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Theodore **Roosevelt**

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Icon Shaped the
National Park System

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A PORTRAIT of Theodore Roosevelt in Africa, circa 1910.

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COVER PHOTO:
IN AN ARTISTIC RENDERING of a famous photo, Theodore Roosevelt poses on Glacier Point in Yosemite National Park.

© JOHANNA GOODMAN

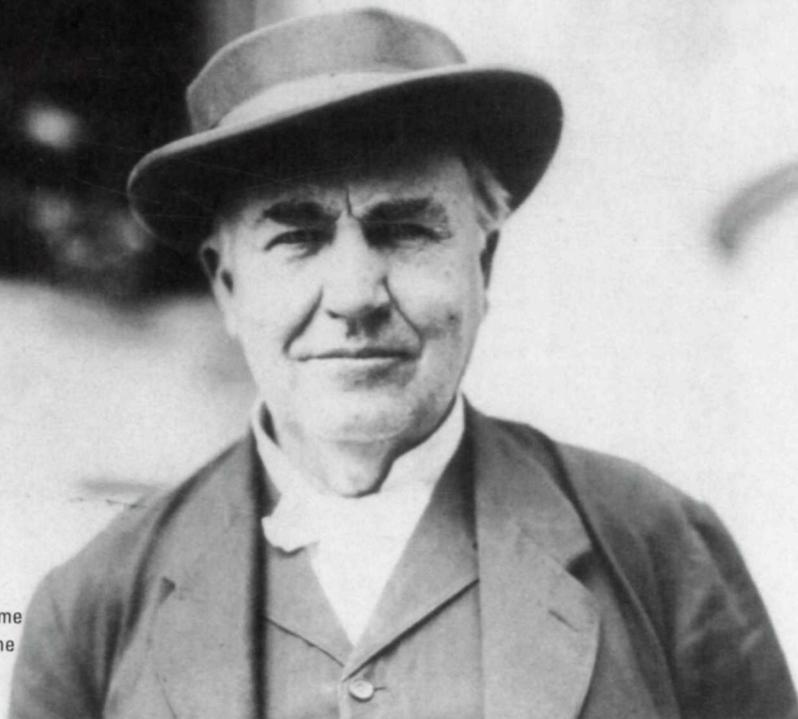
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Opportunity and Responsibility

We're just a few weeks away from the presidential election, which will determine the leadership and the direction of the country for at least the next four years, and possibly for the next eight. This timeframe encompasses both the 150th anniversary of our Civil War parks as well as the 100th anniversary of the founding of the National Park Service.

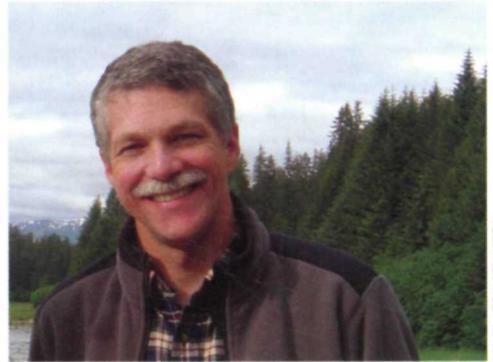
Although many people think of our national parks as little more than vacation destinations, these sites can and should play a much greater role in our society. Our national parks tell the story of our nation, by preserving and interpreting the primitive landscapes of Yellowstone and Badlands National Parks, the icons of democracy at Independence Hall and Statue of Liberty, and the sites of our greatest sorrows at Gettysburg National Military Park and Manzanar National Historic Site.

No matter who we elect to our highest office, our national parks can play a significant role in any number of potential presidential initiatives that would enhance the education, environment, and civic engagement within our country. If a poll of likely voters conducted for NPCA in February is any indication, the American people would welcome such initiatives. The research, conducted by Hart & Associates and John McLaughlin, was intended to gauge the importance of national parks to individuals likely to vote in the next presidential election. The results demonstrate that a pro-parks candidate appeals widely and intensely to voters. Three in four voters were more likely to support a presidential candidate who has a strong commitment to protecting our national parks. Those polled also feel that supporting the national parks says a lot about a candidate—it's an indicator of a candidate who would be a good steward for our nation's resources, someone who is future-focused, and someone who would protect our heritage for our children and their children.

Over the coming months, as the new leaders of the country take the reins and chart a direction going forward, national park advocates have an opportunity to help shape the role of the national parks in our society. We recognize and appreciate that there are a tremendous number of competing priorities for our nation's leaders and our resources. But we don't want our leaders to lose sight of the fact that our national parks are some of our nation's most important and enduring treasures. With the National Park System's centennial approaching in 2016, now is the time to invest in restoring and reinvigorating our national parks for their second century.

NPCA has a vision for our national parks. In summary, we envision that by 2016, we will be a nation unified in our commitment to protecting our national parks as healthy ecosystems, well-preserved cultural and historic landmarks, and classrooms for inspiration and education. We have an opportunity—and a responsibility—to meet this challenge.

THOMAS C. KIERNAN



LAURA ATCHISON/NPCA

In the Moment



Bear Lake, Rocky Mountain National Park

In the last few years, I've become slightly obsessed with photography. Part of it stems from a desire to learn a new language—one that doesn't involve letters and marks of punctuation. But much of the attraction comes from the need to be in the moment. Put a keyboard in front of me, and I can generally accomplish what I set out to do, but even the most sophisticated camera leaves dozens of factors beyond my control.

Last winter, Willie Karidis spent 61 consecutive days in Denali National Park, trying to recreate photos taken by naturalist John Sheldon 100 years to the day (see page 12). After weeks of frustration, he finally got the shot, and it opened his eyes to the universal nature of having "faith in a moment," as he calls it—the hope that something beyond our control will come to pass.

Last May, Lee Diehr, the amateur photographer whose work is featured on the final page of this issue, spent hours trying to capture white ribbons of water cascading over boulders at Great Falls National Park in Virginia, and he succeeded. But it wasn't until later that he noticed a great blue heron lingering at the edge of the frame—the detail that truly makes the image.

And this June, I was fortunate enough to spend a day in Rocky Mountain National Park in Colorado, looking forward to some quality time with my camera. But clouds and rain left me confined to my car for hours on end. Then, just as I was about to drive off with all the other visitors, the storm clouds lifted and the sun came out. I had picturesque Bear Lake and Emerald Lake all to myself, just as the sun was setting. It was nothing I anticipated, nothing I controlled, and that's what made it perfect.

SCOTT KIRKWOOD
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National PARKS

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National Parks Conservation Association®
Protecting Our National Parks for Future Generations®

WHO WE ARE

Established in 1919, the National Parks Conservation Association is America's only private, nonprofit advocacy organization dedicated solely to protecting, preserving, and enhancing the U.S. National Park System.

WHAT WE DO

NPCA protects national parks by identifying problems and generating support to resolve them.

WHAT WE STAND FOR

The mission of NPCA is to protect and enhance America's National Park System for present and future generations.

EDITORIAL MISSION

National Parks magazine fosters an appreciation of the natural and historic treasures found in the parks, educates readers about the need to preserve those resources, and illustrates how member contributions drive our organization's park-protection efforts. The magazine uses the power of imagery and language to forge a lasting bond between NPCA and its members, while inspiring new readers to join the cause.

MAKE A DIFFERENCE

Members can help defend America's

natural and cultural heritage. Activists alert Congress and the administration to park threats; comment on park planning and adjacent land-use decisions; assist NPCA in developing partnerships; and educate the public and the media. Please sign up to receive Park Lines, our biweekly e-mail newsletter. Go to www.npca.org to sign up.

HOW TO DONATE

To donate, please visit www.npca.org or call 800.628.7275. For information about bequests, planned gifts, and matching gifts, call our Development Department, extension 145 or 146.

QUESTIONS?

If you have any questions about your membership, call Member Services at 800.628.7275. *National Parks* magazine is among a member's chief benefits. Of the \$25 membership dues, \$6 covers a one-year subscription to the magazine.

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WHY BATTLEFIELDS MATTER



John Hennessy [author of “Beyond the Battlefields,” Summer 2008] has led tours of the Manassas battlefields, been the featured speaker at Civil War groups, and written books about Manassas battles. He has always been interesting and informative.

It therefore astounds me that he describes his view of the war as rather narrow. More puzzling is the visitor to the battlefield who didn’t want to hear about the forces involved and the fact that men were killed and wounded. For crying out loud, it was a battlefield, not a golf course.

I dare say that the soldiers involved in the battle had a rather narrow view also. That view was most likely limited to staying alive, not letting their buddies down, not disgracing themselves, and winning the battle. Once the shooting started, I doubt seriously if they were thinking about tariffs, states rights, constitutions, abolishing slavery, preserving the Union, or anything else that was a factor in conditions that led to the war.

My wife and I have been to numerous Civil War battlefields where six of our great grandfathers and great, great uncles fought for the Confederacy. We wanted to stand where our ancestors stood and to get a feel

for the part they and their units played in the battles. Two of those ancestors were wounded, one at Gettysburg and one at Yellow Tavern.

Anyone primarily interested in causes of wars; social, political, and economic factors; and anything going on away from the battlefield would be better served by reading, attending lectures, or taking classes. Otherwise, they’re wasting the time of the interpreter and possibly interfering with serious students of the battles, who also want to learn from these rangers.

WALTER DUNN TUCKER

*Commander (Retired),
United States Naval Reserve
Richmond, VA*

John Hennessy responds:

I agree with a good deal of Commander Tucker’s letter. Battlefields are about battles—they are and always will be. These are profound places of remembrance. Those who don’t “get” that—like the disgruntled visitor at Manassas—miss one of the major reasons these places were set aside.

But battles matter beyond the pure (and horrible) human experience of the men who fought. Nations wage war for profound reasons. Commander Tucker is quite right that in the midst of combat, soldiers generally don’t ponder politics, war aims, causes, or consequences. But battles clearly derive from a cause, affect the political environment, and contribute to the consequences of war that help transform a nation. Pointing those things out to visitors adds to the profound significance of the men who fought on these fields.

For soldiers, battle was a struggle for victory and survival. For a nation, battles were a

component of a national transformation—one that means different things to different people. We will always remember, commemorate, and honor deeds of almost unbelievable courage and devotion. But shouldn’t we also try to help visitors understand why courage, sacrifices, and battles matter?

It’s no disservice, no dishonor to anyone, for visitors to leave our park with a greater understanding of how and why the Civil War helped shape our nation. We are not moving away from the tradition of remembrance and understanding—we are adding to it.

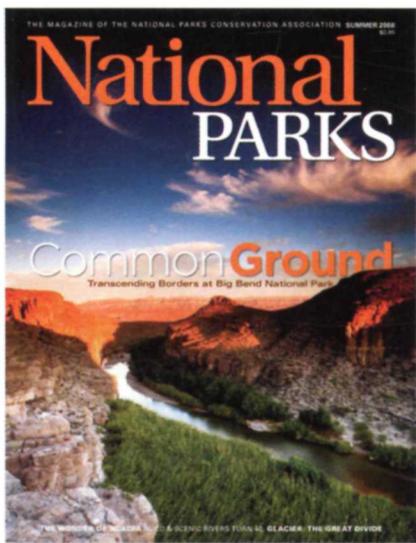
Having been involved in Civil War battlefield preservation and interpreting that history for about 15 years now, I agree with John Hennessy. I have spent long hours studying the tactics, movements, successes, and failures of both Union and Confederate troops so that I may try to convey the most accurate information to visitors in the Fredericksburg and Spotsylvania region. After many tours and programs, all of which end with a question-and-answer period, I had a similar encounter to Mr. Hennessy when an individual asked a simple question: “So what?”

This was a question I was not prepared for. What the individual wanted to know was after all the battles, all the maneuvering, what was the point of it all? Needless to say I now use this question after my tours. I propose it myself. I now strive to dig deeper than the military aspect of the war.

TOM VAN WINKLE

*President,
Friends of Wilderness Battlefield
and Director of Communications,
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Spotsylvania, VA*

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or e-mail npmag@npca.org. Include your name, city, and state.
Published letters may be edited for length and clarity.



A YAMPA CONNECTION

I think it's wonderful that you wrote about the Yampa River and Echo Park in Dinosaur National Monument ["Of Time and Rivers Flowing," Summer 2008]. I worked as an

intern and a park guide in the monument, and couldn't have imagined a place as magical and beautiful as Echo Park. I have not rafted the Yampa River, but I have rafted from Echo Park to Split Mountain, and it was a wonderful experience. It would have been a real tragedy to have dammed that waterway.

MARGARET GRAY
Logan, UT

SPEAKING FROM EXPERIENCE

I couldn't wait to read your Summer 2008 articles on Wild and Scenic Rivers ["Of Time and Rivers Flowing"] and the proposed coal mining in the Canadian Flathead Valley ["Moving Mountains"], since the North Fork of the Flathead River is involved in both subjects. I worked for the U.S. Forest Service, and mapped the entire North Fork to be included in the Wild and Scenic Rivers system back in the early 1970s. However,

I have to tell you that the "sotol plant" on page 30 ["Pushing Boundaries"] is actually a yucca. Nevertheless, great photos throughout, as usual!

PHIL YOST
Las Cruces, NM

CORRECTIONS:

"Water Meets Wonder" [Summer 2008] states that Acadia was the first park to be established east of the Mississippi, but that credit actually goes to Mackinac National Park, which eventually became a state park. Also, the Torngat Mountains in Canada are the highest on the East Coast in North America, towering more than 3,000 feet above Acadia's Mt. Desert Island. A map on page 48 ["Of Time and Rivers Flowing"] portrays St. Croix River as a proposed Wild & Scenic River—which it is not. In the same article, we also misspelled the name of Joan Harn, a Park Service employee. We regret the errors.

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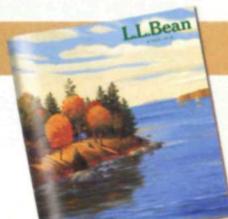
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UPDATE



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IN JULY, only nine weeks after Northern Rockies' gray wolves were removed from the Endangered Species List, a federal judge in Montana put them right back on it.

Fourteen gray wolves were brought from Canada to Yellowstone in April 1995. Today there are nearly 200 wolves in the national park, and more than 1,500 wolves spread throughout Idaho, Montana, and Wyoming. But Judge Donald Molloy ruled that numbers are not enough. Molloy issued a preliminary injunction that reverses the delisting temporarily, based largely on the concerns regarding Wyoming's liberal management plan, which classified wolves as predators in 90 percent of the state, allowing them to be shot on sight. Officials in all three states have since cancelled hunts that had been planned for the fall.

Judge Molloy will oversee a hearing in the coming months to issue a more substantive ruling, but that decision is expected to be consistent with his preliminary finding. The Fish & Wildlife Service is likely to appeal the decision, meaning the issue could be in court for several years.

"Molloy's decision closely follows our objections to the delisting," says Tony Jewett, senior director of NPCA's Northern Rockies Region. "NPCA will continue to actively work to strengthen the weak protections in Wyoming's plan and to ensure the health of wolves in the Greater Yellowstone ecosystem."

A SWEET DEAL

A multi-billion dollar land sale could bring the Everglades closer to its natural state.

Nobody saw it coming. In June, Florida Governor Charlie Crist floored the environmental community when he announced plans to purchase 187,000 acres of sugar cane and citrus farmland from U.S. Sugar Corporation for \$1.75 billion.

"It's terrific news for the Everglades," says John Adornato, regional director of NPCA's Sun Coast office in Florida. Securing the farmland south of Lake Okeechobee, he says, will help improve water quality and increase water flow to Everglades National Park and Florida Bay.

In the last century, about half of the "River of Grass" has been drained and converted to farmland, housing, and urban development. Realizing the seriousness of this loss, Florida and the federal government announced plans in 2000 for the largest ecological restoration plan ever undertaken in the world. With the addition of U.S. Sugar land, the state can clean polluted water, store rainwater, and start recreating the landscape.

But Florida can't do it alone—the state needs federal support to achieve its restoration goals. So far, Congress and the Bush Administration have failed on promises to match funds and advance projects.

"Restoring the Everglades is not only vital to our environment," Adornato says, "but to our economy and quality of life in South Florida. We must leave a legacy for our children and grandchildren by saving one of the great special places in the world."

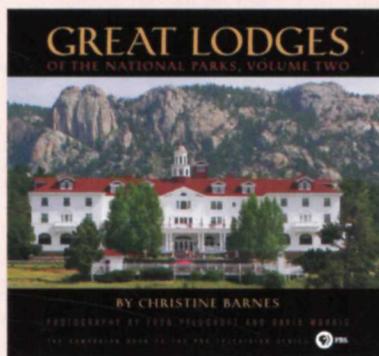
—Amy Leinbach Marquis



Great egret in the Everglades.

© FLORIDASTOCK/ISTOCKPHOTO

EYE-OPENER

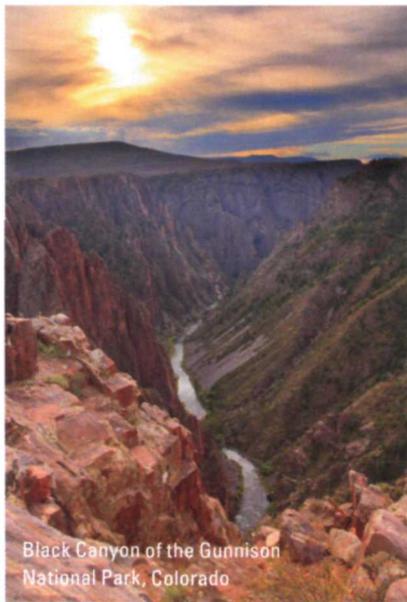


CAMPsites AND CHEAP HOTELS WILL ALWAYS HAVE THEIR CHARMS—but if you're interested in something a bit more luxurious, check out *Great Lodges of the National Parks, Volume Two* by former journalist Christine Barnes. Historic black-and-white photographs illustrate the visitor experience over the decades: a couple at the turn of the century, enjoying tea at a window overlooking a grand Yellowstone landscape; wealthy park visitors gathered around early-model automobiles at Rocky Mountain's elegant Stanley Hotel; a 1950s family in Camp Denali, strumming guitars in front of a wood-burning stove. Modern images by photographers Fred Pflughoft and David Morris reveal ornately decorated dining rooms, seamless architecture, sustainable vegetable gardens, and spring-fed swimming pools—pleasant reminders that there is more to national parks than roughing it.

176 pages, \$35, Graphic Arts Books.

TURNING ON THE FAUCET

Water rights secured for Black Canyon of the Gunnison.



Black Canyon of the Gunnison National Park, Colorado

It's never easy to answer the question "Who owns a river's water?" but it's a question that's becoming more contentious as drought and development make water a valuable commodity in the West.

In 1965, the first of three dams was constructed upstream of Colorado's Black Canyon of the Gunnison, siphoning water from the Gunnison River. Officials have been wrangling over every drop since 1978, when a court recognized the park had a key stake in the matter. Law firm Hogan & Hartson represented NPCA and several other conservation groups in challenging a 2003 agreement between the state of Colorado and federal agencies that would have sacrificed those water rights to the state, which may have then allocated them to growing cities like Denver. A federal judge rejected the agreement, and the parties convened at the bargain-

ing table. Finally, this June, the groups emerged with a rough plan that should meet the needs of most everyone.

A new flow regime will help return the ecological balance to the river system, restoring the health of a world-class trout fishery, supporting insects that form the basis of the river's food chain, and greatly improving the aesthetics of a river that provides enjoyment for nearly 200,000 visitors each year.

"This process shows that science works," says Mike Snyder, director of the Park Service's Intermountain Region. "We were able to identify the minimum level of flows, the duration of flows, and achieve what was needed to prevent impairment of the Black Canyon of the Gunnison."

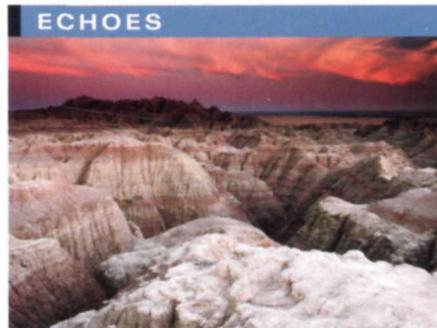
But according to Snyder, the management of dams on the entire Colorado River system has the potential to impact national parks in significant ways—from Canyonlands to Dinosaur, Grand Canyon, and Lake Mead—so there may be many battles yet to come.

—Scott Kirkwood

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THE NUMBER OF GOATS that munch away at weedy, overgrown areas in Fort Wadsworth, part of Gateway National Recreation Area in New York. These nimble climbers can eat up to 20 percent of their body weight daily, and their impact on the land is better than anything with a John Deere logo on the side. This is the second year the Park Service has hired yearling goats from an upstate farm in New York. But there is a downside: The herd recently snuck under a fence into a restricted security zone, near the base of a heavily guarded bridge that leads into Brooklyn. After being detained by the Army, the goats were safely returned to the park.

ECHOES



© ERIC FOLTZ/ISTOCKPHOTO

It's like being pulled over by a cop for going 75 miles per hour in a 55-mile-per-hour zone and saying, 'If you look at how I've driven all year, I've averaged 35 miles per hour.'

MARK WENZLER, director of Clean Air and Climate Programs for NPCA, quoted in the Washington Post in May, in response to a Bush Administration proposal to allow more pollution from power plants near national parks (including Badlands, above). Air-quality experts with the Park Service, EPA, and NPCA oppose the potential rule change, which could take effect as early as this fall.

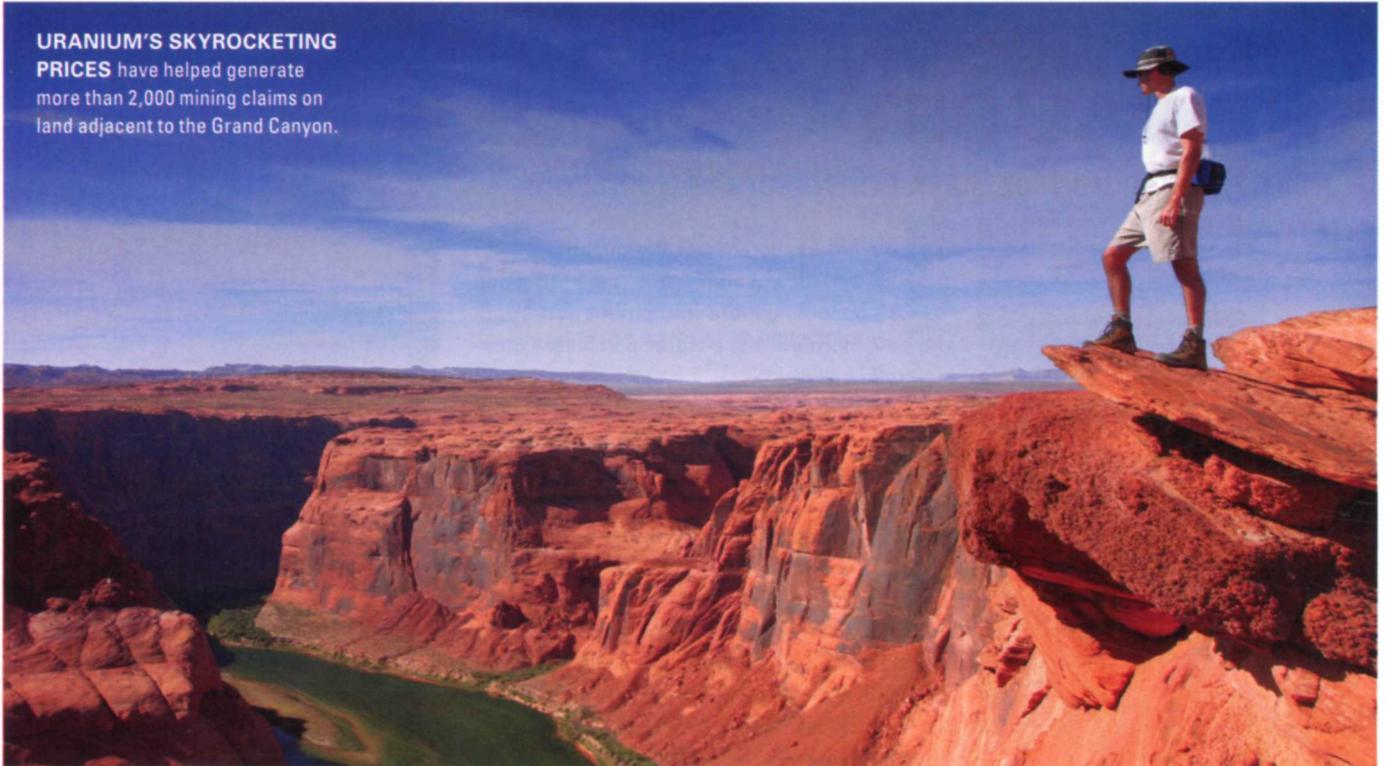
They do a great job with what they have. But we need to stop scraping to get pennies.

SUZANNE DIXON, director of NPCA's Texas regional office, quoted in the San Antonio Express News in May, regarding Park Service budget troubles affecting San Antonio Missions. A report issued by NPCA's Center for the State of the Parks highlighted cracked walls and crumbling masonry at the four 18th-century Franciscan missions due to a \$3.7 million maintenance backlog.

In many ways, the centennial is about renewing our vows... and re-examining our national commitment.

DON BARGER, senior director of NPCA's Southeast regional office, quoted in the Chattanooga Times Free Press in July, regarding NPCA's work on an initiative to secure millions of dollars to restore the Park System in time for its centennial in 2016.

URANIUM'S SKYROCKETING PRICES have helped generate more than 2,000 mining claims on land adjacent to the Grand Canyon.



© CHRISTOPHE TESTI/ISTOCKPHOTO

A RADIOACTIVE PROPOSITION

Uranium mining poses a serious threat to the Grand Canyon ecosystem.

Forty years before the Grand Canyon became a national park and decades before the dawn of nuclear energy, Congress passed legislation that encouraged mining companies to exploit the abundant natural resources that lay just below the earth's surface. Now, more than a century after the passage of the Mining Act of 1872, energy needs have made nuclear power an attractive option, and uranium prices have increased tenfold in only a few years.

As a result, mining companies are turning their eyes toward 1 million acres of land on the edge of the Grand Canyon, including uranium deposits in the Kaibab National Forest, two miles from the park's border. Since 2003, more than 2,000 mining claims have been filed within the Tusayan Ranger District of the national forest, which skirts

the southern portion of the Grand Canyon for 40 miles.

The troubles started last December, when the Forest Service gave Vane Minerals permission to begin exploratory mining in the area and waived a typical environmental review citing its exploratory nature. Three months later, Rep. Raul Grijalva (D-AZ) introduced the Grand Canyon Watersheds Protection Act of 2008 to remove the land from consideration, noting that potential contamination of the Colorado River watershed makes even exploratory mining a nonstarter, since full-scale mining is likely to be prohibited regardless of the outcome. But the Forest Service was moving ahead too quickly to await the law's passage, so Grijalva used his position on the House Natural Resources Committee to invoke the emergency provision of a

1976 law to urge the Department of Interior to prohibit any mining operations for three years, while legislators took the time to seriously consider the issue. Every Republican congressman immediately walked out of the proceedings, and lawyers from the Interior Department later insisted that the lack of a quorum rendered the successful vote null and void.

For now, no one's quite sure of the legal implications of the congressional procedures. And a previous court case that had prevented Vane from moving forward is about to be resolved, so it may be only a matter of days before the company tests the waters, so to speak.

Residents of the Southwest have seen the impacts of uranium mining before. In 1979, Church Rock uranium tailings in New Mexico released 94 million gallons of sludge into the Puerco River, a Colorado tributary that runs through the Navajo Reservation. And 40 years after the Orphan Mine ceased operations only three miles from the park's popular El Tovar Hotel, the Arizona site continues to leach radioactive waste into a creek

American Indian tribes throughout the region have voiced their opposition, as have the Grand Canyon superintendent, Arizona's governor, and even the director of the Metropolitan Water District of Los Angeles.

feeding the Colorado River.

"Mining activities are likely to contaminate groundwater or create surface pollution that may be transferred into groundwater aquifers," said Lawrence Stephens, an ecologist and senior scientist with the Grand Canyon Wildlands Council, during a hearing in March. "Such contamination may affect water quality in springs that are essential resources for fish and wildlife, backpackers, and water quality in the Colorado River, and the impacts may be felt for thousands of years."

American Indian tribes throughout the region have voiced their opposition, as have the Grand Canyon superintendent, Arizona's governor, Arizona's fish and game department, and even the director of the Metropolitan Water District of Los Angeles, where millions of residents rely on water from the Colorado River.

"NPCA and many other conservation groups have encouraged the White House to be more careful and thoughtful on these matters, but they're using agencies like Interior and Fish & Wildlife to push through some damaging rules before their watch is over," says David Nimkin, director of NPCA's Southwest regional office in Utah. "The threats to national parks posed by energy development in the Southwest won't go away anytime soon—there's oil and gas in and around Canyonlands National Park; oil, gas, and tar sand at Glen Canyon National Recreation Area; and uranium outside the Grand Canyon. In our region, the pressures felt as resources become more valuable will continue to lead to more battles. The Bush Administration is simply shirking its duties to balance our country's energy needs with the protection of our national parks."

—Scott Kirkwood



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A SELF-PORTRAIT of Willie Karidis, in the midst of 61 days in Denali.



COURTESY OF WILLIE KARIDIS

Q&A

A RETURN TO WILDERNESS

A century later, one man revisits Charles Sheldon's Denali experience.

*In 1907, Charles Sheldon spent a year in the wilds of Alaska, in what we now know as Denali National Park. His work documenting the wildlife and landscapes led him to become a primary advocate for the park's creation, which came about in 1917. Shortly after his death in 1928, Sheldon's widow published *The Wilderness of Denali*, which detailed his experiences a century ago. One hundred years after that historic trip, Willie Karidis decided to trace Sheldon's path. He took a hiatus from his position as executive director of the Denali Education Center, adjacent to the park, and spent 61 days in the middle of winter to learn all he could about the park, the wilderness experience, and ultimately, himself. National Parks Editor Scott Kirkwood spoke with him this summer.*

Q. How did this idea first come to you?

A. It started 22 years ago when I first read the book—I wasn't even a quarter of the way through it when I decided it would be a great experience to spend the entire winter out in Denali. The dream evolved, and I later realized two months would be a reasonable amount of time. I thought it would be a wonderful spiritual journey for me, but I also saw it as a way of celebrating Sheldon's experience.

Q. Can you talk a little about the book and its impact?

A. *The Wilderness of Denali* is actually a painful book to read in many ways, because 100 years ago, the method of studying wildlife was to kill everything. Sheldon

was a master hunter—he collected everything from the smallest shrews to the largest grizzly bears, as part of his work for the biological survey, then brought those animals back East to the museums for study. His initial interest was in Dall sheep because no one had really studied the species before, but the book wasn't simply about hunting. Sheldon had an amazing way of describing color and seasons and feelings—he was a naturalist, too, during a time of transition for the country, when people were just starting to recognize that preserving large tracts of land was important for our future.

Q. And what is his connection to the creation of the park itself?

A. Back then, Kantishna was a gold mining area deep inside what is now Denali National Park, so market hunters were going through the area and collecting as many sheep, caribou, moose, and bear as they could to feed the camps. Sheldon recognized that if something wasn't done to preserve this area, all of the animals that he loved would be eliminated. His time in Denali led him to formulate the idea of creating the national park. He and others petitioned the federal government to create Mt. McKinley National Park in 1917—the first national park created after the formation of the Park Service in 1916.

Q. Talk a little about the logistics of your journey.

A. I began purchasing some of the gear many years ago, but the biggest push was in the last year—working to become a volunteer in the park, whose staff were extremely helpful, stashing firewood because I obviously couldn't chop down any trees in the park, making sure I had enough food... My original intention was to camp near where Sheldon's cabin used to be, and live in my Arctic Oven [a tent that allows campers to build a fire inside]. But when I went to the area, it was obvious that wolves had been bedding down there, so rather than invade their territory, I got Park Service permission to stay in the old Pearson cabin built in 1927.

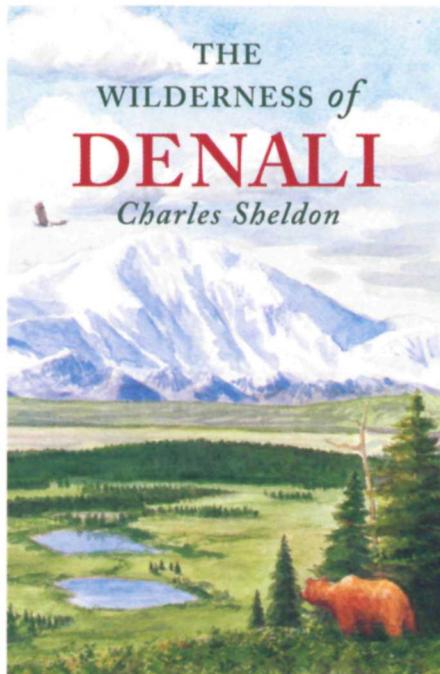
Q. Was there ever a time you thought this whole idea might have been a big mistake?

A. Never. In fact, very early on I made a conscious decision not to have any negative emotions, like impatience, stress, anger, fear, or intolerance. On my second day alone, I realized that all of those emotions would just cause me to make bad decisions, so instead I decided to focus on joy and love and happiness and compassion and patience. It was something I'd never done in my life but it just seemed like the natural thing to do out there. It made my decisionmaking a lot clearer and my experience a lot more fulfilling.

Q. What other lessons did you learn?

A. One of my goals was to try to duplicate the photos that Sheldon had taken 100 years to the day, so I was looking for these opportunities constantly, but every time something would come up. The weather would turn bad, or I wouldn't be able to find the right location—there was always an obstacle. The last time I really had an opportunity to take one of these 100-year photos on the same day as Sheldon was March 10. The snow was coming down, so the visibility wasn't great, but I found the spot on the east branch of the Toklat, and I was overwhelmed with joy when I took the photo.

And I realized one of the things I'd been looking for this entire trip was our commonalities as human beings—things that we all share—and wilderness is one of those commonalities. It's where we all come from. It's our country's greatest wealth. But another thing we share is faith in a moment. We all have our own dreams—they might not be focused on wilderness, but we have faith that our unborn child is going to be healthy, we have faith that our loved one is going to come back safely from war, we have faith that we're going to do well on a test.... And the more things that we can identify that we have in common, the closer we'll be to a world that's more balanced, and the better able we'll be to communicate with each other. That was a huge revelation to



COURTESY OF ROWMAN & LITTLEFIELD/DERRYDALE PRESS

CHARLES SHELDON'S year in Denali led him to advocate for the national park, which was established in 1917.

me. It changed the way I look at life and the world.

Q. What was it like being so out of touch with the world?

A. I talked to my wife a few times a week on a satellite phone, but being alone for so much time really got me in touch with the simplicity of life, and the idea of learning this new culture. I equated it with going to a foreign country or a place I'd never been before—at first you're curious and you're looking around, but you don't know anybody there, you don't know where to go, and you can't really speak the language. But as you stay there longer you get to know the people who live there, you discover some of your favorite places, and you learn how to speak the language.

Because I kept the satellite phone wherever I was sleeping, in the cabin or Arctic Oven, I had to be slow, steady, and purposeful with every step I took, to make sure I wasn't twisting an ankle or falling into ice. But after a while I didn't have to

be as concerned, because the environment became so familiar. Initially, I felt like I was clumsy and out of place, but by the end of it, I felt like I fit in really well. At first, the mountains seemed really large, too, but the more I walked and hiked and climbed, the smaller they became.

I used to always be a person who looked straightforward and side to side occasionally, but I realized that even though I saw signs of wolves, I rarely ever saw them. That forced me to change my perspective, to take in all 360 degrees, always looking behind me, so I didn't miss a thing. And months later, I still do it all the time.

Q. Do you have plans to capture the lessons of your journey?

A. I do want to write about my experiences. When Sheldon was in Denali, he was out hunting and collecting and exploring the area, but my trip became more of a reflective, spiritual journey. While I was out there I read the autobiography of Gandhi and *Ethics for the New Millennium* by The Dalai Lama, the Koran and sayings of the prophet Mohammed, the Bible, the Declaration of Independence, and the Bill of Rights. I was seeking a greater understanding of what we all have in common, so the lessons I took away are obviously quite different.

Q. Obviously, few people can tackle such an extreme journey like yours. Are there ways for the rest of us to learn these lessons?

A. Certainly. Not everyone can experience Denali like I did, but it's up to each person to find their own experience, whether it be your neighborhood park, the ocean, or your backyard. To find the simplicity of nature is something that is within all our power. It exists in wild places, and you can find those places almost anywhere.

ON THE WEB

To learn even more about Karidis's time in Denali, visit his blog at <http://wildernessofdenali100.blogspot.com> or the Denali Education Center, www.denali.org.



ILLEGAL USE of off-road vehicles can cause major damage to park resources.



© JASON MAJOR/ISTOCKPHOTO

OFF-ROAD TO RECOVERY

Outcome of NPCA lawsuit helps curb illegal off-road vehicle use in the parks

Rogue tire tracks scar the desert floor in California's Joshua Tree National Park, where off-road motorists have sent hikers scattering from trails. Rangers at Michigan's Sleeping Bear Dunes National Lakeshore have recorded 363 incidents of illegal off-road vehicle use in the last seven years, and a colony of endangered pitcher's thistle plants is among the victims. River banks in Olympic National Park in Washington are torn up and stripped of vegetation.

It's not that off-road vehicles are illegal in the parks. In fact, off-roading is a popular pastime in places like North Carolina's Cape Hatteras National Seashore. But as with any park activity, certain rules apply—and resource protection always comes first.

When it became clear that motorists were hurting those resources—some

knowingly and others not—NPCA and two other conservation groups decided to do something about it. Using the Freedom of Information Act, NPCA reviewed Park Service documents revealing evidence that off-road vehicle use was causing widespread damage. That triggered a lawsuit in 2005 by Friends of the Earth in partnership with NPCA and Wildlands CPR.

"Litigation is always our last resort, but we found that the problems were too widespread and the violations too serious," says Mary Munson, NPCA's deputy general counsel. "Because of a general lack of funding, it's difficult for parks to prioritize and enforce resource protection. Even when park officials wanted to issue citations or put more rangers on patrol, they didn't always have the resources to do so. This lawsuit was our attempt to make the Park Service face those problems."

In May, NPCA and its co-plaintiffs agreed to settle the case if the Park Service promised to implement pilot programs that would curb illegal use in ten national parks, including Big Thicket National Preserve in Texas, Death Valley National Park in California, and New River Gorge National River in West Virginia.

The majority of off-road motorists are law-abiding people who want to follow the rules—but in some parks, the rules simply weren't posted. So the Park Service is aiming to get responsible users to pressure their peers into behaving, and it's producing a system-wide brochure explaining off-road rules and regulations to help advance the cause. The settlement also requires the Park Service to improve its reporting methods, strengthen its law-enforcement efforts, and issue more court orders to crack down on illegal use. In Glen Canyon, for example, park officials have begun confiscating off-road vehicles from motorists who break the rules. So far, it's been a successful deterrent, and the amount of damage has decreased.

Jerry Case, chief of regulations for the Park Service, predicts that new rules and regulations will be ready to implement in at least two parks before 2012. "There's a feeling among park staff that we're finally doing the right thing," he says.

—Amy Leinbach Marquis

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GALLONS OF WATER saved yearly, now that Whitman Mission National Historic Site in Washington has upgraded old heating and cooling systems, replaced water-chugging toilets, and begun gardening with native plants. The park also blends its own biodiesel and recycles and composts more than 90 percent of its trash. The site, which commemorates the tragic fate of a Presbyterian family from the 1800s, has cut its carbon emissions nearly in half.

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PHOTOS (CLOCKWISE FROM LEFT): NINETEENTH CENTURY MANSION AT TALLGRASS PRAIRIE NATIONAL PRESERVE, KANSAS © KAREN BOROZNAK/ISTOCK PHOTO; SANDHILL CRANE © GEORGE SHELLEY/ISTOCK PHOTO; WOMAN LOOKS OUT FROM ASSATEAGUE ISLAND, MARYLAND © THESEPERIT/GETTY IMAGES; WINDY BEPT GUNES OF RIVANA GUNES NATIONAL LAKESHORE, INDIANA © SYBIE MULLER/NPCA



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FALL 08



PARK RANGER Brenda Lanzendorf and volunteers from Diving With a Purpose research an archaeological site in Biscayne National Park.

DIVING WITH A PURPOSE

In Biscayne National Park, African-American divers connect with an elusive past.

Six years ago, Kenneth Stewart didn't know much about national parks. A copy machine repairman from Nashville, Tennessee, his SCUBA diving hobby took him to coral reefs and shipwrecks all over the world—but he wasn't connecting to the stories behind those places. After 20 years, he started to get bored.

Then in 2004, he came across a film called *The Guerrero Project*, which documented the search for a 19th-century Spanish ship that wrecked on a reef while illegally transporting 561 African slaves. Many believe the *Guerrero* rests somewhere in Florida's Biscayne National Park, but its wreckage has so far eluded both park rangers and the treasure-hunting community.

Stewart wanted in on the search. But it

wasn't just the history that intrigued him. For the first time in his diving career, he learned that treasure hunters like himself were threatening the preservation of human history—a message driven home in the film by Brenda Lanzendorf, Biscayne's sole underwater archaeologist. This was his chance to give back.

So the following year, Stewart led a group of young divers from the Tennessee Aquatic Program (TAP) on a trip to Biscayne to meet Lanzendorf. "Brenda's passion was infectious," Stewart says. "When she said she was the only archaeologist in the park, I got to thinking about how we could help."

As the southern regional representative of the National Association of Black SCUBA Divers, Stewart had a long list of

potential volunteers at his fingertips. So he sent an email, encouraging them to "dive with a purpose." The response was immediate, and the following April, ten divers gave their own time and money to fly to Biscayne, train under Lanzendorf, and begin mapping one of the 91 undocumented wrecks on Biscayne's ocean floor.

The program, called Diving With a Purpose, is now in its fifth year and couldn't be more welcome in an understaffed park that has struggled to keep historical underwater sites intact. Because ships tend to wreck on coral reefs, their remains often lie in fairly shallow water, where recreational divers and even snorkelers can pocket artifacts with little risk of being caught. But most of those objects, even when put through a meticulous preservation process, perish quickly once they're above water. "Many of these artifacts have lasted for 200 to 300 years underwater, and they'll probably last for another 200 to 300 years underwater," says Richard Curry, Biscayne's Ocean, Reef, and Science program manager. "So it's the best place to keep them to ensure their preservation."

But that poses a problem for the Park Service. "What's the sense of preserving something," Curry says, "if the public can't enjoy it?"

In response, Diving With a Purpose volunteers are helping Biscayne plot a maritime heritage trail that park visitors will eventually be able to navigate on their own, without harming the sites.

Lanzendorf identified seven potential sites to add to the trail, but her efforts ended tragically last April when she died of cancer. Still, her legacy lives on. Two scholarships have been established in her name—one to sponsor a young person interested in volunteering with Diving With a Purpose, and another to help minority youth obtain diving certifications.

"Brenda's premise was that when young people get in touch with their history, it will make them think more clearly about what's going on in their lives," Stewart says. "With all the problems in the African-American community, this is one way to make a positive difference."

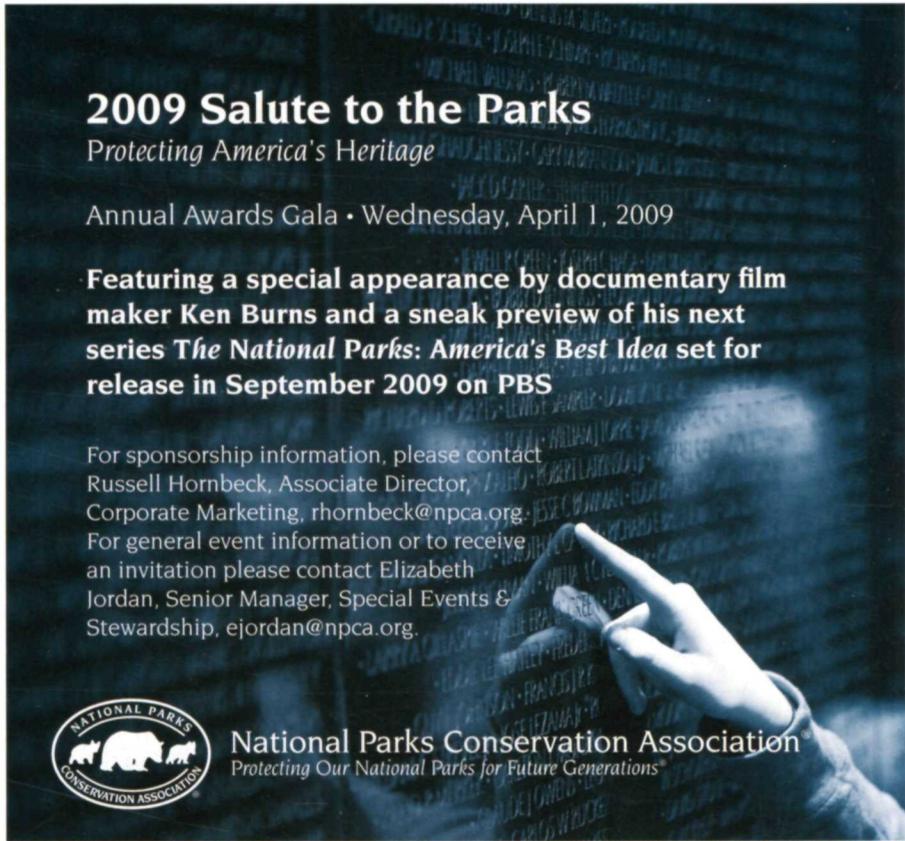
Next year, the Diving With a Purpose

trip will stretch two weeks instead of one, allowing volunteers to document an additional wreck site. And for those who can't tolerate spending hours underwater in one spot—a requirement in the mapping process—there will be a new marine biology component, where volunteers can count and observe fish inhabiting the wreck sites. Divers could then look for those species in other waters to determine whether or not a wreck exists nearby.

Stewart is honoring Lanzendorf's legacy well beyond Biscayne's watery graves, too. This fall, he will lead TAP kids on a trip to Kentucky's Mammoth Cave National Park, where they will learn about the impressive role African-American slaves played as tour guides in the longest cave system in the world.

"Prior to Diving With a Purpose, I didn't know a lot about the national parks," Stewart says. "But because of Brenda, I began to realize how vast this system is. Now I'm an advocate of the parks. I can really appreciate what they offer."

—Amy Leinbach Marquis



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How to Build an Ocean

What gets coral in the mood?

You've never seen the ocean like this before. In one of its showiest annual events, dozens of coral species erupt eggs and sperm in a massive, synchronized spawning. "It's a wild time under water," says Matt Patterson, a Park Service ecologist who witnessed coral spawning in 1996 while diving in Dry Tortugas National Park in Florida. "The small fish have a feeding frenzy, and the big fish come out to eat the small fish. Suddenly you're part of the food chain and hoping there isn't a bigger fish behind you."

Scientists are still trying to figure out

what signals the event—theories point to calm winds, monsoon cycles, spring and fall equinoxes, and a precise dose of sunlight. New evidence shows that *Acropora milepora*, a reef-building coral found in the Indian and Pacific Oceans, actually has a primitive form of eyesight, thanks to photoreceptors that detect moonlight—the amount of which is another possible trigger.

The discovery could provide clues to coral spawning that occurs oceans away at Biscayne National Park in Florida, every August, several days after a full moon.

The morning after a release, thousands

of eggs—some fertilized, some not—sit like Pepto Bismol on the water's surface. Within a few days, embryos develop into swimming coral larvae in search of the right reef to call home. Patterson likens it to the colorful sheets in Christo's modern art displays.

But Patterson—who coordinates natural resource monitoring in seven national park units in Florida and the Caribbean—isn't just there to admire art. There are real applications to studying coral reproduction—most notably, coral rehabilitation via captive-rearing programs that help rebuild damaged reefs.

In some cases, scientists capture larvae, nurture them for a few weeks, and then release them back into the wild. Or they might capture the eggs and sperm, rocking them gently in giant coolers until they form larvae that can build colonies in aquariums. But getting the conditions right is no small task.

Take Michael Henley, an invertebrate aquarist at the National Zoo in Washington, D.C., who attempted to rear elkhorn coral,

a threatened species that ranges from north of Biscayne National Park to South America. Henley placed 12,000 larvae in a 350-litre aquarium with underwater jets, 400-watt lamps, an advanced filtering system, and plenty of food and algae. A couple months later, however, there were just two surviving larvae, each a millimeter long.

Scientists continue to look to the oceans for clues, where synchronized reproduction is commonplace. But corals are among the most cryptic of marine life. The larvae are microscopic—about 2,000 can fit into a Coke bottle filled with ocean water—and as they disperse in the ocean, it's nearly impossible to track them. When they settle on a reef, they often nestle into crevices, out of sight. And just 5 to 10 percent survive long enough to grow an exoskeleton.

So when a reproduction event fails to create much new reef growth, it's hard to know why. Could it be that corals aren't producing eggs due to environmental stress? Do larvae no longer have a place to settle because of

seaweed overgrowth? Are toxins in the water halting larval development?

The search for answers is ongoing at Hawaii's Kalaupapa National Historical Park, where reef building from reproductive events appears low compared to marine systems nearby. But Kalaupapa's monitoring program is in its infancy, and trends may not emerge for at least a decade.

Biscayne National Park faces a different set of challenges, where storms and wayward boats can shatter reefs. Normally, broken corals would amount to little more than dead, drifting tumbleweeds on the ocean floor—but by nursing these sprigs back to health in captivity, scientists can grow large enough pieces to restore wild reefs. "The nice thing is, you're not pulling pieces off a healthy reef to repopulate another," Patterson says.

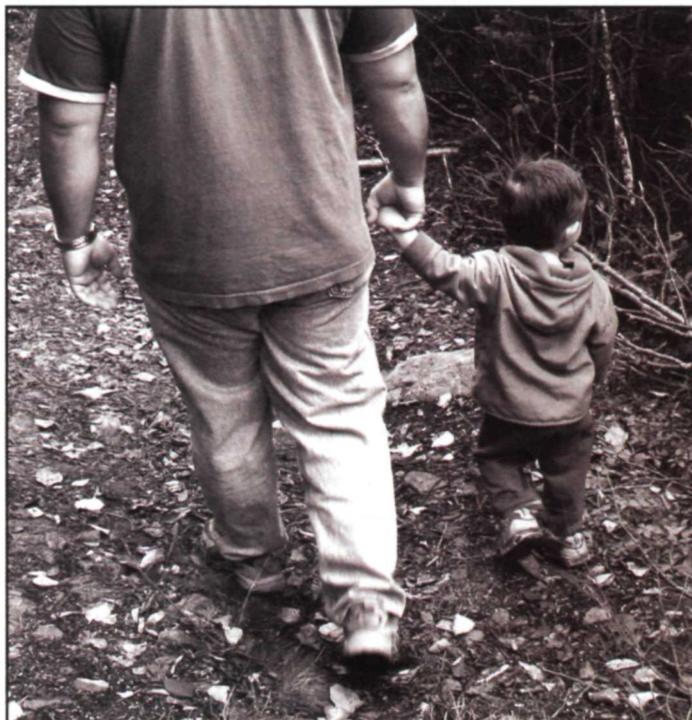
But even the best methods can't replace every reef. "It's not a solution for mass coral bleaching and large-scale disease outbreaks," says Wade Cooper, a doctoral student at Florida's University of Miami. "If the envi-

ronment is going downhill you can try to re-plant corals, but they'll die just like the wild ones did. First you have to get the environment right."

Environmental changes like global warming and ocean acidification are causing the world's corals to perish at an alarming rate—a scary trend when you consider that reefs protect shorelines from strong storms, deter beach erosion, and offer countless resources to fishing communities. But research also shows that by easing environmental stressors and boosting marine protections, reefs rebound. And national parks are the perfect place to start.

"Parks are our laboratories, and some of our greatest areas of exploration," says Jason Bennis, NPCA's marine policy manager. "They provide a great opportunity for scientists to unravel mysteries that are widespread in the marine world." NP

Amy Leinbach Marquis is associate editor at *National Parks* magazine.



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FALL 08



THE ISLAND FOX is making a comeback in Channel Islands National Park.

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Reweaving a Tangled Web

With the Island fox's return to Santa Cruz, threads of recovery run deep.

Doctor Lotus Vermeer and her team have lost a lot of socks lately, and they couldn't be happier. At their field station, dusty socks and hiking boots stay at the door. For years the footwear was safe, says Vermeer, director of The Nature Conservancy's Santa Cruz Island Preserve, part of California's Channel Islands National Park. But recently, foxes have begun making off with unguarded socks to entertain themselves in the brush. A small thing

perhaps, but for the Island fox, a creature at the center of one of the most complex endangered species recovery efforts in national park history, it's something to celebrate.

Like a streak of jagged stars, Channel Islands National Park is a constellation of five separate islands 20 miles off the California coast. Here, a complex tapestry of life has evolved, woven of nearly 1,000 plant and animal species—many found nowhere else. That richness has earned the islands the nick-

name the "Galapagos of North America."

The symbol of that biodiversity is the Island fox. Gray foxes, likely carried on storm debris, reached the northern Channel Islands as early as 16,000 years ago. Isolated by rising sea levels, they evolved into six similar but distinct subspecies, each named for its island home. Weighing only four to five pounds—smaller than the average housecat—Island foxes are "one of the rarest carnivores in the world," according to NPS biologist Tim Coonan. For thousands of years they thrived as the top land predator, becoming the symbol of Channel Islands National Park. But then something began to change.

From a high of 3,500 park-wide, fox populations began to plummet. On the northern islands their numbers fell by 90 percent between 1994 and 2000, leading the U.S. Fish and Wildlife Service to list four subspecies as endangered in 2004. What was causing the free-fall, and could the Island fox be saved? The answers would reveal a tangled web more complex than anyone had imagined.

On Santa Cruz, the largest of the Channel Islands, the Park Service entered into a unique partnership with The Nature Conservancy to undertake what Vermeer calls “a multi-organization, multi-species, multi-tasking effort” involving at least four separate but interwoven conservation efforts to save the Island fox.

One clear thread of the web involved the eradication of invasive species. As early as 1853, pigs began escaping from a ranch on the island. In the rugged terrain, feral pig populations boomed, killing native vegetation, creating habitat for non-native plants, and endangering archaeological sites. “It was clear that the pigs had to be removed if the fox was going to survive,” Vermeer says.

In a controversial move, fences were built across the island and professional hunters began systematically killing feral pigs from the ground and helicopters. As of two years ago, 5,036 feral pigs had been shot.

It was an emotional issue, Superintendent Russell Galipeau admits, but necessary. “We

looked at every possible alternative,” he says. “It came down to giving the native species the best opportunity for survival.”

Yet that opportunity would require more than the removal of the feral pigs. Another threat came literally out of the blue: Golden eagles, not found historically on Santa Cruz, may have been enticed to the island by the presence of wild pigs. Along the way, they also discovered easy prey in the Island fox. “Foxes are like popcorn to an airborne predator like golden eagles,” Vermeer says. To eliminate that threat, the park began a capture-and-relocation program in 1999. To date, 44 golden eagles have been netted and removed to the mainland.

Keeping golden eagles off the island also meant bringing back the bald eagle, a native island species whose numbers plummeted during the 1950s due to DDT poisoning. Feeding mainly on marine life, the bald eagle is aggressively territorial, forcing out golden eagles. A reintroduction program initiated in 2002 has led to more than 30 bald eagles

on park islands today, and 2006 saw the first successful bald eagle nest in over 50 years.

With the island clear of feral pigs, and bald eagles patrolling the skies, the success rate of foxes bred in captivity and released into the wild has skyrocketed. “Survivorship is now between eighty to ninety percent—the highest in decades,” says Vermeer. Santa Cruz Island is now home to 350 to 400 Island foxes, up from 100 only eight years ago.

“This has been one of the most complicated and yet successful endangered species recovery efforts in history, because of its holistic approach and the partnerships we’ve forged,” says Vermeer. “It is a story of hope.”

And a few socks are a small price to pay.

ON THE WEB

To see a video on the restoration project, visit the multimedia section at www.nps.gov/chis.



Jeff Rennie teaches literature at Conserve School in Wisconsin's North Woods.

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ILLUSTRATION BY JULIE MURPHY

Along Asphalt Trails

A writer's visits to the Grand Canyon and Yosemite offer a different perspective on the typical park experience.

deer.

*South Rim Trail
Grand Canyon National Park*

The paved path I wheel along curves to my right, and I follow. Its smooth black surface glides me easily through this rugged, ancient landscape of assaulted rock, stunted trees, and blooming cactus. Without this

path—without a whole sprawling web of trails, streets, and freeways—I would not be here. I would live in a smaller world, bounded by the caprices of natural terrain.

As I round the corner, squinting water-eyed against the sun magnified through my glasses, I see two figures whose very color and shape mark them as part of this landscape in

a way that I will never be. Two deer stand a few feet from the trail, eating from ground and bush, calmly going about the business of survival. I brake, partly to avoid interrupting their lunch, partly with voyeuristic intent. This is an ordinary, everyday scene at the Canyon, but in a city-dweller like me it creates a sense of extraordinary wonder, as if I'd been invited to dine with geniuses or saints.

I try to be quiet, though of course I am not quiet, even with my wheelchair motor stopped. My ventilator continues its regular pumping, pressing oxygenated air through my nostrils and into my lungs. Will my breathing sound like a snake's hiss, or some other threat? Apparently not. Although the deer seem to take passing notice of me, they continue eating, tentatively accepting my presence.

They are beautiful, these two white-tailed deer, a doe and a buck, his Y-shaped antlers still fuzzed and unbranched. Their brown fur establishes a family resemblance to the baked earth; their bodies hold an obvious

but not ostentatious potential for speed and strength. Their large brown eyes shine with the animal wisdom that comes from always watching, always listening, always inhaling the details of their environment. They stand 20 or 30 feet apart, chewing different species of brush, but they clearly travel together.

My partner Robin and I also travel together; she's already gone further up the trail. I feel no rush to catch up with her. When we go hiking, we both vary our wheelchairs' speeds, each sometimes accelerating, sometimes lingering, and sometimes matching the other's pace so that we roll along side by side. Robin saw the deer before I did, had her own moment with them, and moved on.

Closer by, at the moment, my attendant Mallorie is taking pictures with my digital camera. I've instructed her to shoot liberally, and I can see that she too recognizes this scene as a gift. Mallorie is a veteran hiker—though as an ambulatory 19-year-old, her treks involve greater range, rougher ground, and more changes in elevation than mine do. Now, though, she finds herself walking with me and Robin, or somewhere between us. She walks slowly or briskly; we set her pace. Mallorie stands with her sneakered feet planted far apart for steadiness, and pushes back unruly blonde curls to peer through the camera. She's focused on the buck, his sculpted half-crown and his eager grazing.

Meanwhile, I'm negotiating a tentative connection with the doe. She continues eating as she eyes me with a mix of curiosity and mild nervousness. Gradually the encounter grows deeper, closer. She's distracted now from chewing, as she gazes at me, seeming to see me for the first time.

What, I wonder, does she see? In her expression I fancy a kind of inquisitive bafflement, something like the perplexed expressions I get from the human hikers I meet. Perhaps she notices, like they do, that I'm different from the other park visitors who stop to watch her. Maybe her ears have picked up the whooshing pulse of my ventilator, or the thin hum of my wheelchair motor when I turn to look at her more directly. Maybe she perceives my relative smallness, or the fact that I am sitting down, or that I move by machine, not by foot.

Or maybe she notices none of this. Maybe

the anomalous facts of my body escape her completely, or are too unimportant to hold her attention. Maybe in this wilderness we share, I'm just like the other humans: loud, stinky, clumsy, and hoofless; innumerable and indistinguishable; provisionally welcome, but not entirely trusted.

In any case, the moment lasts longer than I had any right to expect. In the doe's large

This ordinary scene creates a sense of extraordinary wonder, as if I'd been invited to dine with geniuses or saints.

eyes, I begin to sense the innocent interest of a fellow creature. I meet her gaze, meaning to communicate—what? Respect. Reverence. Harmlessness.

The doe ducks her head, continuing to graze, giving no clear response. Still, she deliberately keeps me in her sights. I want nothing more than to watch her, to study the simple, elegant contours of her body. There's a taut muscularity to her which suggests violence restrained, though she displays no aggression. I know she could fight if she needed to protect herself, but her first instinct is to flee.

And now, I can see that that instinct is beginning to kick in, though as far as I know I've given no new hint of threat. Perhaps the wind has shifted, taking the full force of my sweaty scent to her nostrils. Or maybe I've just been sitting there a bit too long. The doe regards me more suspiciously, and begins backing up, just a step or two, then a few more. She gives me one last look, then turns and bounds away into the trees.

snake.

*Mariposa Grove Road
Yosemite National Park*

Human bodies seem minuscule here—tiny as toys, as if viewed from a great height—even though I am right here among them, part of this Lilliputian crowd. We all look small, as we meander through the ancient grove. The Giant Sequoia loom like gods. The bodies of their dead sprawl among them, rotting.

Awed by these trees, these largest living things, Robin and I had been wheeling along the bumpy road silently for a while. Somehow, though, we have gotten distracted by an argument, some household matter or something equally trivial, pulling us into a peevish back-and-forth. Her blue eyes blazing with impatience, Robin gestures emphatically, making her too-large beige

ball cap slip a bit. I frown against my girlfriend's stubbornness, and against the sunlight that pierces the trunks and branches.

Now we're silent again, not from woodland wonder, but from mutual irritation. The road widens as it approaches the parking lot. I'm about to argue a point, one last word—but as I open my mouth, I stop short, my attention pulled to a spot in the dirt, just a few feet ahead. "Look at the snake!" I say instead.

Robin and I both halt, grinning as if we've seen gold glinting from the hard ground. It's more orange than gold—a rough, rusty orange with a brown and yellow diamond pattern running the length of the King snake's body. From the lofty height of our chairs, we examine the small but striking reptile. The sharp, geometric angles of the color pattern contrast with the graceful waves of the infinitely flexible spine—curves and corners, composed in artistic harmony. Unperturbed by our attention, the snake moves at a leisurely pace, covering dusty ground effortlessly, unhurriedly.

I glance up and see two men and a woman nearby, all sun-baked, lean, and looking as if they had slept in their clothes. "How do you operate that thing?" one of the men asks me, not even bothering to indicate my wheelchair, as if no other topic of conversation were conceivable.

"Yeah, you gals do real good in those things!" says the other man.

"There's a snake right there," I tell them, for no particular reason except to deflect

their attention. I've found that tourists often displace their natural curiosity onto me and my wheelchair, and need to be prompted to notice the wonders around them—wonders they have traveled far, and in many cases paid fees, to see.

Refusing the role of park attraction, I offer up instead our precious find. The campers take the bait, and for a minute or two I'm relieved. Now we're all just ordinary park visitors, together admiring a minor marvel of nature.

Many passengers are openly chafing to be somewhere else—the stables, the campground, or just *off this bus*.

But the three campers can't leave it at that. Soon they've surrounded the snake. One gets down on all fours; the others make barriers of their boots. In this predicament the snake looks more delicate than before. They're poking it with a stick, trying to pick it up. Briefly they succeed, and the snake hangs like a dead thing as they gawk at it. This insult seems to rouse the snake to resist at last: With a quick, whip-like movement, it flings itself off the stick. The captors scramble to stop it from skittering away. While this tussle is going on, Robin and I make our own escape from the scene.

I trust the snake can take care of itself, but as we go I feel a twinge of guilty regret for subjecting it to that harassment, for sacrificing its dignity to spare my own.

bus.

Yosemite Village Shuttle Bus
Yosemite National Park

The park doesn't seem crowded, even though it's late Spring. We pass people on paths, say hello, and move along, still feeling that we have ventured far from urban density. We're not alone in the wilderness, but we're not bumping into each other either.

Until we board the shuttle bus. Suddenly scattered travelers, who had been so easily absorbed by the park's sprawling trails, groves, and meadows, coalesce into a big,

sweaty, cranky mob. We are packed in like rush-hour commuters, but without newspapers and iPods to occupy our attention. Restlessness jostles us along with the bumps. Many passengers are openly chafing to be somewhere else—the stables, the North Pines campground, a trailhead marked with a yellow circle on the map, or just *off this bus*. Others sit quietly, looking either tired and serene, or tired and bored.

The wheelchair tie-down system has me sitting near the front of the bus, facing to-

ward the rear. From here I have a clear view of the body language and facial expressions of dozens of bus riders—and they have a view of me. We regard each other with a mix of curiosity, friendliness, and puzzlement. I note some of them checking out my body and its support system: my curved torso and bony, sunscreened arms; brown eyes, brown hair, sun-mottled skin; tube lodged in my nostrils, leading to an unseen machine that pumps air into my lungs; and most conspicuously, my power wheelchair, with its network of tubes, wires, pads, straps, and metalwork.

For the few minutes of this bus ride, they are my audience, as if my front-of-the-bus reserved wheelchair space is a stage. But then, I am also *their* audience, and the rest of the bus becomes the stage. I examine them: A bleach-haired boy of about 14, wearing a skull-and-crossbones T-shirt and a sharp stud embedded in his chin. An elderly white couple, the woman wielding a hand-carved walking staff, looking for something in her straw purse covered with embroidered flowers, the man adjusting the settings on a chunky camera. A little Asian girl bouncing on her father's lap, exchanging smiles with her mother, who sits nearby studying a park guidebook printed in Japanese.

Out of the crowd I hear a woman speaking shrilly in a Midwestern accent. I see her standing near the rear door of the bus with

two younger women, evidently her daughters. "No," she is saying urgently. "I have to get something to eat *now*."

"I know, Mother," says one of the women soothingly. "I'm just saying, let's stop off at the visitors center, which is in two stops, to confirm our moonlight tour reservations. Then we can walk over to the village to find some lunch."

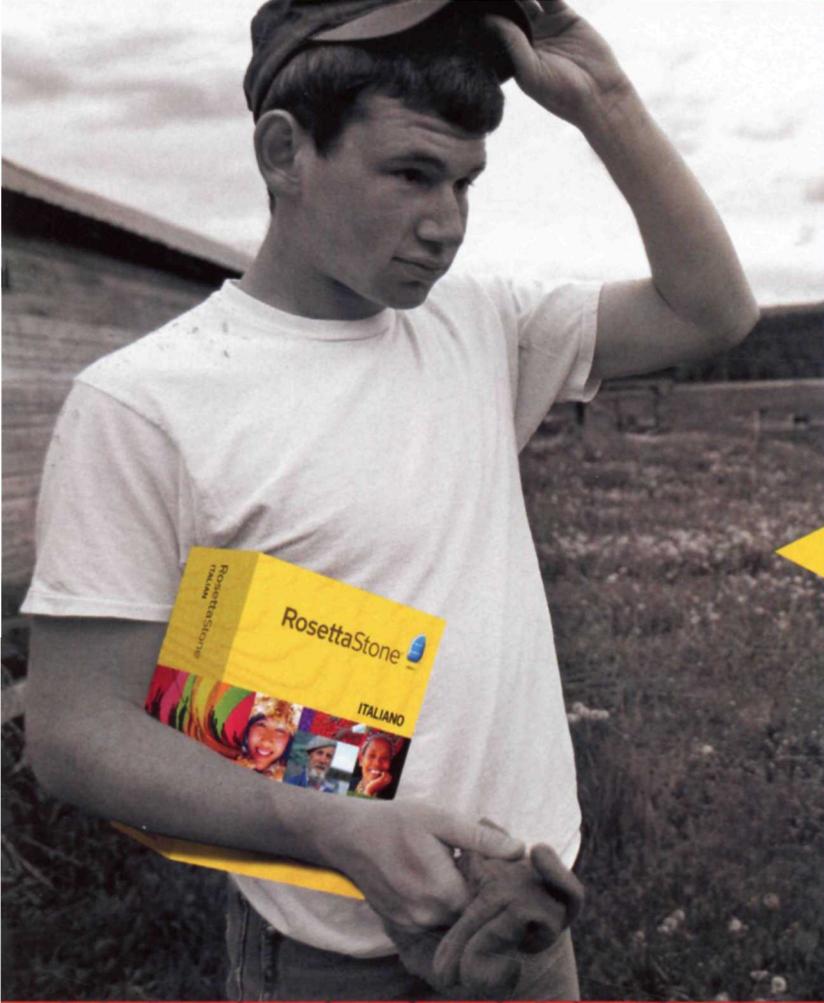
"No! Lunch first!" the older woman insists. Her voice gets louder: "Driver, where is the deli?" Concentrating on the road, he seems not to hear her. Her voice rises to a scream as she repeats, "DRIVER, WHERE IS THE DELI?!" Both daughters put their hands over their eyes and one sighs, "*Mother!*" in an embarrassed whisper.

The driver answers that she can get off at the next shuttle stop, and walk past the general store to get to the deli. And so they do, hurriedly—the mother driven by hunger, the daughters by their eagerness to leave the scene of such a shameful display of gluttony.

I find myself smiling, appreciating the woman's frank physicality. I think if I'd seen that performance on my local city bus, I would have sided with the daughters in their chagrin; I would have ridiculed the woman's impatient, hypoglycemic shrieking. But here, I'm more aware of people's bodies as natural phenomena, needing sustenance. Just as the rivers and lakes need replenishment by the yearly snowmelt, and the plants require sunlight and fertilizing scat, so we humans must be fed, protected, warmed or cooled, and rested. Some of us also need to be physically supported in other ways—by walking staffs or wheelchairs, by the loving laps of parents.

Entering a national park, or any patch of preserved wilderness, we do not leave our needy bodies behind. In this landscape, less altered by human design, our physical needs simply become more prominent. Here, we can see our bodies for what they are: forces of nature. **NP**

Laura Hershey is a Colorado-based writer, poet, consultant, and advocate. Her work has appeared in *Ms. Magazine*, *Topic*, *New Mobility*, and several anthologies and websites.



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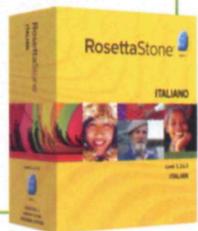
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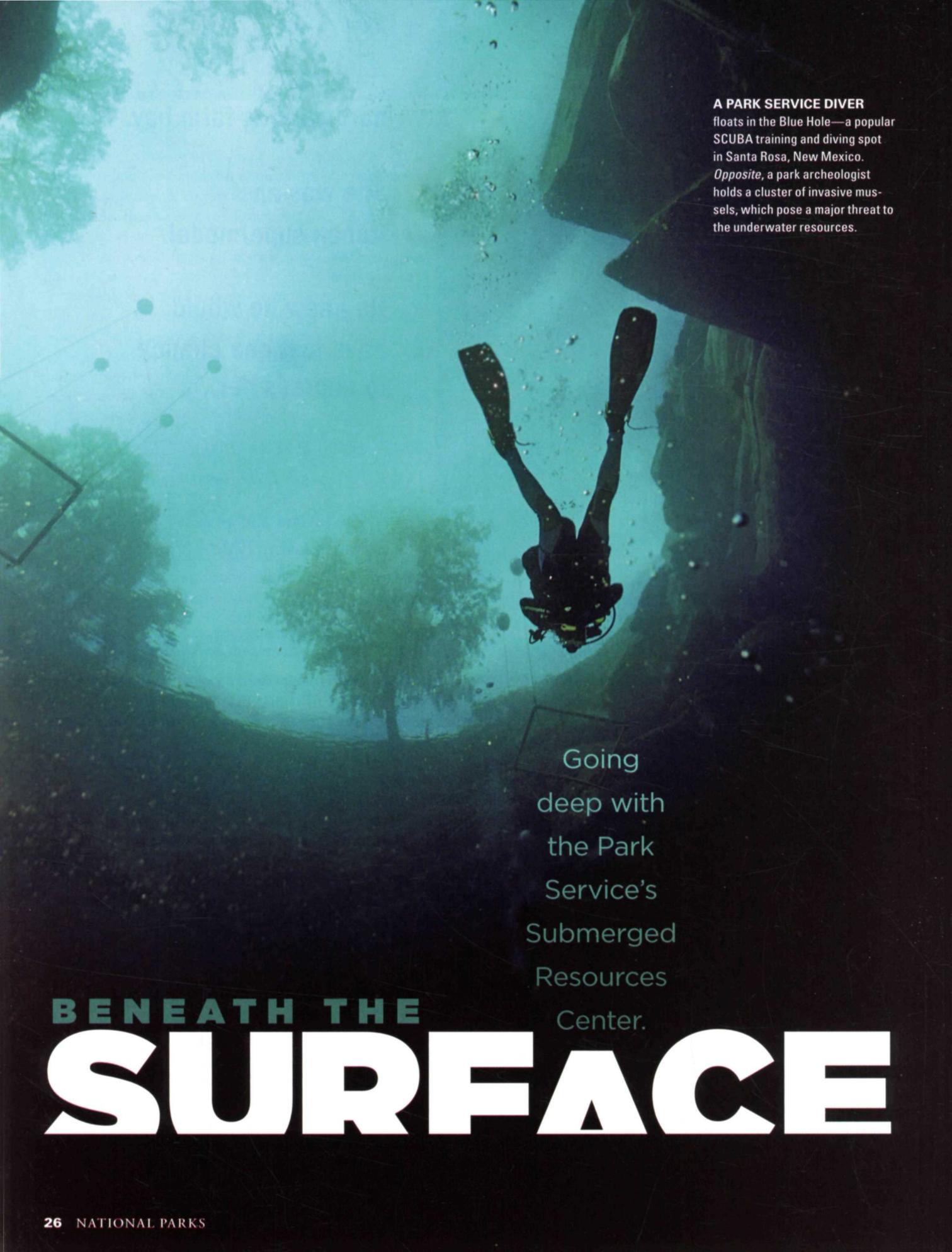
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A PARK SERVICE DIVER floats in the Blue Hole—a popular SCUBA training and diving spot in Santa Rosa, New Mexico.

Opposite, a park archeologist holds a cluster of invasive mussels, which pose a major threat to the underwater resources.

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BENEATH THE SURFACE

High winds stir the cobalt blue waters of Lake Mohave, turning it into a pot of water at full boil. But the two lead underwater archaeologists on the National Parks Submerged Resources Center (SRC) team don't much care about what's happening on the surface. They're too focused on what lies beneath: the possibility of a new discovery, like gold-mining equipment that plumbed the depths of the Colorado River long before the Hoover Dam was constructed, or an entire town, abandoned before Lake Mead's rising waters erased it from the landscape. Or it might just be another day alone in the quiet abyss with seldom a fish in view.

Experts at diving in almost any conditions, Sami Seeb and David Choate start their day by donning full-body fleece, the first line of defense against the dangerously cold 55-degree temperatures. Thick, airtight dry suits provide their outer defense, completely sealing off their bodies from the frigid waters while allowing a thin warm layer of air to keep them comfortable even in the coldest and darkest depths of the lake. The high-tech suits, which require special dive certification, are sophisticated pieces of gear modeled on the modern-day astronauts' space suit.

Choate and Seeb, the lone female diver on this trip, direct a team of seven other professional divers who will spend six intense weeks in southern Nevada, surveying and studying the underwater resources of both

Lake Mead and Lake Mohave, both part of Lake Mead National Recreation Area. It's a job that many people would kill for. "I get to dive in some of the coolest places in the country, and my office is the national parks. How great is that?" asks Seeb, knowing the answer full well. But as Choate points out, the best part of this job is also the worst—being away from home for weeks on end. For this project, the entire crew will live aboard floating houseboats, with 1980s-era interiors decked out for retired tourists and families spending a few nights on the lake, not for state-of-the-art science. A few of these elite divers even joke about entering the lake via the houseboat's water slide. But the vessels are roomy enough to get the job done and give everyone a little elbow room, and that's all that matters.

As four-foot swells toss the boat in every direction, one diver gives a thumbs-down signal. It's not an indication of distress but diver sign language for "time to make our descent." As the divers quietly slip into the murky depths, the first bubbles from their life-support systems begin to drift upward. The duo slowly follows a previously set guideline that will steer them 60 feet to the bottom, where a scene of destruction begins to emerge. In repose on the lake bottom, twisted steel mingles with

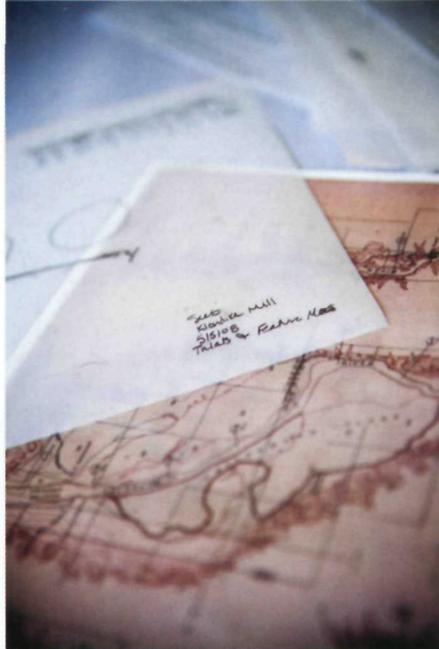
a plethora of other debris and sea life. To the average diver, this site wouldn't prompt a glance, but Seeb's background in maritime history helps her identify the final resting place of a massive gold dredge that fell



© IAN SHIVE/AURORA



THE SUBMERGED RESOURCES CREW navigates Lake Mead using sonar and their own topographic maps to locate underwater resources.



into these waters nearly a century ago. The large mechanical structure acted like a giant gold pan, sifting dirt and soil with water and revealing pieces of gold that were plentiful at the turn of the 20th century.

During the next several days, members of the team will visit the dredge over and over again to catalog every inch of its 100 feet. Each time they dive, they will plot points, record details, take photographs and video, and interpret the historical significance of their find. During its six weeks on these lakes, the team will document dozens of sites with the goal of adding some of them to the National Register of Historic Places, creating interpretive signs and maps for park visitors, and ultimately, opening the sites to recreational divers.

Before any of that can happen, however, the team's members will spend hours discussing their observations from earlier in the day. As they crowd around a single video monitor to watch footage from one of the other team members, they hope to identify some new revelation about the wreckage. In addition to earning master dive certification and completing a rigorous Park Service dive-training program, many of the members have pursued advanced studies in maritime history and marine biology, a key element of their profession.

And sometimes, even that isn't enough. In this case, the SRC team needs to intimately understand the inner workings of machinery that hasn't been manufactured in a century. Seeb finds it useful to pull old black-and-white photos from the National Archives to help identify what she might be looking at underwater. As she talks about how a 1909 gold dredge operates, she speaks with the speed, enthusiasm, and authority that you might expect from the person who constructed the dredge 100 years ago.

The Submerged Resources Center has had many incarnations since its inception in 1975. Founded by Daniel Lenihan, who retired in



2000 but still plays an active role, the team is based in Santa Fe, New Mexico. This landlocked state isn't the first place you would expect to find an elite team of divers, but the center has been there ever since the Reservoir Inundation Study, when water shortages surfaced as an issue in the American West, and conflicts over water rights began soon thereafter. The SRC was asked to investigate the issues and take a close look at the impact that human-made structures like the Hoover Dam have on natural and cultural resources. As the study came to a close, other needs arose, including the assessment and study of the USS *Arizona* at Pearl Harbor; Lenihan was happy to step in.

Originally from New York City, Lenihan started working with the Park Service in 1972 while attending graduate courses in anthropology at Florida State University. An avid diver,

he especially enjoyed the technical demands of investigating caves and shipwrecks. In 1974, he headed west for the Reservoir Inundation Study and began building his team. Over the next 30 years, the SRC would eventually operate throughout dozens of national parks, in U.S.-owned properties in other countries, and in areas where it had an archaeological or historical interest, such as the English Channel, the North Sea, and Micronesia.

One of the greatest successes, and one of the most difficult projects from a public-relations standpoint, was the SRC's work on Bikini Atoll in the Marshall Islands, where the United States conducted nuclear testing during World War II. In this Pacific Island paradise, A-bombs were dropped on ships throughout the atoll, leaving a trail of wreckage at the sea floor. Decades after the testing, the government wasn't sure what to do with

the site, so officials asked the SRC to conduct an assessment. From 1989 to 1990, the team mapped all the vessels, using state-of-the-art science, and concluded that the site posed no radiation risk. It also made the decision to open the shipwrecks to the dive community in 1996.

At the time, the public's perception of a nuclear site was much like the view of Chernobyl—it's never safe to return. This false perception turned into negative media coverage, and the SRC unit was in the crosshairs. But as other organizations released their own independent studies declaring the site safe, the dive community began to soften its stance, and eventually the negative reactions went away. Not long after and to this day, the atoll has become a major dive destination.

"Many people in the dive community paint us at the bad guys who are trying to stop

TWO HOUSEBOATS MOORED to nearby rocks serve as the office, motel, and dining area during the team's six intense weeks of underwater exploration.



A DIVER NAVIGATES kelp forests in Channel Islands National Park, California. *Below*, high-tech wetsuits modeled after modern-day NASA space suits keep rangers warm in the darkest depths.

BRETT SEYMOUR/NPS

diving on historical sites,” says Lenihan, “but in the last 30 years, the only sites where we recommended no access to divers were Pearl Harbor’s USS *Arizona* [the tomb of more than 900 soldiers] and a historic shipwreck in Bisayne National Park.”

According to Larry Murphy, chief of the SRC, the unit’s primary goal is also its greatest challenge: balancing visitor experience with resource protection. Just like rock climbers gaining access to more remote locations, divers also have access to sites that the average park visitor generally doesn’t see, and their visits can easily damage the resource. Seeb once attended a dive meeting that preceded the establishment of a new site and encountered angry protests about the permitting system put in place. The Park Service mandate—to protect our resources for future generations—requires striking a delicate balance between visitor experience and access limitations that the public often doesn’t understand.

“Visitation to the site needs to be limited so that we can protect it,” says Seeb. Even though it’s the right thing to do, it can be a frustrating

decision. “The hardest part of the job is when the visitors—who own these parks—aren’t happy with how the Park Service manages the site,” she says.

In Isle Royale National Park in Lake Superior, Wisconsin, the SRC didn’t stop people from diving on wrecks that were hazardous to reach. The reason: There’s nothing that says you can’t take a risk in a national park. But the SRC believes people need to be informed. As long they don’t damage the site and are

made aware of the dangers, they should be granted access.

Dave Conlin, a veteran diver and archaeologist for the team, believes the parks need to further develop relationships with the dive community to communicate more efficiently with potential visitors. “We’ve discovered that there is inevitably more risk in doing nothing than there is in opening a site to divers and properly managing it,” he says.

If anything, the SRC wants to get more



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people to appreciate these sunken treasures. “If the parks could interpret what they had underwater—through video or images—people would have a better connection to those resources,” says Seeb. But too many parks lack the financial or human resources to get underwater and discover what’s there.

When it’s time to determine just what’s down there, the SRC team is typically called in, and although there is no “wait list,” many national parks could benefit from an underwater survey. Most park visitors don’t realize how many bodies of water there are within the park system. Even the average, backcountry pond could yield significant historical artifacts from Native American settlements or Paleolithic tools. To set its priorities, SRC staff members discuss which sites require attention and face the greatest threat. For instance, at Lake Mead and Lake Mohave, the extreme drought in the American West has caused water levels to drop more than 80 feet. As a result, sites that were too deep for novice divers are now within reach; the famous B-29 bomber, for example, is now only 140 feet below the surface. As the shorelines recede, other sites are being exposed to the non-dive community for the first time and could be subject to vandalism and theft. This drastic shift in water levels and the potential for damage to natural resources moved Lakes Mead and Mohave up to the top of the SRC list.

The team’s annual budget is less than \$400,000, but many of the costs associated with its work are covered by the parks themselves or partner institutions. Because SRC has only seven full-time staff, the role of each team member shifts with the sites, goals, and expertise required on a given project. On some sites, including Lake Mohave, the SRC will look for assistance from dive volunteers. Before volunteers can dive with the Park Service, however, they must complete the same rigorous diving and medical certification required of employees. Sometimes volunteers will act as dive buddies for safety or help transport materials to a dive site. Local divers can also contribute a tremendous amount of

knowledge to the team that would otherwise take months, if not years, to gain.

Many of us forget that there are places in our country’s landscape that have an underwater counterpart: Gettysburg Battlefield can be compared with Pearl Harbor, Bryce Canyon’s hoodoos with the Virgin Islands’ coral reefs, and Yellowstone’s wildlife with Biscayne’s marine life. So, while most Ameri-

cans are reaching for their first cup of coffee in the morning, members of the Submerged Resources Center are out in a small boat, battling currents, and suiting up for a cold-water dive that might help all of us better understand the world just beyond our reach. **NP**

Ian Shive is a California-based conservation photographer and writer.



A B-24 PROPELLOR marks a historic World War II site at the Majuro Atoll in the Pacific’s Marshall Islands.

BY SUSAN J. TWEIT

Misty's LEGACY

{ Managing invasive and non-native species in the National Park System is already tough, }
{ but what happens when some of the biggest culprits are actually visitors' favorites? }

THE FERAL HORSES of Assateague Island are an iconic part of the park's landscapes, but they take a serious toll on the island's fragile ecosystem.

THE LAST FERAL BURROS were removed from the Grand Canyon in the 1970s, but many had already spread into the southwest's wild landscapes.



© DAVID SCHLOSS



© GRAND CANYON MUSEUM COLLECTION

GRAND CANYON VISITORS AND PARK STAFF gather around the beloved Brighty the Burro, a national icon in the early 1900s.

Inside the historic Grand Canyon Lodge at Bright Angel Point on the North Rim stands a bronze statue of Brighty, a burro who roamed the canyon's trails as a prospector's companion and Park Service mascot between the 1890s and 1922. The plucky donkey won the hearts of generations of readers in Marguerite Henry's best-selling novel, *Brighty of the Grand Canyon*, published in 1953.

But the thud of burros' hooves and their loud "hee-haw" braying no longer echo from the Grand Canyon's colorful cliffs. The last of Brighty's kind were removed in the late 1970s: Feral burros had invaded the desert habitat and inflicted serious damage on the landscape. Like rabbits in Australia or kudzu vines in the Southeast, many invasive species are exotics that multiply out of control, overrunning their adopted habitats, pushing out native species, and disrupting native ecosystems.

The story of the desert's "wild" burros, native to North Africa, illustrates some of the issues complicating invasive-species management in our parks, including public sentiment, explosive numbers, and a lack of funds.

Itinerant prospectors first brought Brighty and his kind to the Southwest's deserts as pack animals during the late 1800s. Once feral, the diminutive donkeys with the ridiculously long ears adapted all too well to their new home, establishing themselves throughout the Southwest.

"Burros can reproduce [and increase their numbers] 25 percent per year, doubling their population pretty quickly," says Linda Manning, wildlife biologist at Death Valley National Park in southeastern California. Combine that fecundity and a life expectancy of nearly 40 years with their mobility and tendency to congregate around scarce desert springs, and that spells bad news for native species. "Burros will quickly foul a water source with their feces and urine," Manning says. "Bighorn sheep won't come drink when the burros are there."

"Burros are opportunistic grazers," she adds. "They browse on whatever is available." Each adult burro consumes around 6,000 pounds of forage annually, which deprives other species like the federally threatened desert tortoise—North America's largest and

longest-lived land turtle. These ambling herbivores emerge from underground burrows each spring to feast on the desert's brief green-up, a flush of annual plants that burros also relish.

Ecology professor Scott Abella of the University of Nevada-Las Vegas believes grazing burros alter whole ecosystems. For example, by overgrazing native plants, burros could contribute to the spread of red brome, an invasive annual grass from the Mediterranean that burns easily, charring desert habitats not adapted to fire like the "forests" of Joshua trees in Joshua Tree National Park.

Although burros are equina non grata in Death Valley and Mojave National Preserve, removing them is not simple. In 1971,

Congress passed the Wild Free-Roaming Horse and Burro Act, giving the feral equines permanent tenancy on Western public lands. Although the act exempted national parks and wildlife refuges, it clearly demonstrated the popularity of feral horses and burros and the power of their fans.

At Death Valley, Manning estimates that 400 to 500 burros roam the park's 3.4 million acres of desert basin and spiny mountain range, a landscape slightly smaller than the state of Connecticut but nearly all designated wilderness. A 33-mile-long fence built on the park's northeastern border in the 1980s, at a cost of around \$400,000, helps prevent burros from migrating to the area, but the wily feral donkeys still enter the western part of the park from Bureau of Land Management (BLM) and Department of Defense lands.

Rounding up burros in such remote country and trucking them out isn't cheap. Helicopters alone can run \$1,000 an hour, Manning says, plus the cost of veterinary care, neutering, feeding, and adoption through BLM. "We have a goal of zero burros, but there isn't much funding," says Manning. "If we could get \$75,000 a year for five years, we could go a long way toward removing burros from the park."

A HORSE OF A DIFFERENT COLOR

Unfortunately, feral burros are only one of hundreds of exotic invasive species saddling the national parks.

Another kind of feral equine, popularized by yet another childhood book, roams Assateague Island National Seashore, established to preserve a 37-mile-long crescent of sandy barrier island off the shores of Virginia and Maryland. Like Death Valley's burros, Assateague's feral horses came from the

Old World, and their descendants continue to damage island habitats, though there's no mention of that fact in Marguerite Henry's best-selling children's book, *Misty of Chincoteague*.

Horses' presence on the island dates to the late 1600s, when mainlanders herded stock out to graze on the publicly owned fertile marshes, which allowed them to evade livestock head taxes. The National Park Service's involvement started when the agency acquired 28 horses from the Ocean City Jaycees shortly after the National Seashore was established in 1965. (Oddly, Congress directed the Park Service to acquire the horses during testimony that

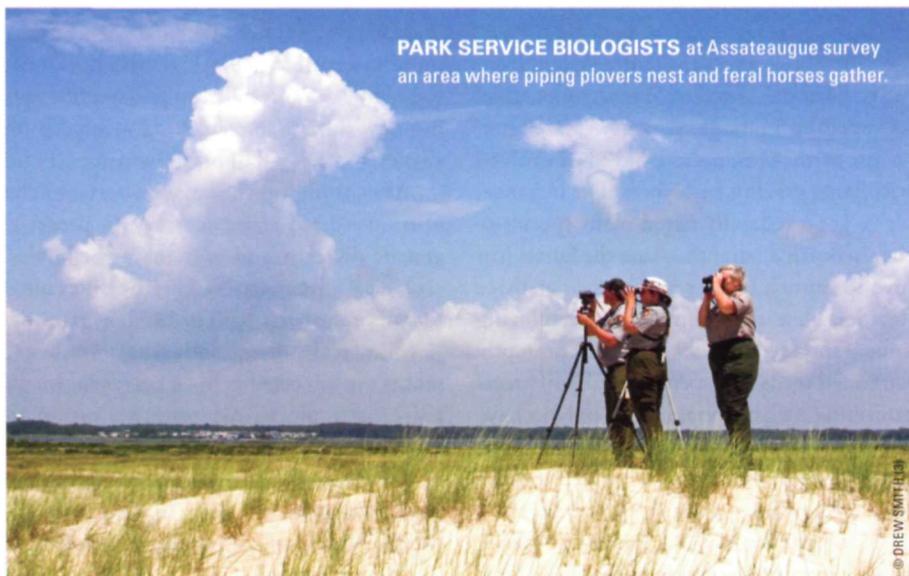
THE COST OF INVASIVE SPECIES

The U.S. spends more than \$120 million a year to control and mitigate more than 800 invasive species, from the Mediterranean fruit fly to the Burmese python. Invasive species affect more than 300 Park Service units.

WIRE MESH CAGES protect the threatened seabeach amaranth from feral horses, which graze and trample native vegetation.

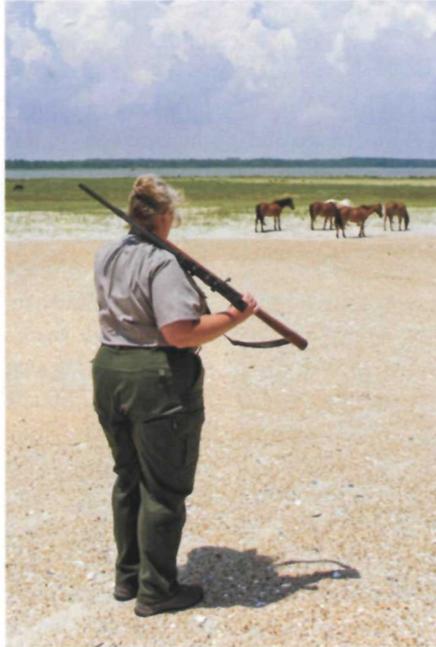
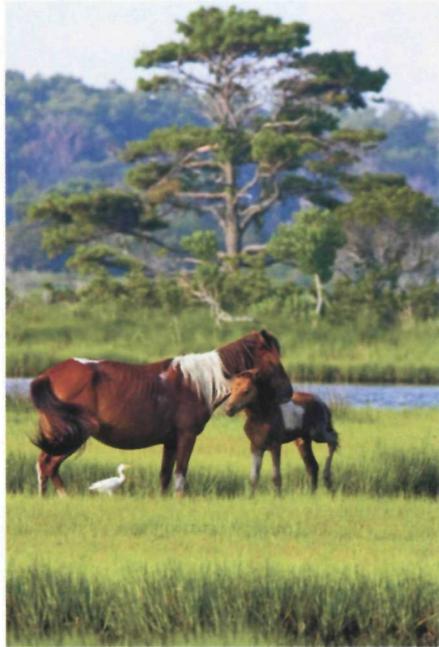


PARK SERVICE BIOLOGISTS at Assateague survey an area where piping plovers nest and feral horses gather.



Misty's LEGACY

EVEN THOUGH THE PARK SERVICE is administering birth control to some of the mares (right), they realize the importance of making sure some horses remain part of the park's landscape.



led to the parks' establishment.) The population of horses had nearly quadrupled by 1994, when managers began annually administering a contraceptive vaccine by dart gun. The animals' numbers peaked at 175 in 2001 but then dropped to the current figure of about 140. The National Seashore now spends about \$55,000 per year to manage the herd.

"The horses affect the entire system from top to bottom," says Carl Zimmerman, chief of resource management at Assateague. "Most of the species here have not evolved with large grazing herbivores. For instance, we've got a federally listed plant species—the sea beach amaranth—that the horses just love to munch." After an absence of three decades, a few specimens of this beach-loving annual sprouted in 1999. Park staff promptly harvested seeds and spent several years reestablishing a viable population, only to have the horses eat it. Today, the Park Service surrounds the sea beach amaranth with protective wire caging, and as a result, it's thriving.

Horse grazing has also altered the species composition and structure of the island's salt

marshes. A salt marsh heavily grazed by horses, says Zimmerman, "comes up to your ankles, where it should reach your knees," leaving secretive marsh species like seaside sparrows and clapper rails without cover. Salt marsh cordgrass, the horses' preferred food source, has also declined, resulting in less forage for both horses and wildlife and a system that's more susceptible to erosion. And horses eat the native dune-stabilizing grasses, preventing new dunes from forming—something that even park staff didn't anticipate.

After studying the balance between the optimum herd size necessary to preserve genetic diversity and to manage the horses' ecological effects, the National Seashore aims to reduce the herd to 80 to 100 horses.

The feral horses' enduring popularity makes the subject of population management a delicate topic, so Assateague is gathering public comment about a proposal to reduce the herd's size, in the hope of "bringing the public along for the ride," in Zimmerman's words. "We care what people think and want to act accordingly."



WHEN GOOD PLANTS GO BAD

Many exotic plants are common in gardens and farmland, and some of these have the ability to quickly invade an area and proliferate, which leaves Park Service managers with the dual headache of explaining how a good plant went bad while combating the invasion.

Grand Teton National Park in Wyoming is launching a multiyear effort to remove one such species—smooth brome, an exotic grass still widely planted for hay—from some 9,000 acres of former farmland at the south edge of the park. This area is crucial spring and fall range for the Jackson Hole elk herd, plus a thousand or so bison, says park ecologist Kelly McCloskey.

"Smooth brome is palatable for only a short while in spring, but then it gets pretty tall and tough," McCloskey says, and the elk and bison won't eat it. "It's invading the adjacent big sagebrush rangelands," reducing the rich diversity of native plant species that other wildlife depend on, from greater sage grouse to sagebrush voles. The soil under these old fields has fewer of the microbes that help native plants sprout and grow, she says, and that makes restoration more difficult.

Park biologist John Moeny wrote his graduate thesis on control of the invasive grass that sprouts from dense mats of underground stems. "We use fire to knock back the stems, forcing the grass to put out a new flush of growth," he

says. "Then we follow with herbicide." After the smooth brome has been killed, the area will be restored, acre by acre, using native seeds that volunteer crews have collected by hand from nearby sagebrush habitat.

Another formerly cultivated plant, baby's breath—the cloud of tiny white blossoms commonly used in bridal bouquets—infests the world's largest system of freshwater sand dunes along Lake Michigan's eastern shore, including Sleeping Bear Dunes National Lakeshore. The plant with the innocent-sounding name has invaded about 1,325 acres, 25 percent of the open dune habitat, according to Tom Ulrich, the park's assistant superintendent.

ASSATEAGUE'S HORSES remain one of the island's main tourist draws, so the Park Service is working to engage the public at every step.

Misty's LEGACY



A WILDLIFE BIOLOGIST at Sleeping Bear Dunes National Lakeshore removes Baby's Breath, a non-native species that threatens the park's native Pitcher's thistle, below.

"Baby's breath tends to stabilize the dunes," says Ulrich, "preventing dynamic movement of sand." Native species including the threatened Pitcher's thistle, a federally listed plant, depend on sand movement to create new habitat. Ulrich adds that baby's breath also crowds out native dune plants because of its height and tendency to grow "cheek-by-jowl." The constant winds that shape and reshape the dunes also send dried baby's breath stems tumbling over the sand, dispersing the invader's seeds for miles along the shoreline.

And the invasive plant is quite difficult to eradicate: "A single plant can have roots as big around as your wrist that go down twelve feet," Ulrich says. Crews work plant by plant, digging into the sand to cut the thick roots and spraying herbicides.

The national lakeshore is multiplying its efforts by cooperating with The Nature Conservancy, which received funding from Meijer, a Michigan retailer, to eradicate baby's breath along 160 miles of lakeshore. John Legge, the Conservancy's West Michigan conservation director, says that after sharing crews for several years, in 2007, the lakeshore asked the Conservancy for a grant of \$50,000. That sum will be matched by funds from the Park Service's new Centennial Initiative, allowing

HOW YOU CAN HELP

- Learn to identify the invasives in your area. For help, visit www.epa.gov/greenacres.
- Plant only native species in your yard.
- Avoid releasing exotic animals into the wild.
- If you fish, clean your shoes, waders, boat, and trailer after each outing, to avoid spreading invasive species from one ecosystem to the next.
- Join a volunteer invasive patrol—control is often labor-intensive, but very rewarding.



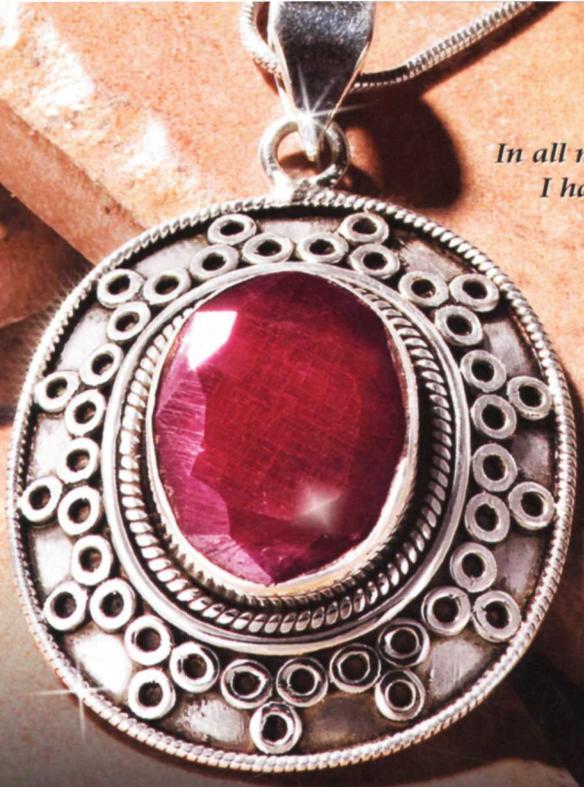
Sleeping Bear Dunes to accelerate baby's-breath-removal efforts.

"It's been a great partnership," says Ulrich. "Together we accomplished more than we expected. The Park Service and Nature Conservancy crews treated about 100 acres last year, and we're hoping for 500 this year."

Baby's breath is not Sleeping Bear Dunes' only invasive species; it is simply the one that most needs control now, before it gets even further out of hand. Like all park managers, Ulrich can reel off a list of worrisome exotics, ranging from aggressive mute swans to garlic mustard, an ornamental garden plant poised to invade the hardwood forest.

In time, the Park Service may overcome some of the more serious challenges facing Assateague, Mojave, and Sleeping Bear Dunes, but with 391 park units that cover more than 80 million acres, invasive species will continue to take root throughout the system. That doesn't mean they'll overrun the landscapes that the Park Service was established to protect. It simply means that invasive-species management—with its costs, constraints, and the creative partnerships it engenders—is here to stay, too. **NP**

Susan J. Tweit's latest book is *Colorado Scenic Byways: Taking the Other Road*.



In all my years as a GIA graduate jeweler, I have never seen a magnificently large ruby at such an outstanding price. The Oval Ruby Collection is without a doubt one of the best jewelry offerings I've seen in years.
— JAMES T. FENT, Gemologist

Huge Ruby Found on Bali—Is It Yours?

Paradise is reflected in this magnificent 22½ carat ruby...but the price is the most heavenly.

On the tropical island of Bali, the air is filled with ancient mystery and perpetual festivity. Who would have thought that our deep sea diving trip to this romantic paradise would lead us to a treasure of giant deep red rubies. This beautiful isle is so vivid and untouched it has become the spiritual inspiration for many an artist. Bali has gardens tripping down hillsides like giant steps, volcanoes soaring up through the clouds, long white sandy beaches, and friendly artisans who have a long history of masterful jewelry designs.

We stumbled upon a cache of giant natural rubies at a local artisan's workshop. He brought these exotic Burmese Rubies to Bali and now we have brought them home to you. Our necklace showcases a genuine **22½ carat** facet cut ruby set in a frame of .925 sterling silver in the Balinese style. *That's right—22½ carats!*

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surrounded by a bezel of sterling silver and then wrapped with a twisted rope. The Oval Ruby Pendant measures approximately 1¼" by 1½." This exotic pendant suspends from an 18" silver snake chain and secures with a spring ring clasp. Drape this pendant around your neck for a bold luxurious look. And, since rubies are rarer than diamonds, we hope your rings don't get jealous. Most likely, this will be the largest precious gemstone that you will ever own.

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EXCURSIONS

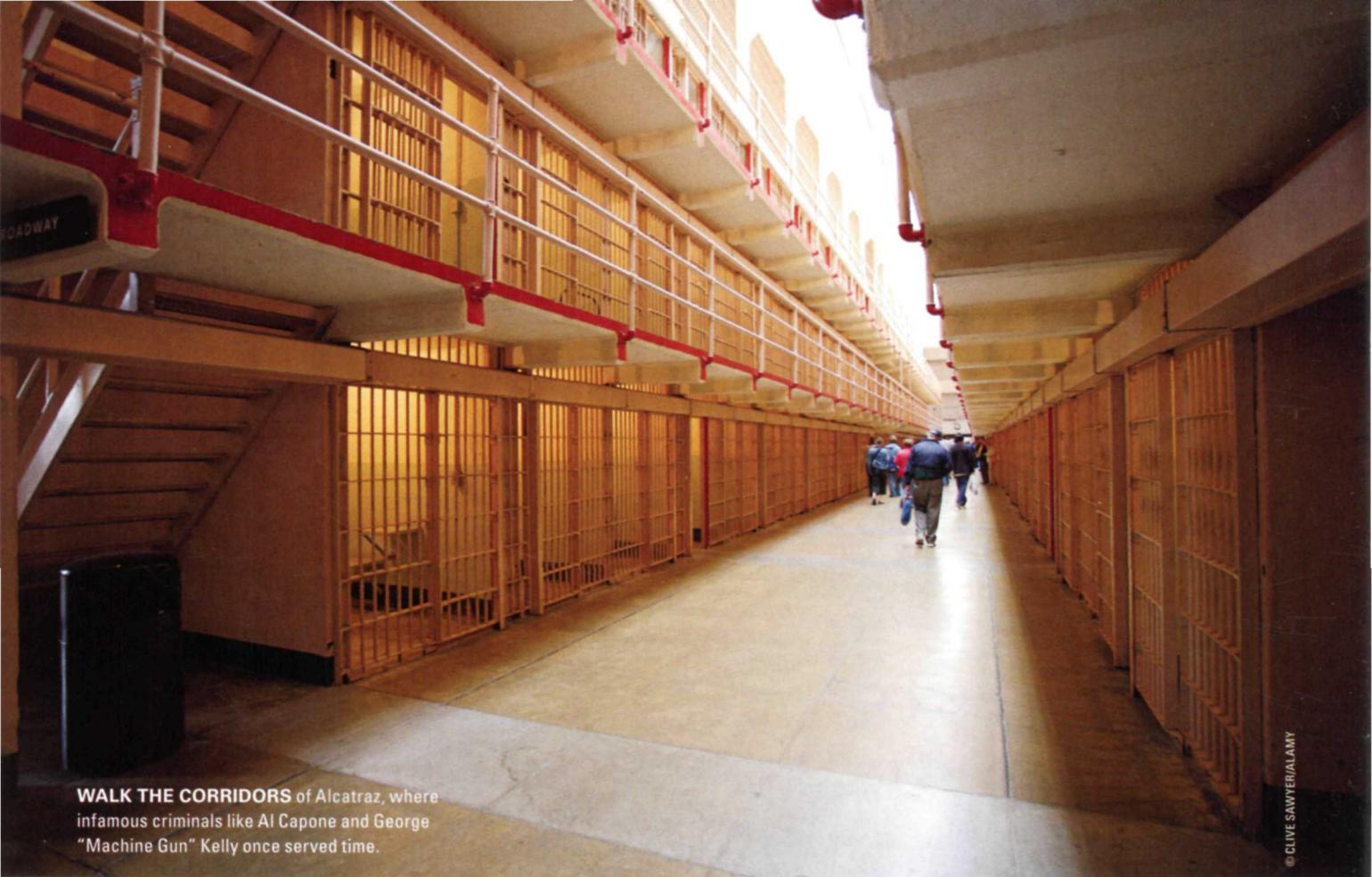
Golden Gate National Recreation Area may be San Francisco's best-known park unit, but the diversity of other nearby sites spans quite a distance, too.

beyond *the gates*

Tony Bennett once crooned that he left his heart in San Francisco. But had he dropped in on any of the national parks surrounding the city, he may have been tempted to leave the rest of himself behind. Without a doubt, these gems help to make the Bay area one of the golden nuggets in the Golden State.

Even if you only have time for a short visit, it's easy to do a triple play of history, culture, and nature—some with a pounding Pacific backdrop. Roll them all together and you have the makings of a memorable long weekend or the launching point for a larger adventure. But don't feel you have to see everything in one go. The city high on the hill is certain to beckon you back again.

SAN FRANCISCO'S BAKER BEACH, part of Golden Gate National Recreation Area, is the perfect place to break from the urban scene.



WALK THE CORRIDORS of Alcatraz, where infamous criminals like Al Capone and George “Machine Gun” Kelly once served time.

© CLIVE SAWYER/ALAMY

Alcatraz Island

Heading to Alcatraz is fitting for the first day: Ferrying across San Francisco Bay, you’ll get a coveted firsthand view of the city’s skyline. Getting to the dock is easy via the city’s historic “F” trolley, which you can grab on downtown’s main drag: Market Street.

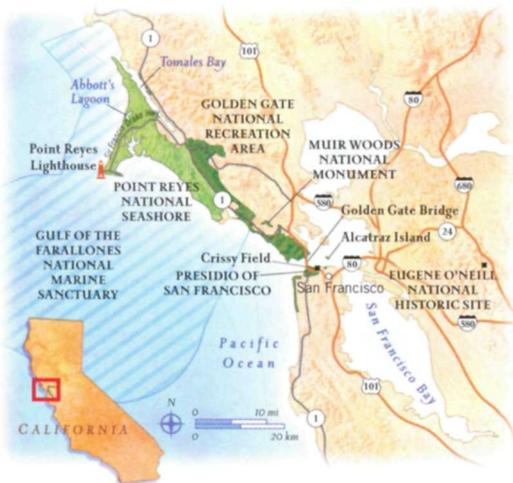
Built as a fort designed to protect the San Francisco harbor during the Gold Rush, Alcatraz became a federal penitentiary in 1934. Until 1963, the prison, known of as “The Rock” or “America’s Devil’s Island,” was the end

of the line for some of country’s toughest old-school gangsters, who had colorful nicknames of their own: Al Capone, a.k.a. “Scarface”; Robert Stroud, a.k.a. “The Birdman”; and George “Machine Gun” Kelly, among others. As your ferry trip begins, take a moment to gaze below into the frigid waters and deadly currents, which ensured that no one escaped Alcatraz and lived to tell the tale.

The ferry isn’t free but admission to the site is, and so is the self-guided audio tour, which tells stories in the actual voices of the men who lived there. Don’t miss the recreation yard. It’s worth hitting the pause button to walk out onto the cracking cement and feel what it was like to be so close to civilization, yet so far. It’s said the inmates could hear the disembodied din from the city’s shores, especially during New Year’s Eve revelries.

In 1969, shortly after Alcatraz closed, a group of American Indians calling themselves “Indians of All Tribes” took over the island and claimed it as their own, citing previous treaties with the U.S. government that handed “surplus” land back to their people. In fact, one of the first images that will greet you is the “Indians Welcome” graffiti left from the 19-month occupation, which brought greater awareness to the plight of American Indians.

The site became a national park unit in 1972 and is now home to hundreds of seabirds. Stroll the grounds outside, walk past the gardens to the steep cliff face, and you’ll easily spot Brandt’s cormorants, brown pelicans, pigeon guillemots, black oystercatchers, western gulls, and even nesting wading birds such as snowy egrets and black-crowned night herons. You’ll soon realize that of all the names this island has worn, the one early Spanish explorers gave it in the late 1700s is once again the most appropriate: “La Isla de los Alcatrazes,” or The Island of the Pelicans.



© KAREN MINOT

Eugene O'Neill National Historic Site

Less than an hour away in the San Ramon Valley, you'll find another recognized spot where a man was holed away—this time of his own free will. In 1937, playwright Eugene O'Neill moved to Tao House, where he penned his tragic autobiographical plays, including *Long Day's Journey Into Night*, for which he won his fourth Pulitzer Prize. Along with his wife, Carlotta, he took refuge at this sunny spot on a hill in Danville, about a 45-minute drive from San Francisco.

With Carlotta's passion for Oriental décor and Eugene's keen interest in Taoism, one of the great Eastern religions, the Spanish colonial abode features an eccentric Asian twist. The gate to the front yard is decorated in Chinese symbols that the O'Neills translated as "House of the Righteous Way." Feng shui design principles suggest that evil travels in a straight line, so the O'Neills created zig-zag paths, some of which lead to dead-ends—one path to the birdbath, for example, and another to steps that lead to door-less walls. In fact, the "front door" is tucked into the side of the house and painted red for good luck, happiness, and prosperity.

Although the Park Service took over the site in 1976, visitors may find themselves stymied at the prospect of getting into the home, which is nestled inside a gated com-

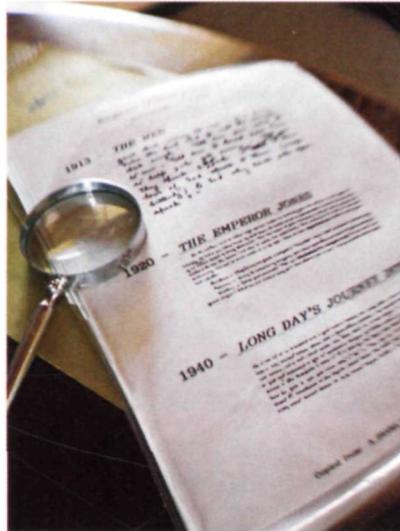
munity. If you want to see the site yourself, a ranger must pick you up in downtown Danville. But don't let that deter you—just call 925.838.0249 well in advance.

Today, the Park Service is trying to locate as much of the original O'Neill décor as possible. In 1992 the effort got a little help from Katharine Hepburn, who starred

in the film version of O'Neill's *Long Day's Journey Into Night*. A local furniture emporium had been using O'Neill's teak bed frame as a display table—the third reincarnation of what was once a Chinese opium table—when Hepburn persuaded the owner to donate the item to the Park Service; visitors can now see it in the home's master bedroom. But the real highlight is O'Neill's original desk. His paraphernalia, including a crumpled Lucky Strike cigarette pack found behind a fireplace during renovations, is positioned as if he just left the room to play with the family dalmatian, Silverdene Emblem O'Neill. You can even pay

your respects to the dog they called "Blemie"; the pampered pooch is buried on the property.

Time your visit well and you'll get more than a guided, in-depth history of O'Neill's traumatic and dramatic life—you could also see an O'Neill play at the Tao House's barn, performed by local actors and theater companies in May and September.



EASTERN DESIGN ELEMENTS define much of playwright Eugene O'Neill's former home, or the "Tao House" as it's commonly called. It was here that O'Neill penned a Pulitzer Prize-winning play.

A WOMAN HIKES THROUGH yellow lupine on the bluffs of Tomales Bay in Point Reyes National Seashore.



Point Reyes National Seashore

Now that you've probed the dark side of humanity at Alcatraz and the digs of a legendary dramatist who transferred his turmoil into desperate stage characters, it's time to get back to the light. The 70,000-acre Point Reyes National Seashore, less than an hour's drive north of San Francisco, is the place to do that, and it's worth setting aside a whole day. This craggy coast boasts spectacular wildflower blooms in spring, lumbering elephant seals nearly year-round, and a chance to witness gray

whales migrating past the park's 138-year-old lighthouse in spring and fall.

When Sir Francis Drake stopped here in 1579 as he sailed around the world, the Miwok tribe had already been living here for thousands of years, as had thousands of Tule elk, a species taken to the edge of extinction in the late 1850s, as hunting and habitat loss took their toll. Thankfully, 13 elk were reintroduced in 1978, and the population has since grown to more than 500. Today, you're almost guaranteed to spot a few of them if you hike down a portion of the Tomales Point Trail, wedged between the Pacific Ocean and Tomales Bay.

Elephant seals almost vanished from Point Reyes, too, after being hunted to near extinction. Absent for more than 150 years, they began repopulating these shores again in 1981. The seals spend so much time here today that you almost have to go out of your way to avoid them. View their antics from the Chimney Rock Overlook, reached via a short, easy hike along the Pacific coast.

For another eye-popper, linger at the viewing platform before or after checking out the Point Reyes lighthouse—308 steep steps away. Gray whales migrate south from Alaska to Mexico from December to February and return north from February to April, right along the coast, so this may be your best chance to spot a mother and her calf breaching and bobbing near the shore. While you're there, find out when a ranger is scheduled to lead a short talk about the lighthouse's construction and mechanics, and you'll learn all about the lonely life of its keepers before the days of automation.

SIDE TRIP: Crissy Field

If seeing the Golden Gate Bridge is on your to-do list, one of the best views comes from the approach to the Golden Gate Promenade, stretching along the Presidio's Crissy Field, an old U.S. Army airfield-turned-national park that hugs San Francisco Bay. Along the way, you'll see so much more.

The land was handed over to the Park Service in 1972, but restoration of the tidal marsh didn't begin until 1998. Today a mosaic of native grasses, wildflowers, and shrubs provides a resting and refueling spot for great blue herons, willets, and grebes, among other birds.

Take a stroll, bring a picnic lunch, or grab a meal at one of two eateries en route, and try not to miss the visitor center at the Gulf of the Farallones National Marine Sanctuary, 1,230 square miles of nature that include the largest seabird rookery in the contiguous United States. It's also the ideal habitat for thousands of seals and sea lions, and breeding and calving grounds for humpback whales. The visitor center is open from 10 a.m. to 4 p.m., Wednesday through Sunday. For more information and to reserve space on a whale-watching trip led by sanctuary staff, visit www.farallones.org.

Muir Woods National Monument

It's hard to compete with the potential to see so many different and appealing mammals in one park, but if any flora can, it's the coastal redwoods—the tallest living trees in the world—found at Muir Woods National Monument.

Named for John Muir, one of America's early environmental leaders, the national monument is just 12 miles north of the Golden Gate Bridge, which means bracing yourself for the crowds. Visit on a weekday, if you can.

This cathedral of ancient trees is one of the last stands of old-growth redwood forest on Earth. Some of the trees are more than 1,000 years old. The self-guided, round-trip tour is two miles but can be shortened to an easy half-mile on boardwalks. (Do stick to the trails, though, to prevent spreading sudden oak disease, and be sure to clean the soil from your shoes when you leave.)

From mid-December to March, you can peer down into Redwood Creek to see spawning Coho salmon. This creek is one of the last streams in California that still supports wild populations of Coho—a federally listed endangered species. If you want to venture farther, stop by the visitor center to find trails that wind through the watershed,

from easy hikes to more strenuous routes. Or you could just stand in one spot and gawk—the trees are that amazing. Don't miss the cross-section of a sliced tree trunk on display since it fell in 1930—at 1,021 years old. The exhibit highlights the circumference of the tree at certain dates in history, such as when Columbus sailed and when the Declaration of Independence was written.

It's an appropriate place to finish this trip: beside a humbling reminder of just where we humans fit in with other species in the great march of time. **NP**

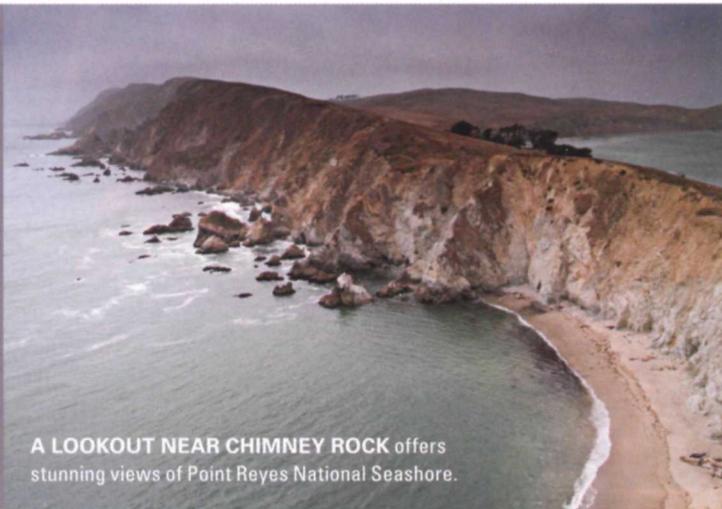
Camden Seymour is an avid birder who lives in Milwaukee but travels widely.



TOWERING ANCIENT REDWOOD TREES in Muir Woods National Monument provide a respite for San Francisco residents and tourists alike.

Travel Essentials

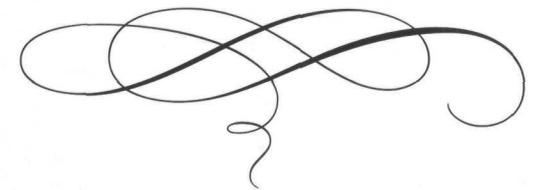
Flying into San Francisco couldn't be easier. Both airports—San Francisco and Oakland—are served by the city's subway system, BART, which will get you to your hotel in a flash. For general information about visiting San Francisco, including maps, transportation, hotels, and restaurants, contact the San Francisco Convention and Visitors Bureau at www.onlyinsanfrancisco.com. To avoid long lines, book the Alcatraz ferry in advance at <http://alcatrazcruises.com>. For reservations at the Eugene O'Neill National Historic Site (open Wednesday through Sunday), call 925.838.0249 at least one week in advance. For a California-style eating experience, check out Millennium, a gourmet vegetarian restaurant that uses sustainably grown produce in the heart of the city's theater district, a few blocks from Union Square: www.millenniumrestaurant.com.



A LOOKOUT NEAR CHIMNEY ROCK offers stunning views of Point Reyes National Seashore.

To Dare Mighty Things

Theodore Roosevelt's intense passion for politics and the natural world helped shape America's national parks.



As a rancher in North Dakota in the 1880s, Theodore Roosevelt described the song of the meadowlark as “a cadence of wild sadness.” Years later on a Louisiana hunting trip, he marveled at the size and plumage of the nearly extinct ivory-billed woodpecker. In 1907, he was the last trained ornithologist to observe passenger pigeons in the wild.

America's 26th president was a conservation-minded cowboy in spectacles and a three-piece suit, a hunter who championed hunting regulations, an urban politician who found ways to connect to the natural world. He loved birds, open spaces, and back-busting ranch work. And he carved a path for protection of our national parks, establishing himself as one of the most innovative conservationists in history.

In a 1905 speech to a Chicago audience, his relentless drive shines through: “Far better it is to dare mighty things, to win glorious triumphs, even though checkered by failure, than to take rank with those poor spirits who neither enjoy much nor suffer much, because they live in the gray twilight that knows not victory or defeat.”

The image of Roosevelt as a robust political figure and outdoorsman contradicts his sickly childhood, when bronchial asthma left his body frail and sickly. “Teedie,” as he was called by his aristocratic New York family, was the son of a Dutch Yankee and a Southern belle. Despite his urban surroundings, he loved nature and revered animals. In fact, when Roosevelt's mother sent the seven-year-old boy to buy strawberries at a bustling Broadway market, he came upon a sight that would have appalled

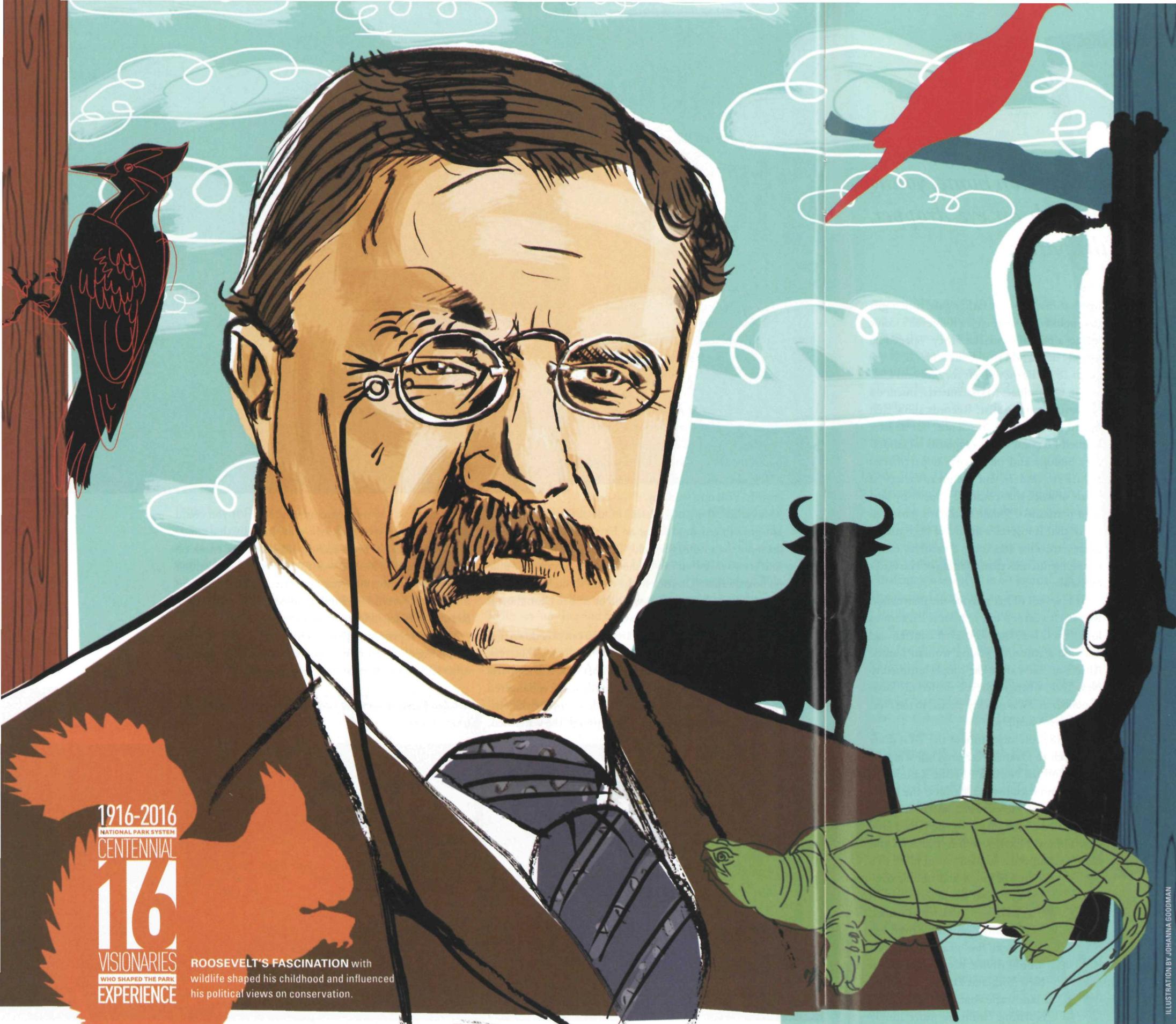


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VISIONARIES
WHO SHAPED THE PARK
EXPERIENCE

ROOSEVELT'S FASCINATION with wildlife shaped his childhood and influenced his political views on conservation.

To Dare Mighty Things



Under the roof of his parents' vacation home, young Roosevelt fed baby squirrels with an eye dropper, and housed a tree frog in the parlor.

or saddened most children—a dead seal. But Roosevelt was fascinated and returned the next day with a pocket ruler to measure the carcass and ask where the animal was killed. He later wrote that the seal filled him with “every possible feeling of romance and adventure.”

Though young Roosevelt wasn't allowed to buy the seal, he did acquire its skull for his “Theodore Roosevelt Museum of Natural History”—a warehouse of birds' nests, insects, shells, and minerals. He charged adults one penny for admission, but kids could view his collection for free, provided they helped feed the live animals. Roosevelt's specimens were well respected, and several eventually wound up in New York City's American Museum of Natural History.

Summers in the Adirondacks, on Long Island, and along the Hudson River fueled Roosevelt's interest in the natural world. He spent his days devouring books about nature and recording detailed observations on a variety of animals. Under the roof of his parents' vacation home, young Roosevelt kept a snapping turtle tied to the household laundry tub, fed baby squirrels with an eye dropper, and housed a tree frog in the parlor. But when he stored dead mice in the icebox, his mother felt he had crossed the line and ordered him to throw them out—an act he decried as a “loss to science.”

Roosevelt's father, Theodore Senior, was tickled by his son's love of the natural world and registered the young boy for taxidermy

lessons with John G. Bell, John James Audubon's own taxidermist. Around the same time, Roosevelt also received a 12-gauge shotgun for his 13th birthday. When it seemed that he couldn't hit anything—or read billboards,

for that matter—his father gave him a gift that would ultimately create Roosevelt's iconic image: a pair of spectacles. They “opened an entirely new world to me,” he said.

In 1876, Roosevelt left for Harvard College in Cambridge, Massachusetts, intent on becoming a naturalist. Records show that he did his best work in science, but he later blamed Harvard for its emphasis on laboratory biology and the science department's failure “to understand the great variety of kinds of work that could be done... by outdoor naturalists.” Some historians, however, think that Roosevelt's dream of becoming a great naturalist was more a casualty of his changing interests than a failing of Harvard's curricula.

If Harvard didn't provide the instruction Roosevelt yearned for, it at least led him to love. It was here that Roosevelt courted and married a stunning young woman named Alice Lee. Soon after, the couple returned to New York, where Roosevelt shifted his focus to politics and was quickly elected to the New York State Assembly.

In 1883, the adventure of the West drew Roosevelt to Dakota Territory, but when he stepped off the Northern Pacific Railroad in the area now known as Medora, the locals were skeptical. He wore a fancy cowboy suit and carried a knife made by the famed jeweler, Tiffany. His tiny, round spectacles and high-pitched voice seemed out of place in a

land of rough-and-tumble cowboys—but his determination as a hunter, and later a rancher, eventually won people over. For the next few years, Roosevelt would divide his time between New York and Dakota Territory, a landscape that enchanted him. “Nothing could be more lonely



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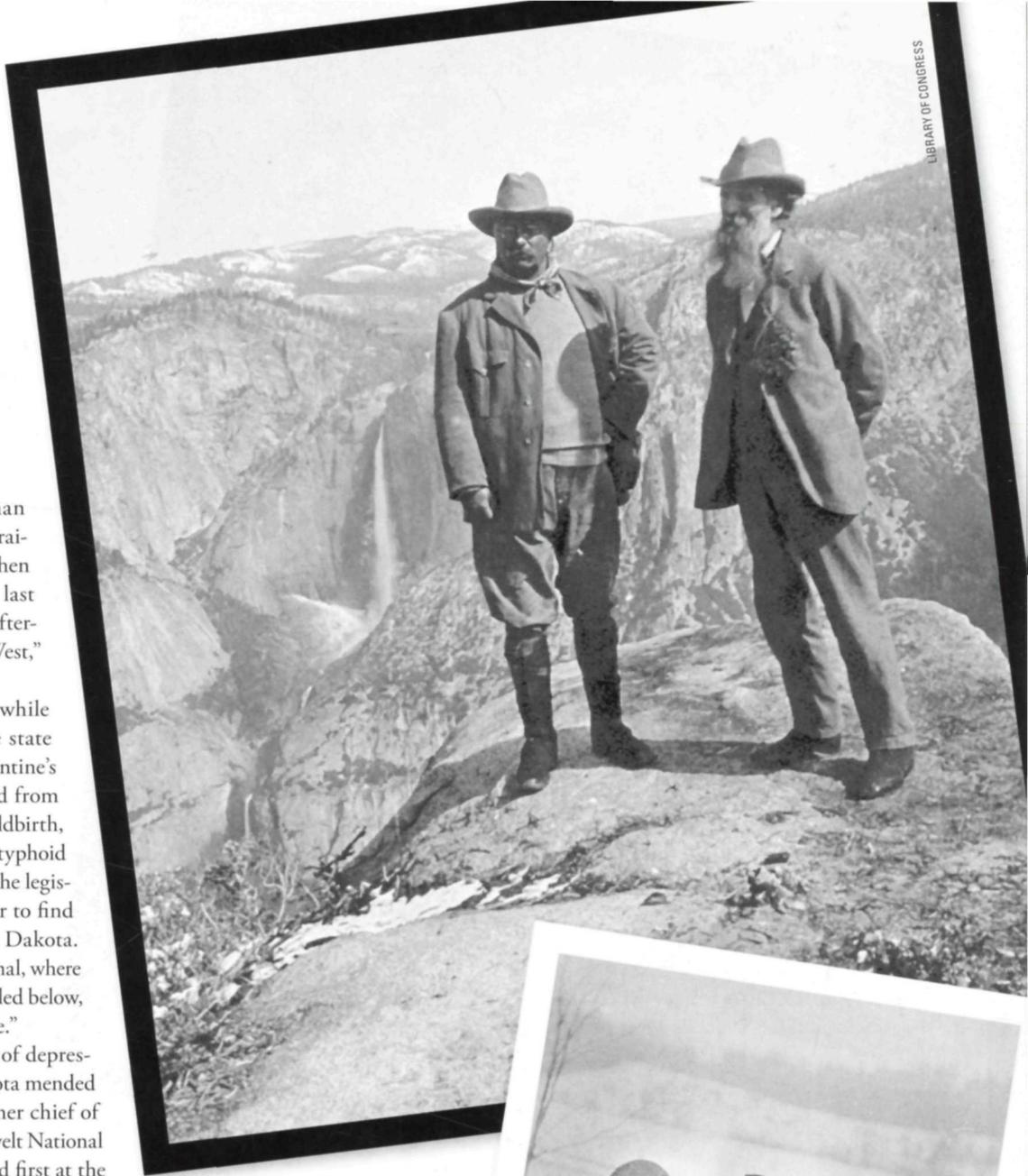
and nothing more beautiful than the view at nightfall across the prairies to these huge hill masses, when the lengthening shadows had at last merged into one and the faint afterglow of the red sunset filled the West," he wrote.

Back in Albany, New York, while Roosevelt was working for the state assembly, tragedy struck on Valentine's Day, 1884. His wife, Alice, died from kidney failure after a difficult childbirth, just as his mother succumbed to typhoid fever. Roosevelt stayed to finish the legislative session but left by summer to find solace in the badlands of North Dakota. His despair is recorded in his journal, where he scratched a lone "X" and scrawled below, "The light has gone out of my life."

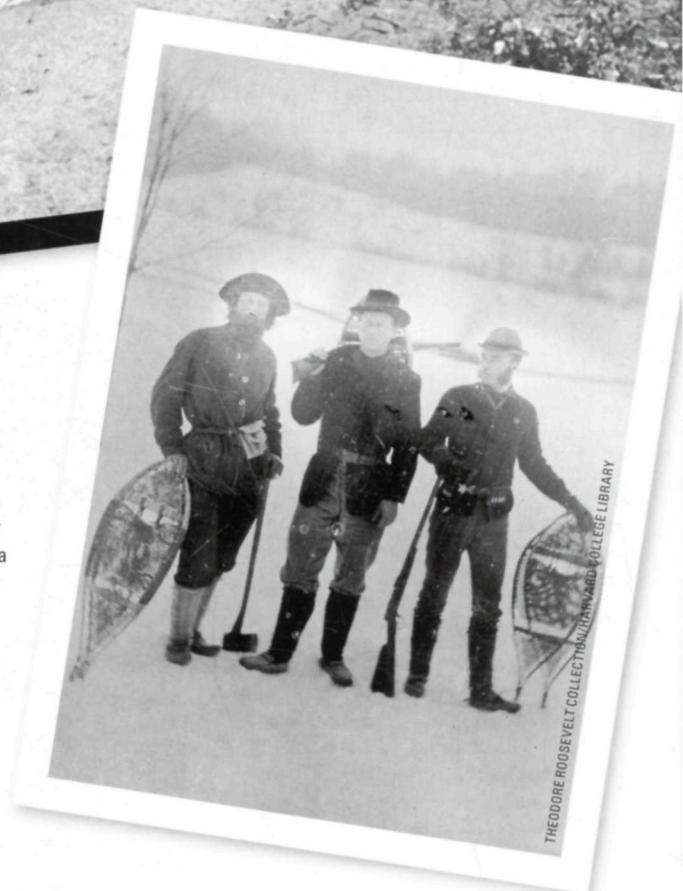
"Roosevelt was on the verge of depression, but the land of North Dakota mended his hurt," says Bruce Kaye, former chief of interpretation at Theodore Roosevelt National Park in North Dakota. He stayed first at the Maltese Cross Ranch and later at the Elkhorn Ranch, where the Little Missouri River snakes its way through arid North Dakota badlands. Roosevelt was no wallflower: He broke horses, roped and branded cattle, and claimed to have spent a glute-busting 50 hours in the saddle once, rounding up the herd.

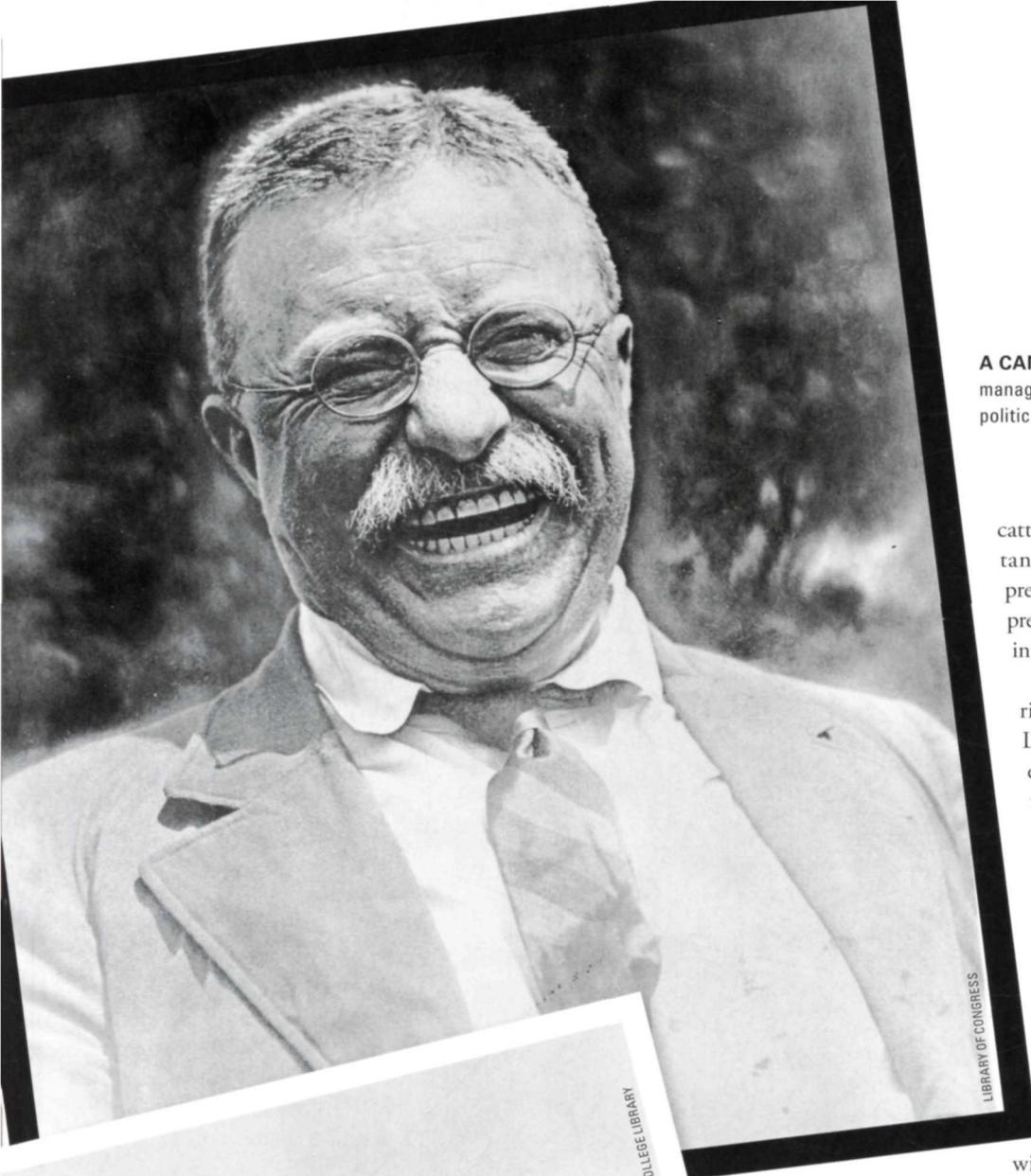
In his quieter moments, Roosevelt hunted and wrote, and his love for the natural world blossomed. In one passage about the hermit thrush—a small, brown songbird—he describes the "serene, ethereal beauty of the hermit's song, rising and falling in the still evening."

Roosevelt's time on the open range allowed him to witness firsthand the decimation of the great bison herds, eradication of the grizzly bear, and damage to grasslands from overgrazing



ROOSEVELT WAS A BUDDING NATURALIST around the age of seven (*opposite*), and often made sketches of the animals he studied (*bottom left*). As an adult, he hiked Yosemite with John Muir (*top*), and snow-shoed through Maine's North Woods with guides who would later become his ranch foremen in Dakota Territory (*right*).





A CANDID PORTRAIT reveals a man who managed to keep a sense of humor despite serious political work and great personal loss.

cattle. He began to understand the importance of environmental regulations and preserving wildlife. "I would not have been president if it hadn't been for my experience in North Dakota," he reflected years later.

In December 1886, Roosevelt remarried to a family friend, Edith Carrow, in London; they settled in New York and eventually raised five children. Roosevelt turned his attention back to politics, but this time with a finer focus: conservation. He wrote a book, *Hunting Trips of a Ranchman*, which received an unfavorable review by naturalist George Bird Grinnell in *Forest and Stream* magazine. When Roosevelt contacted Grinnell to ask for an explanation, the two stumbled into a surprising friendship and went on to found the Boone and Crocket Club in 1887, with a mission to preserve vanishing

wildlife and promote hunting sportsmanship. The club successfully lobbied Congress to pass the 1894 Lacey Act, which secured protection for Yellowstone National Park, preventing a proposed railroad that would have penetrated its wilderness.

Roosevelt also served as a member of the Civil Service Commission, president of the New York Police Commission, and assistant secretary of the Navy. His courageous charge up San Juan Hill during the 1898 Spanish-American War helped earn him the position of New York governor, and ultimately vice president of the United States in 1900. In 1901, when President McKinley was assassinated at a convention in New York, Roosevelt was hiking high in the Adirondacks. "It is a dreadful thing to come into the presidency in this way," he said, "but it would be far worse to be morbid about it. Here is the task, and I have got to do it to the best of my ability."



ROOSEVELT SPLIT HIS TIME between ranching in the Dakotas and politics in New York before becoming president in 1901.



To Dare Mighty Things



“Conservation of our resources is the fundamental question before this nation, and...our first and greatest task is to set our house in order and begin to live within our means.”

Roosevelt was inaugurated at a time when many Americans still considered their nation a land of inexhaustible natural resources. But as president, he championed the conservation cause. His commitment wasn't based on winning votes but a recognition that our nation was depleting its resources. “Conservation of our resources is the fundamental question before this nation, and...our first and greatest task is to set our house in order and begin to live within our means,” Roosevelt said in his 1909 message to Congress.

During his two terms as president, Roosevelt worked tirelessly to protect the national parks from commercialism, railroad encroachment, and—despite his privileged upbringing—the idea of parks as hunting camps for the rich. His administration helped double the number of national parks from five to ten, protecting the majestic blue waters of Crater Lake National Park, the rich archaeological resources of Mesa Verde, and the caverns of Wind Cave National Park. After an eventful camping trip with the sure-footed John Muir in Yosemite, Roosevelt helped to add the stunning Yosemite Valley and Mariposa Grove to Yosemite National Park. In all, he designated a whopping 230 million acres of land, including 150 national forests, 51 bird sanctuaries, and 18 national monuments.

Roosevelt also signed into law the instrumental 1906 Act for the Preservation of American Antiquities, giving the president power to preserve land with unique cultural and scientific attributes as national monuments. It was a brilliant strategic move that allowed Roosevelt to protect land as “probationary” parks and designate as monuments significant lands that Congress was not yet ready to make national parks. The trend took hold. One out of four of America's current national parks was first protected as a national monument.

One of Roosevelt's most powerful designations came on January 11, 1908, when he set aside 800,000 acres of land as Grand Canyon National Monument. (It would become a national park about a decade later, during Woodrow Wilson's presidency.) Roosevelt first visited the park in 1903 when, awestruck by the landscape, he gave a speech on the canyon's rim: “Leave it as it is. You cannot improve on it. The ages have been at work on it, and man can only mar it. What you can do is to keep it for your children, your children's children, and for all who come after you, as one of the great sights which every American if he can travel at all should see.” These words, says Clay Jenkinson, a professor at Dickinson State University in North Dakota, “could equally be regarded as the motto of the National Park System.”

For millions of visitors, a National Park

System without the Grand Canyon would be like the Louvre without Mona Lisa. Thankfully, Roosevelt's passion for the natural world and commitment to democracy played a role not just in his personal life but in his presidential policies as well. And that commitment still guides Congress today, says Rep. Raul Grijalva (D-AZ), chairman of the National Parks, Forests, and Public Lands subcommittee.

“Would there be a Grand Canyon National Park without Roosevelt?” Grijalva asks. “Without his actions, many protected areas wouldn't exist. Americans are a stronger and better people when we have our wild places.” NP

Seth Shteir, vice president of the San Fernando Valley Audubon Society in California, was inspired to write about Roosevelt after bird-watching with his father in Theodore Roosevelt National Park.

AN 1885 PHOTO shows Roosevelt taking a break with his horse Manitou.



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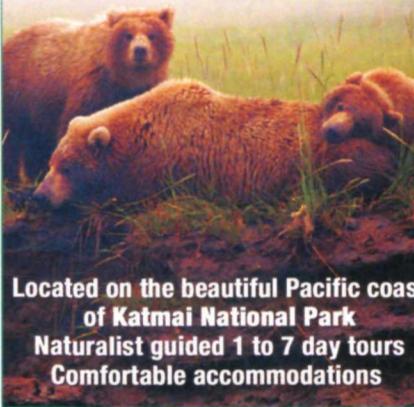


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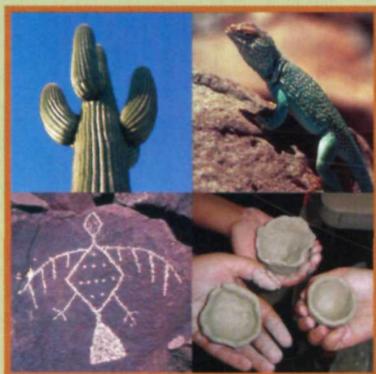


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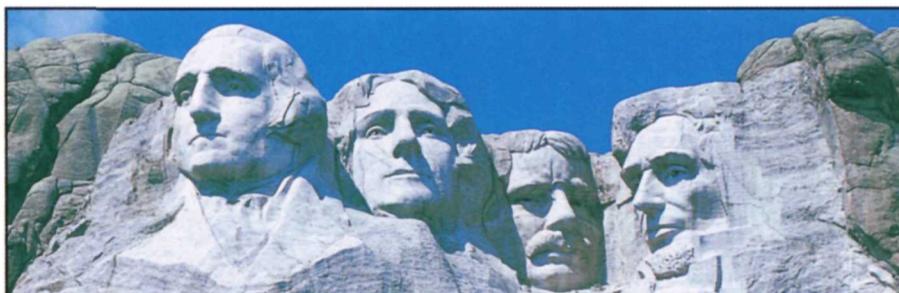


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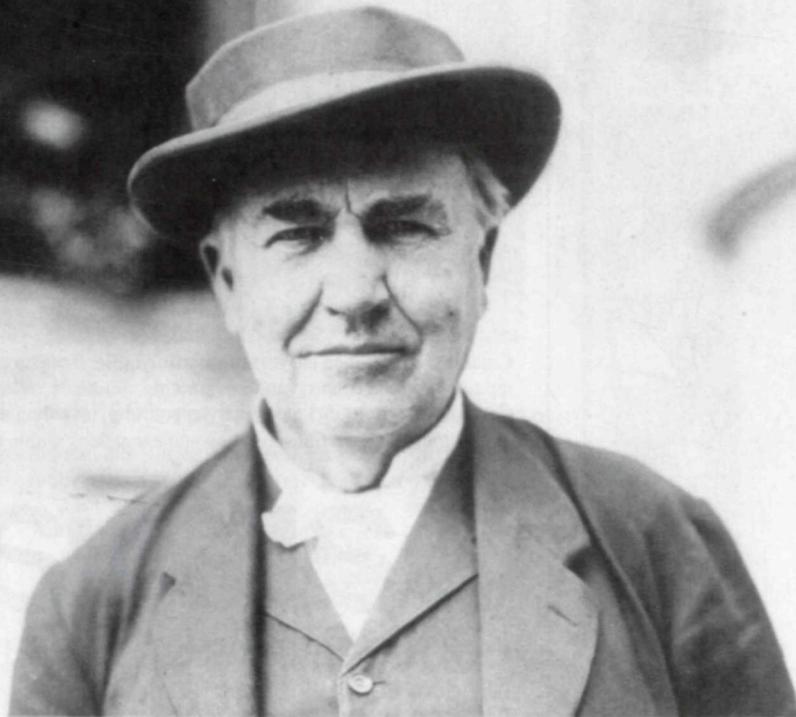
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THOMAS EDISON lived in grand style on his Glenmont estate—on the rare occasion when he wasn't working, that is.



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Everything is Illuminated

Edison National Historic Site details the life of an American innovator.

Thomas Edison—"The Wizard of Menlo Park," New Jersey—was already immensely wealthy and globally renowned when, in February 1886, he relocated his family and his industry to a sprawling plot in a swanky nook of West Orange. By then his tin foil phonograph was, quite literally, the talk of the town, and his practical incandescent bulbs were shedding new light on an electrified nation. And he was settling into his second marriage, two years after the death of his first wife, Mary. In short, life was good—and this upgrade from his comparatively modest digs in Menlo Park was proof.

As a wedding gift to his second spouse, Mina Miller, Edison had purchased a 13.5-acre estate called Glenmont in the upscale community of Llewellyn Park, where he lived in grand style, and where he eventually died and was buried alongside Mina. The site included a 29-room Victorian mansion that frequently entertained big-name guests, a barn full of livestock, a skating pond, and a greenhouse bursting with orchids, palms, and roses.

Edison was thrilled to get the place for a steal, quite possibly as a result of someone *else's* stealing (the former owner, Henry C. Pedder, had been accused of embezzlement).

"When I entered this I was paralyzed," he'd later say. "To think that it was possible to buy a place like this, which a man with taste for art and a talent for decoration had put years of enthusiastic study and effort into—too enthusiastic, in fact—the idea fairly turned my head and I snapped it up. It is a great deal too nice for me, but it isn't half nice enough for my little wife here."

Run for roughly a half-century by the Park Service, Glenmont has long been part of the Edison National Historic Site. After closing in 2003 for extensive work on the structure's heating, cooling, and fire-protection systems, the site re-opened in 2006.

Guided by thousands of photographs and reams of saved receipts, restorers were able to replicate select areas down to the smallest details. From furniture and china in the home to exotic automobiles in the roomy garage to several types of greenhouse plants—some of which are descendants of the originals and available for purchase—many elements are just as they were during Edison's era.

Less than a mile down Main Street sits a multi-structure lab complex that was built

after Edison moved into the neighborhood, where he toiled for up to 100 hours a week. Once surrounded by factory buildings where the proprietor's inspired but not always functional notions morphed from design to reality, it's closed for renovation until sometime next year. Soon enough, however, the public will get an enlightening eyeful of rarely seen treasures—most notably in the main laboratory, where an additional 20,000 square feet of exhibit space on floors two and three will showcase a photography studio and another machine shop. There was a recording studio on the premises, too, where musicians and entertainers of the day, such as the first African-American recording star George W. Johnson, came to lay down tracks or record spoken-word musings on wax cylinders. Although he never became famous for his filmmaking, Edison developed early motion-picture technology here as well.

According to the site's assistant superintendent, Theresa Jung, this latest restoration will allow visitors to witness "the whole

process of what Edison did here." From the idea and research stages through design and commercial manufacture, Edison's latter-day invention epicenter will shine like never before. Jung says the expansion may also help dispel the persistent myth of Edison as loner, for he was anything but.

"It was purposely designed for, as he called it, 'rapid and cheap invention,'" Jung says of the all-inclusive West Orange complex, where thousands of employees once sustained Edison's empire. "He had all of the physical resources that he needed—the machine shops, the reference materials, the laboratory space. And he had the human resources. He wasn't the solitary inventor that a lot of people think of. It was the whole idea of team-based research that enabled him to accomplish everything he did here."

Like Edison's home, his chemistry lab—one of four smaller buildings outside the main lab—is frozen in time. Meticulously recreated to appear as it did at the height of Edison's reign, the interior houses work-

benches filled with experiments in progress and tables lined with beakers, test tubes, and experimental electric car batteries. There even are signs of the inventor himself at work. Edison's lab coat, for instance, is draped on a hanger, as if he has simply gone out for lunch.

Beyond its role as a tourist-trod museum filled with intriguing artifacts, the Edison site is a testament to the innovative and extraordinarily far-reaching vision of a true American pioneer.

"It's hard to imagine a couple minutes of your day going by without something that comes from an Edison invention," Jung says. "You turn on the lights, you listen to music, you turn on the television, you watch a movie. All of those things started with Edison's inventions. In a way, he changed our world. He changed everything that we do." **NP**

Mike Thomas, a staff writer for the *Chicago Sun-Times*, has written for *Esquire*, *Salon.com*, and *Smithsonian*.



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I had been sick for about a week last May when Saturday morning rolled around and I began to feel better. So in a post-medicine haze, I decided to get out of the house for a while. I headed toward Great Falls Park in Virginia with the intention of taking photos for a couple of hours—but when the sun dropped over the horizon, I just kept shooting. A few great blue herons had been standing at the bottom of the falls all afternoon, barely moving at all, but I wasn't focusing on them. I was there to capture the movement of the water, and the low light allowed for a nice, long exposure. It wasn't until afterwards, when I was looking through my photos, that I noticed the delicate shape of the bird at the bottom of the frame.

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