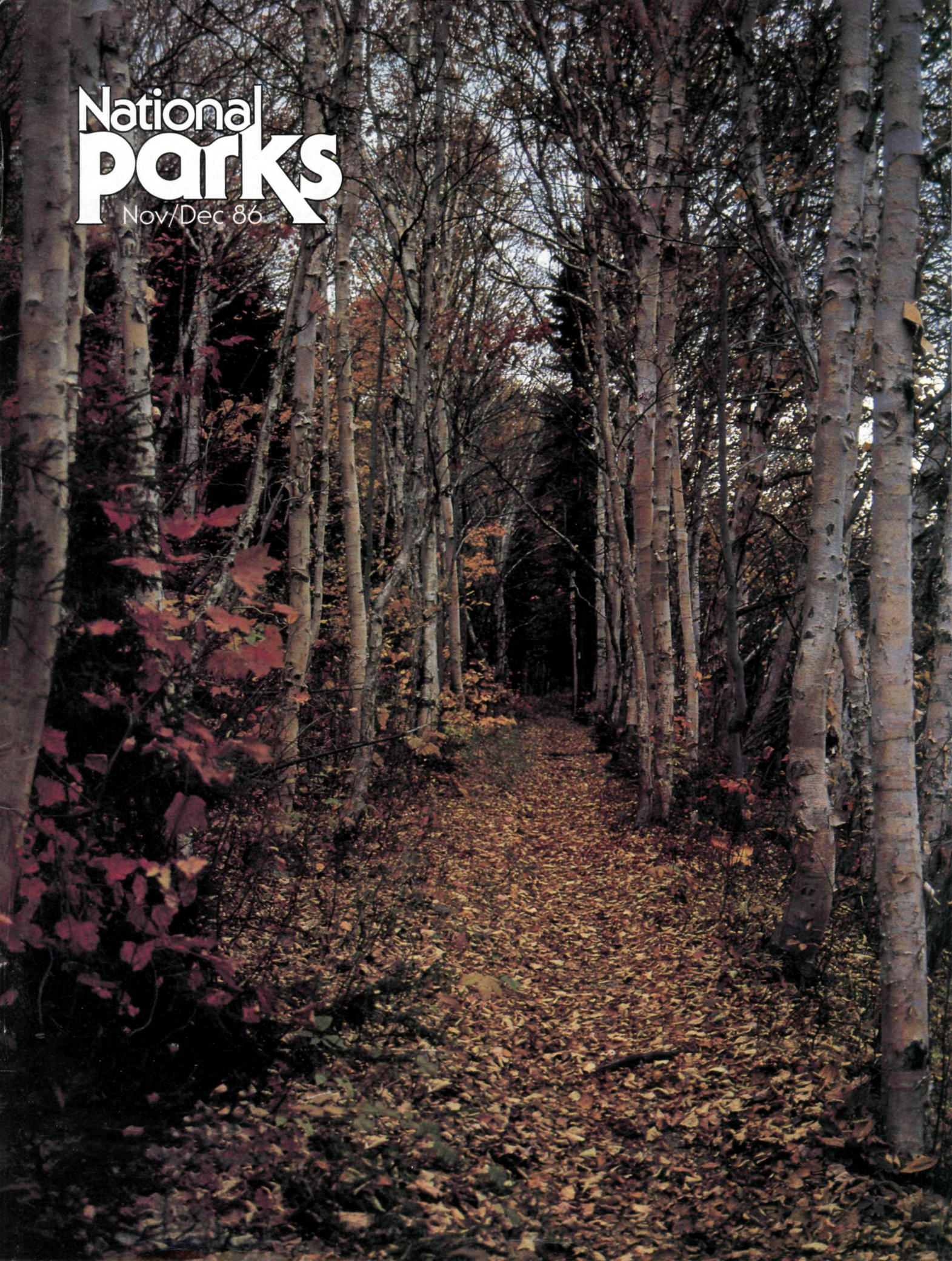
National
Parks
Nov/Dec 86

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Billings Gazette/Judy Tell

Custer Battlefield, page 16

Editor's Note: The holidays are upon us and the staff of NPCA wishes its members and the conservation community a joyful season. Because this is the gift-giving season, we thought it appropriate to address a newly popular trend—private and corporate philanthropy to public projects and public lands. The Reagan Administration started the trend by calling for volunteerism and giving on every level, sometimes as replacement for appropriated funds. Gramm-Rudman has only accelerated the process.

Not to look a gift horse in the mouth, but such well-meant giving can take on a life of its own, perhaps distracting the direction of a park's mandated functions. The park staff that receives a gift may be more likely to bend regulations or do special favors for the donor. It's natural, it's human; but it may eventually erode park protections. If gifts are given, it must be with no hidden clauses, no strings attached.

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National Parks is published bimonthly. Single copies are $3. Contributed manuscripts and photographs should be addressed to the Editor and should be accompanied by a stamped, self-addressed envelope. No responsibility can be assumed for unsolicited material. Articles are published for educational purposes and do not necessarily reflect the views of this Association. Title registered U.S. Pat. and TM Office, Printed in the United States. Second-class postage paid at Washington, D.C., and at additional offices.

National Parks
Vol. 60, No. 11–12, November/December 1986

The magazine of the National Parks and Conservation Association

Commentary

Features

Departments

Cover: Appalachian Trail, by Michael Warren
Much of the trail has been reclaimed from other uses, such as this former railroad grade at Zealand Notch, New Hampshire.

Established in 1919, the National Parks and Conservation Association is the only national, nonprofit, membership organization that focuses on defending, promoting, and improving our country's National Park System while educating the public about the parks.

Life memberships are $1,000. Annual memberships: $250 Guarantor, $100 Supporter, $50 Defender, $30 Contributor, $22 Active and Library, and $15 Student and Retired. Of membership dues, $7 covers a one-year subscription to *National Parks*. Dues and donations are deductible from federal taxable incomes; gifts and bequests are deductible for federal gift and estate tax purposes. Mail membership dues, contributions, and correspondence to address below. When changing address, please allow six weeks' advance notice and send the address label from your latest issue along with new address. POSTMASTER: Send address changes and circulation inquiries to: **National Parks, 1015 Thirty-first St. NW, Washington, D.C. 20007 / (202) 944-8530**

ISSN 0027-9870

Some things old, some things new, and something blue–FROM THE NPCA MERCHANDISE COLLECTION

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Complete the order form and mail to NPCA. Prices include postage and handling. All merchandise comes with our money-back guarantee of satisfaction.

National Parks and Conservation Association Member Services
1701 Eighteenth Street, N.W., Washington, D.C. 20009-9962

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D-1		Polo Shirt	White w/green emblem	M W	$16.95	
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M		NPCA Patch	Embroidered		$ 2.00	

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Commentary

Volunteers vs. Professionals in the Parks

The question of using volunteers or professional staff to manage the parks is like the game in which you guess which fist has the prize. There are differing views. Some see the professional staff as the prize. Another view looks toward a society that is so knowledgeable and so committed to the conservation ethic that we can reduce the role of hired staff: superintendents, rangers, interpreters, park police. Far-fetched?

The National Park Service is finding a growing wealth of volunteers in the ranks of retirees, those seeking a break from the stresses of urban life, people concerned about the environment. In fact, political scientists rate the "environment" as the only election issue whose support grows each election. In poll after poll, people say they will vote for and pay for a healthy environment.

One of the foremost examples of this growing volunteer movement is the Appalachian Trail Conference, a private, citizens' organization of thousands of volunteers. We applaud the ATC, which has just signed a contract with the National Park Service to manage the entire trail. Because of the potential it sees in the ATC and other environmental organizations, the President's Commission on Americans Outdoors is hoping to light a "prairie fire" of citizen concern to carry the conservation movement into the 21st century.

Those who fear the increasing pressure on the parks—from external threats such as development and from internal problems such as overcrowding—see the prize in the hand as being more professionals. "Urban crimes" occur in Yosemite and elsewhere. We want to assure that the grizzly, the Florida panther, and other endangered animals and plants and their habitats will be "unimpaired for the enjoyment of future generations"—as the 1916 NPS enabling legislation requires.

My father once told me that one has to deal with challenges, not with problems. The challenge is before us. The answer to the game of which fist holds the prize is that they both do. Solutions to park problems may be solved with a combination of both volunteers and professionals. And different parks may require different solutions. For example, trails are recreation resources that can withstand use.

Cultural resources, however, which make up more than two-thirds of the 337 park units, must be managed by professionals in order to withstand heavy use. The same is true for musk-ox at Cape Krusenstern or for any other fragile park population or environment. These must have wildlife biologists who understand the needs of park wildlife or, in the case of cultural parks, restoration experts who can evaluate the condition of historical buildings.

Volunteers can help and oftentimes provide unique skills or needed brawn, such as the Scouts' cleanup of the C&O Canal this year. But someone has to pass out the tools or monitor the resource after the volunteers go home. We must keep on asking ourselves, in each case, what are the proper roles for volunteers and for professionals. Although volunteers can never replace superintendents, scientists, and other NPS professionals, each park will call for a different mix. Each superintendent will face the challenge, not the problem, of melding that mix of staff and volunteers aimed toward the goal of protecting our heritage.

NPCA Wins Schweitzer Prize For Humanitarian Work

NPCA has been honored with the first Albert Schweitzer Prize in the Humanities, in recognition of the association's "outstanding contribution" in "protecting and improving national parkland," and "promoting international cooperation in its support of fellow organizations throughout the world."

NPCA President Paul Pritchard said, "This honor symbolizes the commitment of Americans to build a park system we share with all people."

On October 17 at Johns Hopkins University in Baltimore, Pritchard and NPCA Chairman Stephen McPherson are to accept the prize from Steven Muller, university president and chairman of the Alexander Von Humboldt Foundation.

The Alexander Von Humboldt Foundation, which sponsors the award, was founded in New York City seven years ago by Dr. Alfred Toepfer, a prominent businessman from Hamburg, Germany. The award seeks to "advance the cause of the humanities in the United States through recognition of exemplary achievements." A $10,000 prize accompanies the award.

99th Congress Goes into Overtime

The 99th Congress was scheduled to recess on October 3; but at press time, October 14, they were still negotiating a number of issues. The completed issues on their agenda included some important environmental successes, and a few losses.

Great Basin. The big win of this Congress was passage of a bill to create America's 49th national park: Great Basin National Park (see following article). NPCA devoted time and resources to lead the way for congressional approval.

Hawaii Volcanoes. NPCA initiated and pushed for a significant land exchange that adds 5,650 acres to Hawaii Volcanoes, thus protecting geothermal resources, a rain forest, and endangered wildlife. Although Congress passed this bill, the General Services Administration, which administers one of the parcels of land involved in the exchange, is recommending a presidential veto.

Acadia. For the past decade, NPCA has worked to push Congress toward defining good boundaries for Acadia. This year Congress passed such legislation and will allow the NPS to buy designated parkland rather than only accept land donations.

Fees. As part of appropriations, Congress included a one-year provision for fee increases; but NPCA is opposed to any fee increases that do not earmark the increases for NPS scientific research and resource management.

Historic Preservation. Congress passed bills that allow fees to be used to maintain and restore historic sailing ships at Golden Gate and that allocate development funds for Allegheny Portage and Johnston Flood. NPCA supported these.

Boundary Revisions. At press time, boundary revisions that NPCA backs are likely for Olympic, Gettysburg, Apostle Islands, Indiana Dunes, and Cuyahoga.

Still in Question, as of October 14:

- Bills to designate Columbia River Gorge and to amend the Geothermal Steam Act with greater park protections await congressional passage. NPCA supports both.
- The move by Utah's senators to pave the 66 miles of Burr Trail, which passes through striking wilderness, remains unresolved at press time, as does Representative Emerson's (R-Mo.) bill to allow trapping in Ozark. NPCA has fought both measures.

For the Future. Some bills saw no final action in this Congress, but NPCA is looking forward to their reintroduction. These include designation of El Malpais (see "Update," page 41), an addition to Big Cypress, park protections from overflights, systemwide protections for endangered wildlife habitats that are jeopardized by adjacent threats, and creation of Carter and Nixon historic sites.

In the 99th Congress, the newly created House Subcommittee on National Parks and Recreation was led by Representative Bruce Vento (D-Minn.). NPCA President Paul Pritchard said that Vento, who fought hard for Great Basin and many other measures, has done a "superlative job."

Great Basin Bill On Its Way To President

House and Senate finally have passed legislation to create a 76,800-acre Great Basin National Park. All that is needed is President Reagan's signature, and no one expects that to be a problem.

The idea for a national park in the South Snake Range of eastern Nevada surfaced more than 60 years ago. After many legislative attempts, that goal has been attained.

NPCA was instru-

mental in obtaining passage of this act: lobbying Congress; grassroots organizing; testifying at hearings; promoting in a direct-mail campaign; publishing articles.

"Although a larger park would do more justice to the Great Basin, we are proud to have played a leading role in the effort to establish this park," said NPCA President Paul Pritchard.

Representative Harry Reid's bill called for a 45,000-acre national preserve adjacent to the park, but that plan did not survive the compromise bills that moved between House and Senate.

Nevada senators Paul Laxalt (R) and Chic Hecht (R) agreed with the 76,800-acre compromise, even though their Great Basin bill called for only 44,000 acres. By contrast, Reid had requested that 174,000 acres of Humboldt National Forest be transferred to the NPS.

Jack Morehead Wins NPCA's Mather Award

Jack Morehead, former superintendent of Everglades National Park who became superintendent of Yosemite this year, has been named the 1986 winner of NPCA's Stephen T. Mather Award.

In his six-year tenure at Everglades, Morehead exhibited the combination of dedication and daring that was highly valued by the first director of the National Park Service, for which the award is named.

The $1,000 cash prize is presented annually to an individual who has "demonstrated initiative and resourcefulness," and "taken direct action where others have hesitated . . . possibly risking both job and career in the process."

Morehead's accomplishments include:

- the cooperative agreement worked out with the Florida Power and Light Company to spend $200,000 to study the effect of air quality on the biological resources of southern Florida;
- convincing county officials to declare East Everglades, adjacent to the park, as an Area of Critical State Concern;
- intensive efforts to initiate a new, more ecologically oriented water delivery schedule for the park;
- formation of the Interagency Panther Advisory Council to help protect the endangered Florida panther.

"Without Jack Morehead's strong leadership," said NPCA President Paul Pritchard, "and his willingness to grapple with the enormous complexity of issues, Everglades National Park would have been devoid of one of its strongest allies."

The other three regional finalists are John Lytle, staff archeologist, Bureau of Land Management (Northwest); John Karel, former director, Missouri Division of Parks and Historic Preservation (Midwest); Richard Countryman, director, Arizona Agriculture and Horticulture Commission (Southwest).

OMB, Interior Interfere with PCAO Decisions

The President's Commission on Americans Outdoors (PCAO) met in Washington, D.C., in late September. The commission reached consensus on the need for a trust fund providing approximately $1 billion per year and the need to complete the job of acquiring the "federal estate," including the backlog of unacquired national parklands.

Despite some progress on issues among the majority of commissioners, PCAO appears to be coming under intense scrutiny and pressure from sources within the Reagan Administration, including the Interior Department and the Office of Management and Budget (OMB).

At present, there is an attempt to undercut, if not eliminate, any specific recommendations by the commission for new recreation programs at the federal level, especially any that cost money.

Commission sources indicate that OMB is seeking to prevent the commission from recommending a trust fund, a "greenways" program, and a plan to buy out the backlog of authorized but unacquired conservation/recreation lands. At this point, the independence of the commission is in question.

Although the commissioners agreed that a trust fund is needed, the 15 members did not reach agreement on how to raise or spend the money. They are still considering various options.

Most likely, funds for the trust would come from a "market basket" of sources, possibly including offshore oil revenues, user fees, an excise tax on recreational equipment, a summer gas tax, and a land-transfer tax.

Also at the September meeting, PCAO Chairman Lamar Alexander, governor of Tennessee, presented a draft outline that focused on the need for local initiatives and community action.

His outline proposes that the President "personally lead—as Teddy Roosevelt did in his time—the crusade to encourage community investment in America's outdoors so [these areas] will still be great for the next generation of Americans."

Feedback

We're interested in what you have to say. Write Feedback, 1015 Thirty-first St., NW, Washington, D.C. 20007. (Letters may be edited for space considerations.)

The Great Basin

I enjoyed the article on the proposed Great Basin National Park [Sept/Oct]. The Great Basin looks like a very interesting place that offers a great deal for those wanting to visit the area.

Please continue to have more articles like this one.

Don Hanbury
Milwaukee, Wisconsin

Divide and Conquer

The ongoing installation across the country of solid concrete road dividers is the most important development in wildlife conservation since the Alaska Lands Act, and its consequences should be called to the attention of all *National Parks* readers.

The dividers are going to reduce large areas of wildlife range, especially in the Northeast. Extinction of species, even partial, by government fiat seems somewhat grotesque for this day and age and is as startling as it is tragic.

Edward Cunniffe, Jr.
New York, New York

Setting the Record Straight

In "Army Ordered to Stop Building in Golden Gate" ["Latest Word," Sept/Oct] you reported that a federal judge ruled that the Army will have to destroy its half-completed post office in the Presidio.

The judge had suspended construction in February; in July, the plaintiffs (Sierra Club, *not* People for a Golden Gate NRA, as reported) announced a settlement that involves demolishing the post office and locating other new buildings away from the shore of the bay. The Army was not told anything by the court.

The Army did not lose the war for the Presidio; in fact, the Army agreed to a settlement fashioned by Deborah Reames of the Sierra Club Legal Defense Fund, and all parties are satisfied.

Tom Turner
Sierra Club Legal Defense Fund
San Francisco, California

Praise for Passport Program

My compliments on a fine magazine. I especially enjoyed the article on NPS Director Mott's Passport to Your National Parks program [July/August].

For many years, I thought of the national parks only in terms of the giants—Yellowstone, Grand Canyon, and Yosemite. However, in 1984, I was introduced to the smaller parks, and I love them. To date, I have visited nearly 100.

Keep up the good work. I look forward to doing anything I can to preserve and maintain our great national parks.

Jerry Garrett
St. Louis, Missouri

Student Conservation Association volunteers repaint stonework; NPCA photo

The Perfect Working Vacation

From search and rescue in the Rockies, to historic surveys in England, the parks have the volunteer job for you

For many years, people have spent their summer vacations dragging deadfall out of trails, hammering nails into shelters, and playing guardian angel for campgrounds. What's more, they have done it for fun, as volunteers in the national parks and forests. Now, budget cuts and larger crowds have made volunteerism even more critical to the welfare of the parks.

Almost every park relies on volunteers to perform grunt trail maintenance and other work during the summer. If busting up tree stumps, however, doesn't sound like your idea of a summer vacation, there is lots of other work to do. Today's park volunteer programs are tempting in their variety of unusual kinds of work and exotic locations:

- You can spend two weeks in the Virgin Islands in February, or a summer in Gloucestershire, England.
- Perhaps you would prefer to spend weekends on a search-and-rescue team or a summer semester documenting architecture.
- If you are interested in wildlife, you can study the endangered black-footed ferret in Wyoming or rebuild salmon spawning grounds in the Pacific Northwest.

And, for those of you who love a physical challenge, there are still plenty of trails to build and glacial streams to bridge.

Some programs pay all expenses plus a small stipend; others provide food and somewhat rugged accommodations. Also, remember that when you volunteer, your travel expenses are tax deductible. The sponsoring organizations that are listed below will be happy to provide you with more information and an application form.

—Marjorie Corbett

Student Conservation Assn.
Box 550
Charlestown, N.H. 03603
(603) 826-5206

The granddaddy of national park volunteer programs, the Student Conservation Association (SCA), will be 30 years old in 1987. It traces its roots to Roosevelt's Depression-era Civilian Conservation Corps. The program places 1,000 volunteers each year in the national parks and forests. Approximately 700 college students and other adults with skills participate in the "resource assistants" program and another 300 high-school students work with more adult supervision.

Most of the jobs listed in SCA's 50-page directory are in wildlife management, forestry, or interpretation. "The only thing we can't do for the parks is law enforcement," says Henry Francis, Jr., president of the SCA. Qualifications for applicants are keyed to specific positions, and range from "being a senior botany student to simply being alive and enthusiastic." In many ways, the program acts as a training ground for future park resource managers, but Francis is quick to point out: "We need generalists, too. Sometimes people with a broader background are the best volunteers for jobs like interpretation."

Transportation allowances, uniform allowances, housing, food, and a $40 weekly "subsistence" stipend are provided under the resource assistant program. Volunteers may apply any time—programs are available through the year—but the deadline for summer is March 1.

In addition, the SCA runs a series of summer projects for high-school students. Groups of six to 12 work under adult supervision in up to 80 national parks each summer, with housing and food provided. "For many younger students, a summer with the SCA is the first time they've worked away from home. It's an invaluable, exciting experience for them," says Francis.

Students build trails and bridges, rehabilitate campgrounds, or replant deforested areas. At the end of each four- to five-week session, students spend a weekend together hiking or rafting at a nearby location at the expense of the sponsoring agency.

The deadline for the high-school program is March 1, and graduating students are eligible through the summer. Travel grants are available.

"You sweat it out in some of the most remote, beautiful places in the country."

AHS Volunteer Vacations
c/o Kay Beebe; Box 86
N. Scituate, MA 02060
(617) 545-7019

Each year, the American Hiking Society (AHS) sends out 250 volunteers to 25 sites spread across the country to work on trails as part of its Volunteer Vacations program. The work is demanding, but the benefits are great; you sweat it out in some of the most remote, beautiful places in the country.

Teams have been sent to Big Bend, Yellowstone, Glacier, and Virgin Islands national parks, as well as to national forests from New Hampshire to Hawaii and from Alaska to Arizona. This year, in addition to summer trips, AHS has added some winter work trips to exotic climes.

Volunteers of all ages have served, although applicants under 16 must be accompanied by an adult. The oldest participant last year was 70.

Candidates "must be comfortable working and living in rugged conditions, and must be in good health," according to Kay Beebe, program coordinator. Volunteers move boulders, build trails, install bridges—in short, they do heavy labor.

Trips are usually 10 or 12 days long, with a weekend off for fun and exploration. Food is usually provided as well as campsites or rugged shelters. Applicants must send a self-addressed, stamped, ten-inch envelope to receive more information. The deadline for applications is March 1 for summer trips.

Volunteers in the Parks
Department of Interior
Office of Information
Washington, D.C. 20014

If volunteer programs have their granddaddy in the SCA, the most prolific offshoot is the National Park Service's Volunteers in the Parks (VIP) program. Through this program, more than 30,000 people volunteer in the national parks each year in a wide range of roles. "Volunteers have infused themselves in the National Park Service so thoroughly that they are doing a little bit of everything," says Roy Graybill, program manager.

Graybill's wish list for volunteers ranges from artists to electricians, computer analysts to livestock caretakers, search-and-rescue teams to skilled carpenters, interpretive program leaders to interpreters of foreign languages—and the parks always need volunteer trail workers.

Recently, members of the Good Sam Club, an association of RV and trailer owners, offered to supervise campgrounds in exchange for free campsites.

Each park handles its own VIP programs; there is no central phone number or placement office. Graybill suggests that instead of going through a regional or national NPS office, volunteers write the NPS Office of Information for a "National Park System Map and Guide."

With the map, they can make a list of places they'd like to work. Then, they can write those parks, volunteering their professional skills.

Housing is rarely available for volunteers. Many participants, however, work in parks within driving distance from their homes. Travel expenses are tax deductible.

Volunteers of all ages and inclinations are needed, and Graybill particularly urges retired persons to apply for positions:

"We would like to increase the number of volunteers aged 62 and older. That's a resource base with knowledge, experience, and skills that would be invaluable to the parks."

AHS volunteer helps rebuild water bar in Virgin Islands; photo by Kay Beebe

HABS/HAER Summer Project
c/o Robert Kapsch; Box 37127
Washington, D.C. 20013-7127
(202) 343-9606

Last summer, 127 graduate students and professors worked in 26 teams across the country, documenting historic properties for the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER). HABS/HAER sponsors both teams and individuals by paying a minimal salary.

Throughout the year, qualified groups or individual volunteers also are accepted to produce architectural drawings and photographs of historic sites. HABS/HAER is happy to have volunteers suggest historic buildings they would like to document.

Recent summer teams have studied historic Spanish missions in San Antonio; a mill and canal at Cuyahoga Valley National Recreation Area; the Kaymore Mine at New River Gorge National River; industrial mills at Lowell National Historical Park; and historic sites throughout Wrangell-St. Elias National Park and Preserve in Alaska.

Volunteer architects must fill out a Standard Federal 171 form and send samples of their drawings; volunteer historians must send a writing sample. Individual volunteers may apply at any time, and candidates for summer teams should apply by February 28.

All candidates must be able to prove their ability to perform according to standards set up by the National Park Service for documentation of historic sites.

Appalachian Trail Conference
Regional Office; Box 738
Blacksburg, VA 24060
(703) 552-1784

Approximately 60 volunteer trail clubs work the length of the Appalachian Trail, from Maine to Georgia. Year-round, they maintain and reroute old trails and cut new ones (see "Trail Blazers," page 24).

In the summer, the Appalachian Trail Conference (ATC) sponsors a special work group called the Konnarock Crew that sends groups to sites along the midsection of the trail, mostly in Virginia and Pennsylvania. Volunteers build bridges and waterbars, reblaze trails, repair and maintain shelters on this much-used section of our most popular national trail.

Work teams of eight persons, ranging from 16 to 67 years old, make camp at assigned sites and work on nearby projects for periods of up to two weeks (food is provided).

Some volunteers make a whole summer vacation out of Konnarock Crew work, traveling up and down the trail where needed. "People who have enjoyed hiking the AT have the opportunity to give something back to it. That's the main reason people work at Konnarock." says Dawn Globier at the ATC office in Harpers Ferry. Free "weekends" on Tuesdays and Wednesdays allow volunteers to take recreational hikes.

Anyone may apply, but ATC staff recommend that applicants be in good health and have some hiking experience. Applications for summer work are due in March.

Other Resources

Helping Out in the Outdoors
c/o Louise Marshall
16812 36th Avenue West
Lynnwood, WA 98037
(206) 743-3947

Helping Out in the Outdoors is a directory of volunteer positions nationwide, organized by state. It includes listings from the Appalachian Mountain Club, Sierra Club, Student Conservation Association, and American Hiking Society, as well as from federal and state agencies. Cost: $3.00.

US/ICOMOS Internships
1600 H Street, N.W.
Washington, D.C. 20006
(202) 673-4093

As part of its basic mandate to designate and document World Heritage Sites, the International Council on Monuments and Sites (ICOMOS) sponsors a small, select group of graduate students and young professionals for an international exchange program each summer.

The purpose of the program is to create a dialogue between countries about preservation needs and techniques, as well as to broaden student training in historic preservation.

In 1986, US/ICOMOS sponsored seven American students in Britain and six foreign students in the United States. Participants, 21 to 25 years old, work for 12 weeks from June through August.

Students have helped to identify Welsh historic gardens and landscapes, studied the effects of national park legislation on historic buildings in Gloucestershire, and documented World Heritage Sites here and abroad.

Living expenses, a small stipend, and travel and training are covered by grants. Applicants must show—through academic records, experience, and previous internships—that they are qualified to represent their country abroad. Applications are due March 15 or earlier.

Making a list, checking it twice

Park gift catalogues allow you to buy everything from computers to outhouses for national parks caught in the budget crunch

by David Simon

When you tear downstairs this Christmas Day and wade through the wrapping paper, don't complain about finding your 17th tool set. The National Park Service should be so lucky.

The NPS could use about 100 tool sets and, now that you mention it, some audiovisual equipment, a spittoon, a paper shredder, emergency medical equipment, a fish-cleaning station, two ash buckets, a Wilbur Wright mannequin, computer terminals, electric typewriters, a miniattack fire truck, a hydromulcher, a patrol plane, a breathalyzer, 200 tons of concrete, a vacuum cleaner, a heck of a lot of picnic tables, a bulldozer, and some portable outhouses. And a few pack mules, pigs, and cows. And a mountain of hay.

The wish list of a greedy, holiday-stuffed federal agency? Not likely in the era of Gramm-Rudman. These items are interpretive, resource management, and maintenance *needs* gleaned from a selection of National Park Service gift catalogues published between 1983 and 1985.

Unfortunately, at this time of year, when we are filled with good will toward man—and beast and plant—a chill budgetary wind blows through the 337 units of the National Park System. The NPS has increasingly turned toward the private sector to help the system's 79 million acres; and park gift catalogues are one of the more obvious ways of announcing NPS needs.

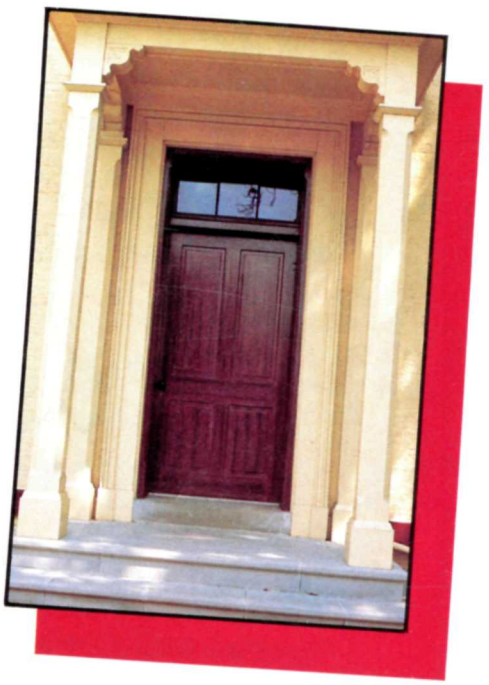
The concept of a gift catalogue program to encourage charitable donations to the national parks emerged with the Reagan Administration's attempt to emphasize management efficiency and private philanthropy as spurs to federal programs. A December 1982 memorandum from then-NPS Director Russell Dickenson urged regional directors to "create new management and administrative mechanisms that will increase opportunities for becoming self-sufficient."

One such response by the NPS was the publication of gift catalogues—guides for giving—that were expected to aid the parks in several ways: they would help alleviate the struggle for funds in a Gramm-Rudman budget climate; raise awareness about the parks; provide tax breaks for contributors; and allow citizens to target their donations and help preserve the world's premier park system.

Santa Monica Mountains National Recreation Area was the first park system unit to develop a gift catalogue. Shortly thereafter, five other areas—Whiskeytown National Recreation Area, Cabrillo National Monument, Grand Canyon, Sequoia-Kings Canyon, and Channel Islands national parks—followed suit, effectively forming a small pilot program. Since the program's inception in 1983, some 27 park units have published catalogues.

Santa Monica Mountains completed its first catalogue just in time for the 1983 holiday season. Press releases were timed to coincide with Thanksgiving.

Traditionally, the day after Thanksgiving is one of the slowest news days of the year; so the response to catalogue stories was instantaneous. Because of the time-zone differences between coasts, phones at Santa Monica Mountains



Donations to the parks have included (from left): plantings at Fire Island National Seashore, a door at Taft National Historic Site, period uniforms at Fort Scott National Historic Site, and a beaver boardwalk at Rocky Mountain National Park.

began ringing with inquiries from the East Coast even before Los Angeles news media carried the story.

Says Bill Anderson, who helped supervise the catalogue's production and use, "In six weeks, we got over $40,000 worth of items and cash."

Since then, Santa Monica Mountains has raised approximately $360,000 from catalogue donations, most within the first four months of the campaign. Gifts included a $5,000 donation to build an amphitheater, picnic tables, $100,000 worth of computer equipment, chain saws, garbage cans, and $5,000 toward the purchase of a roving nature van to bring park programs to the inner city. In fact, donations are still coming in.

Mouths began watering at park units across the nation. With the assistance of the NPS Division of Park and Recreation Technical Services (PARTS), which was originally created to provide parks with management and technical information in areas such as volunteerism and fund-raising, other parks began designing their own gift catalogues.

As one staffer at Rocky Mountain National Park explained, "Every park had to have one. If you didn't, it was against God, country, and motherhood."

The catalogues were designed to represent a cross section of park needs. Items were geared to all economic levels, from the smallest article of clothing to huge earth-moving vehicles. The NPS would take a donation—either cash, merchandise, materials, or services—for just about anything.

Many catalogues were joint efforts thanks to the help of cooperating associations and friends groups that have long been assisting the parks. The NPS provided the contents and the cooperating associations provided funding, or arranged the donation of printing services. A $5,000 grant from Chevron got Santa Monica Mountain's catalogue off the ground.

There was no standard catalogue look or length. The finished products ranged from Fort Scott National Historic Site's "Partnership in Preservation," a simple pamphlet with black-and-white line drawings to slick two- and four-color productions such as Grand Canyon's "Sharing in the Grand Tradition," Rocky Mountain's "Restoring Rocky: a Guide to Giving," and Indiana Dunes National Lakeshore's "Your Gift of Forever."

Three years of experience with the catalogues has produced decidedly mixed results and clouded conclusions. Several parks have achieved remarkable success.

NPS staff at Fort Scott produced a gift brochure tailored to park needs and to the resources of the nearby town of Fort Scott. In less than a year, donations topped $50,000. The park fulfilled every need listed in their catalogue, from cavalry uniforms, canteens, and suspenders to authentic replicas of a 12-pound mountain howitzer ($7,000) and a U.S. Army quartermaster freight wagon ($15,000).

"Share in a Living Treasure," the catalogue produced at Death Valley National Monument, generated donations for medical and audiovisual equipment, interpretive pamphlets, and a $35,000 ambulance, courtesy of a local mining company. Cabrillo National Monument received some $15,000, including money for benches, drinking fountains, a lighthouse portrait, and a $7,000 donation to restore summer hours, which had been sliced by fiscal belt-tightening.

Yet, as might be expected, success was as varied as the National Park System itself. Gift catalogues are not suited to all elements of the system. Generally, new park areas and those with clearly defined, supportive communities had the best success.

Fund-raising tactics matter. Mass mailings, for instance, generally produced poor responses. At some

Photographs by the National Park Service

parks, boxes and boxes of unused gift catalogues sit stacked, like unclaimed luggage.

The NPS found that audiences need to be targeted, follow-up is important, and benefactors should receive some recognition, such as a certificate. It became clear that the amount of staff time devoted to promotion is proportional to the amount of donations.

Despite their efforts, some parks met with less than success. At Rocky Mountain, only one donation was directly attributable to the gift catalogue. Though the donation was sizeable—$36,000 for an interpretive boardwalk through beaver habitat—the park's experience is not atypical.

Fort Davis National Historic Site's ten-page catalogue is slick, colorful, and packed with illustrations and interpretive information. Yet it brought in just $1,000 (though they did get those ash buckets!). Despite a very appealing cause in the famous Ocracoke Island horses, Cape Hatteras National Seashore found its gift coffers rattling with a bare $896. At Lake Mead National Recreation Area, a park area that received more than seven million visitors last year, the gift catalogue effort generated not a single response.

Still, the NPS maintains that cooperative efforts such as gift catalogues, donation boxes, and volunteerism generate benefits far beyond their costs. Fund-raising also means "friend-raising." And park staffers say the catalogues have also demonstrated to the public the Park Service's commitment toward its mission, despite budget constraints.

Gift catalogues have sparked ideas for other park fund-raising. "Return of the Light," the campaign to restore neglected natural areas and provide more interpretation at Yosemite, has raised $1.7 million. At Cabrillo, a $100,000 campaign to restore the statue of 16th-century explorer Juan Rodriguez Cabrillo is underway.

Gettysburg National Military Park, whose well-produced gift catalogue raised only $3,000, is successfully working with donors to restore battlefield monuments at a cost of approximately $100,000 per monument. The State of Pennsylvania contributed $75,000 toward work on that state's monument. Private donations brought in another $64,000.

Have the catalogues been worthwhile? "Yes," says Bob Peters, chief of interpretation and visitor services at Carlsbad Caverns National Park. "We realize the potential for donations. Not just the money, but everything that came about after it."

Since the publication of Carlsbad's catalogue, Shell, Amoco, and Exxon, who often use the park's unique terrain to train their geologists, have contributed a total of $120,000.

"It has been an important effort," says Steven Kesselman, superintendent of William Howard Taft National Historic Site. "Raising funds that might not have been available creates a degree of public involvement and excitement, and a sense of responsibility in the public. In the process, the Park Service also becomes more aware of what the public expects out of the park."

Overall, however, these donations are but bones to the budgetary wolf at the door. Catalogue donations pale in comparison to the enormous needs of the parks.

For instance, for lack of funds the assistant superintendent post was abolished and a resource management job remains vacant at Death Valley. And, this summer, Death Valley was forced to shorten its summer season by an entire month.

It was not the only park area to trim its hours. Wupatki, Sunset Crater, Grand Canyon's North Rim, Arches, and Canyonlands were among other park areas to do so. Although Cabrillo did receive a $7,000 donation to restore hours for the 1984 summer season, essential park services are the responsibility of the federal government.

NPS Director William Penn Mott, Jr., has already warned, however, that "if the Gramm-Rudman cuts as now proposed continue through 1988, we may find it necessary to curtail some of our operations, even to the extent of closing some of our

Continued on page 43

Unearthing Little Bighorn's Secrets

Computer and forensic experts piece together mysteries of Custer's Last Stand

by Jim Robbins

A little more than 110 years ago, General George Armstrong Custer and roughly 215 blue-shirted troopers of the Seventh Cavalry rode through the meandering ridges and ravines along Montana's Little Bighorn River into battle against the combined power of the Plains Indians.

The result, of course, was the annihilation of Custer, a larger-than-life military figure who took on the tribes in a battle that became known as the Last Stand. The subsequent defeat of the U.S. cavalry has made this one of the most famous and controversial battles in American military history.

Now, more than a century later, innovative archeological techniques are shedding new light on how Custer advanced on the Indians, what happened after he realized he had greatly underestimated the strength of his enemy, and the aftermath of the pitched battle. The answers to those questions have been a mystery for the last century—all of the cavalrymen were killed and most Indian participants refused to comment on the fight, fearing retribution.

Souvenir hunters started scouring the battlefield just a few years after the annihilation; and, later, grass grew over and obscured many of the undiscovered historical artifacts. Finally, archeologists had a chance to study this most enigmatic battle when a fire stripped away the brush in August 1983.

During 1984 and 1985, archeologists pried bits and pieces of some of the Little Bighorn's stubborn secrets out of the ground, and began analyzing what they had found. Their painstaking detective work graphically illustrates how archeology can be used to put flesh on the bleached bones of history.

Archeologists have used several different techniques to piece together the events of the battle, which took "less time than it takes a hungry man to eat his lunch," according to one Indian observer. Artifact patterning, which helps tell the story of an event by the way bones, bullets, cartridges, and other artifacts are distributed spatially, has provided the most extensive clues about the battle.

National Park Service historians have also borrowed methods from police investigators. The Nebraska State Patrol Criminalistics Laboratory, for example, performed ballistics tests on bullets and cartridges found at Custer Battlefield. And one of the country's leading forensic pathologists has examined and tested

Opposite: ornithologists Carl and Jane Bock were among the dozens of volunteers at the Custer Battlefield excavation. Above: studded across Last Stand Hill are stones erected in the 1880s to mark where soldiers had fallen and flags marking artifact sites.

Opposite: Billings Gazette/Larry Mayer; above: Doug Scott

the dozens of bones and bone fragments that have been discovered.

The results have helped reconstruct where Custer met the enemy, how he reacted, and much of the flow of battle. They also allow a look at what the troopers of the era were like, what kind of saddles they used, the type of spurs worn by the Seventh Cavalry, even the kind and amount of money the soldiers carried in their pockets. Most importantly, this archeological research provides a glimpse into the calamitous last moments of several of the soldiers' lives.

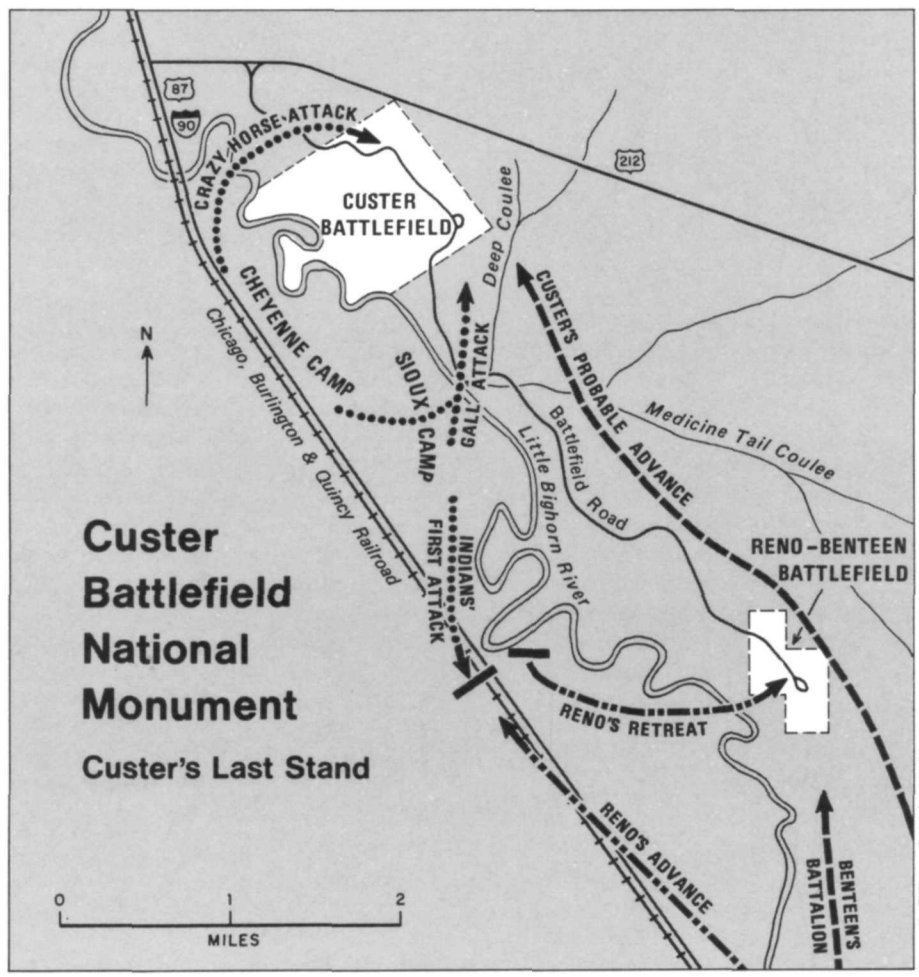
Foremost among the answers researchers hope to produce is a solution to the mystery of E Company, called the Grey Horse Company. According to historical accounts, during the heat of battle the men apparently rode down Deep Ravine, toward the tree-lined Little Bighorn River. But, as they made their way down the serpentine gully, they were attacked and killed. The whereabouts of their remains are still a mystery.

Custer, 36, one of the country's youngest generals, had distinguished himself in the Civil War and was also held in high esteem as an Indian fighter during the opening of the West to settlement. June 21, 1876, marked the beginning of the end for the dashing, impetuous Custer.

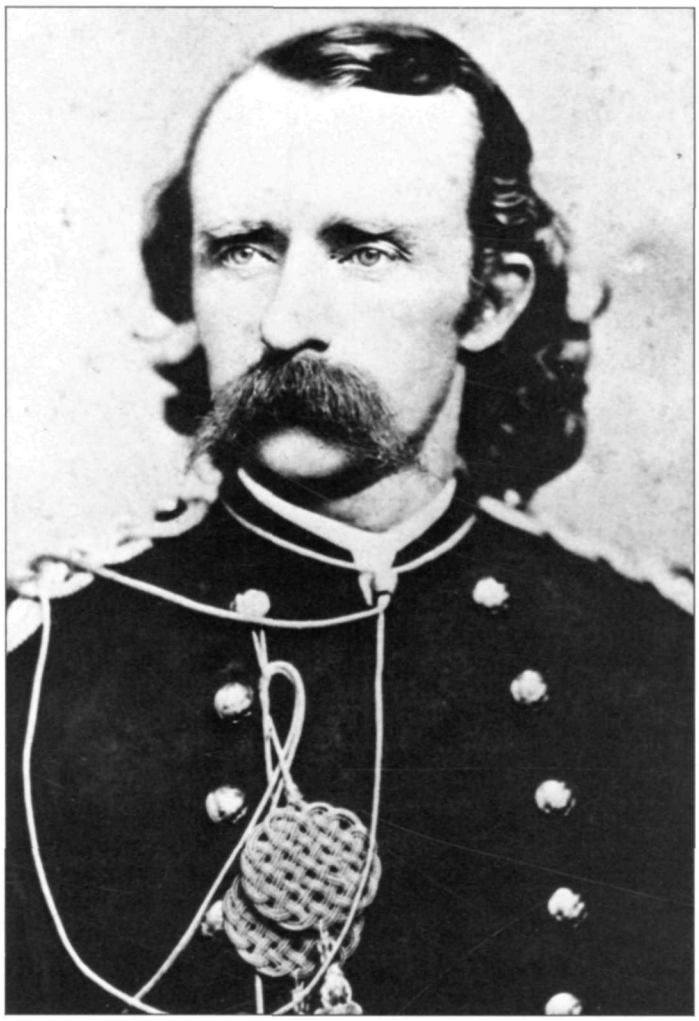
(Although Custer preferred the title "general," he was officially a

The national monument is composed of two units: Custer Battlefield and the Reno-Benteen Battlefield. Until recently, the land between them matched the mood of the park: empty, high-plains country. Now development threatens and artifacts are being dug up and stolen. The Custer Battlefield Preservation Committee, in conjunction with the NPS, is trying to raise money to purchase 9,000 acres—enough land to create one whole park unit. The committee recently purchased a critical 80-acre parcel.

"The idea is to preserve the historical and visual integrity of the area as it appeared in 1876," said Custer Superintendent Jim Court.



James F. O'Brien, based on NPS map



Historic photographs courtesy of the National Park Service

Clockwise, from top left: Sitting Bull, a Sioux chief, had a *vision of tribal victory before the battle.* Lt. Col. George Custer won his fame and rank by leading daring charges during the Civil War. The *Far West*, moored in the Yellowstone River, served as the "war room," where the U.S. Army command laid battle plans against the Plains tribes. Comanche, Capt. Myles Keogh's horse, was "the only living thing found on Custer Battlefield." Capt. Frederick Benteen received the only written orders—scrawled by Custer's adjutant: "Benteen. Come on. Big Village. Be Quick. Bring packs. W.W. Cooke. P.S. Bring pacs."

lieutenant colonel. Made a general during the Civil War, Custer's rank was revoked at the war's end.)

That day, gathered in the cabin of the supply steamboat *Far West*, which was tied up on the Yellowstone River, General Alfred Terry, Colonel John Gibbon, and Custer made plans to smash the hostile Plains Indians for all time, and remove them as a barrier to settlement.

The Army officers were certain the tribes—Sioux, Cheyenne, and others—whose warrior strength they estimated at 1,500, were camped in the Little Bighorn River Valley, country the Indians referred to as Greasy Grass.

Terry's strategy was to move Custer into the valley from the north, and have him circle around and attack the Indians from the south. Gibbon, meanwhile, was going to move in from the north to squeeze the Indians and force them to fight, for the trick in beating the tribes lay not in the battle, but in catching them before they could slip away into the hills.

On the night of June 24, Custer's scouts found the trail leading to the Indian village along the Little Bighorn. But from their vantage point in the Wolf Mountains, the village was obscured by cliffs and ridges.

Fearing the enemy would escape, Custer laid plans for a lightning attack. The boy general had a good deal of faith both in his troops and in the swift, surprise attack—a strategy that had worked well for him against the Confederates.

On the morning of the 25th, the flamboyant Custer, in buckskins, his blonde hair cropped short, paused at the head of what is now called Reno Creek, and divided the Seventh Cavalry into three battalions. Captain Frederick Benteen, head of one of the battalions, was ordered to ride along the base of the Wolf Mountains to prevent the Indians from fleeing, and to "pitch into anything he might find." (Although no written log exists—orders that day were verbal—soldiers' accounts collected after the battle have helped historians piece together the events.)

Billings Gazette/Judy Tell

Major Marcus Reno was ordered to charge the southeastern end of the Indian village, which lay among the cottonwoods along the river. Custer promised his support once Reno engaged the enemy.

As the three battalions, totaling approximately 675 men, rode through oppressive heat and choking clouds of dust behind the Seventh's red, white, and blue swallow-tailed guidon, no one knew that the number of Indians in the obscured village had been greatly underestimated. Awaiting the bluecoats was one of the largest congregations of battle-ready Indians ever assembled, perhaps as many as 15,000, with 4,000 to 5,000 warriors.

Around 3 p.m., Reno drew first blood and launched his attack against the village perimeter from a grove of cottonwood trees. His men were quickly overwhelmed by Indians fighting fiercely to protect their families. The soldiers retreated in confusion and disarray to a bluff above the river.

Custer was last seen by Reno's men as he rode on a cliff above the Little Bighorn, apparently ready to strike against what he thought were a group of fleeing Indians. The rest, as the saying goes, is history.

Reno and Benteen, who later weathered a siege at what is now called the Reno-Benteen Battlefield (about four miles from Custer Battlefield), did not know until the Battle of the Little Bighorn was over that all of Custer's troops had been killed.

The cavalrymen died fighting on foot as wave after wave of warriors attacked from all directions. Custer and the 40 men left made their last stand using the bodies of their horses as breastworks. The only survivor of the battle was "Comanche," Captain Myles Keogh's horse.

Custer's Last Stand is well known. What is not known is precisely how the battle took place. In May 1984, the first of two five-week archeological investigations into the battle began; and these investigations are now providing researchers with some answers.

Two archeologists—Doug Scott of the National Park Service, and Richard Fox, a consultant—supervised the dig, but most of the field work was done with metal detectors by an army of approximately 60 devoted volunteers—mostly Custer buffs. In fact, the dig was funded by the Custer Battlefield and Museum Association, which donated $42,000 for the two years of the survey.

Parts of the battlefield near Custer

© Doug Scott

Left: archeologists uncovered leg, arm, and toe bones and the remnants of a boot around marker 200. Although 260 markers exist and only 212 men died with Custer, the markers are supposed to indicate where bodies were found after the battle. Far left: excavated human remains were reburied in a military ceremony that took place at Custer Battlefield, Montana, this past June.

Hill, where Custer's body was found, were divided into a 1,000-meter grid, 100 meters on a side. The sides were marked off in five-meter lengths, and along each five-meter line walked a volunteer with a detector.

Behind the detectors swarmed a detachment of "pinners." When an object was found, the site was marked with a plastic flag. A third detachment followed; and supervised volunteers gingerly unearthed objects, taking care to record precisely the location of each artifact and its position in the soil.

Archeologists also conducted random excavations of certain areas where battle activity was intense, and around the white marble markers that mark where the dead troopers were found after the battle. With trowels, researchers slowly scraped away soil, sifting through it for battle remnants.

"Through the 1940s anyone could come out here and have a picnic and collect artifacts," Richard Fox said. "A lot of things have disappeared."

Thus, the volume of historical residue found at the battlefield came as a surprise, according to Fox. Researchers unearthed more than 3,000 artifacts during the two years of the dig, including buttons, stirrups, spurs, both animal and human bones, arrowheads, teeth, boots, nails, tin cups, personal items, and a large number of cartridge shells and bullets.

Of all the artifacts unearthed during the survey, several hundred cartridge shells and bullets have proven the most vital to reconstructing Custer's Last Stand. Among other things, researchers say, the artifacts show that the primary reason Custer lost the battle was because of superior Indian fire power. Scott and Fox, in their National Park Service report on the archeological survey, reason:

"It becomes readily apparent, taking all the firearms data into account, that Custer and his men were outgunned; even if not in range or stopping power, then certainly in sheer fire power. With the relative lack of cover available to Custer and the dispersed deployment of the command against the superior number of Indians, at least half of whom were armed and many with repeating firearms, then the reason for the outcome of the battle can no longer be significantly debated."

These conclusions were drawn from facts gained with the help of a computer program designed by IBM. The Indian cartridges were color-coded red; the trooper cartridges were coded blue. The different colors and individual shells could be followed around the battlefield. This technique is a classic example of artifact patterning.

Most students of the battle believe that Custer rode down Medicine Tail Coulee to the Little Bighorn River in order to ford the stream and attack the village. Pushed back by the Indians, Custer and his men began their fight at a point now called Custer Ridge. It is here that the amount, type, and positions of artifacts begin to illuminate what happened next.

When they reached the ridge, Custer apparently deployed Lieutenants Calhoun and Crittenden and L Company in a broad arc, some 400 yards long, facing south. Chief Gall led the Sioux in an assault on these defenders.

Custer took the rest of his men and wheeled north; he apparently noticed a group of Indians moving in on his north and west. To meet the threat, Custer deployed three companies—C, E, and F—to the head of Deep Ravine. Captain Keogh and I Company were sent to a ridgetop east of Custer Ridge.

The large number of cartridges found on the ridge indicates that heavy Indian fire rapidly thinned the ranks of the soldiers. The Indians moved in, again firing heavily at Calhoun and L Company. As many as 20 repeating rifles were trained on the handful of soldiers.

Once Calhoun and his men had fallen, Chief Gall and his Sioux warriors joined Indians battling companies C, E, and F near Deep Ravine—according to a comparison of cartridges and bullets. The soldiers here were apparently overwhelmed, for there are few artifacts to suggest a lengthy battle.

National Park Service/Dan Martinez; inset: Billings Gazette/Larry Mayer

Above: the battlefield was cleared of brush in 1983 by a naturally occurring fire, which sparked excavation plans. Inset: Indians often cut off the tops of cavalry boots—such as found attached to this leg bone—so they could reuse the leather.

Cartridges from some of the same Indian weapons that had been used on the soldiers at Calhoun Hill were found near Last Stand Hill. The report suggests that survivors of C, E, and F companies attempted to rejoin their comrades who were fighting alongside Custer on Last Stand Hill and were pursued by their Indian attackers.

As the battle neared its grim conclusion, the Indians overwhelmed the soldiers and the fighting was hand to hand. The small number of Colt pistol bullets uncovered shows that the soldiers were quickly overrun and had little opportunity to fire their sidearms. Roughly one-third of the recovered Colt bullets were found near the soldiers' position, the report states, "suggesting the Indians may have used the soldiers' weapons to administer the coup de grace."

Scott and Fox caution that theirs is not the only interpretation of events. Because the events of the battle are not clear, both professional historians and amateurs have drawn their own conclusions concerning Custer's end. The NPS does say, however, "We believe [our conclusion] is a logical and defendable one."

Perhaps one of the most compelling interpretations in the report is the description of the last few moments of several of the troopers' lives, based on uncovered artifacts. Piecing together the discoveries, taking what is known about the battle and adding a dollop of logic, the archeological detective work is like a Sherlock Holmes tale.

Take the case of one unknown soldier apparently trying to escape the frenetic battle. The last minutes of this trooper's life were recreated through a handful of artifacts found near marble marker number 174, far off by the park's eastern boundary fence. A boot nail, three spent 45/55 carbine cartridge cases, a Colt cartridge, a Colt bullet, and a deformed 50/70 bullet were discovered scattered about.

Scrambling from a group that fell around Captain Myles Keogh, the soldier ran across one treeless ravine and then another. On his way up the wall of the third, he was fired upon by Indians. He returned fire with his military carbine, getting off three shots, perhaps his last three rounds. The trooper yanked out his Colt pistol, and apparently discharged it as he was hit by an Indian round, for the pistol bullet was found imbedded in the ground.

Originally, the troops were buried where they fell; but, in 1881, their remains were exhumed and reburied in the mass grave on Last Stand Hill. Marble markers were erected where they had fallen.

Two years of digging have turned up the bones of roughly two dozen troopers; and most of these remains were found scattered near the snow-white marble markers. The bones left behind were mostly small pieces—toes and fingers, including one finger bone still encircled with a silver wedding ring. There was one exception—the discovery of a nearly full skeleton last year. Only portions of the skull were missing.

Dr. Clyde Snow, a forensic anthropologist affiliated with the medical examiner's office for the State of Oklahoma and a consultant to the Cook County coroner's office in Chicago, has been contracted by the NPS to examine the remains of soldiers found at the battlefield. His analyses have added more detail.

"The full skeleton was a young man, 19 to 22 years of age," Snow said. "He was above average in stature—the average was five feet, seven inches. He was five-eight." Dr. Snow said a bullet fragment was found in the forearm bone, and the skull was badly fractured. "He was probably wounded and maybe finished off with a rifle butt or a war club to the head," Snow said.

One of the most frustrating elements of the dig remains the whereabouts of E Company. After two years of intensive search, their resting place still remains a mystery.

The marble markers that were erected throughout the battlefield to mark where various troops had fallen indicate that the men of E Company fell roughly a hundred yards from Deep Ravine. Although no markers were erected within the ravine, other records say that that is where the men fell. Still others claim the bodies were moved to the mass grave.

"These are questions that have nagged historians for years," says monument historian Neil Mangum.

After the fire stripped away the dense vegetation in the coulee, several mounds were revealed, which archeologist Fox conjectured were grave sites. In spite of several excavations near markers there, and 200 holes dug in Deep Ravine in 1984, nothing was uncovered.

Last year's work turned up nothing more on the remains of E Company. But researchers believe they have narrowed the range of possibilities; and they claim that one more season should provide an answer to the riddle.

It is not certain they will have an opportunity to test their hypothesis because the archeological survey is currently undergoing some intensive evaluation. Excavation is an issue that elicits differing opinions among NPS officials.

Some believe that the mission of the National Park Service is to protect history in place, while others believe the material should be excavated, studied, and interpreted. The dig has been postponed, at least for a year, perhaps forever, leaving the door still closed on the details of how Custer and the Seventh Cavalry met their end on that sweltering day in June.

Montana resident Jim Robbins, who has written for the New York Times Magazine *and* Natural History, *among others, is at work on a book about Lt. Colonel George Custer.*

Trail Blazers

The 2,000-mile Appalachian Trail is the only park area created and managed by volunteers

By Charles Sloan

Photographs by Michael Warren

Hiking the Appalachian Trail is one of the world's great feats. Only a thousand more people have hiked its length than have climbed Mount Everest, even though the pathway was completed in 1937—16 years before the dramatic conquest of Everest by the celebrated climbers, Sir Edmund Hillary and Tenzing Norgay.

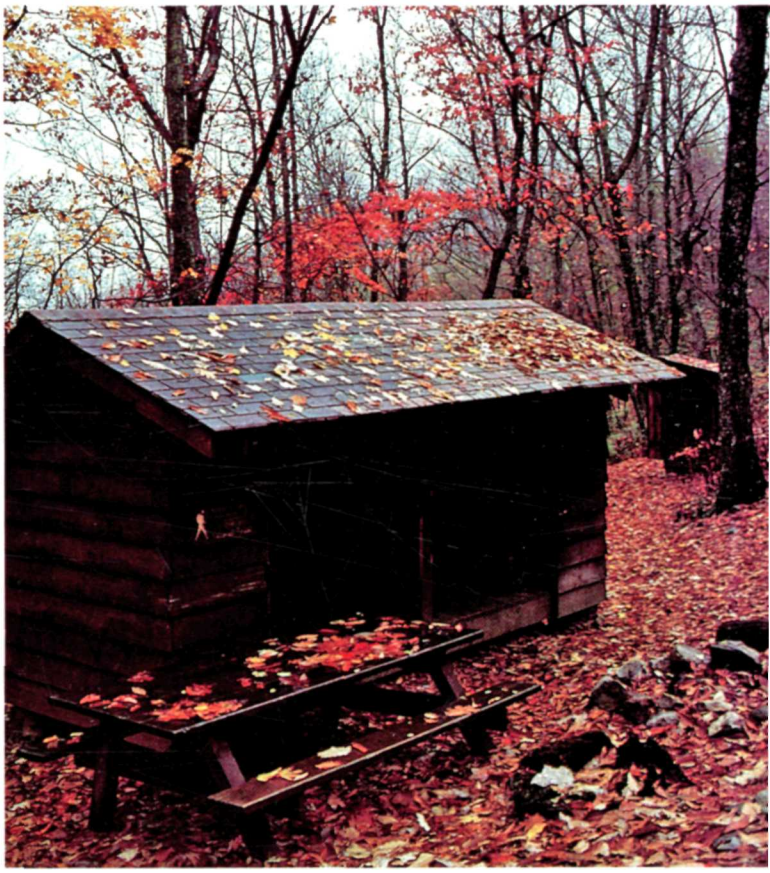
Extending 2,145 miles as it winds over the crests of the Appalachian Mountains from Mt. Katahdin, Maine, to Springer Mountain, Georgia, the trail extracts five months of sweat, anxiety, and exhilaration from a hiker's lifespan. If you start at Springer in April to walk north with the spring, your trek will pass through 14 states, eight national forests and six national park areas before encountering the final exam—279 miles of rugged Maine wilderness. Virtually all hikers report that this experience irrevocably changed their lives.

Aside from the adventurous few who have completed the entire trail, millions of people have hiked a portion of the AT. It is one of the most visited units—some estimates are 4 million visitors a year—of our National Park System. Unlike any other park areas, however, it is managed by volunteers.

The trail was also originally conceived and built by volunteers. In 1921, Benton MacKaye, a philosophical regional planner, proposed the idea for the Appalachian Trail in the *Journal of the American Institute of Architects*. MacKaye conceived the trail as a boon for "everyman," the 20th-century worker who needed the wilderness influence to keep his human balance.

"Recreation in the wilderness could reduce the day-to-day drudgery of the worker and bring back not only physical health but also mental health. . . . [It would] allow one to get one's feet on the ground and one's eyes toward the sky," he wrote. MacKaye sent copies of the article to several existing trail clubs

Two- by six-inch vertical white blazes mark the Appalachian Trail. This section follows an abandoned narrow-gauge railroad in what is now New York's Fahnestock State Park.



that enthusiastically endorsed the idea and started construction.

Later, new trail clubs were formed for the sole purpose of constructing and maintaining the Appalachian Trail. This period of trailblazing and club building, which lasted from 1922 until 1937, cradled and nourished volunteerism on the AT.

This strong tradition culminated in January 1984, when an agreement was signed between the Appalachian Trail Conference (ATC) and NPS Director Russell Dickenson in Washington, D.C., that delegated to ATC the responsibility to manage the lands that were being acquired by the National Park Service for the trail. This act constitutes the largest delegation of management responsibility for public land from the National Park Service to a private organization in history.

Eventually, more than 100,000 acres will be managed as parkland by the ATC, a private, nonprofit organization with 20,000 individual members and 31 trail clubs. Each club is autonomous, with its own membership and its own personality, and each is committed to maintaining an assigned section of trail. The 30,000 members of the Appalachian Mountain Club, whose headquarters are in Boston, engage in many outdoor activities besides maintaining the trail. In contrast, the Maine Appalachian Trail Club located in Orono, Maine, has 100 members whose sole activity is managing the trail.

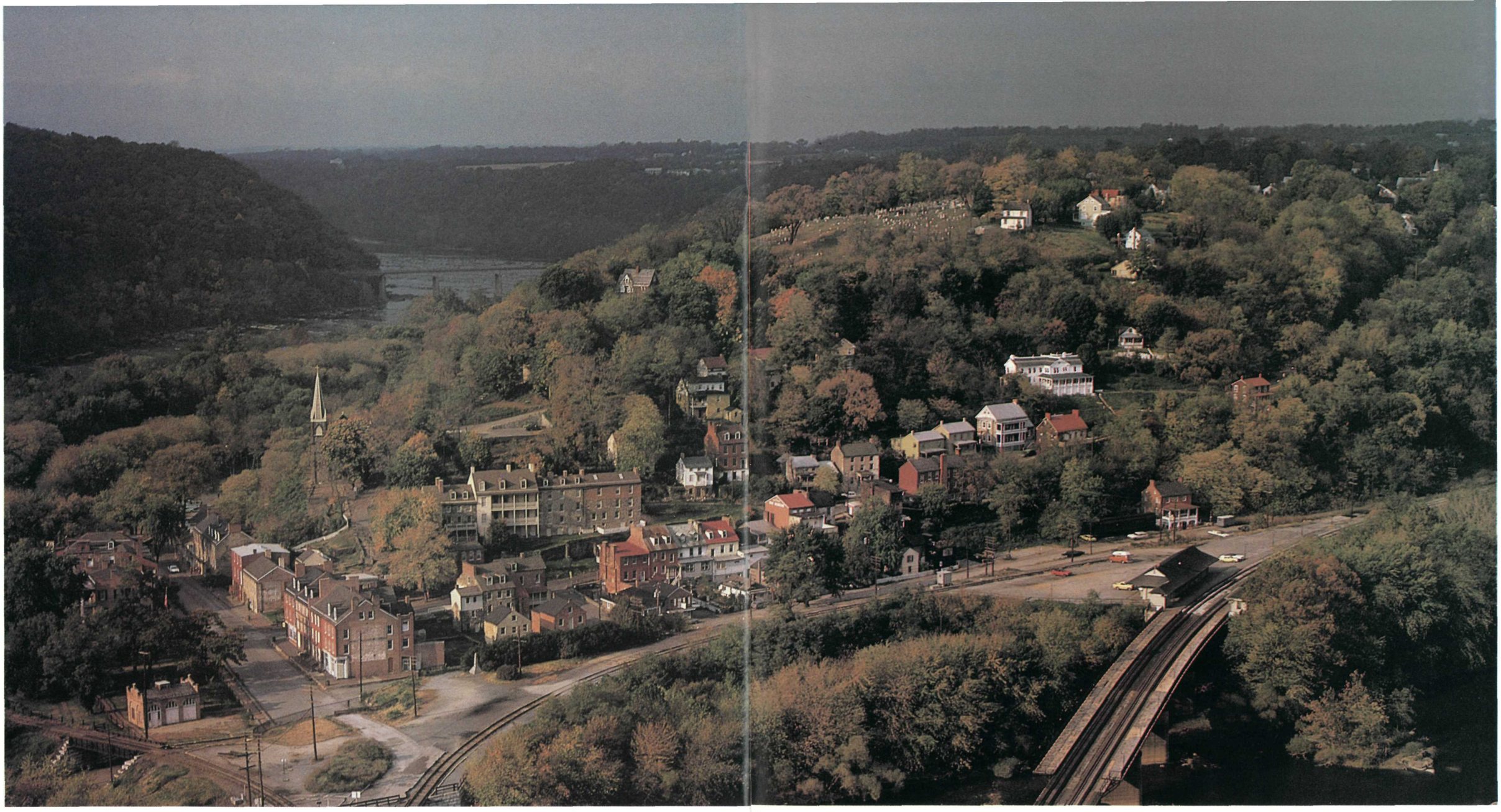
The most challenging projects attract the best volunteers; and the trail attracted dedicated individuals from all walks of life who were encouraged to donate their talents. For example, Walter Greene, a noted Broadway actor, located and marked much of the Maine section.

It is estimated that, in 1985, almost 2,500 volunteers donated a total of 36,800 hours to working on the trail. According to former Secretary of Interior William Clark:

"Without its great volunteer tradition, there would be no Appalachian Trail, nor would there be such widespread support for its preservation as part of our national heritage. The Applachian Trail and its committed volunteers have earned the trust of the American people."

Although the trail was built and is maintained by private citizens, the government has given increasing support. Stephen Mather, the first director of the National Park Service, attended the founding meetings of the ATC in 1925. State and national foresters assisted with the location and the building of the trail itself.

Opposite: the Great Smoky Mountains in Tennessee and North Carolina are awash in magenta catawba rhododendron blooms in June. Above left: Bates College students are just one of the volunteer groups that maintains the trail along the Saddleback Mountains in Maine. Above right: basic shelters—most as spare as this one at Blobblett's Gap in Jefferson National Forest, Virginia—have been built about a day's hike apart along the trail.



In 1938, the U.S. Forest Service and the National Park Service agreed to protect the new AT corridor where it passed through federal lands. They decided not to build any roads within one mile of either side of the trail and to provide a system of campsites, lean-tos, and simple shelters throughout the federal land sections of the trail. In 1939, the agreement was extended to state-owned areas, but only one-fourth of a mile was protected on each side of the trail.

Then, in 1965, President Lyndon Johnson proclaimed that "in the backcountry we need to copy the great Appalachian Trail in all parts of America and to make full use of rights-of-way and other public paths." This led to the passage of the National Trails System Act of 1968, which designated the AT as a national scenic trail and authorized $5 million funding for federal land acquisition, so that the trail could be protected.

The most significant portion of the National Trails System Act, however, allowed the National Park Service to enter into agreements with private groups, such as the Appalachian Trail Conference, to operate, develop, and maintain trails. A liberal interpretation of that language provided the cornerstone for the 1984 Management Delegation Agreement that gave private groups responsibility for managing the trail on public land.

Prior to 1978, 50 percent of the trail had crossed private land. Easements for these sections were secured by as little as a handshake or by some other easily revocable agreement. As mountain land became more valuable for second-home sites and skiing and the trail became more popular, many of these agreements were terminated and the trail was forced onto secondary roads.

Benton MacKaye described him-

The Appalachian Trail Conference's headquarters is in Harpers Ferry, West Virginia, a place Thomas Jefferson called "one of the most stupendous scenes in nature. . . . This scene is worth a voyage across the Atlantic."

self as "an unwilling traveler of contested motorways." Now, his followers were subject to that fate and the trail as a unitary natural path seemed doomed.

By 1978, however, the trail had become so popular that there was strong support for its protection. Robert Herbst, then assistant secretary of Interior for fish, wildlife, and parks, worked hard to obtain federal assistance to purchase enough property to protect the integrity of the Appalachian Trail.

The 1968 act was amended and Congress authorized $90 million for the acquisition of lands for a permanent right-of-way. At this writing, 87 percent of the trail is in public ownership. It is hoped that the rest will be purchased by 1990; then, the ATC will be responsible for construction and maintenance through the trail's entire length.

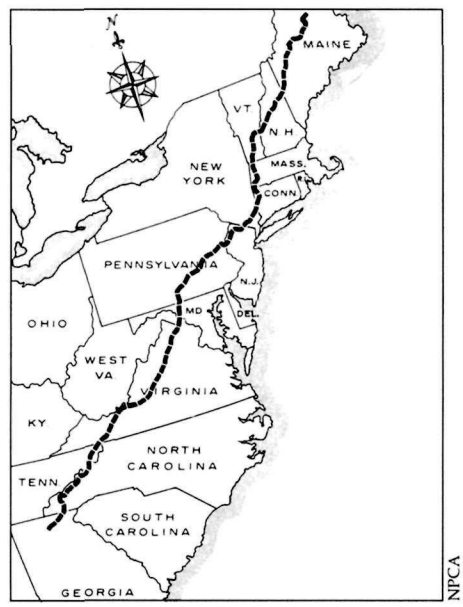
The appropriation of public funds has further rekindled the enthusiasm of the volunteers. The years since 1978 are reminiscent of the 1922-1937 period when methodical progress was being made identifying the original route and constructing the trail. Then, new people were drawn into the project; now, new tasks require new talents.

Volunteers assist in the acquisition process by reassuring landowners adjoining the trail that the hikers will be good neighbors. This local presence is valuable to the NPS acquisition staff. So far, most private owners have been willing to sell their land to the NPS for fair market value; and only 43 out of 1,300 have resisted to the point where the Park Service has had to initiate condemnation proceedings, a remarkable achievement considering the magnitude of the project.

Once the land is acquired, the trail must be relocated or reconstructed within the new corridor. Prior to 1978, the volunteers' only responsibility was to maintain the path itself, blaze trails, and erect shelters, bridges, and signs.

Now, they must also adhere to a management plan for the adjoining corridor land as well. Volunteers check the corridor boundaries for evidence of timber theft, easement violation, dumping or any other intrusion, and report any abuses to the proper authorities. They have the same duty as any other land managers—to protect the resource. The Roanoke Appalachian Trail Club has set up a computerized corridor monitoring system to keep track of encroachments of park boundaries. This valuable system is one that the NPS would like to see used in other parks.

In 1981, NPS estimated that the value of the volunteers' work on the trail amounted to $1,014,000 for that year. The dollar amount of volunteer hours would be considerably higher today as the ATC has become responsible for more of the trail.



Begun in the 1920s, the 2,145-mile-long Appalachian Trail is, at present, 87 percent publicly owned.

Trail volunteers must be organized and their activities coordinated; and some full-time, paid staff is essential. The Appalachian Trail Project Office of the NPS has halved its staff in recent years, but the ATC has doubled its staff. Now, 15 people in their Harpers Ferry, West Virginia, headquarters and four representatives in the field do the extensive public education and coordination that keeps the trail well managed.

Under the 1968 legislation, an agreement was entered into whereby the ATC receives a federal subsidy for part of its activities. This subsidy amounts to approximately $300,000 per year, and it provides less than 30 percent of the organization's total revenues. It is a "real bargain for the NPS," concedes Dave Richie, director of the NPS Appalachian Trail Project Office.

In the future, it may be possible for the ATC to manage the trail through state parklands and national forest areas as well as through national parks. Although more full-time, paid staff would be needed for such work, the savings to federal and state governments would still be considerable. Richie estimates that if the ATC managed the entire trail, the cost would be half what it is now.

A project that involves a great number of volunteers becomes a project *of* the people rather than a resource managed *for* the people. It is no wonder that each year Congress appropriates a substantial amount of land acquisition money for the AT. More voters are intimately involved with the AT than with any other park project.

"I'm optimistic the trail can be managed as well and potentially better by the ATC than by government units, although there will be deficiencies," says Richie.

The AT project is succeeding because the volunteers were well organized, and the government officials responsible for the project were sympathetic to new ideas—to volunteerism itself. Real responsibility, therefore, was delegated.

This kind of intelligent volunteerism could be the wave of the future. As people become disenchanted with the routine of their primary occupation or as they retire in good health, looking for a challenge, they will be attracted to meaningful volunteer projects.

Charles W. Sloan, an attorney in Vienna, Virginia, has donated his legal services to the Appalachian Trail Conference since 1975 and negotiated the Management Delegation Agreement on its behalf. He also serves as secretary of NPCA's board of trustees.

Trash Bashing on the Buffalo

Concessioners and the public join forces to clean up their favorite river

by Connie Toops

"THAT PILE IS OURS," young Scott Gregory boasted as he wrestled another old auto tire from a sand bar along the Buffalo River in Arkansas. "We're trying to figure out how to pack them into the boat."

"I found another one over here," Bryant Liles, his partner, called from the dense underbrush. "Come help."

In the meantime, several teams splashed past the boys, their canoes laden with more tires, garbage bags full of bottles and cans, old wooden pallets, and rusty sheet metal. Other participants dipped into deeper pools with long-handled tongs to grab submerged refuse. Enthusiasm ran high as approximately 60 volunteers tidied up Buffalo National River during its first Trash Bash in late spring last year.

The trash problem began the previous winter, when high water had washed hundreds of old tires from private property into the river. Soft drink cans, bottles, and scattered debris from the "float seasons" (the river's busiest recreational periods), also marred the stream's beauty. Yet the park had neither the work force nor the funding to undertake a full-scale river cleanup. The solution: recruit volunteers to remove the tires and trash. Ads were put in local and regional newspapers; participants were promised a day's free use of canoes, free shuttles back to their cars, and free food at the end of the day. Fifty-six people responded, ranging in age from 10 to the mid-70s.

NPS concessions specialist Don Wooldridge became the coordinator for this experiment in volunteerism, since he already had established relationships with the local outfitters and businesses. Initially, he contacted nine concession operators on the upper river and convinced each to donate the use of canoes and shuttles for the event.

Bill Houston, dean of the upper river outfitters, liked the idea so much he pledged a $50 cash prize for the team gathering the most trash. Other operators pitched in with prizes for the runners-up. The sponsors and the news media, Wooldridge learned, were happy to promote the Trash Bash since a clean river benefited all of northern Arkansas' tourist-oriented businesses.

Connie Toops

On the day of the bash, NPS maintenance workers stationed themselves at specified collection points along the river for the tires and trash. They issued receipts to each team competing in the contest. And they had some hearty chuckles at sights of canoes so loaded with tires and refuse that the occupants barely found room to sit. One couple in a canoe bulging with trash lamented, "We saw a rusty washer and dryer upstream, but there was no way we could fit them in."

By the end of the day, the volunteers were tired and hungry. Buffalo Superintendent Alec Gould greeted them at the picnic pavilion with a huge grill full of sizzling hamburgers. Wooldridge had arranged for local groceries, discount stores, and a soft drink bottler to contribute the burgers, buns, and all the trimmings for a cookout.

During supper the volunteers became better acquainted. Although many were local, some had come from as far away as Louisiana, Kansas, and Illinois to join the cleanup. One couple extended their vacation in order to participate. They all agreed that the satisfaction of cleaning the Buffalo was reward enough for their efforts. But for Gregory and Liles, who had amassed 76 tires by the end of the day, there was a special bonus of $50 from Bill Houston.

The first Trash Bash was so successful that Wooldridge organized two more on middle and lower sections of the river before the season ended. In all, volunteers spent 778 hours ridding the Buffalo of unsightly trash. They removed approximately 420 old tires and enough large and small debris to fill two dump trucks.

Wooldridge estimated that park employees spent about 40 hours of on-duty time organizing and publicizing the events. Sponsors donated an additional $300 worth of merchandise and prizes. In return, about 25 miles of the Buffalo River were cleaned. The same operation, based on the average hourly wage of seasonal maintenance workers, would have cost the park nearly $5,500.

Superintendent Gould summarized his gratitude on behalf of the park by stating, "The Trash Bash was a tremendous success—a result of community spirit and support, combined with the teamwork of the concessioners and the volunteer clean-up crew." Gould expressed hope that the outpouring of volunteer support would become an annual event at Buffalo National River. In fact, since that first cleanup, there have been four more Trash Bashes. They have all been very successful.

Connie Toops is a freelance writer and nature photographer based in Harrison, Arkansas. She is also a member of the volunteer work force at Buffalo National River.

Members Corner

NPCA's New Headquarters

In September, NPCA moved its corporate headquarters to the Georgetown section of Washington, D.C. Our new address is 1015 Thirty-first St. NW, Washington, D.C. 20007. Please send future correspondence to this address.

Holiday Shopping

As the holiday season draws near, delight your family and friends with gift items from NPCA's merchandise collection. Send a gift membership, too. To order, use the form on page 4 or NPCA's convenient toll-free number: 1-800-NAT-PARK. Visa and Mastercard are accepted.

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Florida Governor Bob Graham will be honored as NPCA's Conservationist of the Year. Join the celebration at our seventh annual members' reception and dinner, November 20, in Washington, D.C. Contact Hilary Dick at NPCA for details.

Member Support

NPCA would like to extend our thanks for the many letters sent by members and contributors regarding NPCA's efforts to establish a Tallgrass Prairie National Preserve. Member Richard Davis, principal of Oliver Springs Elementary School in Tennessee, led students in a letter-writing campaign to political leaders in support of the preserve.

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Special Bicentennial edition of *National Parks*	**$50,000**
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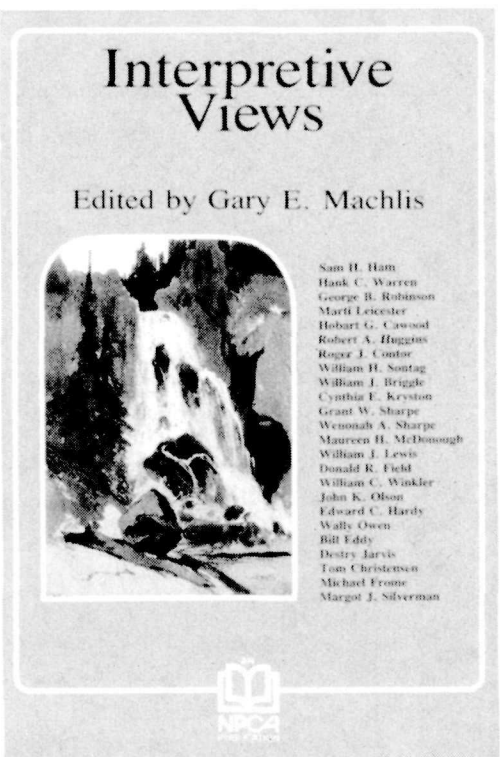
For more information, contact Karen Kress, vice president/operations, **NPCA, 1015 Thirty-first St. NW, Washington, D.C. 20007**



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—William Penn Mott, Jr.
Director, National Park Service

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—Gary Machlis
University of Idaho

Interpretive Views. Edited by Gary E. Machlis. September 1986. 179 pages. Softcover, $9.95.

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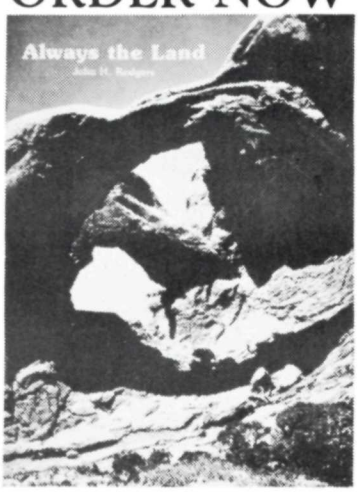

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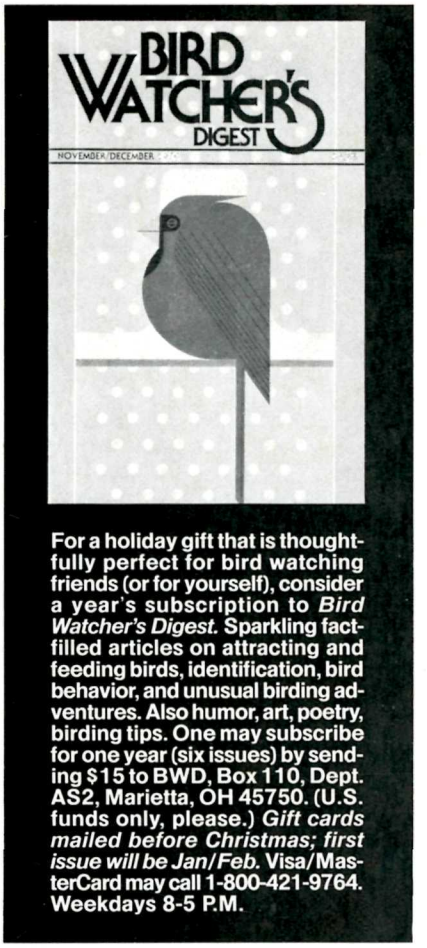

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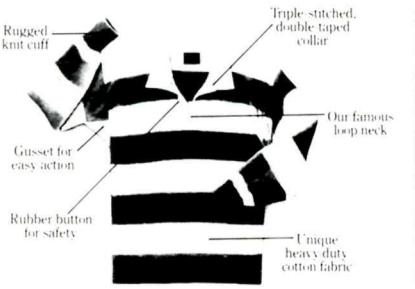

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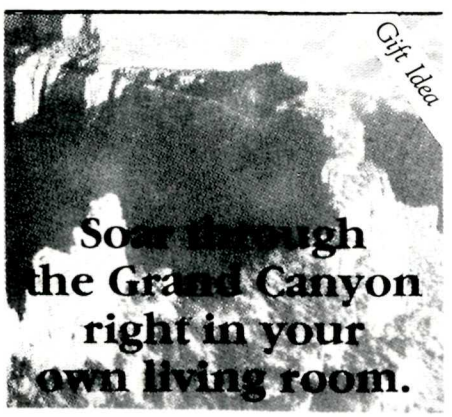

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Images

Michael Warren

by Marjorie Corbett

An inveterate hiker whose second love is photography, Michael Warren has logged over 1,700 miles and many feet of film on the Appalachian Trail.

Which came first for you, hiking or photography?
Hiking. I've been hiking since I was a teenager. I grew up in New York City and used to hike on Long Island. Then a school friend found a map of the Appalachian Trail [AT]. I've been taking pictures for years, but I didn't get serious about photography until I got the idea for a book about the AT.

How did you get coverage of the whole trail? Did you hike through?
No, I didn't want to do the whole trail at once. I did a lot of day hikes to specific spots. There were times I'd have to go back and reshoot because I wasn't satisfied with the results. You have to take your chances with weather, and a sunset that may be gorgeous to look at may not be easily captured on film.

What are your favorite views on the AT?
Maine is the part of the trail that is the most like wilderness. I like Mount Katahdin, even though it is crowded during the summer. I like Mount Rogers National Recreation Area [a Forest Service area] in Virginia and I like Pinnacles, which is a rock outcropping with the Pennsylvania Dutch farmland below. At Pinnacles, I had to go back six times to get a good shot because the light was never quite right.

What are some of the problems inherent in mountain trail photography?
Mountain tops are often windy and damp. You've got to wait for the right conditions to get the right shot. You also need a sturdy tripod to keep your camera steady. I use a medium-weight Kenlock tripod. The really heavy ones are hard to carry around, and this one I can break down and fit into my pack. If it is blowing too hard, though, there is no sense going out to shoot, especially in the mountains.

Michael Warren

"I think outdoor photography can reflect some of the feeling of being out of doors."

I've taken photos in snow and wet drizzle and have had to cover my equipment with my poncho. Another problem is that camera batteries can go bad pretty quickly in the wintertime, so I always carry a spare. When things go wrong with my equipment, it is usually a screw loose, so I carry a jeweler's screwdriver and extra screws from old camera bodies.

What kinds of equipment and film do you use?
I use Kodachrome 64—sometimes 25, but usually that is too slow. Most of my equipment is Nikon. I have F-3, F-M, and F-E camera bodies. I use manual settings, but occasionally I'll use automatic and bracket either way.

I usually use a polarizing filter to bring out the clouds or to cut down on glare or reflection. I don't always adjust the filter for full polarizing—usually part-way will do. In the fall, I use an orange 85-A or B filter for enhancing the fall foliage. A magenta filter is good for fall foliage or color enhancement early in the morning or late in the day, especially if you are side-lighting the subject.

Sometimes I use two filters together. Magenta and orange are good for sunrises and sunsets.

What type of lenses do you use?
I use a range of Nikon lenses, from 24mm up to 200mm. I also use a 2x extender, which I can use on the 200mm lens to get up to 400mm. I recently got a zoom lens, but I find that getting a correct setting can be difficult with it. One thing I don't recommend using an extender for is wildlife shots. You lose so many f-stops with the increased focal length and it is hard to get enough light.

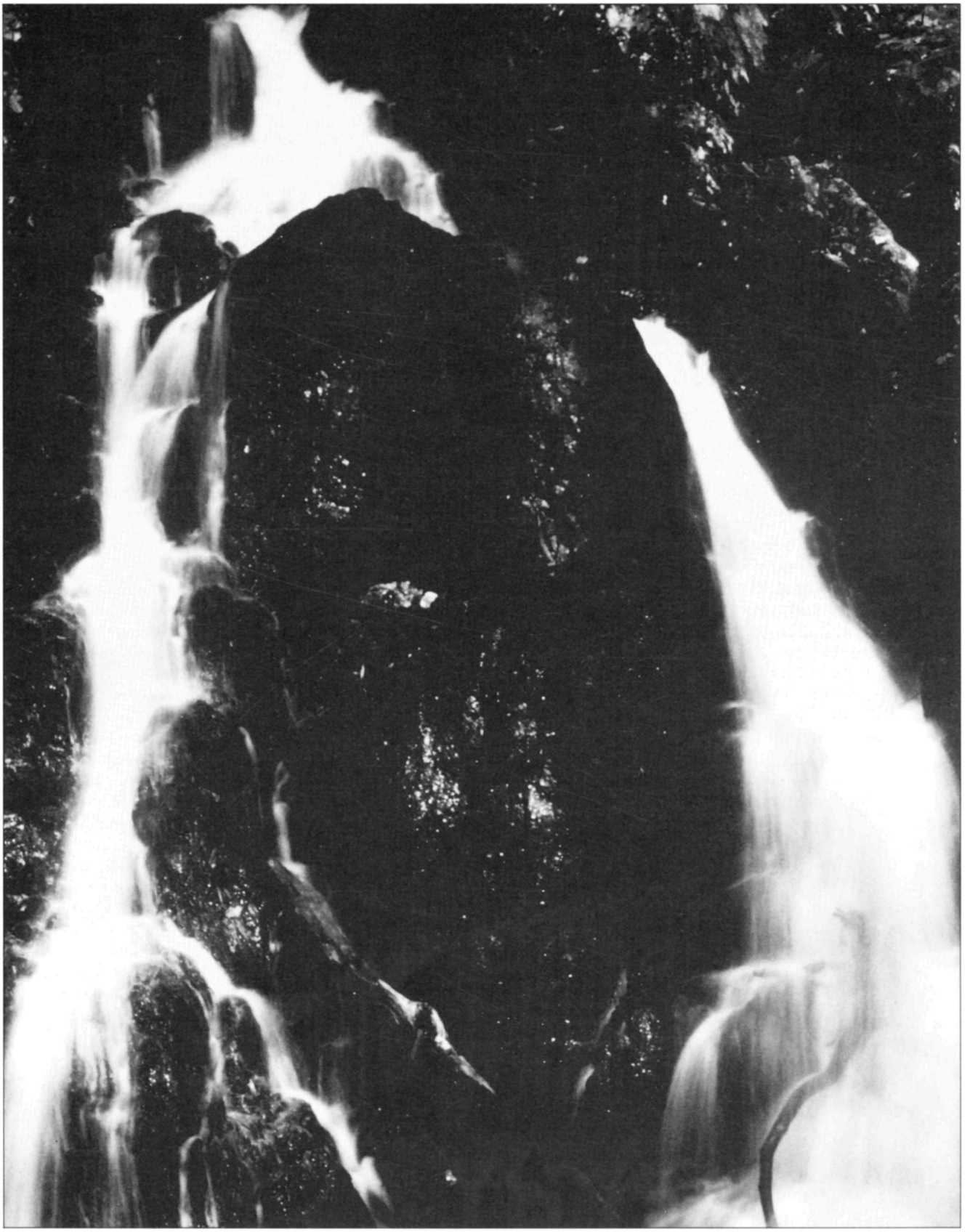
I love taking photos of old buildings and I recently bought a new lens called a perspective corrector lens, which helps keep buildings from looking like they are about to fall over.

How do you frame your scenics?
On a clear day I frame the sky with foliage because the sky alone is too flat. Clouds tend to help frame the picture. Depending on the light, I'll emphasize sky or mountains in two-thirds of the picture.

I like to put people in my scenics, usually with their backs to me, otherwise the focal point is on the faces rather than the scenic view.

You've already hiked more than most people will in a lifetime. What brings you back?
I hike every time I have free time. I like the feeling of solitude. I think outdoor photography can reflect some of the feeling of being outdoors. Some people feel insignificant being out in the woods at night, or on a mountaintop, but I find it reassuring.

Marjorie Corbett is a regular contributor to National Parks.



Fitzgerald Falls, N.Y.; Photo by Michael Warren

NPCA Report

NPCA Says New Skyscraper Will Overshadow Capital

Lending NPCA's voice to the chorus of criticism of the proposed PortAmerica skyscraper project near Washington, D.C., Laura Beaty, NPCA's cultural resources coordinator, testified September 4 before the National Capital Planning Commission. She warned that the 42-story, modernistic office tower, in addition to "rudely forcing itself upon the core of the nation's capital," could "set a glaring precedent," spawning a "profusion of competing towers."

The billion-dollar project, which would also feature a hotel, town houses, shops, and a waterfront promenade, is planned for a Potomac riverfront site in Prince Georges County, Maryland, just south of the nation's capital. The Washington, D.C., planning commission has no jurisdiction over the area, but opposes the tower because it would overshadow the Washington Monument and generally intrude upon the Washington skyline.

To allay fears over aircraft safety, the developer recently shaved ten stories from his original 52-story scheme. In June, Senator Alan Cranston (D-Calif.) introduced legislation that would further pare down the height from 800 feet to 140 feet. The Metropolitan Washington Council of Governments has protested the bill as an infringement on local control of land use.

Countered Beaty: "Just as the city has preserved the stately and historic setting for the monuments by restrictions," so must the region impose height constraints.

This case, says Beaty, is a flagrant example of how the plans and decisions of one jurisdiction can affect—negatively and for all time—the integrity of the resources in another jurisdiction. In this case, the architectural harmony and history of the nation's capital is threatened by the Port America project.

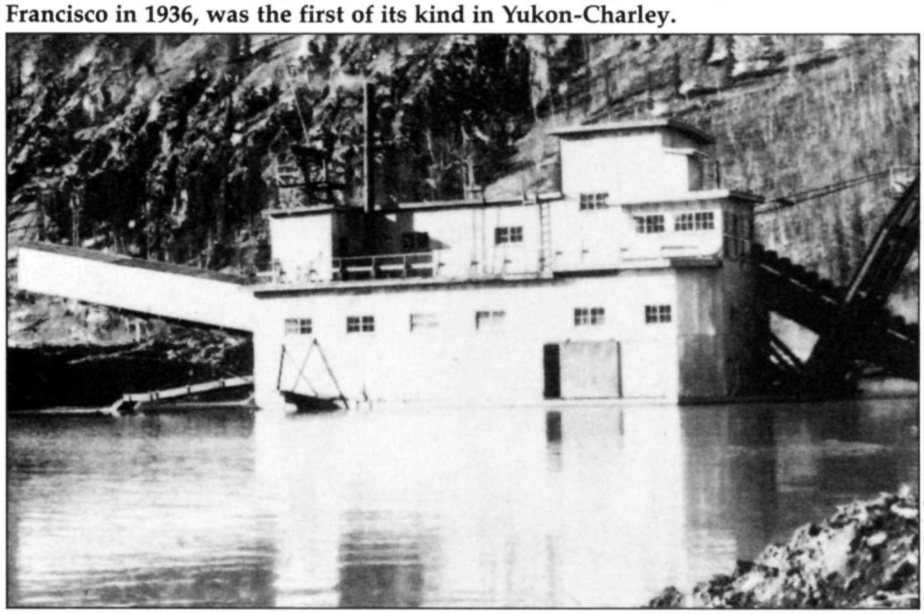
NPCA Trust Facilitates Alaska Land Donation

On September 5, NPCA's National Park Trust presented the National Park Service with the deeds to 68 placer—or surface—gold claims in Yukon-Charley Rivers National Preserve. The 2,000 acres in the east-central Alaska wilderness is itself a treasure and bears witness to the intrepid settlers who staked claims here early in the century.

The donation includes a mining camp, a four-story gold dredge built in 1938, and other historical structures and equipment, much of it from the great Yukon River gold rush around the turn of the century. The remote site, accessible by air and by water, will serve as the NPS's only interpreted example of a placer mine in Alaska.

Without this multimillion-dollar donation, the financially strapped NPS could not have purchased the mining claims. "It's a classic win-win situation," said NPCA President Paul Pritchard of the Trust's role. "In addition to benefiting the Park Service, donations like this one enable an individual to earn a tax deduction."

The Coal Creek, Alaska, gold dredge, which was transported in pieces from San Francisco in 1936, was the first of its kind in Yukon-Charley.



National Park Service

Coal Firm Renews Plans To Strip-mine Near Bryce

In a celebrated case in the 1970s, Utah International, Inc. (UII), a California-based coal company, sought to carve out a huge strip mine from the Alton Hills, in view of Bryce Canyon National Park. The firm's permit request was rejected, but it is now making a bid to mine a different area in the Alton Hills.

In 1980, then Interior Secretary Cecil Andrus responded to UII's original permit request by declaring 9,000 acres of the coal field off limits to strip mining. This stricture affected only 24 tons of some 114 tons of coal available to mine. With a potential 90 tons available, the firm recently submitted renewed mining plans for approval by the State of Utah and the Interior Department's Office of Surface Mining.

This latest request was fueled by an equally ambitious, complementary project: the Nevada Power Company's proposed Harry Allen coal-fired power plant near Las Vegas. Nevada Power's coal would be slurried through a pipeline originating in the Alton coal field.

NPCA Rocky Mountain Representative Terri Martin cites a range of "significant adverse effects" as a result of strip-mining next to Bryce.

Some of the more obvious problems would be noise and air pollution and possible water depletion in local springs used for agriculture. Slurrying the coal to Nevada would take "enormous amounts of groundwater," Martin notes, striking a raw nerve among ranchers in the arid West.

The mining would make its presence known in other ways. While it is uncertain whether the actual operations would be directly visible from Bryce's lookouts, a portion of the coal field can be spotted from the finest of these, Yovimpa Point. This overlook reveals a panorama of mesas, canyons, cliffs, and the Grand Staircase—huge rock forms that descend like steps from the summit of Mount Dutton.

NPCA is concerned about these specific threats of strip-mining, but also about more indirect, long-term effects. The natural and scenic qualities of southern Utah could be affected, says Martin. Degradation of natural resources would, in turn, affect the region's economy, which depends, in part, on tourism.

Senate Bill to Relieve Park Overflight Pressure

Senator Spark Matsunaga (D-Hawaii) introduced the Senate version of the national parks overflight bill (S. 2777) on August 15, legislation that is identical to its House counterpart (H.R. 4430). The four senators who signed on as cosponsors are Daniel Inouye (D-Hawaii), Alan Cranston (D-Calif.), John Melcher (D-Mont.), and Max Baucus (D-Mont.).

The measure promises immediate relief for three national parks: aircraft are required to fly at least 9,550 feet above sea level over Haleakala, 2,000 feet above Yosemite, and above the rim of the Grand Canyon.

To further curb air traffic above Grand Canyon National Park, the bill requires that, within 30 days of the law's enactment, the Interior Secretary submit a plan to the Federal Aviation Administration (FAA) providing for "substantial restoration" of the canyon's "natural quiet."

The bill also calls for two studies: a six-month analysis of FAA aviation safety regulations and a joint, three-year study by the National Park Service and the FAA to improve aircraft guidelines. Research would be conducted at ten park units: Glacier, Yosemite, Haleakala, and Hawaii Volcanoes national parks; Cumberland Island National Seashore; Mount Rushmore National Memorial; and four other units yet to be named.

National Park Service

Scouts Help Clean Up C&O Canal National Historic Park

In a "clean-up camporee," 6,800 Boy Scouts and Girl Scouts helped C&O Canal National Historic Park remove uprooted trees and tons of debris left by last winter's floods. Strapped for federal funds and facing $9 million of devastation, Superintendent Richard Stanton hopes to recruit 9,000 more scouts this fall. Above: Interior Secretary Donald Hodel leads the way.

NPS Sizes Up Its Program For Controlled Park Fires

Amid the great groves of Sequoia National Park, the National Park Service recently hosted a forum to review the agency's 17-year-old program of "managed" fires.

The NPS follows a "prescribed burn" plan in the mixed-conifer ecosystems of Sequoia, Kings Canyon, and Yosemite national parks in California's Sierra Nevada. Controlled burning has been suspended until November while an independent review panel takes stock of the way the program is carried out.

When the NPS began setting fires in Sequoia in the 1960s, it reversed a decades-old policy of fire suppression. NPS officials pointed out that past practice had created a near 80 percent "fuel overload" of fallen trees, branches, and other organic matter. The dense understory of white firs that had grown up amid the sequoia groves further increased the risk of a devastating wild fire in the park.

By way of remedy, Sequoia has adopted one of the most aggressive fire management programs in the country. NPCA Southwest/California Representative Russ Butcher, in comments to the review panel, expressed NPCA's "emphatic support" for the burn policy to "carefully undo the unnatural results" of past practices.

NPCA also supports the NPS emphasis on long-term "ecological process management," which are programs designed to mimic nature. If a log is downed, for example, it is left to rot, thus enriching the forest floor. This process contrasts with "scene management," in which a clump of firs might be cut down to improve visitors' views of a fine sequoia.

National Parks TRAVEL TOUR GUIDE

News Update

El Malpais Bills in Making. Legislation is afoot to protect El Malpais, a vast expanse of lava flows, cinder cones, ice caves, and prehistoric Chacoan pueblo sites near Grants, New Mexico. A measure introduced by Representative Bill Richardson (D-N.M.) and passed by the House would create a 379,000-acre Bureau of Land Management (BLM) national monument, where hunting, wood cutting, and other extractive uses would be allowed. NPCA has testified and remains opposed to a BLM national monument designation. New Mexico senators Pete Domenici (R) and Jeff Bingaman (D) have reached a tentative compromise with Congressman Richardson to establish an NPS national monument surrounded by a BLM national conservation area—a plan that NPCA supports.

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Traffic Plan for Washington Parkway. After years of controversy, the NPS has released a plan to ease traffic tie-ups on the George Washington Memorial Parkway, which leads to the nation's capital. The $21.2-million plan includes parking improvements at key entrances, but calls for no additional lanes. The plan aims to preserve the roadway's scenic character and prevent environmental damage along the Potomac River. Other alternatives that had been considered were more costly and more devastating to the resource.

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Recreation Commission Needs Details. In late September, 27 conservation organizations, led by NPCA, sent a strongly worded letter to the members of the President's Commission on Americans Outdoors. The letter urged the commission to be more specific in detailing their direction on issues that include funding, environmental quality, and increasing the recreation on federal mutiple-use lands.

According to the letter, ". . . your recommendations must provide a level of specificity that will spur the public to action. The 'prairie fire' of grassroots energy which this commission is seeking has already been lit by [its] excellent outreach effort. We hope your final report will inspire our organizations and our members to fuel this prairie fire at both the national and local levels." The President's Commission on Americans Outdoors must complete its report by the end of this year.

Park Service Approves Plan For Capitol Reef Grazing

The National Park Service recently ruled that a Bureau of Land Management (BLM) plan to reconstruct two old livestock reservoirs in a remote section of Capitol Reef National Park will have "no significant impact" on this high-desert wilderness. That decision, with which NPCA disagrees, seems at odds with another NPS action: the NPS has recommended this same area—the Hartnut section north of the park's main road—for formal wilderness designation.

In order to reconstruct the two ponds, the BLM intends to drive a bulldozer nine miles up Deep Creek Wash. NPCA Rocky Mountain Representative Terri Martin has doubts about the operation: "I'm not convinced that BLM's environmental assessment has adequately demonstrated the need for these reservoirs," nor has it "evaluated long- and short-term effects on the wilderness."

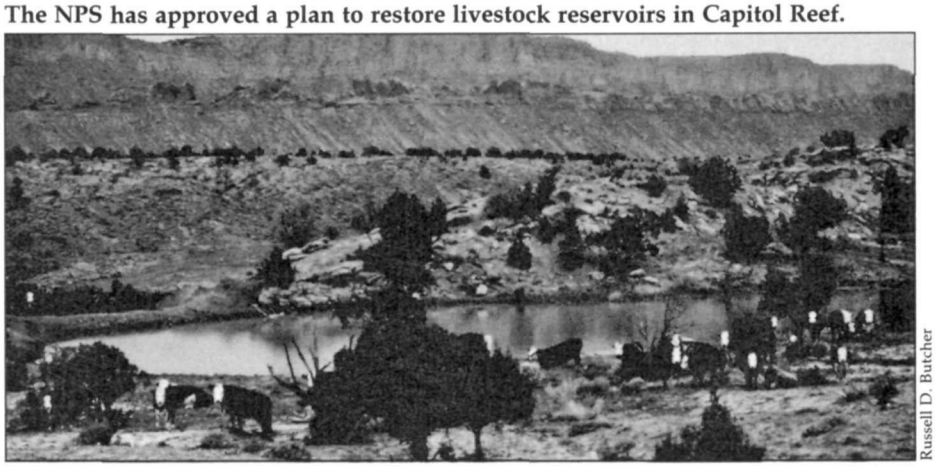
A larger problem is the possible disruption of the park's ecosystem due to the grazing. Cattle not only alter the vegetation, but pollute what scarce water exists, particularly around the popular, picturesque Fremont River. The rugged desert terrain supports an endangered cactus *(Sclerocactus Wrightiae)*, which also could be affected.

Martin fears the reconstructed reservoirs could encourage grazing for years to come, even though "an environmental analysis of the effects of grazing on the park has never been prepared."

The rangeland in question was incorporated into Capitol Reef in 1971. The BLM, which had administered grazing on that acreage, continues to do so under NPS supervision.

Grazing was to have been phased out beginning in 1982, but that year Congress passed a bill, sponsored by Senator Jake Garn (R-Utah), extending the permits to 1994. Utah's congressional forces are still at work, promoting grazing. Senator Garn, Senator Orrin Hatch (R-Utah), and Representative James Hansen (R-Utah) have been lobbying the NPS and the BLM for the two reservoirs, a BLM environmental assessment reports. In fact, the report says the Utah delegation "seems impatient about the time it is taking to do the work."

The NPS has approved a plan to restore livestock reservoirs in Capitol Reef.



Russell D. Butcher

Ban on Trapping at Ozark Challenged in House

In congressional testimony September 11, T. Destry Jarvis, NPCA vice president for conservation policy, argued against legislation that advocates trapping along the Ozark National Scenic Riverway, a 134-mile stretch of the Current and Jacks Fork rivers flowing through Missouri's Ozark Hills.

The measure (H.R. 103), introduced by Representative Bill Emerson (R-Mo.), would specifically allow trapping by amending the law that established the riverway in 1963. Although never specifically allowed according to law, trapping had been going on along the national riverway since that time.

In 1983, however, trapping was banned by revised National Park Service regulations. These regulations prohibit trapping unless it has been specifically authorized by congressional mandate.

In his testimony before the House Subcommittee on National Parks and Recreation, Jarvis took issue with several arguments advanced by trapping enthusiasts. In particular, he called into question potential economic benefits, insisting that in national parks, "Congress must not condone the commercial harvest of wildlife for individual gain." Jarvis further pointed out that trapping, unlike hunting, is "non-selective." There is no way to know how often trappers inadvertently take otters, long-tailed weasels, southern bald eagles, and other rare species that thrive along the untamed riverway and its many springs.

Proponents of Emerson's bill defend trapping as a traditional activity of the Ozark region. But the park's enabling legislation says nothing of preserving traditional uses or lifestyles. Moreover, Jarvis told the subcommittee, it is NPCA's position that Congress should prohibit traditional activities—be they placer mining, logging, grazing, hunting, or agriculture—if they threaten park resources.

Gift Catalogues

Continued from page 15

units, in order to provide visitors with a quality experience overall.

"We are at a point where further cuts will make it impossible to keep some of our units open."

We have no quarrel with the NPS getting chain saws and shovels," says T. Destry Jarvis, NPCA vice president for conservation policy, commenting on the donation of machinery and tools to Santa Monica Mountains National Recreation Area, "but hit-or-miss donations won't guarantee good resource management."

The catalogue experiment also raises some troubling questions. Although most of the catalogues were printed at no direct cost to the federal government, NPS personnel spent time on the catalogues; and time is money. Was it time well spent?

Without a coordinated strategy and a full-time employee, many catalogue projects never reached their full potential. Now, cooperating associations and friends groups often manage catalogue donation programs. This approach has the added benefit of allowing donated funds to be placed in interest-bearing accounts, which is not permitted with funds donated directly to the federal government.

The NPS may see this help from the cooperating associations as the way to go. On October 1, 1986, the PARTS office became history, a victim, ironically, of budget cuts.

Catalogue sales also have brought up a philosophic question: should the NPS raise funds at all? Many NPS employees are uncomfortable wearing the fund-raiser's hat.

"We're not professional fund-raisers," says John Mohlhenrick, chief interpreter at Lake Mead National Recreation Area. "We are trained to manage resources and to help people. Hold bake sales? We'd rather have others do that for us."

Although Bill Anderson, formerly at Santa Monica Mountains, sees the need for donations, he also cautions, "You have to go back to the legislative intent of the park, and take a real hard look at the congressional mandate. Do we have the ability, or even the right, to move people from resource management to these revenue generating programs?"

Neither gift catalogues, donation boxes, or volunteers offer a complete answer to financial dilemmas. And, because of the means chosen to maintain a balanced budget, the parks may be able to do little besides play catch up in the years ahead.

Ultimately, the greatest good coming from the catalogues may be their potential to educate our citizenry about the serious commitment this nation must make to the parks. Says Anderson, "If you could use this process to raise awareness, to enhance our study of our resources in order to protect them better, and to solicit public support . . . then we as a nation would be taking a giant step forward."

David Simon last wrote for National Parks *on superlative places to visit in the National Park System.*

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Abbreviations:

BLM:	Bureau of Land Management
LWCF:	Land and Water Conservation Fund
NB:	National Battlefield
NHP:	National Historical Park
NL:	National Lakeshore
NM:	National Monument
NP:	National Park
NPCA:	National Parks and Conservation Association
NPres:	National Preserve
NPS:	National Park Service
NR:	National River
NRA:	National Recreation Area
NS:	National Seashore

Month of issue, in boldface, is followed by the page citation.

Grand Teton

Park Portfolio

Grand Teton National Park is a massive work of art; but, without question, the splendor of the Teton Range is the most impressive aspect of the Grand Teton masterpiece. The young, precipitous mountains of the Teton Range might well have attained a height of six or seven miles above the valley of the Snake River, over the nine million years they have been forming, were it not for the process of erosion.

In the past half-million years or so, the principal erosive force was montane glaciers, huge masses of ice, and rocks that scoured the stream valley into U-shaped troughs and carved the mountains into cones and ridges with concave slopes. It was this glacial carving that has made the Teton Range so esthetically inspiring.

As mountain ranges go, the Tetons are fairly insignificant. It is a small range, about 40 miles long and 15 miles wide, and its peaks are not very high. Only seven are higher than 12,000 feet, and of these only the Grand Teton exceeds 13,000.

The Tetons are one of the earth's latest efforts. Whereas most of the Rocky Mountains were created at least 50 million years ago, the forming of the Tetons began less than 10 million years ago.

Another unusual feature of the Tetons is the vast difference between its age as mountains and the ages of the rocks of which the mountains are composed. Most of the exposed rocks of the eastern face of the Tetons were formed about three billion years ago, which means that the mountains have been shaped, in part, from rock that is at least 300 times as old as the mountains themselves. If you climb the Tetons, or even handle the boulders of the slopes at their bases, you are touching rock that is two-thirds as old as the earth itself.

Excerpted from Grand Teton: The Story Behind the Scenery, *by Hugh Crandall; photographs by David Muench. KC Publications, Box 14883, Las Vegas, NV 89114. $4.50 postpaid.*

The world's most ancient hiking trail: 5,000 years old.

Stone age tribes, the Celts, the Scots, the Romans, the Vikings-and lately, the Brits -have all traversed the ancient pathway of Pembrokeshire National Park in Wales.

For more than 50 centuries, invaders have occupied Wales. But they have never conquered it. The Welsh people, as flinty and durable as their land, have always prevailed. Scores of ruined forts mock the ambitions of the invaders.

Cromlechs, stone age burial chambers, now provide rain shelter for the solo hiker.

Hiking is hot work under the noonday sun of Wales.

Dedicated as a national park only 25 years ago, the Pembrokeshire Coastal Path winds for 178 miles beside sheer rock cliffs, skirting the mysterious stone age sepulchres and monuments of ancient Druid priests.

Grainfields first planted in the time of the Pyramids still glow in the sun behind slate stone walls 5,000 years old. Haunting vistas of great beauty unfold before the hiker as the foot path zigzags alongside the Irish Sea and the North Atlantic.

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