generates an estimated \$30 billion of annual economic activity, supporting more than 250,000 jobs.

For most of us, the national park system has a special place in our society that can't easily be quantified. As Denis Galvin writes in the Foreword, "The national parks are the American experience expressed in place," and their impact on our lives is often powerful and transformative. Our experiences in national parks help us to better understand our constantly changing world, serving as important guideposts on our journey through the 21st century. Parks can be places for us to build greater confidence and proficiency in civic engagement, sustainable practices, lifelong learning, and healthy living.

The national park system is meant to be our great public commons, places where each of us can go and experience a profound sense of belonging. Even so, we know that the democratic promise of national parks is still not available to everyone. Significant segments of our national community may not feel welcome in the parks. They may not see people who look like themselves or find any reference to their heritage, culture, or stories in the parks. And they may simply lack affordable access to many national parks. The National Park Service has promised to address these issues and the national park system is changing to meet these challenges. While progress has been considerable, a more inclusive and accessible national park system remains an elusive goal. The national parks represent an uncommon commitment to the common good, and a chance to immerse ourselves in something fundamentally important to human beings. At its best, the national park system brings out the best in us.

In this light, America's national park system is remarkable, but imperfect; much loved, but inadequately funded; diligently safeguarded, but subject to a never-ending array of environmental, economic, and political issues. Addressing them will require thoughtful and creative ideas, but ultimately the national parks need all of us, as citizens, to help set their course through the 21st century.

The future of the national park system

On our journey across the country, we've learned much about our national park system. We've gotten a sense of some of the challenges facing the parks and, perhaps most importantly, we've gained insights into innovations that build on the success of the National Park

Service's first 100 years while setting a new course for the next century. Let's step back now and consider a framework for thinking about the future of the parks—and ways you can help shape that future.

The main challenges fall into two broad categories. One is finding effective ways to respond to rapid environmental change and build ecological resiliency into the national park system. The other challenge is to adapt to a fast-changing social context. The parks have always had to cope with new conditions, but the speed and scale of change today far surpasses anything in the past.

When it comes to the environment, climate heads the list. An increasingly unstable climate fundamentally undermines our national park system. As we burn fossil fuels, emitting climate-warming greenhouse gases such as carbon dioxide, a cascade of consequences ensues, including melting glaciers and ice packs, rising sea levels, flooding in some regions and drought in others, more frequent weather extremes, and species extinctions. These changes are causing pervasive disruptions across the national park system. Climate models suggest that glaciers in Glacier National Park will disappear within the next few decades, the namesake trees in Joshua Tree National Park may ultimately be unsustainable, freshwater wetlands in Everglades National Park may be contaminated by massive saltwater intrusion, and coral reefs at Virgin Islands National Park may die from bleaching.

We are now affecting nature on a global scale, and this fundamental shift in the earth's history raises important issues of about how we should manage the national parks—even how we understand and define the term "natural." The 1916 Organic Act of the National Park Service calls for the national parks to be preserved "unimpaired" for the enjoyment of "future generations." But, as William Tweed asks in Chapter 7, "What does 'unimpaired for future generations' mean in a world where humans seem to be affecting—and thus changing—everything?"

This already-difficult question is complicated even more by the fact that park management historically has been plagued by confusion over the role of natural processes. In the early days, wolves, mountain lions, and other predators were killed in an effort to favor animals that were preferred by park managers and visitors: deer, elk, and other charismatic ungulates. But the resulting population explosion of these grazing animals caused unintended consequences, including overgrazed meadows, soil erosion, limited forest reproduction, and massive die-offs among the herds themselves. Now we see things differently. We view predators as critical elements of ecosystems and protect them in the parks.

Wildfire is another case in point. For decades, the National Park Service "protected" the iconic groves of giant sequoias in the Sierra Nevada parks by preventing forest fires. However, park scientists ultimately came to understand that, through their evolution, these trees had adapted to periodic fires. Ironically, keeping natural fires out of sequoia groves was actually threatening their existence. The National Park Service now allows for natural wildfires in many parts of the parks where they are deemed an important part of natural processes, and even uses "prescribed burning," or setting fires under carefully controlled conditions, where needed.

As David Graber points out in Chapter 6, in many national parks these kinds of "enhanced levels of active management "will be necessary "if we are to preserve as much nature as we can in the 21st century." Ben Minteer and Robert Manning note in Chapter 9 that even in designated wilderness areas, human-driven environmental change "may require management interventions … that will challenge the traditional idea of wilderness as a place free from human manipulation, change, and control." While parks will likely leave natural processes alone to the extent possible, these observations suggest there may be a need for careful intervention in physical and biological processes to actively conserve what we value most.

Cultural resources will be affected by climate change too. As just one example, historic structures near ocean coasts, such as Fort Jefferson at Dry Tortugas National Park or the Statue of Liberty in New York Harbor, may be damaged or even inundated by rising sea levels. Moving structures away from unstable shorelines is possible—it's been done with the Cape Hatteras lighthouse at Cape Hatteras National Seashore—but the price tag is huge and cultural resource managers readily admit that there will never be enough money to save everything we'd like to save. Consequently, they've begun discussing a "triage" approach to historic sites and monuments in coastal zones: deciding which ones are "must-saves," which ones should be saved if the cost is reasonable, and which ones to document and then let go.

Daunting though all this is, John Reynolds and Rolf Diamant rightly note in Chapter 21 that "climate change will no doubt be a major driver accelerating experimentation and innovation." It is more important now than ever, they argue, that national parks demonstrate leadership in sustainable practices, minimizing impacts from park activities. However, they believe that the national park system's paramount role in responding to climate change will be "stimulating meaningful conversations around the country about the stewardship of our communities, our parks and all the places we hold dear."

Adapting successfully to global environmental change will require ever-evolving scientific knowledge, but the National Park Service has had a checkered relationship with the biological and physical sciences. In the agency's early days there was little interest in science; national parks were viewed primarily as scenic resources to be managed for their appeal to tourists. It wasn't until the early 1960s, with the birth of the environmental movement, that the National Park Service came under intense scrutiny and criticism for its lack of science-based management. In response, two influential external reviews strongly recommended that management rely more heavily on science, but not until the late 1990s did the National Park Service commit itself to a stronger scientific program.

Today, as Michael Soukup reminds us in Chapter 8, national park system managers must synthesize a wide range of information about park resources into usable knowledge. This requires continuous collaboration with a wide network of universities to tap the parks' "reservoirs of knowledge." Contributions will be needed from "scholars in a wide range of academic disciplines, including natural sciences, social sciences, and cultural heritage studies, [who] in turn benefit from using national parks as their laboratories." As our knowledge expands, we are beginning to recognize "new" park resources, such as natural soundscapes and night skies, as described in Chapter 20. Similarly, we are recognizing new roles for parks, such as

serving as carbon sinks and as catalysts for healthier lifestyles. The growing consciousness and importance of these values and services demands that we study, monitor, and managed them more closely.

The second constellation of issues facing America's national parks revolves around their rapidly changing social context. As the American population continues to diversify, the national parks must change and grow to fully reflect this diversity. This will require new parks that focus on the heritage and culture of a wider variety of communities, as well as reinterpretation of existing parks in order to tell more inclusive stories. Considerable progress is being made: the widely lauded interpretation of the role of the Buffalo Soldiers at Yosemite National Park is a high-profile success, as noted in Chapter 5. "Native American voices are now featured as an essential part of the story at Little Bighorn, and not just as accessories to the drama of Custer's Last Stand," Edward Linenthal points out in Chapter 11. In Chapter 10, Melia Lane-Kamahele discusses a Haleakalā National Park brochure written by the local community in the Hawaiian language with English translation "to share and express the information that they want park visitors to know and appreciate about their special, sacred place."

In order to more fully reflect a changing America in which a greater percentage of the population lives in cities, the national park system will have to enhance its already substantial urban presence, expanding to more cities through new parks and associated programs. It will also need to concern itself with the many young people now disaffected from nature. This will require new programs designed to connect younger generations with the natural environment, using the national parks in school curricula, and extending the presence of the national parks and the National Park Service on the Internet and social media. These and other approaches are imperative if the national parks are to remain relevant to future generations and be able to actively address pressing environmental and social issues.

Many of our contributing authors agree that one of the core assets of the national park system is the great diversity and complexity it already has. The value of having a broad spectrum of parks was recognized early on when Frederick Law Olmsted argued that social benefits could be derived from places as different as New York City's Central Park and Yosemite Valley. In Chapter 2, David Harmon discusses sense of place, explaining how a wide range of places can become a part of how we understand the world. Similarly, layered stories, multiple values, and different perspectives, such as those associated with cultural landscapes, invite us to rethink our choices for the present and the future. Such "storied landscapes" play an increasingly important role in the national park system, as described by Nora Mitchell in Chapter 14. In Chapter 13, Joseph Corn reminds us that you can experience America's rich history of industrial and technological innovation in many national parks across the country. The variety of the national park system is also emphasized by John Maounis in Chapter 15 in his discussion of the millions of items held in its museum collections, which collectively represent the wealth of stories that make up our nation's history.

These examples all point toward a fundamental but often overlooked fact: the national park system is one of the few national institutions with the potential to bring citizens together

and encourage them to have sustained, informed, and civil conversations about a wide range of issues of lasting importance. At first this might seem a paradox, because over the decades parks have been added to the roster piecemeal and with no overarching plan. Yet precisely because the process is open-ended and nonpartisan, what has resulted is, in fact, a system—one uniquely suited to American democracy. But the national parks maintain this foundational democratic character only to the extent that people use and benefit from them. If our national park system is to remain relevant and meaningful, the National Park Service must, according to Rebecca Stanfield McCown and Vanessa Torres in Chapter 22, "continually adapt to be part of the lives of new audiences and engage the next generation in stewardship of national parks and the histories they tell."

When it comes to integrating previously excluded voices and grappling with an increasing array of complex subjects, the National Park Service is making steady progress. In Chapter 12, for example, Dwight Pitcaithley and Rolf Diamant are optimistic about the capacity of the National Park Service "to examine a broad range of civil rights movements" and, they hope, "grow more adept at, and comfortable with, increasingly sophisticated, contextual ways of interpreting the painful histories that have made those movements so necessary." Edward Linenthal further points out in Chapter 11 that "we may not have every question answered, but civic engagement encourages critical thinking. At its best, national park interpretation does not tell us what to think, rather it serves as a catalyst for further inquiry and reflection." And, as Thomas Hudspeth, Megan Camp and Jennifer Cirilo note in Chapter 5, national parks across the country "are leveraging their educational impact through partnerships with schools, community organizations, universities, and a variety of other educational organizations." Thanks to all this good work, we can think of the national park system as America's greatest classroom.

The bedrock for these achievements is a growing network of effective park partners. Partnerships are transforming the national park system, opening the system up to new users, enhancing civic and environmental literacy, and creating a new generation of committed stewards. Historically, the national park system benefited from many volunteers, supporting associations, and philanthropists. However, as Brenda Barrett and Nora Mitchell note in Chapter 18, beginning in the 1990s there has been "a renaissance of national park partnerships with nonprofit organizations such as friends groups, park conservancies, and cooperating associations with increasing sophistication in programming, constituency building, and fund-raising." Most national parks enjoy the support of cooperating associations that sell books and other merchandise in the parks and invest profits in park research and management. Friends groups associated with individual parks are instrumental in advancing programs and projects. Many parks offer opportunities for volunteers to conduct interpretive programs or work on other park projects. Volunteering can be personally rewarding and offers powerful experiences and connections to national parks.

Partnerships on a much broader scale are also transforming the work of the parks. To tackle unprecedented environmental and social change, the National Park Service is "scaling up"—cooperating with a network of partners on projects that link national parks with large-

scale conservation and historic preservation efforts outside their boundaries. Most national parks are too small to effectively preserve representative elements of biodiversity, and park boundaries have often been drawn on the basis of political rather than ecological considerations. As David Graber observes in Chapter 6, "National parks do not function in isolation when it comes to protecting nature" and we need to manage them within the context of the larger landscape. "Indeed," William Tweed writes in Chapter 7, "the most important realization of our time may be the profound interconnectedness of all landscapes."

Now that we know there are no completely secure islands in the natural world, as issues such as global climate change have made startlingly clear, the national parks have a new role to play. They can serve as vital protected cores of larger ecosystems, and surrounding lands can serve as buffers to these core areas as well as corridors for wide-ranging wildlife. This idea has created excitement in the conservation community as seen in proposals such as the Crown of the Continent, Yellowstone to Yukon (Y2Y), Greater Grand Canyon, and Path of the Pronghorns. As Brent Mitchell and Jessica Brown explain in Chapter 19, scaling up can often mean cooperation on an international level.

The principle of scaling up works for cultural sites and historic preservation, too. Brenda Barrett and Nora Mitchell note in Chapter 18 that many national parks have begun to envision conservation of cultural heritage "as a collaborative endeavor at a large landscape scale" with national parks forging new alliances to tell stories and interpret traditional uses that extend across boundaries. National heritage areas, for example, conserve cultural and natural heritage in large lived-in regional landscapes. At Great Basin National Park, the surrounding Great Basin National Heritage Area connects the park with two states, surrounding tribal lands, national forests, and numerous small communities. Conservation at this scale depends on collaboration and collectively shaping a long-term vision.

Another form of scaling up involves urban national parks. As detailed in Chapter 16, Rolf Diamant and Michael Creasey see an opportunity to achieve "a more integrated vision of urban national parks as part of a seamless network of metropolitan parks, programs and community partnerships." They suggest that the National Park Service adopt more outwardly oriented management approaches "that stress collaboration and civic engagement." As Robert McIntosh describes in Chapter 17, these networking efforts can receive a critical boost through better coordination and alignment with National Park Service programs such as Rivers, Trails, and Conservation Assistance, which enhances quality of life in local communities around the country.

All this ingenuity, innovation, and commitment lays a strong foundation for a hopeful future, but behind it all the National Park Service continues to wrestle with the inherent tension between making the parks available for recreational use and preserving them in an "unimpaired" state, as called for in the agency's founding law. With visits to the national park system climbing into the hundreds of millions annually, this tension has become more urgent. The National Park Service has responded with efforts to "harden" resources where appropriate (for example, constructing boardwalks in meadows and wetlands as well as tent platforms in sensitive areas), limit use when and where necessary (restricting inappropriate activities, for instance, or requiring permits in order to limit use of selected areas), and educate visitors

about reducing impacts (for example, asking them to refrain from feeding wildlife, stay on maintained trails).

Of course, this issue can be contentious because recreation remains central to the national parks. From the very beginning, the National Park Service has encouraged recreational visits to the national parks to help us appreciate them and to build a strong constituency. But at the same time, the agency struggles with use of the national parks. As Robert Manning asks in Chapter 4, how much and what types of recreation can be accommodated without unacceptable impacts to resources and the quality of the visitor experience? Clearly, the national parks should provide a diversity of appropriate recreation choices. For example, small portions of many parks should include development of recreation opportunities for large numbers of visitors: roads for access, trails for hiking and biking, scenic viewpoints, campgrounds, visitor centers, public transit, lodging and other commercial services where needed. Designing and managing these recreational features to maximize public appreciation while limiting associated environmental and experiential impacts is imperative. Other portions of the parks—the vast majority of the larger, more remote ones—should remain largely free from development with the exception of trails and campsites. The National Park Service must address these tensions between enjoyment and preservation through sound science, thoughtful management, and public involvement.

Mobilizing broad public support is crucial because the political process directly affects the parks. Here, Congress plays a vital role. For example, only Congress can establish national parks (though the president holds executive authority to create national monuments). As Rolf Diamant outlines in Chapter 3, Congress has adopted a suite of legislation that has supported, grown, and protected the national park system over the years. Examples include the Yellowstone National Park Act of 1872, the Antiquities Act of 1906, the Organic Act of 1916 (creating the National Park Service), the Wilderness Act of 1964, the Wild and Scenic Rivers Act of 1968, and the Alaska National Interest Lands Conservation Act of 1980. Moreover, many high-profile national park issues play out at the national level: the appropriateness of motorized rafts on the Colorado River in Grand Canyon National Park, snowmobiling in and the reintroduction of wolves to Yellowstone National Park, and the intrusive sounds of "flight-seeing" aircraft over an increasing number of national parks. People who care about the parks need to make their opinions known to their elected representatives. Still, given the inherent limitations of public funding (the National Park Service receives less than one tenth of one percent of the national budget), the National Park Service must be creative in its efforts, continue to expand its network of friends and partners, and leverage its financial base as much as possible.

A call to stewardship

The noted marine biologist and environmentalist Rachel Carson won fame writing books celebrating her love of nature. But her horror at the growing damage to the environment by pesticides called her to write a very different kind of book, *Silent Spring* (1962), in which she documented the effects of these chemicals on birds and other vital but vulnerable elements of the environment. While this best-selling book helped launch the environmental movement,

it also led to stinging personal attacks by the chemical industry and others. Reflecting on her decision to write *Silent Spring*—a somber and troubling assessment of an increasingly urgent environmental issue—Carson wrote that "no carefree love of the planet is now possible." We who love the environment are obligated to protect it, and the national parks are an important means by which we can answer this call.

Personal action in the cause of the national parks is a strong and revered American tradition. Adding his powerful voice to this idea, President Theodore Roosevelt wrote, "We have fallen heirs to the most glorious heritage a people ever received, and each one of us must do his part if we wish to show that the nation is worthy of its good fortune." Roosevelt was an extraordinary man, but many who have distinguished themselves in advancing the national park movement came from more ordinary backgrounds. John Muir was a humble wanderer who taught himself about the natural wonders of what would become Yosemite National Park and used the insights he developed to advance the national park idea. Enos Mills, a local naturalist and guide, worked tirelessly for the establishment of Rocky Mountain National Park. Marjory Stoneman Douglas was a newspaper columnist before she wrote her influential book The Everglades: River of Grass (1947), which spurred the movement to designate Everglades National Park. As you can see, many parks owe their existence to everyday champions like Muir, Mills, and Douglas, and today ordinary people around the country who care about the parks are following in their footsteps. Without the support of everyday people who visit and love the parks, the national park system will become vulnerable and could even one day disappear.

So, here we are at the end of our journey together, having traveled across the landscape and, in our minds, across the whole reach of America's remarkable system of national parks. We've visited many of the country's most distinctive places and touched on some of the enduring values that they can bring to our lives. Looking back on it, what does it all mean to you as a thinking person who loves the parks and wants to see them flourish for all time?

You get to decide that for yourself, of course. The parks have many meanings, not just one, and each of us ultimately chooses exactly which lessons, what kind of inspiration, we take from the national parks. But we do think there is one message that applies to us all, coming through loud and clear from everything we've learned: No matter how daunting the challenges facing the parks may appear, you can make a positive difference in their future. It is within your power to do good for the national parks, and every bit of good you do resounds across them more deeply and widely than you can ever know. When you do something like volunteer at a visitor center, monitor sea turtle nests, rebuild a storm-damaged trail, or help organize historical archives—or even if you just write letters to your representatives encouraging them to support the parks, make a donation to park friends group, or make yourself an informed voter on conservation issues—you are quite literally saving the national parks for future generations.

We hope this book encourages you to continue to explore the national parks and engage with new places, new people, and new ideas. The more you come to know the national park system, its many places and stories, the better positioned you'll be, in the words of contrib-

uting author Dwight Pitcaithley, to make use of "the very democratic values upon which this country was built, environmental lessons with the potential to make our communities more livable, and civic messages that will move us toward 'that more perfect Union' imagined over two hundred years ago."