



NATIONAL PARKS, NATIONAL LEGACY

U.S. DEPARTMENT OF STATE / BUREAU OF INTERNATIONAL INFORMATION PROGRAMS



U.S. DEPARTMENT OF STATE / JULY 2008 /
VOLUME 13 / NUMBER 7

<http://www.america.gov/publications/ejournals.html>

International Information Programs:

Coordinator	Jeremy F. Curtin
Executive Editor	Jonathan Margolis

Creative Director	George Clack
Editor-in-Chief	Richard W. Huckaby
Managing Editor	Charlene Porter
Production Manager	Susan L. Doner
Assistant Production Manager	Chloe D. Ellis
Web Producer	Janine Perry

Copy Editor	Kathleen Hug
Photo Editor	Ann Monroe Jacobs
Cover Design	Min Yao
Reference Specialist	Martin Manning

Front Cover: The Colorado River carved out Arizona's Grand Canyon over the last 5 to 6 million years. The canyon itself is almost 450 kilometers long, the national park surrounding it encompasses almost 5,000 square kilometers, and the distance from rim to river is more than 1,800 meters. NPS Photo by Mike Quinn

The Bureau of International Information Programs of the U.S. Department of State publishes a monthly electronic journal under the *eJournal USA* logo. These journals examine major issues facing the United States and the international community, as well as U.S. society, values, thought, and institutions.

One new journal is published monthly in English and is followed by versions in French, Portuguese, Russian, and Spanish. Selected editions also appear in Arabic, Chinese, and Persian. Each journal is cataloged by volume and number.

The opinions expressed in the journals do not necessarily reflect the views or policies of the U.S. government. The U.S. Department of State assumes no responsibility for the content and continued accessibility of Internet sites to which the journals link; such responsibility resides solely with the publishers of those sites. Journal articles, photographs, and illustrations may be reproduced and translated outside the United States unless they carry explicit copyright restrictions, in which case permission must be sought from the copyright holders noted in the journal.

The Bureau of International Information Programs maintains current and back issues in several electronic formats, as well as a list of upcoming journals, at <http://www.america.gov/publications/ejournals.html>. Comments are welcome at your local U.S. Embassy or at the editorial offices:

Editor, *eJournal USA*
IIP/PUBJ
U.S. Department of State
301 4th St. S.W.
Washington, DC 20547
United States of America

E-mail: eJournalUSA@state.gov

About This Issue



A cyclist rides through the Cuyahoga Valley National Park in Ohio. The name derives from an American Indian word for the crooked river that winds through unusual glacier-carved terrain of steep valleys and high narrow hills.

© AP Images/Adventure Cycling Association, Dennis Coello

Through their system of national parks, the people of the United States own and protect mountains, deserts, forests, wetlands, tundra, and tropical reefs.

All Americans citizens are, in a sense, stewards of sites where the Founding Fathers envisioned a new nation and where ancient peoples built cities. Americans are protectors of the tallest living things on Earth and of hundreds of rare species that enliven a subtropical wilderness.

The U.S. National Park Service (NPS) presides over a sprawling system of parks, seashores, trails, monuments, and battlefields that

encompasses 3.6 percent of the nation's entire landmass. The land and its life forms are set apart, preserved, and spared from the asphalt, sprawl, and neon that creep across the modern world. National parkland — more than 34 million hectares — is to remain unimpaired for future generations, according to the law that established the Park Service in 1916.

At the same time, the gates of the parks are open to all, and in more than 277 million visits last year, Americans and many foreign travelers entered one of the almost 400 national parks in search of recreation, relaxation, and more. Americans families visit the parks to see and share the wonders of their land, to learn about the forces and the people who have shaped it through the centuries. The experience becomes part of their own family history, a shared memory about a day when together they learned more about their country and how it came to be.

Many Americans will leave their visit with the belief once described by former President Franklin Delano Roosevelt: “There is nothing so American as our national parks. The scenery and wildlife are native. The fundamental idea behind the parks is native. It is, in brief, that the country belongs to the people.”

This edition of *eJournalUSA* presents some glorious views of the national parks themselves and some of the history of how this vast system has expanded in size and mission through the decades. NPS Director Mary A. Bomar and filmmakers Ken Burns and Dayton Duncan explain the national spirit and ethic that the parks have come to represent for Americans and for the world. Other articles explore how park officials from the United States and other nations have traded ideas, skills, and techniques to better preserve and maintain the lands, the life, and the culture that are the treasures of every nation's legacy.

—*The Editors*



U.S. DEPARTMENT OF STATE / JULY 2008 / VOLUME 13 / NUMBER 7
<http://www.america.gov/publications/ejournals.html>

National Parks, National Legacy

THE NATIONAL SPIRIT

5 **The Spiritual and Cultural Significance of National Parks**

Edwin Bernbaum, Director of the Sacred Mountains Program, the Mountain Institute

The U.S. national parks are more than landmarks and geologic wonders. They represent a piece of the American soul.

9 **The Story of America Itself** An Interview With Ken Burns and Dayton Duncan

Two documentary filmmakers are finishing a television series showcasing U.S. national parks and the stories they tell about the land, the people, and democracy.

13 **Jewels in the Crown** A photographic gallery of U.S. national parks.

23 **Scenery and Science in U.S. National Parks** Richard West Sellars, Author, *PRESERVING NATURE IN THE NATIONAL PARKS: A HISTORY*

The National Park Service struggles to protect the spectacular scenery of its sites while preserving the most humble life forms that share the parks with human visitors.

28 **Parks Can Change a Nation** Alvaro Ugalde, Former Director of the Costa Rican Park System

The creation of a national park system and its efforts to protect Costa Rican biodiversity changed Costa Rica's perception of its natural resources.

31 **Oh, Ranger: Making Something That Will Last** Chris Barter, Trail Crew Supervisor, Acadia National Park in Maine

32 **U.S. Parks: The Timeline** A summary of notable events affecting national parks over more than 130 years.

CARETAKERS FOR THE FUTURE

35 **Special Places Uniting All Americans** An Interview With Mary A. Bomar The director of the National Park Service explains how the parks are emblematic of the American story and of the settlement and expansion of the nation.

38 **When a Park Is Not a Park** The U.S. National Park Service is the caretaker of almost 400 sites that are remarkably different in size, scope, and histories.

40 Park Rangers and Swiss Guides

U.S. national parks borrowed a Swiss practice to enhance visitors' experiences in the parks.

41 Oh, Ranger: The Rocks Call Out

Bob Spoelhof, Interpretive Park Ranger, Death Valley National Park in California

42 A Climate of Change

Jeff Rennie, Teacher, Conserve School in Wisconsin

National parks launch initiatives to reduce greenhouse gas emissions and address climate change.

44 Repelling the Invasives

The National Park Service works to control invasive plant species and preserve native plant habitat.

45 Oh, Ranger: The Most Beautiful Office in the World

Sue O'Connor, Equipment Operator, Rocky Mountain National Park in Colorado

RESPECTING CULTURAL HERITAGE

46 Guardians of the Ancients

Charlene Porter, Managing Editor,

eJOURNALUSA

The National Park Service preserves sites inhabited by prehistoric Americans, and shares its skill with preservationists from other countries.

49 The Heritage of All Humanity

The World Heritage Convention protects more than 800 sites worldwide.

51 Oh, Ranger: On the Steps Where Dr. King Stood

Marisa Richardson, Interpretive Park Ranger, the National Mall and Memorial Parks in Washington, D.C.

52 Additional Resources

Books, articles, and Web sites offering further information about U.S. national parks.

The Tuolumne River ambles through a meadow of California's Yosemite National Park. Designated as a scenic river deserving of protection, the Tuolumne flows for more than 85 kilometers through the park. Just north of this meadow, hikers discover a descending trail that leads past an impressive series of waterfalls.



The Spiritual and Cultural Significance of National Parks

Edwin Bernbaum



© AP Images/Eric Risberg

The trees of the Muir Woods National Monument in Marin County, California, are in one of the last old-growth forests on the planet. These coastal redwoods are the tallest of all living things. Named for conservationist John Muir, the California park site celebrated its 100th anniversary in 2008.

The national parks are more than landmarks, monuments, and territories, more than mountains, forests, lakes, and geologic wonders. They represent a piece of the American soul.

Edwin Bernbaum, PhD, is director of the Sacred Mountains Program at the Mountain Institute and the author of Sacred Mountains of the World. This article is excerpted from the book America's Best Idea — A Photographic Journey Through Our National Parks, which was co-authored by Bernbaum and published by American Park Network (first edition 2006; second edition 2008).

The remarkable landscapes and features of nature preserved in national parks have the power to awaken an extraordinary sense of wonder. The ethereal rise of a peak in mist, the smooth glide of an eagle in flight, the bright slant of sunbeams piercing the depths of a primeval forest — such glimpses of natural beauty can move people in inexplicable ways. National parks transport visitors far outside the confines of routine existence, to awe-inspiring realms of mystery and splendor, governed by forces beyond our control. By coming to national parks, many seek to transcend the

superficial distractions that clutter daily life and experience something of deeper, enduring value. Indeed, these sanctuaries of unspoiled nature represent places of spiritual renewal where we can return to the source of our being and recover the freshness of a new beginning.

In addition to their scientific value as repositories of geological and biological diversity and knowledge, national parks have profound spiritual and cultural significance for the American people. The idea of nature as a place of inspiration and renewal played a key role in the creation of the National Park Service in 1916. For example, a primary motivation of the early conservationist John Muir for working to establish Yosemite National Park in California was to preserve Yosemite Valley as “a temple far finer than any made by human hands.” A study by the National

Parks Conservation Association (NPCA) found that the most compelling message galvanizing public support for national parks is that they “provide us with some of the most beautiful, majestic, and awe-inspiring places on Earth.”

The beauty and grandeur of national parks have inspired major works of art, photography, literature, and music. In the late 19th century, Thomas Moran’s dramatic paintings of Wyoming’s Yellowstone National Park and Albert Bierstadt’s of Yosemite Valley helped draw national attention to these remarkable places. Photographer Ansel Adams’s images of ageless trees and monumental mountains evoke a realm of timeless beauty preserved in national parks. The composer Ferde Grofé was so overwhelmed by his visit to Arizona’s Grand Canyon that



NPS, Nez Perce National Historical Park

In a 2005 trail ride, members of the Nez Perce tribe return to the Big Hole National Battlefield, one of 38 sites in the Nez Perce National Historic Park. Since prehistoric times, these American Indians have lived across territory now divided among the states of Idaho, Oregon, Montana, and Washington. Today tribal members work in partnership with the National Park Service to protect and preserve sites, stories, and artifacts associated with their history and culture.

he felt he could not express his feelings in words and could only communicate his experience through music, thus composing his most famous work, the *Grand Canyon Suite*.

National parks function as cultural icons of heritage and identity. For many, they preserve the pristine essence and pioneering spirit of the United States. Parents take their families on trips to national parks as secular pilgrimages to become familiar with national landmarks

the majesty and grandeur of the United States extolled in the national hymn “America the Beautiful.” The vast landscapes and untrammled places preserved within the National Park System serve as reminders of the quest for freedom and independence that lies at the heart of American culture and history. High mountains and remote wilderness areas in parks such as Grand Teton (Wyoming), North Cascades (Washington), and Wrangell-St. Elias (Alaska) provide opportunities for the kinds of challenge



© AP Images/H. Rumph Jr

Work by late 19th-century artist Albert Bierstadt, seen here at the Pennsylvania Academy of the Fine Arts in Philadelphia, helped focus public attention on the natural wonders of the American West and built support for the creation of national parks to preserve them.

that enshrine the values, ideals, and origins of our nation. A close second as a compelling message in the NPCA study was: “Our national parks are the legacy we leave our children.”

Icons such as Yellowstone, Yosemite, and the Grand Canyon have come to represent the nation as a whole, while the glacier-clad peak of Washington’s Mount Rainier has become an evocative symbol of the Pacific Northwest. Much of the attraction of Great Smoky Mountains, the most visited national park, comes from its association with Appalachian and Cherokee cultures.

National parks enshrine important American values and aspirations. The high peaks and deep canyons of parks such as Alaska’s Denali and the Grand Canyon embody

and adventure that build character and contribute to America’s can-do spirit. Many go to primeval forests and quiet spots in Redwood (California), Rocky Mountain (Colorado), and other national parks as natural cathedrals, seeking to find peace and contemplation and to recover a sense of who they are and what is important in life.

American Indians, along with the native cultures of Hawaii, Alaska, and Samoa, attach many of their deepest spiritual values to sacred places, beliefs, practices, and traditions connected to lands that are now within national parks. The Hopi and other tribes of the Colorado Plateau come on pilgrimages to Mesa Verde National Park to perform rituals at the cliff dwellings of the Anasazi, their mysterious ancestors. The Cherokees look to the Great

Smoky Mountains of North Carolina and Tennessee as their ancestral homeland and regard the rounded summits such as Clingman's Dome as places of refuge and healing, and sources of life-giving rivers. Native Hawaiians revere the lava and vegetation of Kilauea Volcano in Hawai'i Volcanoes National Park as the sacred domain and body of Pele, the volcano goddess, who brings life and fertility through her fiery energy. The Blackfeet, Lakota, and other high plains American Indians hold sun dances and go on vision quests at ceremonial sites within national parks such as Glacier (Montana) and Badlands (South Dakota). The National Park Service changed the name of Mount McKinley National Park in Alaska to Denali National Park and Preserve in deference to the traditional Koyukon name for the highest peak in North America (Denali means "The High One"). The National Park of American Samoa helps to safeguard the customs, beliefs, and traditions of Samoa, the "sacred earth" of the Samoan people.

Finally, national parks hold special value and attraction for people of all cultures, both in the United States and around the world. Japanese Americans living in the Pacific Northwest, for example, refer to Mount Rainier as "Tacoma Fuji," linking the mountain to the sacred volcano that serves as the symbol of their homeland of Japan. African Americans can take special pride in the Buffalo Soldiers, African-American U.S. Army soldiers who helped safeguard Yosemite, Sequoia, and other national parks in their early days. People from all over the world come to visit national parks in the United States to learn about establishing similar sanctuaries in their own countries. America's "best idea" has become a model for protecting special places around the Earth and a major contribution to world culture. ■

The opinions expressed in this article do not necessarily reflect the views or policies of the U.S. government.

The Story of America Itself

An Interview With Ken Burns and Dayton Duncan



© AP Images/David Jordan

Lava flows from Kilauea, one of the active volcanoes at Hawai'i Volcanoes National Park. Visitors to the park see evidence of 70 million years of volcanism, the processes that created islands now home to unique ecosystems and a distinct human culture. Seven ecological zones exist in the park's rising elevation from sea level to almost 4,200 meters.

Ken Burns and Dayton Duncan form a documentary filmmaking team now in the final production stages of a 12-hour film about U.S. national parks. They spoke with eJournal USA's Alexandra Abboud while in Washington, D.C., to present a preview of the film to National Park Service employees.

*Ken Burns ranks among the most well-known U.S. documentary filmmakers, having produced widely acclaimed works, many focused on historic events. His films have appeared on the Public Broadcasting Service, a national television network, to large audiences. His film *The Civil War* was the highest-rated series in the history of American public television.*

*Dayton Duncan is a writer and filmmaker with nine books to his credit, including *Out West: A Journey Through Lewis & Clark's America* and *Miles From Nowhere: In Search of the American Frontier*. He collaborated with Burns on the films *The Civil War*, *Baseball*, and *Jazz*.*

Question: You have a record of producing films about subjects that loom large in both the national and cultural history of the United States: *The Civil War*, *Jazz*, *Lewis and Clark: The Journey of the Corps of Discovery*. Are the parks another subject that stands for something larger in national history?

Burns: Absolutely. What we look for in choosing the subject of a film is some entity whose whole is greater than the sum of its parts. It's able to reflect the inherent contradictions in America's story and also its potential. I think that's what we've been focused on in the body of our work. We've pursued this question of space: How we as citizens are defined by our relationship to the land in

to conserve land in this way, both for the enjoyment of the public and for its own sake. Do you think of the system as an important American export?

Burns: Absolutely. We think this idea of freedom, the actual coalescing of this nation, is actually the best idea. But if you had to put your finger on the best idea after we were formed, you could stop at the national parks and feel quite comfortable. The fact that there are nearly 4,000 parks in nearly 200 countries ought to be an indication of how spectacularly successful this idea is. Sitting here and talking right now, we, as American citizens, own the most spectacular mountain ranges, the grandest canyon on Earth, the biggest, tallest, and oldest trees — and that's a pretty great portfolio to have as citizens.

Duncan: It's an expression of democracy — that these special places should not become the preserve of the super-rich or of people of title and nobility. These, our most magnificent places, belong to everyone. They're everyone's responsibility, and they're available to everyone. That is a definition of democracy applied to



Filmmakers Dayton Duncan (left) and Ken Burns in the editing room.

© AP Images/Lee Mariner

the United States. We've explored this in the history of the West, this incredible intersection where all these cultures clash together. We've explored this theme in *Lewis and Clark* and in *Horatio's Drive*, a film about the first cross-country automobile trip. And for the last six years, we've been working on a history of the national parks because we think in the story of Americans preserving this land is the story of America itself.

Duncan: Like baseball and jazz, the National Park System is an American invention. When Yellowstone National Park was set aside in 1872, that was the first time in human history that a federal government had decided that a large tract of land, not a city park or public gardens, should be saved and kept unmarred for future generations. It is an American idea and invention. Our film tries to follow this story from the start. Like the idea of freedom, it became one of the United States' greatest exports. I don't want to sound too chauvinistic, but I'm very proud of that.

Q: The park system has been called "America's best idea" because it represents the first decision by any nation

landscape — the tallest trees, the most magnificent waterfalls, and the grandest canyon. A nation that was able to do that is a nation that was born on the idea of democracy.

Burns: It wouldn't have happened without that democratic impulse.

Duncan: That is what our film is celebrating.

Q: The parks, monuments, and sites of the National Park System reveal stories about democracy, nature, prehistory, and, in the national history, moments of glory and moments of shame. Which of those many stories are you planning to tell in the film?

Burns: We focus primarily on the creation of the natural parks, of which there are presently 58, and we follow a very complicated and quite dramatic narrative of the story of how they came into being. Most of all, it's a story about people: people from every conceivable background who sort of forced their government to take notice of a special place that they wanted preserved and have often dedicated their whole lives to doing it.

Duncan: If you turn over a rock in any national park, what you find is democracy in action. Behind each



Library of Congress, Prints & Photographs Division

“Everybody needs beauty as well as bread,” said American conservationist John Muir; “places to play in and pray in, where Nature may heal and cheer and give strength to body and soul alike.”

park is a story of “small d” democracy at its best: people organizing themselves, saying “save this place,” and often convincing an — at best — indifferent Congress to save it and protect it. It’s a democratic idea in the abstract, but it’s always individual Americans or small groups of Americans using the lever of democracy to accomplish something that benefits posterity. Thomas Jefferson [the third U.S. president and author of the Declaration of Independence] would be smiling at that notion.

Burns: We follow the obvious characters such as John Muir¹ and Teddy Roosevelt,² but we will introduce you to a couple dozen other really remarkable people who came from every kind of background, ethnicity, race, sex, and country of origin. Our film tells stories of how they devoted their lives to doing this and how their actions intersected with this larger idea that we’ve been talking about.

Duncan: The park system didn’t embrace preservation of historic sites until the 1930s, when the National Park Service — a fairly young agency — took on the role of preserving the places in our chronological, historical narrative that follow the birth and evolution of this idea, such as battlefields, the Lincoln Memorial, the National Mall in Washington, the Statue of Liberty. With the inclusion of those kinds of historic sites, the parks came to stand for America itself. The parks embraced the idea of America itself.

In the film, we make this point at places like the Washita Battlefield National Historic Site, where the massacre of Cheyenne Indians occurred; the site of

Japanese-American incarceration at Manzanar National Historic Site; Central High School in Little Rock,³ all the way up to Oklahoma City⁴ and Shanksville.⁵ That this idea — a national commitment to preservation for the future — finally could embrace even those places where regrettable events occurred so they don’t happen again.

Burns: One of the really important things about our film and the national park experience is this overlay of time. We think of the national parks as these wonderful representations of time, either in the form of these recent historical events or great geological events such as the carving of the Grand Canyon. But as many people point out in the film, it isn’t just the experience of these places alone, it’s who you experience them with. Your experience of the park is often influenced by the fact that your mom and dad took you there, and so it’s very much tied in with your own personal psychology. Then you, as an adult, are taking your kids and are handing down what the historian William Cronon calls “the intimate transmission” from one generation to another of love of place that is embodied in the national parks.

Just as you can go to the cathedrals of Europe and be stirred that it took three centuries for people to build [them] by hand and the dedication of that work, so, too, the national parks bring you to the sense of all the individual people adding their imperceptible layers to the narrative. And that’s a great story.

Q: What did you find to be the most moving site you visited in the months of filming?

Burns: We have been so fortunate, as friends and colleagues, to collect unbelievable, unique experiences in so many places. I remember floating down the Grand Canyon with my oldest daughter, climbing out, and the exhilaration at the top. I remember arriving in the heart of Denali [the site of the tallest mountain in North America] in Alaska — after a four-hour drive from Anchorage to the entrance, and then another 90 miles [about 145 kilometers] on a mostly dirt road to the dead-end interior. We set up our cameras for a cloud-covered, time-lapse shot, and for nearly three hours, with bugs around and only sandwiches to eat, Denali suddenly revealed itself. Dayton was with his son, and our long-term cameraman was with us. For me, it was one of those great miracles.

Duncan: The great thing about this project is that it’s given us a job to go to the most spectacular places our country has to offer. It requires us to be at these places 45 minutes before the sun comes up to watch that transition from nighttime to day. In nature, those are magical,



National Geographic/Getty Images

At almost 6,200 meters, Mount McKinley is the highest peak in North America and a prominent feature of Denali National Park in Alaska. Moose, caribou, wolves, and grizzly bears live in the more than 2.4 million hectares of wild lands. Archeologists have also discovered artifacts that document the presence of native Alaskan people on the site 12,000 years ago.

magical moments. We're focused on getting the great shot, so you're spending quite a bit of time just silently waiting for the sun to come up. Everything is ready to go when the magic light hits, and you cannot beat that.

The trips with our families take that magical, physical, spiritual moment and add to it because you're standing there with your son or your wife and children. Hiking the Grand Canyon on Father's Day with my son is hard to beat. Walking out onto a lava field before dawn in Hawaii with my son and watching the sun come up and a waterfall of lava going into the ocean and creating new land — that is something I'll never forget, and I hope he won't either. ■

Notes:

1. John Muir (1838-1914) is considered one of the leading U.S. preservationists of his era. He was an advocate for the protection of California's Yosemite Valley and a founder of the Sierra Club, which survives today as a prominent environmental advocacy group.

2. Theodore Roosevelt served as U.S. president from 1901 to 1909, a period in which the federal government significantly expanded its designations of national forests and monuments, though his term did precede the creation of the National Park Service in 1916.

3. Central High School in Little Rock, Arkansas, is a landmark of the U.S. civil rights struggle and is now a National Historic Site. A hostile mob protested the admission of nine black students to the school in 1957. President Dwight Eisenhower ordered troops to protect the students, demonstrating federal resolve for enforcement of a U.S. Supreme Court ruling in favor of desegregation of schools.

4. The Oklahoma City National Memorial honors the victims and the rescuers of a 1995 terrorist attack on a federal building in that state capital. The bombing of the Alfred P. Murrah building killed 168 people and wounded more than 800 in the most serious terrorist attack on U.S. soil prior to September 11, 2001.

5. Shanksville, Pennsylvania, is the location of the Flight 93 National Memorial, now under development, which will commemorate the crash of an airliner on September 11, 2001. The passengers on that flight sacrificed their own lives to overpower hijackers in control of the plane, thwarting an attack on Washington, D.C., downing the plane in rural Shanksville, and killing the 44 persons on board.

The opinions expressed in this interview do not necessarily reflect the views or policies of the U.S. government.

Jewels in the Crown

Each of the almost 400 national parks in the U.S. system is unique — home to geologic features, natural wonders, or significant historical events that tell part of the story of a wondrous land and the people who made it a nation. *National Parks, National Legacy* shares a few of those stories in these pages and reveals some of the many remarkable vistas, which an early observer described as “a new heaven and a new earth into which the creative spirit had just been breathed.”



© AP Images/Wilfredo Lee
Two white ibis leap through the brush of Florida's Everglades National Park. The birds, recognized by the trademark red beak, range from the southern United States to northern South America.



© AP Images/Charlie Tasnadi

The Washington Monument (left) and the Jefferson Memorial are in the nation's capital, seen here with the blossoms of the Japanese cherry trees that make only a brief appearance in the spring. Both monuments are part of the National Mall complex designated as a national park.



© AP Images/Chuck Brown

This 19th-century lighthouse, the tallest brick lighthouse in the world, is a landmark at the Cape Hatteras National Seashore, the first place where Congress gave the seaside the status of a national park. Clinging to a ribbon of barrier islands on America's Atlantic Coast, the park, encompassing more than 12,000 hectares, delights beach-goers and fishermen, but is also an important stop on the flyway for migratory birds.



© AP Images/Douglas C. Pizac

Grand Teton National Park is recognized for jagged mountains that rise sharply from lakes left behind by the retreat of the glaciers. It is in Wyoming, adjacent to Yellowstone National Park.



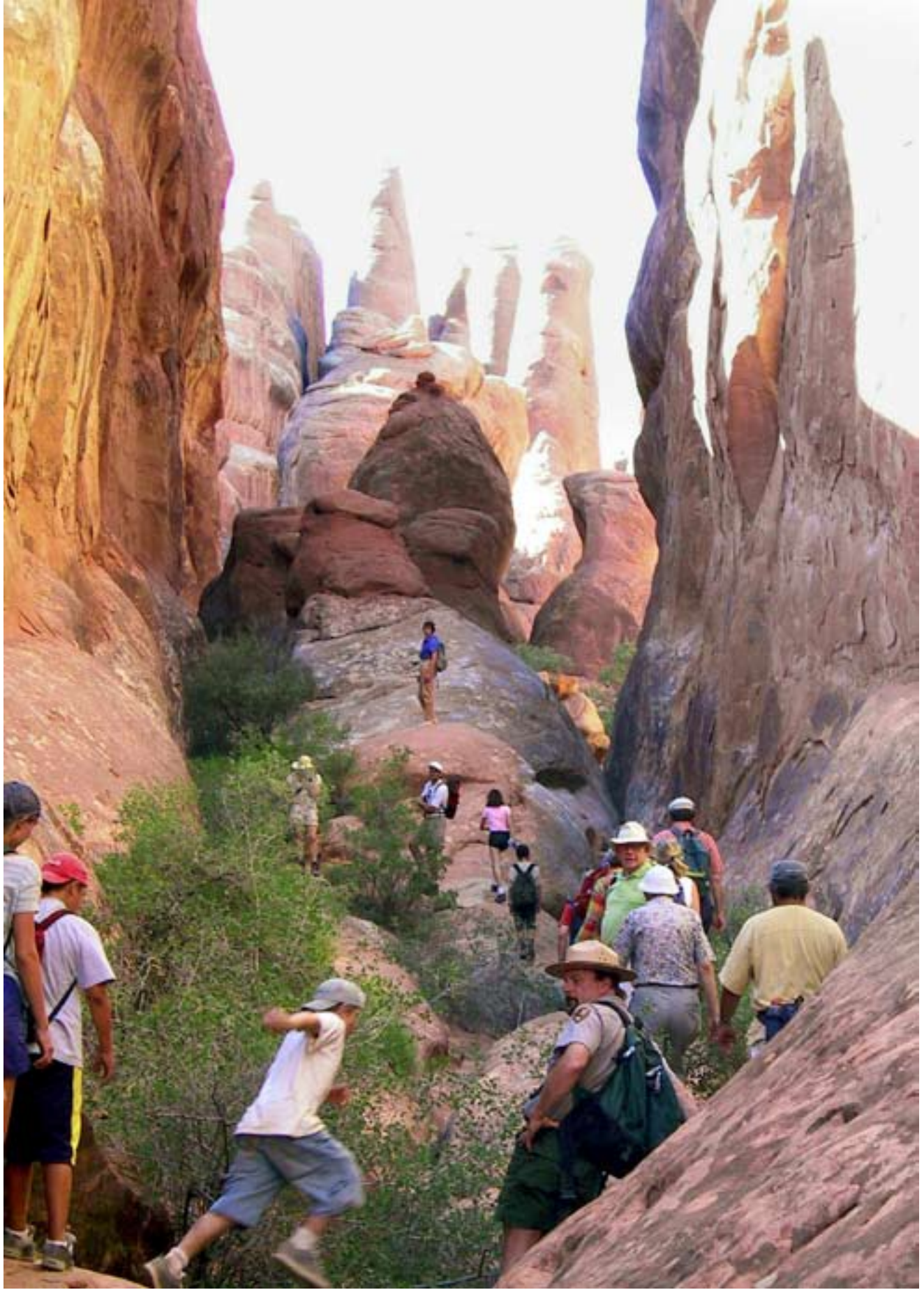
© AP Images/US, Fish and Wildlife Service, William Campbell

This gray wolf is wearing a radio collar to be monitored by biologists in Yellowstone National Park. More than a decade-long effort to restore the population of the Rocky Mountain gray wolf allowed the legendary predator to be removed from the endangered species list in 2008.



© AP Images/News & Observer, Jim Bounds

Wild horses roam some of the barrier islands of America's Atlantic Seaboard. This herd is seen at Shackleford Banks on the Cape Lookout National Seashore in North Carolina. The National Park Service and a private foundation jointly manage the herds and occasionally allow members of the public to adopt the animals.



© AP Images/The Salt Lake Tribune, Judy Fahys

A park ranger (bottom right) leads visitors on a climb up a section of Arches National Park in Utah. The unusual landscape reveals millions of years of geologic events and features the greatest density of natural arches in the world.

Acadia National Park on the rugged coast of Maine became the first national park east of the Mississippi River. Seeing the encroachment of early 20th-century development on the land's natural beauty, a far-sighted conservationist donated the land to create the park to the U.S. Government.

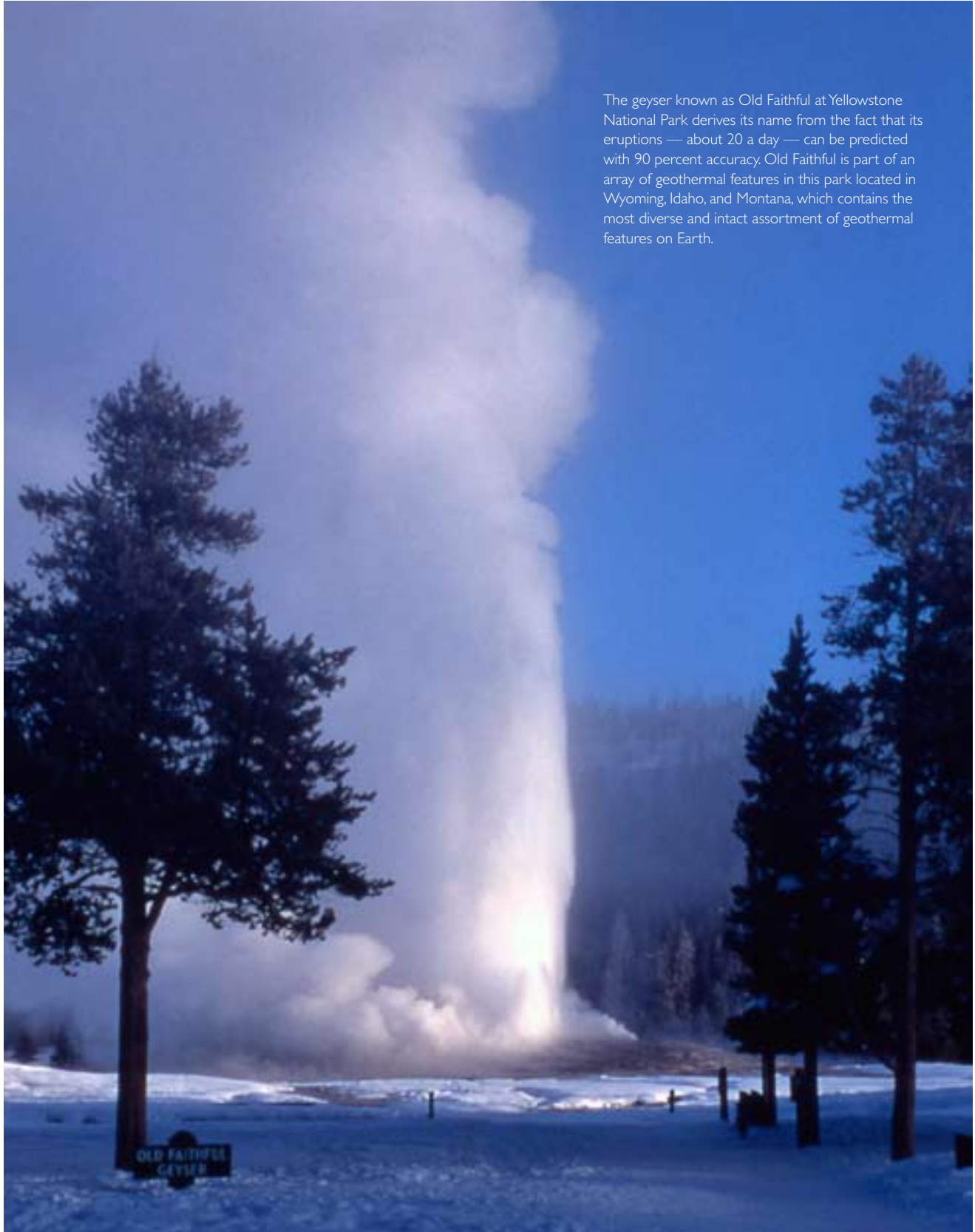


National Geographic/Getty Images



NPS Photo by Peter Craig

The convict surgeonfish (*Acanthurus triostegus*) swims with the saddled butterfly fish (*Chaetodon ephippium*) in the waters of the National Park of American Samoa. Close to 1,000 species of fish are found in the warm, clear waters of this Pacific island park. Designated in 1993, this park adds paleotropical rainforest, Pacific island scenery, and coral reef ecosystems to the U.S. park system.



The geyser known as Old Faithful at Yellowstone National Park derives its name from the fact that its eruptions — about 20 a day — can be predicted with 90 percent accuracy. Old Faithful is part of an array of geothermal features in this park located in Wyoming, Idaho, and Montana, which contains the most diverse and intact assortment of geothermal features on Earth.

NPS Photo by Sandi Kinzer



© AP Images

A haze believed to be generated by the vast forests of these mountains gives rise to the name of the Great Smoky Mountains Park on the border of Tennessee and North Carolina. The park is home to one of the most pristine natural environments in the eastern United States and to a vast array of animal and plant life. The diversity of American culture is another attraction of the park, once home to tribes of American Indians and the adventurous pioneers who traveled and settled the mountains in western expansion.



© AP Images/NPS, Gary Berdeaux

Mammoth Cave National Park is the world's longest cave system, with almost 600 kilometers mapped. Carved from the Earth by geologic forces that began 10 million years ago, the caves' tunnels and chambers are still being explored, with no end in sight.



© AP Images/Gillette News-Record, Stephen Berend

Devil's Tower National Monument is located in northeastern Wyoming. Legends about the creation of the tower are shared by about 20 American Indians tribes, and many regard it as a sacred site. The tower was also featured in the 1977 film *Close Encounters of the Third Kind*.



© AP Images/John Heilprin

The special attractions of Bryce Canyon National Park in Utah are the eerie geologic formations left behind by weathering and erosion.



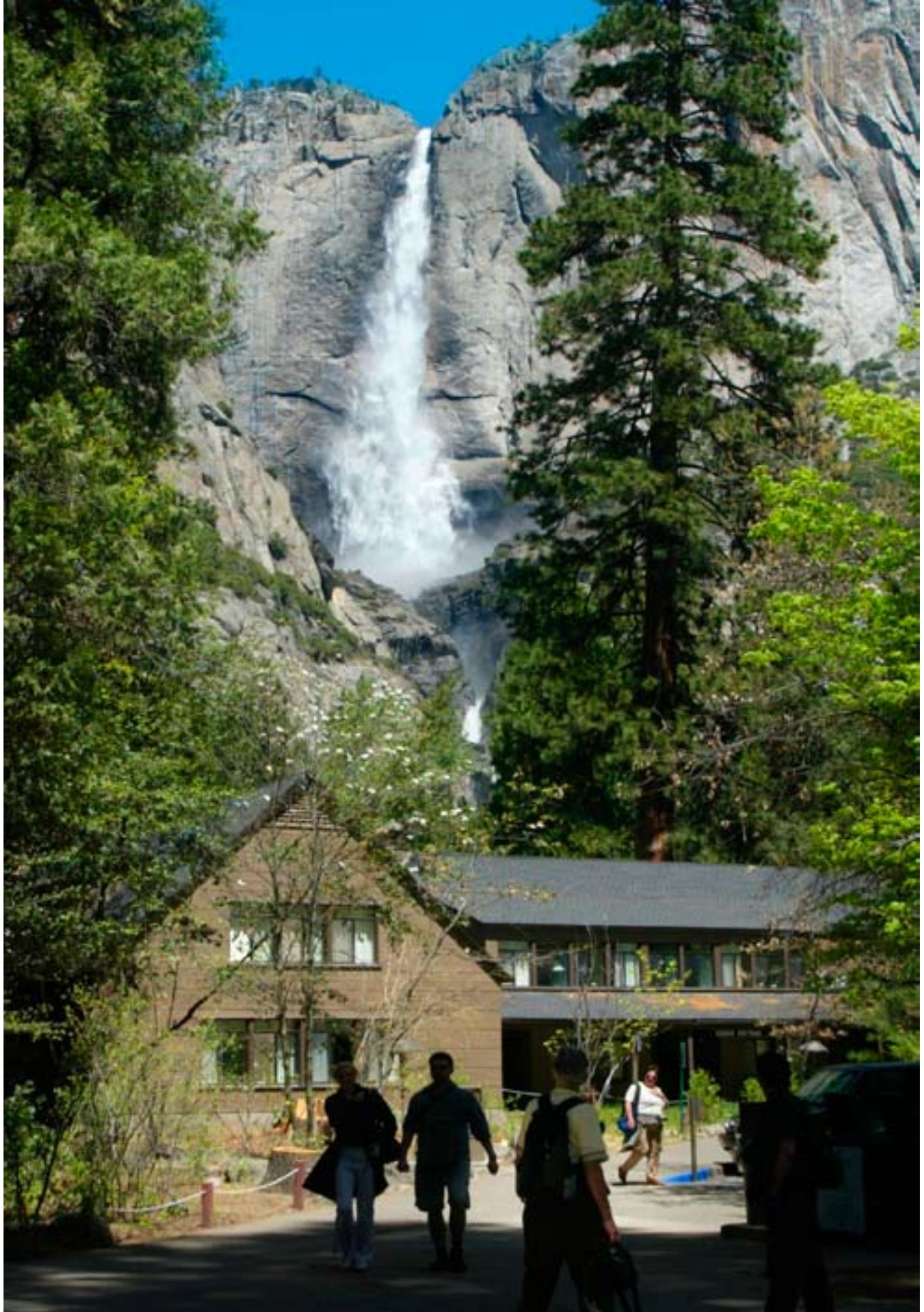
© AP Images/Ben Margot

This prominent cliff in Yosemite National Park is called El Capitan, and is a renowned challenge for rock climbers.



© AP Images/jeff Chiu

Deer are commonly seen in the meadows of California's Yosemite National Park. The bighorned sheep are harder to spot as they favor the difficult-to-reach Alpine habitats. Only a small population of sheep remains in Yosemite, and they are considered an endangered species.



© AP Images/Fresno Bee, Mark Crosse

The streams and cliffs join forces to make waterfalls one of the primary attractions at California's Yosemite National Park.



© AP Images/Paul Hugus

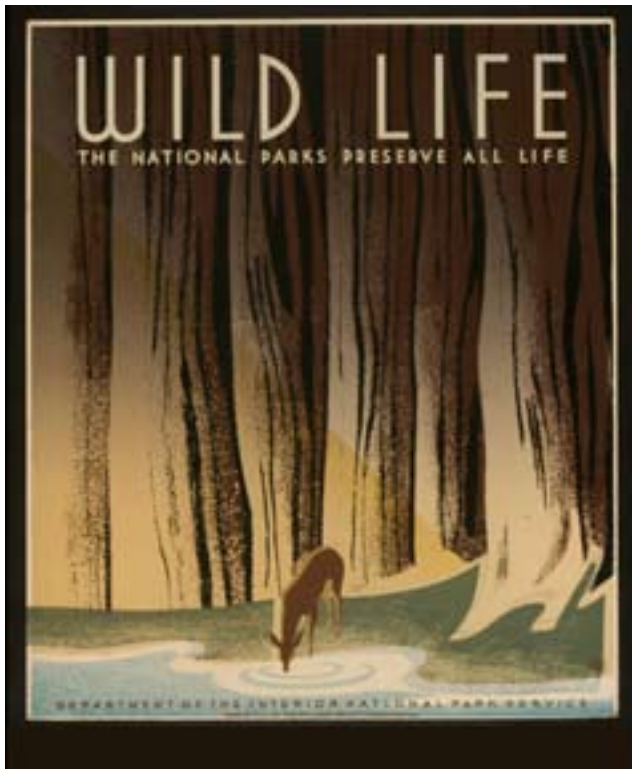
A lone hiker is seen on a rock outcropping in Maine, in the final stretch of the 3,460-kilometer-long Appalachian Trail. One of the ultimate challenges for American hikers, the trail winds through 14 states on its north-south route, following a chain of mountains that is among the oldest in the world. The Appalachian and the Pacific Crest Trail, running 4,186 kilometers from Canada to Mexico, were the first sites to win protections of the National Trail Systems Act.

Scenery and Science in U.S. National Parks

Richard West Sellars

The complex science that governs the natural world was poorly understood when the first national parks were created in the United States. As years went by, these vast reserves of public land were managed by a bureaucracy that really did not understand their ecology. Decades passed before those principles earned their rightful place in the minds of the guardians of the nation's most precious resources.

*Richard West Sellars is a retired National Park Service historian and author of *Preserving Nature in the National Parks: A History* (Yale University Press, 1997). He is past president of the George Wright Society, an international conservation organization named in honor of the biologist who founded the National Park Service's scientific natural resource programs.*



A National Park Service poster from the late 1930s advocates the preservation of all life, but decades passed before management practices began to fully respect the natural communities within the parks.

I first went to work as a historian with the National Park Service in 1973. As a new employee in this venerable institution, I assumed that the biologists in the Park Service must play a leading role in managing renowned national parks such as Yellowstone, Everglades, and the Great Smoky Mountains, with their magnificent displays of natural history. Surely ecological concerns would be foremost in park decision making. How naïve I was!

Much later, in the 1990s, as I wrote a history of the Park Service's management of nature in the national parks, I realized the true extent to which biologists had struggled to promote ecologically sound management. For decades they had battled the truly dominant professionals in the Park Service, who were concerned primarily with protecting park scenery as a means of attracting tourism.

These differing philosophies on park management reflect what has always been the central dilemma of the U.S. national parks: Exactly what in a park should be preserved for future generations? Is it the scenery itself — the resplendent landscapes of forests and meadows, high mountains, wildflowers, and spectacular animals? Or is it more? Is it each park's total natural system, including not just the biological and scenic superstars, but also the vast array of less dramatic species such as grasses and soil fungi?

In recent decades another consideration has entered the equation: Increasingly, the parks are viewed as ecologically vital to the planet — as globally important in their way as the Amazon rainforest is in its way.

Yet the majestic beauty of the national parks gives rise to the impression that scenery alone is what makes them worthwhile and deserving of protection. Indeed, scenic preservation was the major factor in establishing the first national parks — Yellowstone in 1872, followed by Sequoia and Yosemite in 1890. In addition to spectacular topography, what mattered most to the public were the conspicuous elements of nature — forests and wildflowers, rather than mice and salamanders. Ecological sciences were only dimly understood in the late 19th century. And though many important ecological communities were included within park boundaries, this was thanks largely to chance because these communities occurred in areas set aside to protect scenery, the beautiful “facade” of nature.

Library of Congress, Prints & Photographs Division



NPS Photo

The Old Faithful Inn, built in 1904 in Yellowstone National Park, brought visitors to the site, but builders of that time gave little consideration to the ecological impact of construction.

FACADE MANAGEMENT: FOCUS ON SCENERY

In 1916, the U.S. Congress created the National Park Service to coordinate management of a steadily growing system of national parks. The legislation called for the conservation of scenery, natural objects, and wildlife, and for public enjoyment of these attractions in such a way that would leave the parks “unimpaired for the enjoyment of future generations.” The intent of this legislation has always been ambiguous, since it blessed both preservation and use. But in actual, on-the-ground practice, leaving parks “unimpaired” applied almost entirely to the parks’ scenery, not to the subtle elements of their ecological communities.

In developing parks to give tourists access to the great scenic attractions, early park managers and their successors sought to achieve visual harmony between new construction and the natural scenery. They developed

campgrounds, built grand hotels, and routed highways through the parks’ scenic backcountry. Engineers and landscape architects located many early hotels, museums, and other facilities almost on top of major features, yet they often built in a rustic architectural style using heavy logs and stone so that the structures appear to be part of the natural scenery. Similarly, they designed roadways and bridges to blend with natural surroundings.

Attuned to these visual factors, park developers of this earlier era showed almost no concern for ecological processes. However, managers did oppose certain major intrusions — railroads, dams, and reservoirs. And they protected the forests and attractive wildlife, particularly large, charismatic mammals. Thus, except for tourist facilities, the parks’ mountains and valleys were kept unscarred, the forests flourishing and the meadows lush with vegetation.

But maintaining scenery required little scientific

input, so ecologically unsound practices crept in as well: the introduction of exotic, non-native species; suppression of forest fires to prevent dark scars on the scenic landscapes; eradication of mountain lions and wolves, which preyed on other mammals; and the use of pesticides to prevent scenic forests from being infested and denuded by native insects.

“Facade management” thus became the accepted practice — managing scenic parks for the public to enjoy, but with little understanding of the ecological consequences. To those in charge, it seemed that as long as development did not seriously affect the scenery, the parks would remain “unimpaired for the enjoyment of future generations,” as Congress had mandated.

ECOLOGICAL CONCERNS

By the mid-1920s, park biologists realized that flora and fauna are parts of vast, interrelated ecological complexes. Yet so low was the National Park Service’s regard for research-based scientific management that when the service’s natural science programs finally got under way in 1929, they did so only with the private funds of a wealthy Park Service biologist, George M. Wright. The Park Service soon began funding his programs, but the growing influence of the biologists led by Wright diminished dramatically following his untimely death in an automobile accident early in 1936.

Nearly three decades passed before the biologists — contending with a tradition-bound Park Service — could truly renew their efforts to influence park management. This time, support came from outside the service. A 1963 National Academy of Sciences report sharply criticized the Park Service, calling for management to begin using intensive scientific research to assure preservation of the parks’ ecological systems. The academy described the parks as a “system of interrelated plants, animals, and habitat” and urged that they be regarded as “biological banks.” The report made clear that management chiefly preoccupied with maintaining scenery was not sufficient.

Also in 1963, a special advisory committee chaired by University of California professor A. Starker Leopold, one of the leading biologists of his time, issued what was the most influential statement on park management since the 1916 act establishing the National Park Service. The Leopold Report emphasized the need for improved ecological management and advocated that each of the large natural parks should present a “vignette of primitive

America.” The natural communities of life within each park, it stated, should be “maintained or, where necessary, re-created as nearly as possible in the condition that prevailed when the area was first visited by the white man.”

This approach reflected an awareness of the great ecological changes wrought by European Americans and their technology. Where feasible in the large natural parks, ecological restoration would seek to reverse the changes. The Leopold Report thus laid the foundations for a merger of facade management with ecological management. The primitive scene to be recaptured would be valued as much for its increased ecological integrity as for its physical beauty. Underlying this effort was the urgent sense that although the parks’ majestic scenery would last, their biological diversity would not survive without a change in approach.

The Leopold Report’s long-lasting influence stemmed in part from its persuasive presentation of complex ecological issues. Even more subtly, however, its vision of a primitive America touched romantic and patriotic chords, suggesting a kind of “From the New World” fantasy — the parks as virgin land. The Park Service earnestly wanted to believe in this vision and present it to the public. It struck close to the deepest cultural reasons for the very existence of the parks — the romantic nationalism that has always underlain the public’s support of the parks, with the remnant frontier landscapes of high mountains and vast open spaces as powerful geographical symbols of national origins and national destiny.

The Leopold Report bolstered the efforts of Park Service biologists to change certain management practices. Through research-based fire management practices, parks attempted to approximate the effects of natural wildfire. Park managers also terminated insect-spraying programs and gave native predators greater protection. And they sought to reduce populations of especially destructive exotic species, while reintroducing vanished native species.

Natural resource management in the parks also benefited from congressional initiatives, including the Wilderness Act (1964) and the Endangered Species Act (1973). These and other laws, particularly the National Environmental Policy Act (1969), helped improve national park management and opened up the Park Service’s practices to much greater scrutiny, including public involvement in park planning.

Yet the environmental movement of the 1960s and 1970s, including the Leopold and National Academy



© AP Images/The Daily Inter Lake, Jennifer Demonte

The beargrass plant, seen here at Montana's Glacier National Park, is native to the Rocky Mountain region. Bears eat the plant in the spring, and also use it as nesting material in their dens. Management practices in place for several decades attempt to guard all the elements of a park setting, from delicate plants and insect life to the soaring peaks and mountains.

reports, failed to alter substantially the bureau's traditional priorities of maintaining the scenic facade of nature. Repeated calls for expanded research programs, essential for sound ecological management, received insufficient support from the Park Service, Congress, or the public, beyond the environmental community.

THE NATURAL RESOURCE CHALLENGE

In the late 20th century, with growing threats such as global warming, population expansion, and habitat destruction, the worldwide reduction of biological diversity brought into sharper focus the concept of national parks as ecological laboratories and "gene pools." Scientists and increasingly broad segments of the American public viewed the national parks as important to the ecological health of the planet — as reservoirs of genetic material and islands of naturalness, bulwarks against irreversible change or loss of species.

In 1997, I published *Preserving Nature in the National Parks: A History* — at times a highly critical analysis of the National Park Service's natural resource management over the decades. In response, the Park Service almost immediately began planning a new and ambitious natural resource initiative, known as the Natural Resource Challenge. Announced in August 1999, the initiative quickly gained bipartisan congressional support, which continues today. Cumulatively, the challenge amounts to far and away the greatest increase in scientific natural resource management funding and staffing in Park Service history.

Truly comprehensive in scope, the challenge acquires, applies, and disseminates scientific knowledge to professionals and to the general public in pursuit

of natural resource goals and for the betterment of both parks and society. Among its specific elements are accelerated programs for inventorying of parks' native species, both terrestrial and aquatic; monitoring changes in their condition; and protecting and restoring endangered populations while removing non-native species. The challenge also calls for enhanced air and water monitoring. Building park staffs to achieve these and other goals has been critical, as has improving opportunities for the public to enjoy and learn about park natural resources and their preservation.

The Natural Resource Challenge opened a new era in national park management. An unprecedented degree of understanding and cooperation has grown between facade management and science-based management in the national parks. Significantly, it moves the Park Service toward a better position to confront the gathering environmental threats of this century. Finally, in the congressional and National Park Service realms, and indeed in the collective American perception, the challenge's focus on the integrity of the parks' natural environments has helped secure a broader, more ecologically inclusive interpretation of the original 1916 congressional mandate to leave the national parks "unimpaired for the enjoyment of future generations." ■

The opinions expressed in this article do not necessarily reflect the views or policies of the U.S. government.

Parks Can Change a Nation

Alvaro Ugalde



Photo by Rick Stanley

From the heights of the Osa Peninsula, ancient rainforest stretches from the Golfo Dulce to the Pacific Ocean as a sunset begins to glow.

In 1969, a young Costa Rican biology student came to the United States for an inside view of the National Park System. In 1970 he became the second employee of his nation's newly forming park system. Looking back on this almost 40-year history of park development, Alvaro Ugalde says that the history of Costa Rica can be divided in two distinct eras: before and after the people committed to preserve the country's unique biodiversity for generations to come.

Alvaro Ugalde is considered a founding father of the Costa Rican park system, having served as its national director twice and as a leading figure in other important conservation organizations. In 1999, he was named an environmental leader of the century by Time magazine.

I saw the U.S. National Park System up close for several months in 1969, invited to participate in the International Seminar on National Parks and Equivalent Reserves, a program allowing me and about 25 other selected individuals from around the world to travel to several parks in the United States. We met with park rangers and biologists and concessionaires — all sorts of people in the U.S. system.

It's not that I planned to join the park service as a career, because there was no such thing as a park service in Costa Rica. But when I went home, the Costa Rican Congress had passed legislation mandating that a park system be built. So I was a volunteer for six months in the first days of creating this system, and then I was hired in 1970 as the second employee of the park service.



Photo by Rick Stanley

The scarlet macaw is a member of the parrot family found in Costa Rican rainforests and similar habitats of the region. Also known as *Ara macao*, this brilliant bird nests in the upper canopy of rainforests where thick foliage hides it from predators.

My colleague, Mario Boza, the first employee of our park system, also went on this study trip sponsored by the U.S. National Park Service, and it gave us both the vision of a system for managing parks, operating parks, welcoming visitors, and preserving land and nature. I always think that the United States' system was the window through which we saw the bigger picture.

Being biologists ourselves, we knew that protection of our country's biodiversity should be the main purpose for our parks. Our small country — only one-third of 1 percent of the world's landmass — is home to 5 percent of all the species on Earth. People didn't even use the word biodiversity at that time, but the many forms of tropical life in our country had been studied for decades. My teachers at the University of Costa Rica were enlightened people who gave us a sense of ecology and evolution. At the same time, though, we were seeing my country being developed very, very, very fast.

PRESERVING COSTA RICA

So that was our inspiration as we began to convince Costa Ricans of what had to be done to create these parks and preserve what was unique to our country. We were telling the people that we had to keep Costa Rica as Costa Rica, that a denuded country with no forests and no wildlife was not Costa Rica. Creating parks and preserves was what we should do to leave something for the future, for the children, so they would know what the country really was. It was not that hard to spread that message around the country. That tourism, as a further benefit, would come out of that effort was a secondary reason.

The history of Costa Rica could be divided between before the parks and after the parks. The country changed completely a few years after the parks were started. There is no Costa Rican now who doesn't know about conservation, doesn't know about the natural wealth of the country, and there are very few Costa Ricans who do not benefit from conservation efforts. We changed the course of our nation and changed the economy of the country as we built parks and preserves. We have a new development

paradigm, a different country than the one we had 40 years ago.

Before 1970, there were no protected natural areas, and most natural places were under pressure from mining, hunting, and logging, especially in places like the Osa Peninsula, the most beautiful place in the universe! That's how I call it because it is incredibly beautiful and highly biodiverse. Since we started trying to save the Osa, we



Photo by Rick Stanley

The organs of the glass frog of Central America are visible through its transparent skin.

caught the attention of the world. So now people come to see the Osa, and its economy has nothing to do with mining and logging. It all has to do with nature.

Today, as our system in Costa Rica matures, we still have problems. Inside the parks, hunting is a problem, and sometimes wildfires. But the bigger problem is on the outside of the parks. When uncontrolled development occurs in a nearby village, then we see the effects of a lack of governance, poor control, and poor coordination among ministries and other public agencies. It adds up to a bad situation with lots of buildings, water pollution, and lack of sewage treatment. These things are happening very close to some of the parks, and so that's one of the main problems we have now, besides the looming negative effects of climate change.

SAVING THE PLANET

We didn't know way back that the planet was in trouble. Now, we are not ignorant anymore. The collective behavior of humanity has now provoked a collective source of dangers for the planet: global warming, the deteriorating biosphere, disappearing species, and melting poles, among other indicators.

In my country, we have floodings more often, and longer periods of dry climate. The weather changes are opening up drier zones, and so some of the species of the lowland ecosystems are now drifting up the mountains. Toucans are living in places where they weren't before; same thing with ants. These changes ripple through the web of life. We attempt to protect our biodiversity in the parks, but the impact is all over the nation. In Costa Rica we have done much to set aside protected areas, but they are still just islands surrounded by bigger environmental problems.

We cannot postpone our attention to these threats to the planet anymore; we cannot afford that luxury. Postponing action against global warming would mean that we don't care about what kind of planet and what kind of life conditions we will leave to our children. But as an optimist, I strongly believe that if we all do something — individuals, families, communities, and governments — and start now, the planet will respond to our care and we will prevail. ■

The O2 For Life Rainforest Foundation provided some background material for this article. The foundation is dedicated to the conservation and protection of tropical nature, and protects 500 acres (more than 200 hectares) in the Osa region.

The opinions expressed in this article do not necessarily reflect the views or policies of the U.S. government.

Making Something That Will Last

Chris Barter



I am a trail crew boss at Acadia National Park. The crew goes out at six in the morning and comes back at four. We spend most of our time cutting, moving, and building with stone — that is, after we've hiked our packs and tools out to the job site. It's hard, physical work requiring skills that can take years to master, but most of us wouldn't trade it for anything. I started working on the crew on my summer breaks from college, and 19 years later I am still doing, and loving, this work.

There is the beauty of the place, of course. Acadia is filled with cliff-faced mountains that stand up out of the ocean, quiet forests, songbirds, deer twitching in the trail, loons drifting on a lake. ... There's also the deep satisfaction of the work itself: repairing stone stairs and walkways built by hand 80 or a 100 years ago — using the same methods they used then, with the same goal stoneworkers have had from the pyramids to now — to make something that will last and be meaningful long after you're gone.

The most satisfying thing of all is to see visitors climbing easily on a staircase we've built or strolling on a causeway we've laid down to cross a stretch of mud, while they're chatting about the view or pointing to something in the sky and not thinking about the trail at all. At times like these, I realize they don't have to because we've taken care of where they put their feet — for now, and for 100 years from now — so they can focus on more important things, like cliff-faced mountains that stand up out of the ocean, quiet forests, songbirds, deer twitching in the trail, loons drifting on a lake.

Chris Barter is the supervisor of a trail crew at the Acadia National Park in Maine. This article originally appeared in the American Park Network guide to Maine's Acadia National Park. More information on visiting the parks is available at OhRanger.com.

U.S. Parks: The Timeline



NPS Photo

President Theodore Roosevelt, an avid outdoorsman, is pictured in Yellowstone National Park in 1903. He signed the Antiquities Act into law in 1906, calling for the protection of historic monuments and prehistoric structures.

1872

The U.S. Congress creates Yellowstone National Park from 2 million acres (more than 800,000 hectares) in the Wyoming and Montana territories “as a public park or pleasuring-ground for the benefit and enjoyment of the people.”

1890-1916

Thirteen more scenic parks are authorized by Congress. Including Mount Rainer National Park in Washington, Yosemite in California, and Rocky Mountain in Colorado, all the designated sites are in the West.

1906

The importance of preserving prehistoric American Indian sites is recognized with passage of the Antiquities Act, giving U.S. presidents blanket authority to declare sites of value as national monuments. By 1909, President Theodore Roosevelt had proclaimed 18 national monuments.

1916

Congress passes a bill creating the National Park Service (NPS) within the U.S. Department of the Interior to manage the 35 parks and monuments under the agency’s jurisdiction.

1926

Congress authorizes the Shenandoah, Great Smoky Mountains, and Mammoth Cave national parks in the Appalachian region. Establishment of parks in the eastern United States made parks accessible to larger population centers and increased support for the park system in the Congress.

1930

The first parks are designated because of their significance in national history, rather than their natural beauty. They include



NPS Photo

Horse-drawn vehicles traveling over rough roads were the only transport to the parks in the early 1900s, the approximate date of this photograph taken in Yellowstone.



Cars tour the shores of Sylvan Lake in Yellowstone National Park in a photo dating soon after the admission of the first automobiles. Established as the first national park in 1872, the site, located primarily in Wyoming, is home to a wide assortment of wildlife and an extraordinary collection of geysers and hot springs.

NPS Historic Photograph Collection

George Washington's birthplace in Virginia and the site where the British surrendered to American forces in 1783, ending the American Revolution.

1933

Management of national parks and monuments is consolidated within the National Park Service, which establishes authority over sites previously under the jurisdiction of the War Department and the Forest Service.

The Civilian Conservation Corps (CCC) is created under the New Deal, President Franklin D. Roosevelt's response to economic depression. Within a few years, more than 120,000 CCC personnel are at work in national parks building features such as trails, lodges, and tourist facilities.

1935

The Historic Sites Act is passed creating "a national policy to preserve for public use historic sites, buildings, and objects of national

significance for the inspiration and benefit of the people of the United States." Broad powers to carry out the policy are assigned to the National Park Service.

1936

The Park, Parkway, and Recreation Study Act is passed empowering the National Park Service to work with other government agencies to plan parkways and facilities at the federal, state, and local levels.

1941-1945

World War II brings sharp reductions in funds dedicated to park operations and in visits to the parks by the public.

1958-1962

Congress establishes the Outdoor Recreation Resources Review Commission, directing it to conduct a four-year study examining several issues: the outdoor recreation wants and needs of the American people, the recreation resources of the nation available to satisfy those needs, and the policies and programs that would meet those needs into the future.

1963

An advisory committee led by biologist A. Starker Leopold recommends significant changes in NPS management of natural resources and ecologic communities.

1964

The National Wilderness Preservation System Act is passed, leading to protection of areas "where the Earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain."



In 1968, President Lyndon Johnson signed legislation creating the National Trails System and the National Wild and Scenic Rivers System.

© AP Images/Charles Tasnadi

1965

The Land and Water Conservation Fund Act is passed. Ultimately it earmarks revenues from visitor fees, surplus property sales, and other sources for federal and state parkland acquisition.

1966

The National Historic Preservation Act enrolls all historic parks on the National Register of Historic Places and gives state and federal preservation officials authority to review management of the historic sites.

1968

President Lyndon B. Johnson signs the National Trails System Act and the National Wild and Scenic Rivers System Act. The former was the first law to provide for the

creation of recreation trails accessible to urban areas and scenic trails in remote areas. The rivers act set national policy for preservation of certain rivers that “possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or similar values.”

1970

Congress passes the General Authorities Act, which codifies NPS policies calling for differing management approaches for natural, historical, and recreational sites.

1978

The National Parks and Recreation Act authorizes 15 new additions to the park system. The Santa Monica Mountains National Recreation Area in California was among those included, with terrain ranging from rugged mountains to sandy beaches and rocky shores.

1980

The Alaska National Interest Lands Conservation Act is passed, increasing the land area under NPS jurisdiction by 50 percent, totaling 47 million acres (almost 20 million hectares).

1981

The Park Restoration and Improvement Program is launched to devote more than \$1 billion over five years to stabilize and upgrade existing park resources and facilities.

2006

President George Bush announces the National Park Centennial Initiative, creating a matching fund for government and philanthropic contributions to benefit the parks in the years approaching the system’s centennial.

2016

The 100th anniversary of the National Park Service will take place.

Information in this timeline is drawn from The National Parks: Shaping the System, a 2005 publication of the National Park Service.

Special Places Uniting All Americans

An Interview With Mary A. Bomar



© AP Images/National Park Service

Mary A. Bomar has served as director of the National Park Service since 2006, leading 20,000 employees and 140,000 volunteers in the management of almost 400 park sites.

Mary A. Bomar is the 17th director of the U.S. National Park Service, appointed to that position in 2006 after 16 years spent working in many different park facilities. In a written interview with eJournal USA, Director Bomar explained why she is devoted to America's park system, and her hopes for leading it in the 21st century.

Question: In what way is the National Park Service emblematic of the entire American story, the settlement and expansion of the nation?

Bomar: The National Park Service is in every way emblematic of the entire scope of the American story. We manage areas that preserve American history and cultural experience from the first permanent settlements at Jamestown, Virginia, to the struggle for American independence, from the expansion of this nation and the wars we have fought, to the plight of Native Americans and minorities. We manage areas that highlight every aspect of our growth as a nation, from the good things we have accomplished to our dirty laundry.

From across the nation and around the world, visitors come to the places that reflect the American spirit and hear the stories of heroism and sacrifice certainly, but also sadder stories that are a part of who we are.

I always say that “there are special places that unite us all as Americans — and national parks are those places.”

Q: How does your life add another chapter to this story?

Bomar: I am fond of saying — and am proud to call myself — “an American by choice.” I took the oath of allegiance to the Constitution of the United States on October 28, 1977, in Spokane, Washington; it was a very proud moment in my life and that of my family.

My story is an American story and a story of immigration. My family owned a large hosiery manufacturing company in Leicester, England. I was very fortunate to be raised by wonderful parents with four brothers and one sister. My love of preservation came from living in lovely villages in the English countryside. My family had a true love of historic preservation.

I also lived in the United States for some time as a child. I visited the Grand Canyon, Petrified Forest, Golden Gate, Mount Rushmore, and many other national parks. These journeys provided me with an education that no school could have given me — seeing and experiencing American cultures across the states. These wonderful childhood experiences instilled in me a strong passion for America's landscapes, cultures, and people. That's why



© AP Images/Elise Amendola

Illuminated chairs represent victims of the 1995 bombing of a federal building in Oklahoma City, Oklahoma. Bomar was superintendent of the site when it opened in 2000. The site is an affiliate of the National Park Service, but is owned and operated by the Oklahoma City National Memorial Foundation.

I truly think of the National Park Service as the world's largest university!

I joined the National Park Service in 1990 and served in a number of different parks and regions, all the time building my appreciation and understanding of the park system as a whole, in all its diversity and breadth. I was appointed to the director's position in 2006, after serving as the director of the northeast region, which includes Philadelphia's Independence Hall where America's Founding Fathers pledged their "lives, fortunes, and sacred honor" for the cause of liberty.

But this is not about me. It's about the continued relevance of America's national parks and the preservation of the nation's natural and cultural resources for our grandchildren. My vision is to connect every American to the parks and ensure financial sustainability and protection of park resources.

Anything that I accomplish will be with the assistance of the more than 20,000 men and women who work so hard every day for this agency — they are the ones who will reach the children of our nation and excite them about nature, science, and history. I can only hope to give

them the tools they need to accomplish their jobs and be their voice to the nation.

Q: What do you see as the greatest challenges facing the Park Service today?

Bomar: There are several challenges facing the National Park Service at the beginning of the 21st century. Let me list them for you:

- Re-energizing the support of the American people for the national parks and rejuvenating their pride in the "best idea America ever had";
- Improving the capabilities of the system for the 21st century to meet the needs of a changing population, including the recruitment, retention, training, and preparation of a new generation of leadership for the service;
- Reaching our vast audiences and shifting our methods to be in keeping with today's technology and the rapidly changing demographics of our country. That is of paramount importance to me.

Our superintendents and staff are always working to provide quality experiences at our parks. To keep pace with the tastes, technology, and changing demographics



A ranger at the Harpers Ferry National Historical Park in West Virginia congratulates a newly inducted Junior Ranger. This youngster joins the Park Service mission to preserve and protect the history of a 19th-century town that played a key role in the U.S. Civil War.

of the 21st century, we have developed multilingual and tactile exhibits, as well as new approaches to accessibility, and we keep pace with modern technology with Web-based information, podcasts, and cell-phone tours, just to name a few.

We must make our parks more vibrant, attractive, and compelling places by improving our infrastructure, and we will need to recruit, train, and develop a new generation of 21st-century leaders.

Q: The parks are frequently cited as one of the most beloved national institutions, but there are certainly some situations when disputes arise about how a site should be managed or how a historical narrative is presented. How do you deal with those situations?

Bomar: Of course there are times when sharp differences in public opinion are expressed, and we need to rebuild relationships with park neighbors, partners, and the tourism community. If we listen, learn, and take action to include the public and our tourism partners in park issues, we can resolve those sharp differences. We have generally been very successful in forging outstanding relationships with these community partners and overcoming misconceptions or disagreements. After all, we all want the same thing.

Throughout my 18 years with the National Park Service, I have been known for bringing people together. In 2000, I was superintendent at the Oklahoma City National Memorial, the site of the 1995 bombing of the Murrah Federal Building [which claimed 168 lives]. There were some very raw feelings in the community when we prepared to open, as you might imagine in the aftermath

of a tragedy of that magnitude. I worked with family members, survivors, rescue workers, and state and local governments to make sure everyone's voice was heard. It is important — in fact critical — to hear from all sides, including what I call the “squeaky wheel.”

Q: Part of the Park Service mandate is to preserve the parks for future generations. Could you explain some of the service's education programs that work to make sure youngsters become adults who understand the significance of conserving natural, historical, and cultural sites?

Bomar: National Park Service educational programs are designed to enrich lives and enhance learning, to nurture people's appreciation for parks and other special places, and thereby help preserve America's heritage. Our Parks As Classrooms (PAC) program was created to encourage a larger educational effort through a variety of activities so that people become better informed about scientific, historical, and cultural processes and research. They then might apply this knowledge toward the formulation of their own personal decision-making and stewardship ethic. We want to help people develop a feeling of lifelong stewardship toward the parks through programs that really involve them in activities such as exhibits, films, interpretive programs, and the like.

Our premiere “in-park” program for children and families is the Junior Ranger Program, encouraging children to “Explore. Learn. Protect.” When Junior Rangers and their families come in to a park, they use activity booklets designed especially for them as they explore the park. The booklets introduce the park's story and point out parts of the park that might otherwise go unnoticed. While exploring the park, they learn more about the nation's history, their own cultural heritage, and the natural world we share. And there is the “protection” piece of the activity. Junior Rangers, nearly 500,000 each year, discover things they can do — in the park and at home — to help make sure there are parks to visit in the future.

Most Junior Rangers are between 7 and 12 years of age, and we hope that they find it to be an enjoyable way to make a new kind of connection with favorite national parks, places that shaped the nation's history, places of natural beauty and scientific wonder. And, of course, what we're really trying to do is engage children and their families, and to challenge them to begin the process of caring about and caring for their national parks. ■

When a Park Is Not a Park

A park, by the common English definition, is an environment with woodlands, flowers, and winding paths where one goes for recreation. But some sites maintained by the National Park Service don't fit this description at all. Browse through the index of the 391 "units" in the NPS system, and you'll find battlefields, military parks, historic sites, memorials, monuments, rivers, seashores, and trails. And parks, too.

More than 130 years have passed since the designation in 1872 of the first national park in the United States. In fact, that first park — Yellowstone — had entered middle age by the time the National Park Service was created in 1916 to be the agency responsible for overseeing these treasured national places.

Over the decades, ideas on the sites that merit federal protections have varied and evolved.

Whether they are officially known as monuments, parks, historic sites, or one of the other 20 park categories, the places chosen by the generations for special protections and preservation reveal a lot about what the United States values and the story it wants to save for the future.

National Parks contain a variety of resources and encompass large land or water areas to help provide adequate protection of these natural features. The Great Smoky Mountains National Park in the southeastern United States and the Grand Canyon in the Southwest are two of the most popular sites in this category.

National Monuments preserve at least one nationally significant resource. Arizona's Canyon de Chelly (pronounced shay) and Casa Grande Ruins are both remnants of dwellings of ancient peoples and are designated national monuments. The Statue of Liberty in New York Harbor, given to the United States by the French in honor of America's centennial in 1876, is also designated a national monument.

National Historic Parks and Sites mark places where the fate of the nation unfolded for better or worse, and may also include military parks and battlefields. Independence National Historical Park includes structures and sites in Philadelphia, Pennsylvania, where rebellious American colonists drew up their plans to declare independence from the British Crown. The Manzanar National Historic Site in eastern California protects and interprets the site

Independence Hall in Philadelphia, Pennsylvania, is a colonial-era structure where George Washington was appointed commander in chief of the Continental Army in 1775 and the Declaration of Independence was adopted in 1776. Independence Hall is the centerpiece of a park that rambles through 20 blocks of Philadelphia's historic 18th-century core and includes more than a dozen historic buildings.

where Japanese Americans were interned during World War II. This group also includes the Gettysburg (Pennsylvania) National Military Park, the scene of a significant battle in the U.S. Civil War in 1863.



© AP Images/Matt Rourke

© AP Images/National Park Service



The Chickamauga and Chattanooga National Military Park on the Georgia-Tennessee border marks the site of critical battles in the U.S Civil War in 1863. It was established in 1890 under the jurisdiction of the War Department as the first military park. The site was transferred to National Park Service stewardship in 1933. It is one of 24 battlefields or military parks in the system.

A kayaker paddles Lake Superior near the Pictured Rocks National Lakeshore in Michigan. Cliffs, sand dunes, waterfalls, and the lake waters are the attractions at this park, clinging to the shoreline for 64 kilometers.



© AP Images/Bob Brodbeck

National Memorials are primarily commemorative sites that do not necessarily have a direct geographic link to their subject. Memorials in Washington, D.C., pay tribute to World War II and to the Korean and Vietnam Wars. The memorial designation is also frequently given to sites honoring former presidents, be they statues that honor leaders of the past or the actual residences of those individuals.

National Parkways, seashores, lakeshores, rivers, river ways, scenic trails, and recreation areas are some of the other special designations for the almost 400 sites under National Park Service jurisdiction.

One national park “unit” in a category all its own is the **Wolf Trap National Park for the Performing Arts**. Located in the Northern Virginia suburbs of Washington, D.C., nearly 100 performances are presented on the center’s stages each summer, featuring artists from a range of genres. In the summer of 2008, performances by the National Symphony Orchestra, a Gilbert and Sullivan operatic company, country singer Trisha Yearwood, and jazz guitarist George Benson are on the schedule. ■

Park Rangers and Swiss Guides



Children learn about sea life from a ranger at Acadia National Park in 1961.

NPS Historic Photograph Collection

In recent decades, the U.S. National Park Service (NPS) has lent its expertise to many nations working to develop, expand, and improve their parks and conservation efforts. But this has not been a one-way street — the U.S. service has also benefited directly from international engagement. Decades ago, for example, the NPS imitated a European practice to develop what has become one of the hallmark attractions of U.S. parks.

In the first few years after the Park Service was established by Congress in 1916, the first director of the agency, Steven Mather, sought some advice on creating nature walks for

visitors and providing visitors with explanations and interpretation of park features. He turned to George Goethe, a California philanthropist and conservationist.

Goethe and his wife had traveled to Europe, a journey made by only a few privileged Americans of that era. They had seen groups of schoolchildren being lead up Alpine trails by their teachers, who explained the flowers, the plants, and the vistas along the way. Goethe learned that the excursions were more than merely educational.

The Swiss viewed the lessons about the landscape as a tool to help build unity and an appreciation of place among the diverse ethnic and language groups trying to live next to each other in the small, mountainous country. When children shared the beauty and wonder of their land in these excursions, the Swiss reasoned, they might also develop a common sense of patriotism and pride that would be shared among them despite differences of language and religion in their families.

The Goethes decided that the United States, with its many citizens of diverse backgrounds, also might benefit from the shared sense of wonder that a nature guide might instill. They recruited naturalists and botanists to conduct such excursions at private resorts in Lake Tahoe, a scenic lake nestled in the Sierra Nevada Mountains on the border of California and Nevada.

By 1920 the Goethes and their guides had gained enough experience and success in their efforts that they received an invitation from Director Mather to launch a similar program at Yosemite National Park. A Department of the Interior news release from 1960 celebrated decades of success that began with the Goethes: “Dr. and Mrs. Goethe’s original efforts, enthusiasm, and unstinted financial support of the ‘nature guide’ idea has become the present-day interpretive program, personified by the [Park] Service’s uniformed ranger naturalists, historians, and archeologists who guide visitors in the national parks.”

In the 21st century, the tradition of the Alpine guides lives on in the form of some 5,000 National Park Service guides who work to share the joy and wonder of the parks with more than 275 million park visitors each year. ■

The Rocks Call Out

Bob Spoelhof



What vivid images are brought to mind by the magical name “Death Valley.” Most visitors expect to see sand dunes shimmering in the sun. Lizards skittering through the gravel to hide under a rock are part of the picture. Cactus plants, waiting for the time to bloom, dot the hills. These things you may have expected. What surprises most visitors is that a park called Death Valley can have such incredible beauty. The rocks — barren, striped, and multicolored — call out to be photographed. The distant mountains and gleaming salt pans demand exploration. For me, the desert is much more than I ever imagined.

My wife and I visited here for the first time five years ago after volunteering at another desert park. As a geologist, I was so struck by the evidence of very recent geologic processes that I was overwhelmed. One year later, we were volunteering in Death Valley, the place of my dreams. Then paid positions became available, and now we have been growing ever more infatuated with the desert each of the last four years.

My great love for the geology of Death Valley has led me to observe and study, trying to synthesize the complications evident in every rocky outcrop. I’ve seen that Death Valley and its geology represent much of the western United States. The wide valleys and intervening mountain ranges are typical of most of Utah, Nevada, and Arizona. Seen here, too, are the sharply etched fault lines also evident in southern California. The geology here has elements from all the surrounding states.

While Death Valley represents the geologic landscape of the greater southwest United States, its own unique beauty and complexity continue to intrigue me, and I hope visitors, for years to come.

Bob Spoelhof is an interpretive park ranger at Death Valley National Park in California. This article originally appeared in the American Park Network guide to California’s Death Valley National Park. More information on visiting the parks is available at OhRanger.com.

A Climate of Change

Jeff Rennie



A shuttle bus service at Zion National Park in Utah has replaced most privately owned vehicles on park roads, thus eliminating more than 14,000 tons of greenhouse gases from the atmosphere. The buses have also improved wildlife habitat, reduced noise, and enhanced safety.

Glaciers that are the namesake of Glacier National Park are one-third the size they were more than 100 years ago, according to research from the U.S. Geological Survey. The freshwater prairie of the Everglades is threatened by the encroachment of salt water from nearby Florida Bay. Climate change is a reality for the National Park System, and comprehensive steps to reduce carbon emissions are beginning.

Jeff Rennie is a teacher at Conserve School in Wisconsin's North Woods. An extended version of this article originally appeared in the Fall 2007 issue of National Parks, a publication of the National Parks Conservation Association, a private nonprofit organization devoted to protection and enhancement of U.S. parks.

From increased smog in the Great Smoky Mountains to the loss of prairie pothole habitat for waterfowl breeding, no corner of the National Park System is out of reach of the hot fingers of climate change. "This is the biggest challenge we've ever faced," says Mark Wenzler, clean air program director for the National Parks Conservation Association, "one that threatens to change the very fabric of the places we call national parks." The reality of that challenge has created what Wenzler calls "a real sense of urgency to act."

One result of that urgency has been the creation of the Climate Friendly Parks (CFP) program, a cooperative effort of the U.S. Environmental Protection Agency and the National Park Service. Begun in 2003, CFP has a triad of goals: training park staff on the issue of climate change; helping parks to evaluate, monitor, and lessen their own

environmental footprint; and showing visitors how climate change may affect the parks and illustrating ways they can get involved in the solution. Parks are asked to hold CFP workshops, develop action plans, and continually monitor and evaluate their progress on the path to becoming Climate Friendly Parks. To date, 10 national parks, including Delaware Water Gap, Everglades, Glacier Bay, Yosemite, and Zion, have held workshops, and more are in the works. It is a new vision for our parks, says Shawn Norton, one of the program's coordinators. And when asked to describe the perfect Climate Friendly Park, he speaks with a visionary's zeal.

"A perfect Climate Friendly Park is first and foremost carbon neutral, adding no emissions to the atmosphere," Norton says. As you enter the park you are given information about sustainable practices along with a trail map and park pass. Instead of a snarl of too many private, polluting cars jostling for too few parking spots, you board an alternative energy shuttle system that takes you quickly, quietly, and cleanly anywhere you want to go in the park. The visitor center, which blends almost invisibly into the background because of its natural architecture and landscaping — including a "green roof" of native plants — is a clean energy facility that takes advantage of solar, wind, or geothermal energy, LED technology, and natural lighting. The food you purchase at the snack bar is organic and locally grown. The artwork for sale in the gift shop is made from recycled materials such as glass and aluminum. The restrooms are fitted with low-volume toilets and automatic faucet shutoffs for water savings, and they are kept clean with nontoxic cleaning products. Ranger vehicles patrolling the park emit no harmful pollutants. Remote buildings are fitted with photovoltaic panels to meet their own energy needs. And interpretive signs explain it all to park visitors, offering tips on decreasing their own ecological footprint while in the park and back at home.

This vision isn't simply a futuristic daydream, either. "We're not that far from making much of this a reality," says Norton. "We can cut our energy use substantially. We can cut our emissions substantially. We can lower our water consumption substantially using today's technologies, and, if we got aggressive about it, we could

do it in just about every park within 10 years. We are just getting started, but more parks are stepping up every day."

One such park is Zion in Utah. In 2000, a park shuttle system replaced 5,000 private vehicles per day with 30 propane-powered buses, eliminating almost 14,000 tons of greenhouse gas emissions that otherwise would have filled the park's skies over the course of a year. A new "green" visitor center taps into solar power for 30 percent of its energy, takes advantage of natural light for 80 percent of its lighting needs, and features large cooling towers that provide low-energy air conditioning in the summer and a passive solar heating system with a Trombe wall (a sun-facing wall made from heat-absorbing materials such as adobe or stone) for heat retention for cooler days. Considered a model for national park construction, the new facility reduces energy use by nearly 75 percent and eliminates more than 300,000 pounds of greenhouse gas emissions every year.

Less visible are increases in the use of environmentally friendly building materials and nontoxic cleaning supplies, and a drastic rise in recycling efforts within the park. "The Climate Friendly Parks initiative allowed us to address environmental management and climate change while identifying priority areas for our environmental management system," says Zion superintendent Jock Whitworth. "Now we have a better idea of the impacts of climate change on the park's natural and cultural resources, and we can identify possible solutions."

Change is coming to our national parks, that much is clear. Exactly what that change will look like and how park staffs, park visitors, and the parks themselves will adapt to this new reality is not as clear. But as Apostle Island superintendent Bob Krumenaker points out, "We in the National Park Service are in the perpetuity business. Whatever changes are coming in the climate, our parks will still be here. In the face of global climate change, our parks may take on even greater importance as some of the most pristine, untouched, and ecologically significant places left on the planet." ■

The opinions expressed in this article do not necessarily reflect the views or policies of the U.S. government.

Repelling the Invasives

From estuarine waters to the vast forests and valleys of public lands, to the gardens of everyday homes, plant species invasion is a major environmental problem in the United States and many other parts of the world.



© AP Images/Roger Alford

Members of an NPS Exotic Plant Management Team battle the invasive vine kudzu at Cumberland Gap near Middlesboro, Kentucky.

It begins with the unwitting import, or the deliberate but ill-considered introduction, of a plant that comes from an entirely different ecosystem. Dropped into a new environment, without the natural controls of its own delicately balanced ecosystem, an exotic plant can choke out species native to an ecosystem, sometimes to the point of overwhelming them completely. In some cases, this invasion can threaten the very survival of native plants that are unique to the distinctive environmental conditions of a habitat.

The well-intentioned but environmentally unsound introduction of species to the American continent dates to the earliest years of European settlement, long before the biological and environmental consequences of such actions were understood. Full recognition of the invasive species problem in the national parks came in the 1960s with publication of the landmark Leopold Report, named for a prominent biologist who led a study of the parks' ecological management.

Today, the National Park Service (NPS) is tackling the invasive species problem with Exotic Plant Management Teams (EPMTs). EPMTs were established to provide a framework and a first response to exotic plant invasions in parks. The 16 teams

are stationed across the United States, each serving a regional network of parks. EPMTs are playing an increasing role as regional experts in vegetation and invasive species management. Teams also assist parks with vegetation management plans and environmental compliance. Over the last five years, EPMTs have managed or treated more than 35,000 acres (some 14,000 hectares), worked in more than 200 parks, and treated more than 300 invasive plant species. Invasive plants are managed through a variety of control techniques — including hand pulling, chemical, biological, and mechanical — all with the objective of controlling the spread or reducing the density of growth.

The work of the teams has been bolstered by more than 25,000 volunteer hours in support of conservation. Likewise, the Student Conservation Association, a nationwide youth volunteer organization working to improve public lands, has been an important partner in this work to control invasive species.

The Park Service also enlists the aid of the youngest generation of park lovers to help control invasive species. A few months ago, NPS Director Mary A. Bomar was in Florida's Everglades National Park with First Lady Laura Bush and a group of schoolchildren. The students helped remove Brazilian pepper, an exotic invasive species common around south Florida. While there, the students became honorary Junior Rangers and assisted park staff in planting 15 native trees and shrubs in the area. ■

The Most Beautiful Office in the World

Sue O'Connor



My mother always told her friends I was a ranger at Rocky Mountain National Park. The truth is I'm an equipment operator on the road crew. I get to operate all that great equipment that kids in sandboxes dream about. And better yet, on roads that are 8,000 to 12,000 feet (2,400 to 3,700 meters) above sea level. I view these roads as my most precious jewels. They are beautiful, educational, exciting, and cross the Continental Divide, but can be dangerous and downright nasty to navigate. I have often said I have the most beautiful office in the world. It's usually noisy, but the views are always breathtaking and change with every season.

These roads were planned and built by people who, generations ago, appreciated the environment. The beautiful rock work everywhere, above, below, and all around, is testimony to these people.

It's no small job keeping the roads open, passable, and safe, certainly not for the faint of heart. Mother Nature has thrown us a lot of everything in my years of service: floods, fire, lightning storms, microbursts, blizzards, avalanches, totally-off-the-charts wind gusts, snow drifts the size of Gibraltar ... generally the stuff of which adventure films are made.

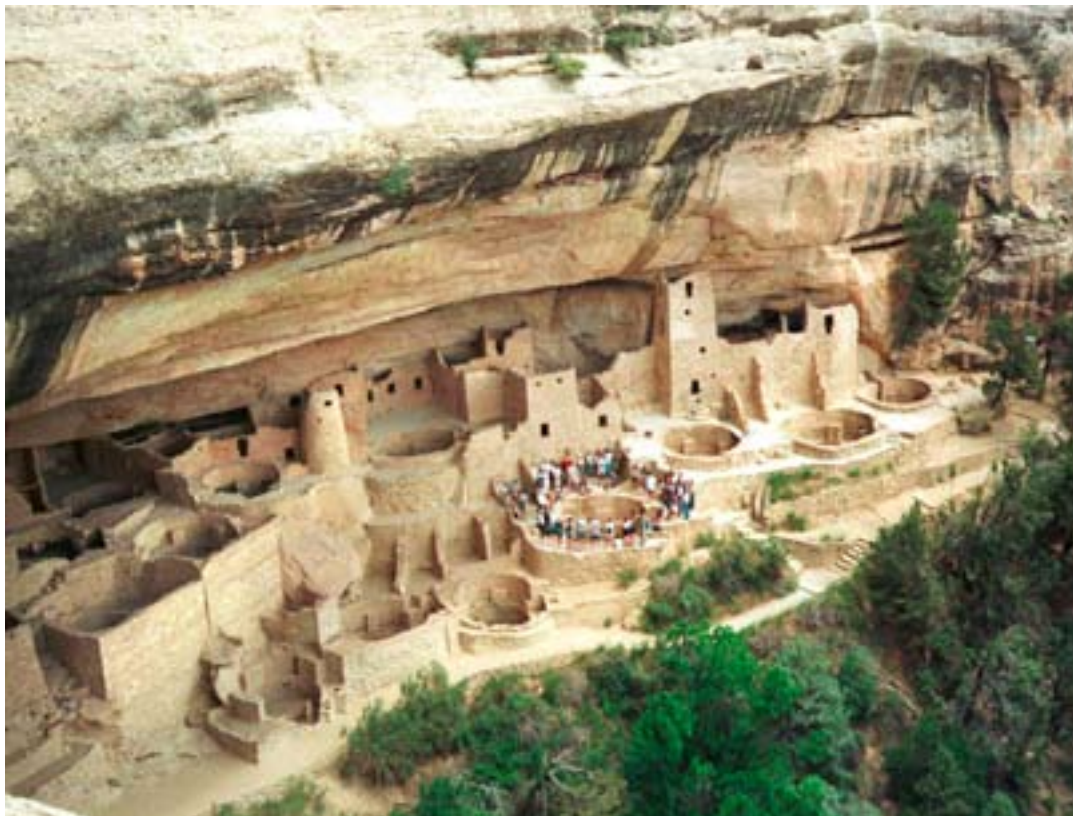
So, I am driving through an adventure film! Whoa, but wait. ... I can't see out my windshield. Is this plow ever going to stop sliding sideways? I'm getting a bird's eye view of Forest Canyon. Are my legs ever going to quit shaking?

The good news is we don't open the roads to the public unless they are safe. I wanted to let you know what goes on behind the scenes. Of course, without a team of professional coworkers, most important the mechanics, none of this would be possible or passable. The West is still wild where I work.

Sue O'Connor is an equipment operator at Rocky Mountain National Park in Colorado. This article originally appeared in the American Park Network guide to Colorado's Rocky Mountain National Park. More information on visiting the parks is available at OhRanger.com.

Guardians of the Ancients

Charlene Porter



© AP Images/Durango Herald, Nancy Richmond

Visitors to Mesa Verde National Park in Colorado walk through cliff dwellings built by the Ancestral Puebloans in the late 12th and 13th centuries. Four thousand archeological sites in the park provide evidence of 700 years of occupation by the prehistoric peoples of North America. Mesa Verde is also one of the U.S. sites recognized by the World Heritage Convention.

The National Park Service works to preserve ancient monuments, present them to the public, and share knowledge of these activities with other nations.

Charlene Porter is managing editor of this issue of eJournalUSA.

Magnificent natural landscapes are the hallmark of the United States' national parks, but thousands of prehistoric sites are also part of the system's almost 34 million hectares, reminders of the lives of people who occupied the land long before European settlers proclaimed the discovery of a New World and founded a nation.

The National Park Service (NPS) values ancient artifacts and architecture created by the ancestors of today's American Indian tribes just as greatly as the sweeping vistas created by nature and the historic sites where America's Founding Fathers crafted a plan to make a colony a nation.



© AP Images/Paul Connors

Casa Grande Ruins became the United States' first archeological reserve in 1892. Built about 700 years ago by the Hohokam Indians, it is among the largest prehistoric structures ever built in North America. A protective shelter was erected over the ruin in the 1930s.

The U.S. Congress enacted a national policy to preserve archeological sites for the future in 1906. In fact, the Antiquities Act, as it is called, predates the 1916 law that consolidated the management of parks, monuments, and other sites under the National Park Service. The Antiquities Act made into law the idea that “those archeological resources and historic sites were to be protected, and they were not to be exploited for monetary gain, or personal whim, or because something else had to be built where they existed,” according to Francis P. McManamon, NPS chief archeologist.

The impetus for passing this law began building a couple decades before its enactment, as settlers began moving into the U.S. Southwest. Adobe buildings and pueblos built by American Indians hundreds of years earlier dotted the landscape. These structures were viewed as great artifacts of earlier civilizations by some, but as quarries of usable or saleable materials by others.

In the early 20th century, memory of the Indian Wars between the colonial or federal government and the indigenous people of North America was very fresh,

and American Indians routinely suffered discrimination. The coincidence of these facts with the passage of the Antiquities Act is “striking,” McManamon said in an interview with *eJournal USA*.

“At the same time there were efforts to preserve these ancient monuments and ruins, the descendants of the people who created them were being systematically stripped of the remnants of that culture,” McManamon said. Government policies to move tribal groups off traditional lands and to purge Indian heritage from children’s schooling were common during that time.

ARCHEOLOGY IN THE PARKS

Today, the National Park Service has recorded about 70,000 archeological sites in the monument and park areas it manages, and McManamon estimates there are tens, even hundreds, of thousands more discrete sites waiting to be discovered. The preservation of sites hundreds or thousands of years old is challenging in its own right, but NPS must also remain mindful of its mission to allow the

public to see, understand, and appreciate the sites.

In the case of cliff-dweller villages and pueblo structures, McManamon said that “we have to stabilize some of the stone or adobe brick walls so the original fabric doesn’t get damaged” as visitors tour the sites. In order to do that, preservationists have to develop mortars that are earth-based, similar to the materials the builders originally used, and surface plasters to protect the original building adobe remains.

That challenge is shared by architectural conservators working on monuments, buildings, and statues in many places. McManamon and his NPS archeological colleagues Terry Childs and Barbara Little gained new insight on the shared problems of his profession in 2007 when a group of Afghan monument directors visited the United States to observe NPS practices in the management of archeological and historic parks and sites.

Like many monuments and historical treasures of the United States, monuments in Afghanistan might be made of sandstone, granite, or adobe. McManamon said the Afghan monument caretakers were eager to discuss techniques of material science involved in choosing the proper substance to use in stabilizing monuments.

The NPS chief archeologist also hopes that the exchange of information will help Afghanistan’s monument directors avoid some of the mistakes made in the United States over the years. “We are pulling out inappropriate mortar used for some of the early stabilization projects in the early 20th century. We are replacing it with earth-based mortars that are softer and help to preserve the original adobe bricks and stone,” McManamon said. “That’s an area where our colleagues from Afghanistan were on the same plane of learning and interest with some of our field crews.”

COMMUNITY EDUCATION

The Afghans visited sites in Washington and spent eight weeks at NPS units in the Southwest in a training program sponsored by the Cultural Heritage Center within the U.S. Department of State. As part of an effort

to support cultural preservation in Afghanistan, the 2007 training program also counseled the visitors in community relations and public education.

With its almost 400 NPS parks, monuments, and sites located in vastly different communities across the United States, NPS officials have learned through the years that building close and cooperative relations between park and community officials is an important component of site management.

Education is another element of this relationship, and it is also standard policy for park officials to work closely with their communities to bring schoolchildren and other interested groups into their facilities. That was “kind of a revelation” for the Afghan visitors, McManamon said.

“They thought it was just terrific that while they were visiting, school groups came out on field trips and had a ranger-led interpretive walk around the courtyards at Tumacácori [a Spanish mission site in Arizona founded in the late 17th century],” McManamon said. One Afghan visitor hoped to introduce similar education programs in the Bamiyan Valley. Though the Taliban destroyed two enormous Buddha statues there in 2001, the Bamiyan Valley remains an internationally recognized cultural site with still-extant evidence of its role as a landmark on the Silk Road in northern Afghanistan.

Historic sites from Afghanistan to Arizona are a critical tool in creating an understanding of past lives and cultures in every successive generation, McManamon said. If youngsters are given a first-person experience with the actual places, buildings, and artifacts of lives and events gone by, they will “get a much richer understanding and appreciation” of the past. ■

The Heritage of All Humanity



More than 2,000 meters above sea level, Peru's Machu Picchu was created by the Inca Empire at its height in the 15th century. The World Heritage Committee added the site to its list in 1983.

What does Independence Hall, an 18th-century building site in Philadelphia, Pennsylvania, share with the teeming sea life of Australia's Great Barrier Reef? What is the connection between the icy peaks and the hemlock forests of Alaska's Glacier Bay and the ancient temples and spiritual presence of Cambodia's Angkor Wat complex?

All of these are designated as World Heritage Sites, places of distinctive significance in humanity's shared natural and cultural inheritance.

The World Heritage List, now encompassing more than 875 sites, is maintained under the World Heritage Convention, a conservation treaty recognized by 185 nations, making it the most widely recognized international instrument for the preservation of both natural and cultural heritage sites.

Seventeen of the 20 U.S. sites on the World Heritage List are part of the National Park Service system, and the Park Service's Office of International Affairs serves as the U.S. government's technical advisor on World Heritage matters. World Heritage sites in the United States include such iconic landmarks as Yellowstone National Park, Grand Canyon National Park, and the Statue of Liberty, along with lesser-known sites such as Cahokia Mounds State Historic Site in Illinois — a prehistoric American Indian city — and the Taos Pueblo in New Mexico, a still-active communal living structure built by Anasazi Indians before 1400.

The idea for the World Heritage Convention comes from a 1971 proposal by the administration of President Richard Nixon, who portrayed the idea as a global expression of the park concept born in the United States. Nixon outlined the idea in a statement of his environmental policy: "It would be fitting by 1972 for the nations of the world to agree to the principle that there are certain areas of such unique worldwide value that they should be treated as part of the heritage of all mankind and accorded special recognition as a part of a World Heritage Trust."

The U.S. delegation presented the concept of the convention at the U.N. Conference on the Human Environment held in Stockholm in 1972, and the convention was adopted later that year by the General Conference of the United Nations Educational, Scientific, and Cultural Organization (UNESCO).

Russell E. Train, who served as chairman of the Council on Environmental Quality in the Nixon administration, made the U.S. presentation in Stockholm and played a key role in the founding of the



© AP Images/Suzanne Plunkett

Buddhist monks at Angkor Wat, just outside Siam Reap, Cambodia. Angkor Archaeological Park contains the remains of the different capitals of the Khmer Empire, from the 9th to the 15th century. The World Heritage Committee added the site to its list in 1992.

convention under the auspices of UNESCO. On the 30th anniversary of the convention, Train said that the World Heritage Convention recognizes “the integral interrelationship between humanity and environment, as well as between the natural environment and the man-made environment.”

The diverse and far-flung sites recognized by the convention are considered the legacy of all humankind while still being under the control of the country that nominated them. By participating in the convention, nations pledge themselves as caretakers of the unique sites on the World Heritage List “for whose protection it is the duty of the international community as a whole to cooperate.”

The National Park Service and other U.S. agencies such as the Fish and Wildlife Service and the Forest Service have worked with participating nations in the convention to help protect hundreds of World Heritage Sites around the globe — from the Galapagos Islands to the Taj Mahal to the volcanoes of Russia’s Kamchatka Peninsula.

The Port of the Moon, port city of Bordeaux, France, is among the most recently listed sites, noted as an inhabited historic city that has fostered cultural exchange for 2,000 years. The Jeju Volcanic Island and Lava Tubes in South Korea were also added to the World Heritage List in 2007. The site includes the finest system of lava tubes anywhere on Earth and has contributed greatly to the scientific understanding of volcanism, according to World Heritage Convention documents. ■



© AP Images

© AP Images/Brennan Linsley

The statue of Buddha, (inset) in the Bamiyan Valley of Afghanistan was the largest in the world before it was destroyed by the Taliban in 2001. The gaping hole (at the left) carved in the cliff remains a testament to the culture that built the statue.



© AP Images/Bob Daugherty

The waters of Havasu Creek tumble 70 meters on the Havasupai Tribe’s reservation at the base of the Grand Canyon.

On the Steps Where Dr. King Stood

Marisa Richardson



As part of a military family, I traveled all over the world. We spent three years in the mid-1980s living in the suburbs of Washington, D.C. I vividly remember coming to Washington to visit the Lincoln Memorial. Fast forward a couple of decades, and the Korean War Veterans Memorial, Franklin D. Roosevelt Memorial, and the World War II Memorial have joined the landscape. I am standing on the steps of the Lincoln Memorial as an interpretative park ranger. I'm watching schoolchildren reenact Dr. Martin Luther King's "I Have a Dream" speech, which he gave from this same spot more than 40 years ago. I am proud of the fact that in some small way I have helped the children bridge the gap between the past and present.

I am amazed that this is my profession; I studied English and communications at George Mason University with the intent of working in broadcasting. But a summer spent as a seasonal park ranger here at the National Mall and Memorial Parks changed that forever. I loved being outdoors and interacting with people from all over the country and the world. Presenting a program to visitors is extremely rewarding because I am helping them form an intellectual and emotional connection to this place.

One of the most gratifying aspects of my job is listening to and learning from visitors. At the World War II Memorial, I learn first hand from veterans who share their experiences and enrich my insight into World War II. I love the versatility of being a park ranger. One day I'm presenting a program to schoolchildren; the next I am helping plan the Cherry Blossom Festival or designing an interpretive display about the African-American Civil War Memorial. Many visitors tell me that I have the most wonderful job in the world — and I tell them I do!

Marisa Richardson is an interpretive park ranger at the National Mall and Memorial Parks in Washington, D.C. This article originally appeared in the American Park Network guide to Washington, D.C.'s National Mall and Memorial Parks. More information on visiting the parks is available at OhRanger.com.

Additional Resources

Books, articles, and Web sites about the national parks

BOOKS

Carr, Ethan. *Mission 66: Modernism and the National Park Dilemma.* Amherst: University of Massachusetts Press (in association with Library of American Landscape History), 2007.

Cunningham, Clay. *Yellowstone to Denali: Bears, Bison, Poachers, Thieves, and Other Characters.* Denver, CO: Outskirts Press, 2005.

Davis, Timothy, Todd A. Croteau, and Christopher H. Marston, eds. *America's National Park Roads and Parkways: Drawings From the Historic American Engineering Record.* Baltimore: Johns Hopkins University Press, 2004. (Published in cooperation with the Center for American Places, Santa Fe, New Mexico, and Staunton, Virginia.)

Duncan, Dayton. *Horatio's Drive: America's First Road Trip.* New York: Alfred A. Knopf, 2003. (Distributed by Random House.)

Harmon, David, Francis P. McManamon, and Dwight T. Pitcaithley, eds. *The Antiquities Act: A Century of American Archaeology, Historic Preservation, and Nature Conservation.* Tucson: University of Arizona Press, 2006.

Kaufman, Polly W. *National Parks and the Woman's Voice: A History.* Albuquerque: University of New Mexico Press, 2006.

Rothman, Hal K., and Sara D. Ewert, eds. *Encyclopedia of American National Parks.* Armonk, NY: M.E. Sharpe, 2004.

Saferstein, Mark J., ed. *Oh, Ranger! True Stories From Our National Parks.* New York, NY: American Park Network, 2007.

Schullery, Paul. *America's National Parks: The Spectacular Forces That Shaped Our Treasured Lands.* New York: D.K. Publishing, 2001.

Sellars, Richard W. *Preserving Nature in the National Parks: A History.* New Haven: Yale University Press, 1997.

Thompson, John M. *Our National Parks: Tours With Rangers.* Washington, DC: National Geographic, 2006.

U.S. National Park Service. *Honoring the Trust: Restoring Damaged Park Resources: The National Park Service Environmental Response, Damage Assessment, and Restoration Program Progress Report.* Washington, DC: National Park Service, U.S. Department of the Interior, Natural Resource Program Center, Environmental Quality Division, 2005.

U.S. National Park Service. *The National Parks: Shaping the System.* Washington, D.C.: U.S. Department of the Interior, 2005.

Webb, Melody. *A Woman in the Great Outdoors: Adventures in the National Park Service.* Albuquerque: University of New Mexico Press, 2003.

ARTICLES

Dolesh, Richard J. "Tough Terrain." *Parks and Recreation*, vol. 39, no. 10 (October 2004): pp. 56-63.
<http://www.nrpa.org/content/default.aspx?documentId=1550>

“Places We Must Save: World Parks at Risk.”

National Geographic, vol. 210, no. 4 (October 2006).
<http://ngm.nationalgeographic.com/ngm/0610/feature2/index.html>

Tourtellot, Jonathan B., Simon Williams, and Cassandra Cartwright. “Destination Scorecard: National Parks.” *National Geographic Traveler*, vol. 22, no. 5 (July/August 2005): pp. 80-92.
<http://www.nationalgeographic.com/traveler/features/nprated0507/nprated.html#magazinetext>

WEB SITES

American Park Network

Comprehensive source of information on national parks and public lands, including visitor guides for national parks.
<http://americanparknetwork.com/info/about-us>

The Mountain Institute

International nonprofit organization dedicated to the conservation and education of cultures, communities, and environments in the Andean, Appalachian, Himalayan, and other mountain ranges of the world.
<http://www.mountain.org>

National Parks Traveler

Webzine dedicated to coverage of the National Park System and the National Park Service.
<http://www.nationalparkstraveler.com>

UNESCO World Heritage Convention

The 1972 convention concerning the protection of the world’s cultural and natural resources.
<http://whc.unesco.org>

U.S. National Park Service

A bureau of the Department of the Interior with jurisdiction over national parks, monuments, battlefields, military parks, historical parks, historic sites, lakeshores, seashores, recreation areas, scenic rivers and trails, and the White House.
<http://www.nps.gov>

YOUNG READERS

Bear, Tedrick D., and Trefoni M. Rizzi. *Teddy’s Travels: America’s National Parks*. Altadena, CA: TdB Press, 2006.

Beckman, Wendy Hart. *National Parks in Crisis: Debating the Issues*. Berkeley Heights, NJ: Enslow Publishers, 2004.

DeFries, Cheryl L. *Seven Natural Wonders of the United States and Canada*. Berkeley Heights, NJ: MyReportLinks.com Books, 2005.

Environmental Education Reading List

<http://www.nps.gov/learn/eereadinglist.htm>

Oh! Ranger

Web site for young visitors featuring information on state and national parks and other attractions.
<http://www.ohranger.com>

Parks With Suggested Reading Lists

<http://www.nps.gov/learn/suggestedreading.htm>

Petersen, David. *National Parks*. New York: Children’s Press, 2001.

Teaching With Historic Places

Places Teach!
<http://www.nps.gov/history/NR/twhp/>

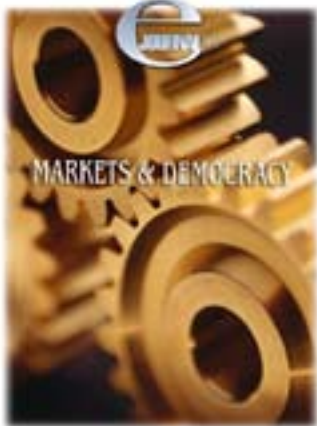
The U.S. Department of State assumes no responsibility for the content and availability of the resources listed above. All Internet links were active as of July 2008.



America.gov
Telling America's Story

New home of eJOURNALUSA

<http://www.america.gov>



A
MONTHLY
JOURNAL
OFFERED IN
MULTIPLE
LANGUAGES

