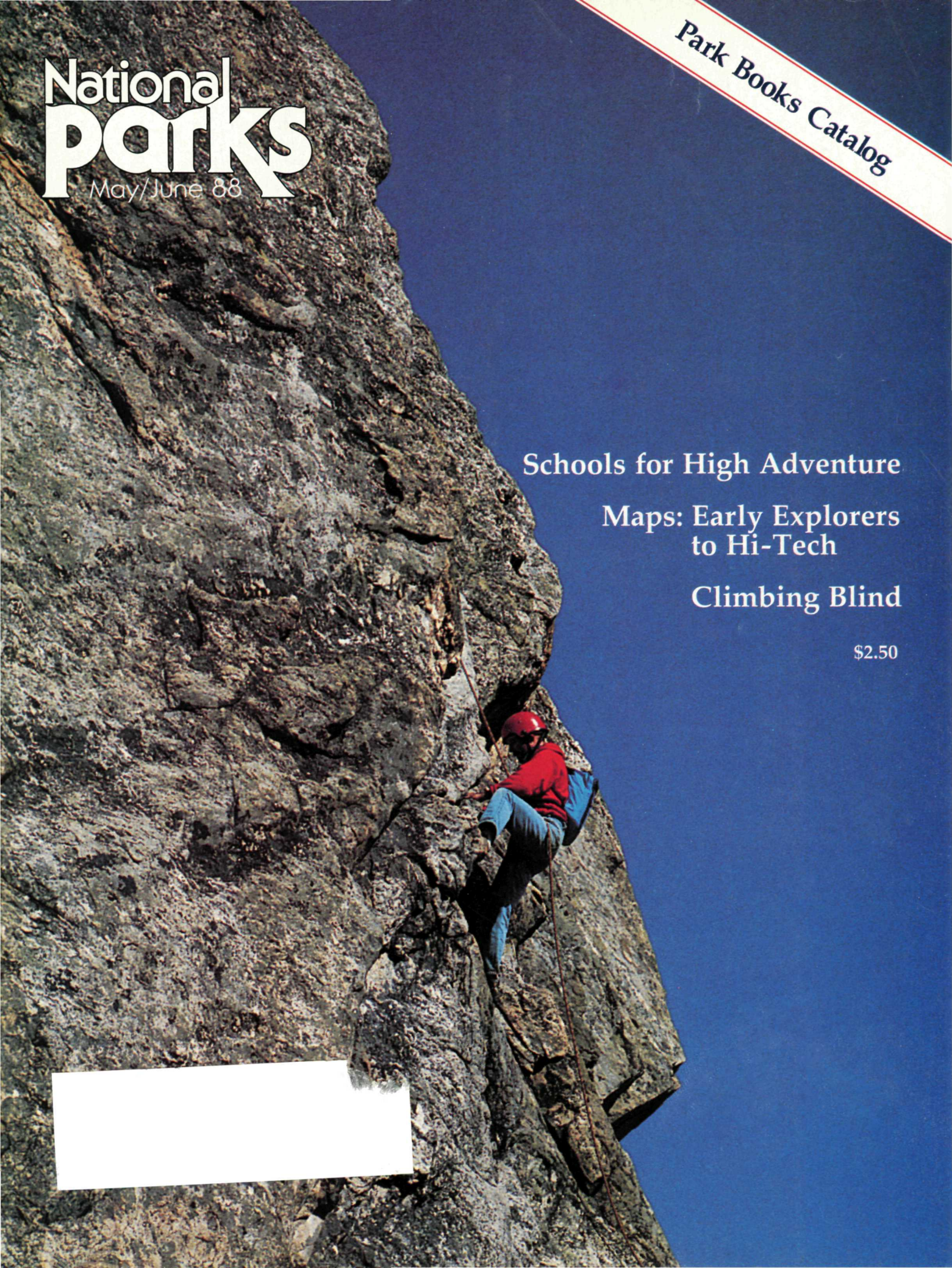

National Parks

May/June 88

Park Books Catalog

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Maps: Early Explorers to Hi-Tech

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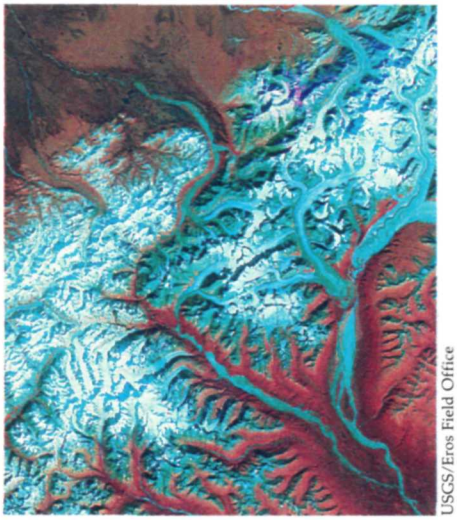

USGS/Eros Field Office

Mapping, page 16

Editor's Note: Nothing could be more disorienting than trekking toward an obscure village in a foreign country, only to discover—no village. The map was drawn wrong. Even driving the back roads of America requires a good road map.

At the most basic level, maps keep us from getting lost. They also explain the world to us. Today, with satellite imagery, we can see details even more precisely—each bend in the river and each mountain ridgeline. The perspective of a map also says something about how we view the world and our place in it. North American cartographers, for instance, figure the northern hemisphere more prominently in global maps. Maps allow us to see relationships: topographical, geological, even emotional. And they delight the eye as well as the mind. Whether thinking about vacations to a favorite beach or long-term, far-away adventures, our journeys begin with dreams and a map.

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National Parks

Vol. 62, No. 5–6, May/June 1988

The magazine of the National Parks and Conservation Association

Commentary

Features

Departments

Cover: **Grand Teton National Park, Wyoming, by Al Read**
The east buttress of Cube Point, a 9,550-foot peak in the Teton Range, is one of the more advanced routes for climbing students in the park.

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

Commentary

Almost Like Being There

If there are two questions about parks that I am frequently asked, they are "Where can I get information about the parks?" "How do I learn more about the parks *before* I get there?"

These questions are related, yet different. The second question is particularly frustrating. Many park visitors want to learn more about the resources in a park before their visit, but there is no central repository for information about the parks. Like others, I am always overwhelmed with material once I get to the park, but never before.

The 64 cooperating associations—nonprofit organizations that work with the National Park Service—are outstanding in providing publications and other information to visitors at the parks. Each cooperating association concentrates on the natural and cultural resources of its particular park. Although these associations usually have limited funds and depend on volunteer help, they achieve consistent quality. Unfortunately, there is no one place to contact if you want to order cooperating association publications.

Private publishers also provide information about the parks. *The Story Behind the Scenery* is a series of high-quality, colorful publications that park visitors can obtain before visiting the parks. But again, these publications were not obtainable from a central park publications repository.

Now, there is one convenient place where the park enthusiast can obtain all of these materials before and after a visit. It is NPCA's Park Education Materials Center, a newly established educational program of the Association. The center has secured a wide variety of materials and information about national parks, from books on river runners of the Grand Canyon to a hiker's guide to Glacier. These materials are now available to all park visitors, armchair travelers, teachers, students, and others.

In this issue of *National Parks* magazine, explore more than 100 different parks by browsing through our new catalogue. The catalogue features more than 250 book titles from 39 cooperating associations; official National Park Service handbooks; *The Story Behind the Scenery* series; and much, much more. We look forward to other cooperating associations joining our efforts to make you, the park visitor, better informed.

The Park Education Materials Center is the key to discovering everything about a park—before you go.

Paul C. Pritchard

CAMPING

A Video Guide To Our National Parks

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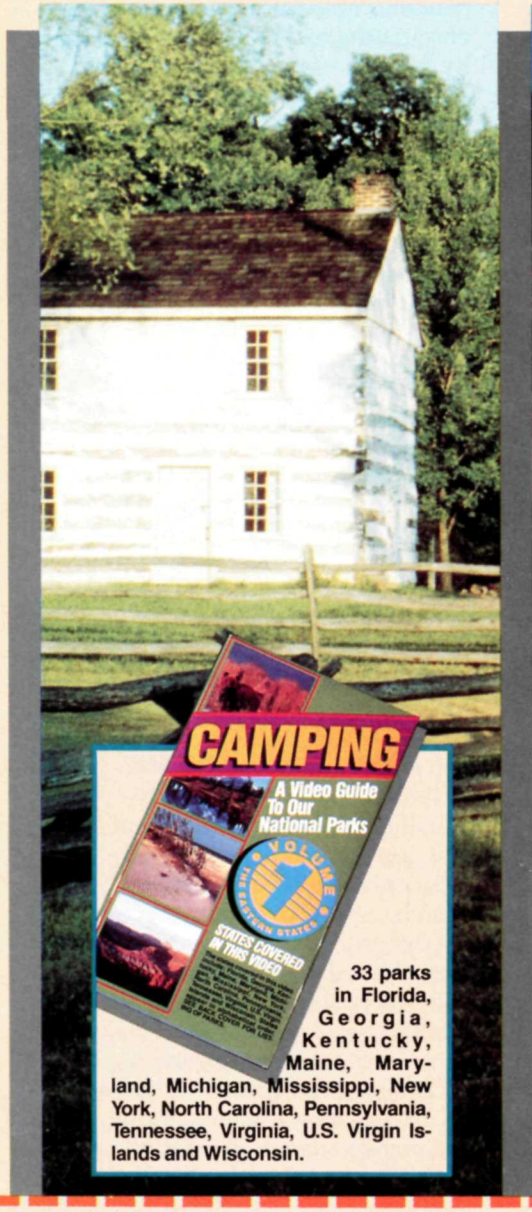
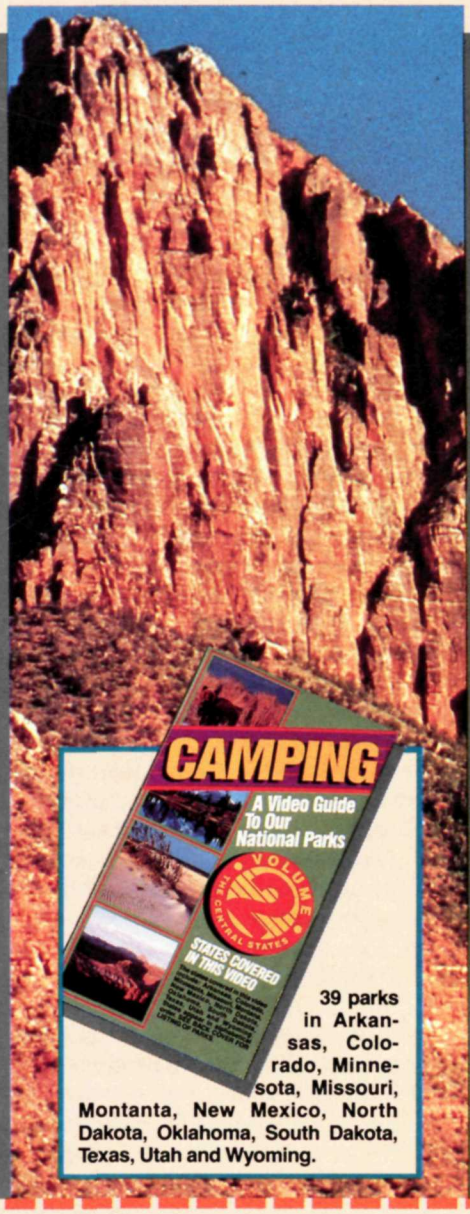
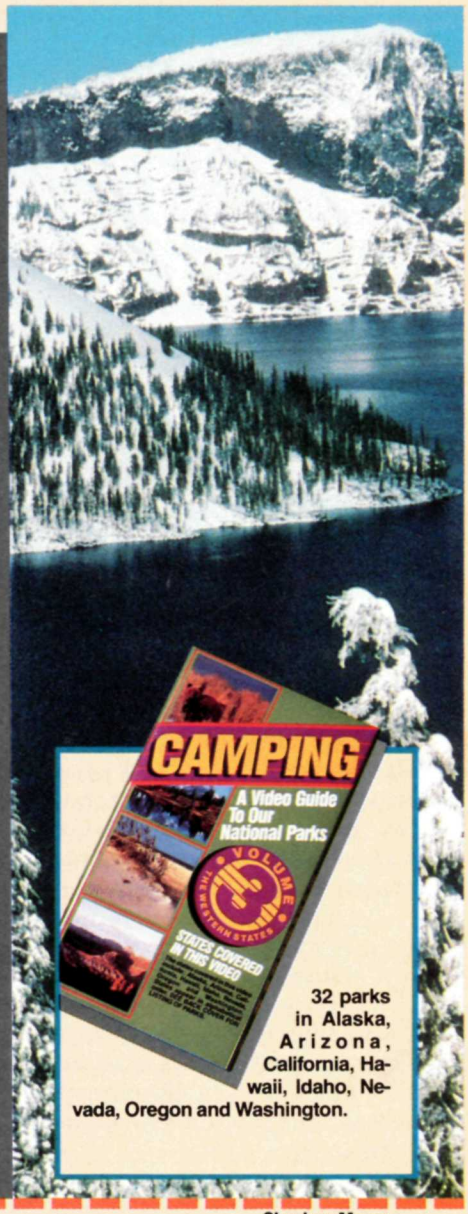


33 parks in Florida, Georgia, Kentucky, Maine, Maryland, Michigan, Mississippi, New York, North Carolina, Pennsylvania, Tennessee, Virginia, U.S. Virgin Islands and Wisconsin.



39 parks in Arkansas, Colorado, Minnesota, Missouri, Montanta, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah and Wyoming.



32 parks in Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon and Washington.

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Feedback

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

Crime and Punishment

I must agree with Ranger Dougher's view ["Feedback," March/April] that "law enforcement [is] an integral duty of the national park ranger," or at least has always been an implied duty. It would seem to me that the main question is whether or not a ranger should be professionally trained in law enforcement and issued police hardware as a part of his uniform.

In my opinion, rangers attempting to enforce laws and park regulations are apt to get in more trouble without proper equipment than with it. And if they are not properly trained in the use of that equipment, they could possibly do more harm than good.

John Todt
Pittsboro, North Carolina

I really enjoyed reading the article about "Patrolling the Park Beat" [Nov/Dec '87]. I think park rangers take on a huge responsibility when they become law enforcers. Sometimes even the police cannot handle all the crime in our world today and they are trained to enforce the law. I love forest preserves and wildlife, and I'm glad the rangers are trying to protect them.

Christine Yahn
Notre Dame High School
Chicago, Illinois

I have enjoyed receiving *National Parks* for several years now. Subjects that are close to my heart are presented in an interesting and informative way.

After reading the news story "Deer-poaching Ring Broken in Shenandoah" [Jan/Feb], I felt outraged that man could be so cruel as to kill deer in such an inhumane way as to deliberately hit them with a vehicle. I wonder if Judge Michael really believes that the suspended sentences given these men are any kind of a deterrent to the illegal killing of wildlife.

Joan Smith
Prospect Heights, Illinois

Alaska by Rail

In "Sentimental Journey" [Jan/Feb], your excellent article on Glacier National Park, you overlooked the fact that both Denali and Kenai Fjords national parks are also served by rail. While Kenai Fjords' rail service is relatively new, Denali has a history of rail travel that dates back to the opening of the Alaska railroad in the 1920s.

Unlike AMTRAK service to Glacier, the Alaska trains feature the park experience as their main reason for existence. Train service in Alaska will soon host a quarter million passengers each summer.

John Killoran
Eagle River, Alaska

Views: Foreign and Domestic

As a non-American, I believe I have a great knowledge about the western states, and I see with great pleasure your struggle for preservation of the American landscape.

Nevertheless, it strikes me that some areas seem not to be taken into consideration by your efforts. There are areas that are close to destruction due to commercial interests.

The most endangered areas, I believe, are the old-growth forests that are located on the west side of the Cascades, the Mono Lake area, the Big Horn and Wind River mountains in Wyoming, and the Utah canyon country.

R. Brueckersteinkuhl
Ratingen, West Germany

NPCA's National Park System Plan proposes protection for most of the areas you mention—and many more.

—the Editors

[NPCA President] Paul Pritchard's appearance on the *Today Show* (Feb. 18, 1988) was mildly interesting to my six-year-old son as he was eating breakfast, but when he mentioned the dangers faced by panthers in our national parks, it was more than my son could stand. It is never too early to involve our youngsters in programs designed to further conservation efforts.

Starla Smith
Memphis, Tennessee

An Outdoor Smithsonian

Howard Chapman's plea for an independent National Park Service ["State of the Parks," Jan/Feb] is an idea that deserves thoughtful review by NPCA and by Congress. Independence must not be allowed to obscure the real issue—accountability for park stewardship.

The analogy of the Smithsonian Institution is a good one. National parks are not just natural resources; they are America's "Outdoor Smithsonian."

If stewardship suffers from increased use, the impacts need to be documented, publicized, and corrected. The Smithsonian does not allow overcrowding to diminish the quality of its exhibits.

Wilbur LaPage, director
New Hampshire Parks and Recreation
Concord, New Hampshire

Right Person for the Job

NPCA is to be commended for undertaking such an exhaustive, comprehensive study, which resulted in the National Park System Plan. Unfortunately, many of the National Park Service's problems did not happen overnight; they have been years in the making.

It should also be pointed out, as was mentioned in *National Parks* ["Parks in the Next Century," March/April], that many problems are directly related to people and lack of good management.

In the past, the National Park Service has employed, in top-level positions in its Washington and regional offices, persons who have had no professional or academic training in the preservation of the nation's most valuable natural and cultural treasures.

Every effort should be made to adopt the recommendations of NPCA's plan.

Burtin Coale
Council Bluffs, Iowa

NPCA Report

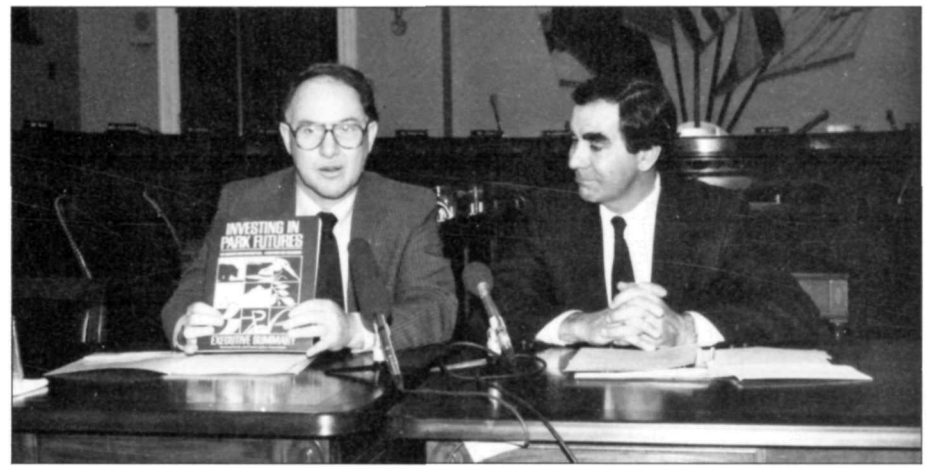
NPCA Plan Calls For Independent NPS

On February 18, NPCA held a press conference in the House Interior Committee room to announce the completion of its four-year study on the future of the National Park System, the *National Park System Plan: A Blueprint for Tomorrow.* The press conference resulted in articles that appeared in national publications such as *USA Today,* the *New York Times,* as well as local newspapers around the country.

NPCA President Paul C. Pritchard presented the plan, and Congressman Bruce Vento (D-Minn.), chairman of the House Subcommittee on National Parks and Public Lands, told press members that "This is not just another study. This study has substance and challenges us in Congress to take aggressive action to protect the national parks."

The plan calls for an additional 86 national park areas in 40 states, and for the addition of about ten million acres to existing parks.

NPCA also recommends that the National Park Service be made an independent agency, apart from the Department of Interior. In NPCA's words, this would "separate the NPS from the conflicting mandates inherent in a department responsible for the exploitation of resources."



Brien Culhane

NPCA President Paul Pritchard (left) and Congressman Bruce Vento (D-Minn.) present NPCA's National Park Service Plan at a press conference on Capitol Hill. Vento's bill for a more independent NPS is one of NPCA's recommendations.

Congressman Vento has recently introduced a bill in Congress aimed at creating a more independent NPS. The bill would establish a national parks review board of three individuals, appointed by the President for fixed terms, to report annually to Congress on park system needs. It also sets a five-year term for the director of the National Park Service, who would be appointed by the President and confirmed by the Senate. All National Park System decisions now made by the secretary of Interior would be transferred to the NPS director.

In its plan for the National Park System, NPCA recommended these changes and more. While this bill would improve the autonomy of the NPS, NPCA would also physically remove NPS offices from the Interior Department, allowing the NPS director greater freedom to pursue professional—rather than political—policies.

Copies of the nine-volume plan, including the 80-page executive summary, are available from Membership Services (see page 38).

Congress Takes Steps Toward LWCF Trust Fund

Bills have been introduced in both the House and Senate to create a permanent trust fund from the Land and Water Conservation Fund (LWCF). A trust fund would provide increased and more stable funding for purchasing federal, state, and local parklands. Congressman Morris Udall (D-Ariz.) and Senator John Chafee (R-R.I.) are the chief sponsors of the respective bills.

LWCF has been the main source of funding for park acquisition since it was created in 1965. Each year approximately $900 million is available to LWCF primarily in royalties from oil and gas leasing on the outer continental shelf. Each year the administration recommends a certain amount of that money be allotted for parkland acquisition and recreation, and then Congress appropriates the final amount.

Of the $900 million, only about $225 million has been appropriated each year during this administration. This figure, though low, is significantly higher than the $20 million the Reagan administration recommended for this year. NPCA, as part of a coalition of 13 conservation groups, is urging that $875 million be appropriated this year.

When the President's Commission on Americans Outdoors (PCAO) issued its findings in early 1987, it determined that with Americans' renewed enthusiasm for outdoor recreation, the public needs more open space. NPCA believes a permanent trust fund should be created so that a certain amount of new parkland can be acquired each year.

The bills now in Congress would set up the American Heritage Trust as a permanent source of funds for parkland acquisition and enhancement. This proposed trust would also include funding for historic preservation.

NPCA President Paul Pritchard says, "As the nation's population continues to grow, the need to preserve open space becomes more critical. America loses undeveloped land—a nonrenewable resource—at the rate of one to two million acres per year. Congressional passage of the American Heritage Trust would be a major step toward enhancing outdoor opportunities for all."

FAA and Interior Haggle Over Grand Canyon Flights

In August 1987, President Reagan signed into law a bill to protect the national parks from aircraft overflights. This past January, the Department of Interior released its management plan for overflights of Grand Canyon National Park. The next step was for the Federal Aviation Administration (FAA) to review and approve the plan, particularly in regard to aircraft safety.

The FAA has responded that the combination of flight-free zones and aircraft corridors as proposed in the Interior plan is not safe. They have drawn up a revised plan that carves the four proposed flight-free zones into six smaller ones, thereby including two additional aircraft corridors. According to the FAA, the width of the aircraft corridors must be doubled—from two miles wide to four.

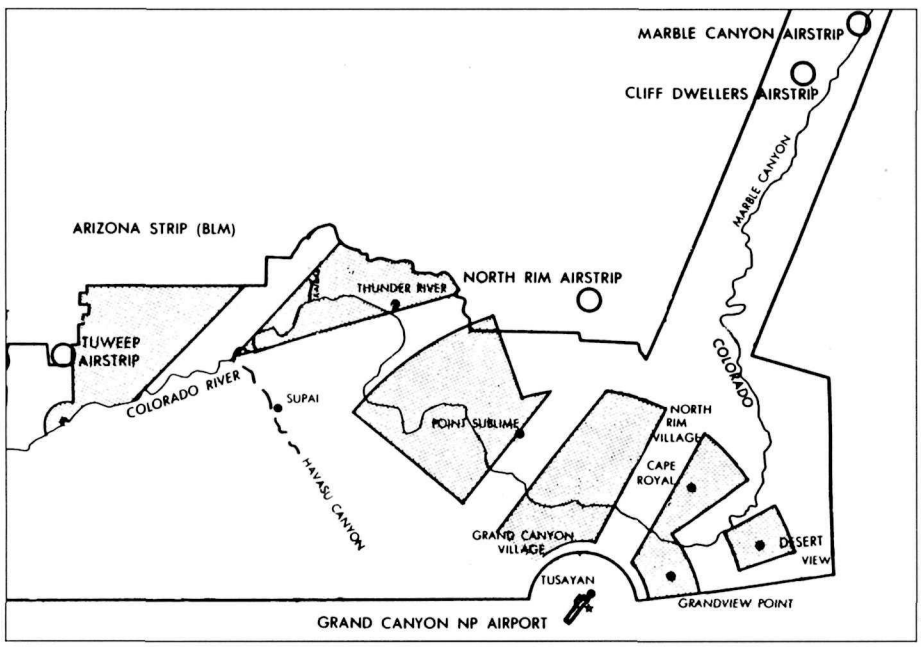
NPCA believes that the FAA position contradicts the intent of the overflight law, which is to preserve the natural quiet of a national park experience. Visitors exploring and camping in the backcountry canyons of the park are intruded upon by constant airplane and helicopter tours that, in the past, have flown well below the canyon rim.

The FAA position seems to favor the interests of certain tour operators. The two major fixed-wing tour companies have testified at local hearings, saying that they can live with the Interior proposal. Helicopter operators, however, complain that the larger flight-free zones in the Interior plan require longer routes that are expensive to run. The plan also restricts them from hugging scenic cliff areas—areas heavily traveled by hikers.

The comment period for the FAA proposal closed on March 25. After that time, the FAA and the NPS will have a 60-day consultation period to discuss the merits of each plan.

If the FAA and the National Park Service cannot reach an agreement on the overflight issue, Congress may have to begin again. This time Congress actually may have to legislate the specifics of minimum elevations, flight-free zones, and aircraft corridors. This could be a long and complicated process.

NPCA's Southwest and California Representative Russ Butcher expresses NPCA's opinion: "FAA has put the Interior Department plan through a paper shredder, destroying Interior's efforts to create meaningful flight-free zones over the park. We concede that the Interior plan may require some adjustments to ensure human safety. The FAA plan, however, goes far beyond fine tuning—this is major surgery."



Federal Aviation Administration

The NPS aircraft management plan for Grand Canyon set aside four areas as flight-free zones. The Federal Aviation Administration, whose approval is mandatory, responded by carving those zones into six areas with wider flight corridors. NPCA says that more and wider corridors will not solve the noise pollution.

New Park Fee Income Offset by Budget Cuts

In late 1987, Congress passed permanent fee legislation for the national parks. The legislation sets rules and rates for park admission. It also stipulates that all fees collected by the parks shall now be set aside in a special NPS Treasury account, instead of thrown into the pot of general government operating funds.

The collected fees will finance park projects in resource protection, research, interpretation, and maintenance activities that relate to resource protection. The money will remain in the account whether or not it is spent each year.

Distribution of the funds will be according to the following guidelines: ten percent will be allocated by the NPS director to park areas depending on their needs; 40 percent will be allocated according to what fraction of total park operating costs each park uses; and 50 percent will be allocated to fee-collecting parks. Any funds allocated to, but not spent by, a particular unit will be retained by that unit.

While NPCA and park proponents have long espoused a fee system that keeps national park revenues for the benefit of the parks, NPCA believes the Reagan administration has used this new fee system as an excuse to cut funding elsewhere. The association recently testified before Congress that this new source of park revenue has been largely offset by proposed cuts in the NPS budget. NPCA believes that the intent of Congress in passing fee legislation has been lost due to political maneuvering.

News Update

Great Basin. As a step toward developing the first general management plan for the newly created Great Basin National Park, the public is invited to review the "Assessment of Alternatives" and to submit comments. The final plan will decide issues such as park concessions, water and wildlife management, and recreation within the park. For a copy of the "Assessment of Alternatives," write to Superintendent Albert Hendricks, Great Basin National Park, Baker, NV 89311.

•

Great Smoky Wilderness. H.R. 1495 and S. 693, bills introduced in the House and Senate, respectively, would designate a majority of Great Smoky Mountains National Park (in Tennessee and North Carolina) as wilderness. The House version passed unanimously last September. The Senate Subcommittee on Public Lands, National Parks and Forests has approved the bill, but the bill is likely to meet resistance on the floor of the Senate. Senator Jesse Helms (R-N.C.) has introduced conflicting legislation.

Great Smokies is the most visited park in the system, and is a World Heritage Site and an International Biosphere Reserve. NPCA urges its members to write their senators, asking them to support the Sasser-Sanford-Gore bill to designate wilderness. Address letters to the U.S. Senate, Washington, D.C. 20510.

•

Fishing Bridge. Yellowstone National Park has issued its new preferred alternative for settling the controversy over the Fishing Bridge campgrounds and concessions, which are located in prime grizzly habitat. The park announced that it would retain the 360-site RV park, along with the general store, visitor center, amphitheater, and picnic area, but would remove the 310-site campground plus an auto service station, photo shop, and various cabins and storage sheds. NPCA believes that all visitor facilities should be permanently removed from this sensitive area.

•

Wild and Scenic. The 20th anniversary of the Wild and Scenic Rivers Act will be celebrated June 17-19, 1988, in Taos, New Mexico. Events for this national celebration include speakers, hot-air balloons, and entertainment at the Wild Rivers Recreation Area where the Rio Grande and the Red River meet. For more information, contact BLM New Mexico State Office, P.O. Box 1449, Santa Fe, NM 87501, (505) 988-6316.

Congaree Swamp Additions Introduced in Congress

Congaree Swamp National Monument was designated in 1976 in quick response to proposals to log its rare old-growth bottomland forest. The designation included a central, 15,200-acre tract of land, with the understanding that new boundaries would be drawn later.

The National Park Service was instructed to present Congress with a general management plan for the monument. The plan was to include a list of adjacent lands essential to protecting the integrity of the ecosystem, as well as potential wilderness areas and areas to be developed for visitor services.

Eleven years later, the National Park Service recently submitted the first draft general management plan. NPCA and several other conservation groups believe that the boundary provisions in the NPS plan are inadequate to protect an area that is a national natural landmark, an International Biosphere Reserve, and is being recommended for nomination as a World Heritage Site.

While the NPS plan would add only 2,400 acres to the park, a recently completed "Citizens Boundary Proposal," put together by the Sierra Club's South Carolina chapter with the input of local citizens, would expand the park by 7,000 acres.

Senator Strom Thurmond (R-S.C.) has introduced a bill (S. 2018), cosponsored by Senator Ernest Hollings (D-S.C.), to implement the provisions of the "Citizens Boundary Proposal" and to designate most of the monument as wilderness. Congressman Floyd Spence (R-S.C.) has introduced a similar bill (H.R. 4027) in the House, which has the support of the entire South Carolina delegation.

NPCA supports both bills as major steps toward protecting the entire Congaree ecosystem. The association would recommend, however, that ultimately a total of 11,000 acres be added to the monument—including all acreage mentioned in both the NPS plan and the "Citizens Boundary Proposal," plus additional acreage to include the bluffs and flood plain south of the Congaree River.

List of World Threatened Areas Doubles

The list of Threatened Protected Areas of the World is twice as long now as it was only four years ago, reflecting the dire condition of today's parks and protected areas. The list, which was started in 1984, is compiled and updated yearly by the International Union for the Conservation of Nature and Natural Resources (IUCN), with support from the United Nations Environment Programme.

IUCN's Commission of National Parks and Protected Areas (CNPPA) announced at its 17th annual general assembly, held in Costa Rica last February, that the list had grown from 43 to 85 areas over the past four years. At the same time, conservation efforts have enabled 16 areas to be removed from the threatened list.

The 85 areas on the list suffer from a total of 174 specific threats, such as inappropriate development within protected areas, poaching of wildlife, human encroachment, and development on lands adjacent to protected areas. Other threats in-

clude insufficient management funds, pollution and acid rain, illegal livestock grazing, and mining and mineral exploitation.

Threatened areas added to the register in 1988 include Kaziranga National Park and World Heritage Site in India (threatened by rhinoceros poaching and a proposed railway within the park); Paramillo National Park in Colombia (two planned dams would flood 600 square miles of land); and Banhine and Zimane national parks in Mozambique (threatened by heavy wildlife poaching, military disturbances, and lack of management).

In total, 53 countries have protected areas on the list. The U.S. national park areas on the list are Cuyahoga Valley and Indiana Dunes, both listed in 1984 due to the threat of acid rain.

Wrangell-St. Elias National Park in Alaska was placed on the list in 1984 because a bill had been introduced in Congress to shift a large part of the park into the adjacent Wrangell-St. Elias National Preserve in order to permit hunting. The park was removed from the threatened register when pressure from NPCA and several other conservation groups prevented the bill from being passed.

The IUCN threatened list has been criticized for not being the result of a systematic survey. Instead, it is compiled through reports and letters from members of the CNPPA network.

Paul Pritchard, NPCA president and a member of CNPPA, believes that a number of United States national parks should be on the threatened list, especially Everglades and Glacier national parks. NPCA intends to nominate these U.S. parks for consideration in the next updating session.

NPCA urges other conservation groups and individual citizens to submit nominations. These can be sent to Jim Thorsell, CNPPA executive officer, IUCN headquarters, Avenue de Mont Blanc, CH-1196, Gland, Switzerland. Nominations of threatened areas should be supported with scientific reports or press clippings when possible.

Civil War Battlefield Loses Ground to New Mall

A Virginia developer recently announced plans to construct a major shopping mall adjacent to the Manassas National Battlefield Park in northern Virginia. The company has already obtained permission from the Prince William County board of supervisors to begin the project. The property in question is bounded on two sides by the historic battlefield park.

Local residents have teamed up with preservationists, historians, and military enthusiasts from around the country to block the construction of William Center, the proposed 600-acre development that will include several hundred new homes and a 1.2-million-square-foot shopping mall.

Critics of the development fear the shopping mall will bring excessive traffic, noise, and visual blight to the area, destroying the serenity and integrity of the battlefield. The National Park Service has compared the project to "booking a roller derby in the Sistine Chapel."

Proponents of the project cite a projected $135 million in revenues over the next 20 years, and the creation of 2,900 new jobs. At present, there are three major malls within a 25-mile radius of the William Center site, and a fourth that is under construction.

The battles that took place in and around the battlefield park were among the most important of the Civil War. The First Battle of Manassas, fought in 1861, was the first major land engagement of the war. The Second Battle of Manassas, fought a year later, proved critical in countering previous Union advances into northern Virginia. The site of General Lee's headquarters—left out of the park originally—would be desecrated by the proposed William Center.

In 1986, Hazel/Peterson, the development company, purchased the William Center tract and persuaded the county board to create a new zoning category—Planned Mixed-Use District (PMD)—for office developments. William Center

Jerry Foster

Arizona Congressman Morris Udall (left) listens to arguments against the proposed William Center shopping mall from Ann Snyder, founder of Save the Battlefield Coalition, and former Manassas Battlefield historian John Henessey. The plan includes an office complex and 560 new homes—all adjacent to the battlefield.

was touted as a "campus-like" office park with a small neighborhood shopping center.

Despite public protest, county supervisors approved the zoning. Manassas National Battlefield Superintendent Rolland Swain reluctantly gave his consent in November 1986, reasoning that development of the lot was inevitable and an office park would prove the least offensive form.

In January, developers announced plans to cut the office space in half and replace the small shopping center with a major mall, significantly changing the focus and scale of the project.

A storm of public criticism ensued. Annie Snyder, a Manassas resident and veteran preservation activist, led the local protest and formed the Save the Battlefield Coalition. National Park Service Director William Penn Mott, Jr., wrote to the Prince William County board of supervisors, complaining that the mall "does not even resemble the good-faith agreements we thought had been made."

At present the William Center project has all the approval it needs, and no public hearings are scheduled. Opponents are planning legal action to stop construction of the mall.

They also plan to appeal to the Department of Transportation (DOT). For the project to progress, DOT must approve proposals to upgrade several interchanges and reroute one road in order to handle the increased traffic.

NPCA has set up a special donation account to aid the Save the Battlefield Coalition. Concerned citizens can send contributions to the coalition to Bruce Craig, NPCA, 1015 Thirty-first St., NW, Washington, D.C. 20007.

In addition, NPCA, together with the National Trust for Historic Preservation, is coordinating the national movement to save the Manassas Battlefield. The two groups are pushing Congress to enact legislation to protect endangered national historic sites.

According to Bruce Craig, Cultural Resources Coordinator for NPCA, "This property is of national significance. Ideally, the federal government should purchase the tract and incorporate it into the park." Until legislation is introduced to include the parcel, NPCA supports initiatives to limit development to a version of the original proposal.

Stephen Tyng Mather Society

Stephen Tyng Mather, first director of the National Park Service and founding member of the National Parks and Conservation Association, believed that the American people should be responsible "custodians" of our natural and cultural resources.

The Stephen Tyng Mather Society was created to involve NPCA members who, by their annual contribution of $1,000 or more, continue the spirit of Mr. Mather's dedication to the thoughtful stewardship of our nation's heritage—our national parks.

We gratefully acknowledge the following individuals as charter members of the Society*:

Anonymous
Mrs. Russell M. Arundel
Clarita Heath Bright
Mrs. W. L. Lyons Brown
Louise Black Clark
James Coors
Mr. and Mrs. Edward Dayton
Steven A. Denning
Bert Fingerhut
Mrs. Edmund W. Froelich
Mr. and Mrs. Martin L. Gleich
Ruth W. Halpenny
Dr. and Mrs. William Heidenreich
Joan E. Hekimian
Mrs. James H. Knowles
Wilbur F. LaPage
Eric Allan Lauha
Thornton and Karen Liechty
Kathryn K. McNeil
Stephen Mather McPherson
Mrs. Edward A. Montgomery, Jr.
John B. Oakes
Gilman Ordway
Gen. Dillman A. Rash
Kathryn T. Rawson
Joanne M. Roberts
Chandler and Eleanor Robbins
Richard Rockefeller and Nancy Anderson
Z. Dean Sadighian, M.D.
Mr. and Mrs. Lyman Spitzer, Jr.
Mr. and Mrs. Fred Stanback
James A. Steinman
Barbara R. Stinson
Charles D. Stough
Mrs. Arthur H. Sulzberger
Mr. and Mrs. Clayton M. Timmons
Nancy W. Wheat
Stuart S. Wright

joined December 1987-February 1988

For more information about how you can become a member of the Stephen Tyng Mather Society, please write to:

Stephen Tyng Mather Society
National Parks and Conservation Association
1015 Thirty-First Street, N.W.
Washington, D.C. 20007

NPCA and Canada Join Forces on Arctic Refuge

NPCA President Paul C. Pritchard and Canada's Minister of Environment Tom McMillan have exchanged letters on the importance of an international effort to preserve the Arctic National Wildlife Refuge (ANWR). In much the same way as NPCA helped secure Canadian national park reserve status for South Moresby in the Queen Charlotte Islands last year, Canada is prepared to help NPCA and the Alaska Coalition protect ANWR.

Pritchard and McMillan agree that the best way to protect this pristine arctic ecosystem is to establish a joint U.S.-Canadian international park, with overlaying wilderness designation.

Canada has already protected the portion of the Yukon adjacent to Alaska's North Slope where ANWR is located. Canada established the Northern Yukon National Park to protect the range of the Porcupine caribou herd. The park also protects the aboriginal culture of the far north that depends on the caribou for subsistence.

An adjacent American park would further protect this important caribou herd because the animals migrate between the two countries and the critical calving grounds are in ANWR.

The idea of an American park sharing the border of the Canadian park has been proposed before but has yet to be formally introduced in Congress. To the contrary, legislation to permit oil exploration in ANWR has recently been approved by the Senate Committee on Energy and Natural Resources by a very narrow margin. If the bill reaches the Senate floor, it will face a tough fight.

Concerned citizens should write to their senators, urging them to support wilderness designation for the Arctic National Wildlife Refuge. The address is U.S. Senate, Washington, D.C. 20510.

Robert Cahn Receives 1988 Douglas Award

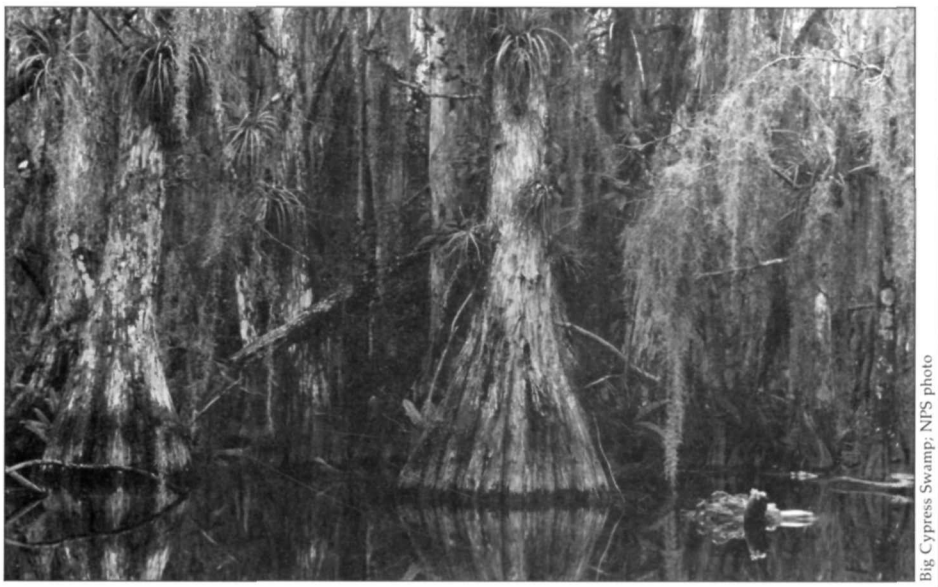
The 1988 Marjory Stoneman Douglas Award was presented to Pulitzer Prize-winning journalist Robert Cahn in March. The annual Douglas Award recognizes an individual for his or her outstanding efforts toward protecting a unit or a proposed unit of the National Park System. The award is sponsored by the Bon Ami Company.

Cahn received the Pulitzer Prize for a series of articles written for the *Christian Science Monitor* in 1968 entitled, "Will Success Spoil the National Parks?" During the 1970s he wrote articles in favor of the Alaska National Interest Lands Act. The act, passed in 1981, created approximately a dozen national parks in Alaska, doubling the size of the National Park System.

Cahn has received numerous other conservation awards during the years, including the Department of Interior's Conservation Service Award. His long list of published works includes *The Fight to Save Wild Alaska* (1981), *The Birth of the National Park Service: The Founding Years, 1913-1933* (1985; coauthored with Horace Albright), plus numerous magazine articles, including many written as contributing editor for *National Parks* magazine.

Liza Tuttle

Because of his vast experience with park issues, Bob Cahn was also named to NPCA's new commission on science and research in the national parks.



Big Cypress Swamp, NPS photo

Company Set to Conduct Oil Testing at Big Cypress

When the National Park Service purchased the land for Big Cypress National Preserve, it did not have sufficient funding to buy the subsurface oil and mineral rights. Those rights are still held by hundreds of previous landowners, some of whom are now interested in exploring for oil.

Shell Western E&P, Inc., a subsidiary of Shell Oil Company, has requested permission from the National Park Service to conduct seismic oil and gas exploration in Big Cypress. The company claims that it has permission from approximately 105 subsurface-rights owners to conduct the testing in specific areas.

Shell Western's proposed plan would include 85 miles of seismic testing, requiring an estimated 10,000 dynamite shotholes throughout the preserve and 68 miles of new Offroad Vehicle (ORV) trails. Virtually every corner of the preserve would be disturbed.

Big Cypress is home to several endangered and threatened species, including the Florida panther, whose habitat may be affected by the testing. Conservationists are also concerned that the testing may disrupt the essential flow of water from Big Cypress to Everglades National Park.

The National Park Service prepared an environmental assessment (EA) of the company's proposed plan of operations. The EA noted potential adverse environmental effects. The NPS, however, is being directed by political appointees in the Department of Interior to issue a "Finding of No Significant Impact" based solely on the EA.

Conservation groups, including NPCA, are outraged that a full environmental impact statement, as required by the National Environmental Policy Act, may be waived, especially in such a controversial case with potentially far-reaching environmental repercussions.

Shell Western has permission to conduct subsurface tests from the Collier companies—the largest holder of nonfederal oil and gas rights. Shell Western, however, has not shown that it is acting as an agent for Collier, thus putting its right to test for oil into question. Once the studies are completed, the Collier companies will not receive the resulting information, as is usually the case when one party acts as the agent for another. NPCA further questions whether an agency relationship is sufficient reason to allow intrusions into Big Cypress.

NPCA, the Wilderness Society, Defenders of Wildlife, and others are considering suing the NPS if it fails to complete a thorough assessment of the potential environmental damage to Big Cypress before issuing the required permits.

Restricted Vision

Clean air amendments are the key to saving our sweeping vistas

by Senator Harry Reid

When I was growing up in Nevada, in a small mining town called Searchlight, there weren't many people in the state. Air pollution wasn't a problem. Degradation of our lands (85 percent of Nevada is federally owned) wasn't a problem, either.

Both the land and the skies seemed limitless. Because of the clean air, low humidity, and unobstructed vistas, you could stand in the Nevada desert and see as far as a hundred miles.

Today, Nevada and its lands are changing. It is one of the fastest growing states in the nation. Mining is increasing in the Silver State. Military use of both land and air is increasing. In addition to nuclear weapons testing, a high-level nuclear waste repository seems destined for the state. Reno and Las Vegas have been ranked by the Environmental Protection Agency as being among the ten U.S. cities suffering most from carbon monoxide pollution.

In my lifetime, I have witnessed tremendous changes in my state. Our land and skies can no longer be taken for granted.

My experiences in Nevada lead me to conclude that we must preserve—today—some of our heritage through the creation and protection of national parks and wilderness areas. This need is especially crucial as demands on our parks increase.

Because of this need, I am proud to have led the effort to create Great Basin National Park in Nevada, the only national park established within the past eight years of this administration. Great Basin was formally dedicated in 1987. Without increased support from future administrations, it may be the last national park this country will ever create.

Last year, the Senate Environment and Public Works Committee initiated a major overhaul of the Clean Air Act. I am pleased to have been part of that effort as well. Both efforts drew upon my interest in ensuring that future generations can experience beautiful, pristine places and clean air.

We cannot take clean air for granted. Pollutants are increasingly obscuring our parks. Unless we strengthen efforts to protect our national parks, we may find, as I have in Nevada, that our past will gradually be lost.

According to the Environmental Protection Agency (EPA), visibility in the East has deteriorated significantly, and conditions where visibility is less than seven miles occur often. The visibility in the Appalachians is only half as good as it was 40 years ago.

Because humidity and pollution are lower in the West, national parks there are often distinguished by superb vistas and seemingly unlimited visibility. But it doesn't take much pollution to destroy those scenic wonders.

The EPA's 1979 report to Congress on visibility said that it would take only one microgram per cubic meter of fine particulates—an extremely small amount—to degrade a pristine area by *30 percent*. The National Park Service is documenting this sort of visibility degradation in our western parks.

In 1977, Congress amended the Clean Air Act to include "Prevention of Significant Deterioration" and "Visibility Protection." On December 2, 1980, the EPA published visibility regulations.

The first phase of the regulations required the 36 states with Class I areas to address visibility impairment. (Class I areas include national parks and designated wilderness—that is, the places that should have the country's most pristine air.)

Visibility regulations also permitted the secretaries of Interior and Agriculture to designate "integral vistas" for protection. Integral vistas are panoramic views outside a Class I area that can be seen from a viewpoint within that Class I area.

The San Francisco Mountains seen from Grand Canyon's Bright Angel Point and the La Sal Mountains as seen from Delicate Arch in Arches National Park are two superb examples of integral vistas.

None of the 36 states met the 1981 regulatory deadline to address visibility problems. And the EPA took no steps to enforce compliance.

NPS/Air Quality Division

Great Basin National Park, Nevada, offers some of the country's best visibility. Excellent visibility (left: 350 km, 217 miles) occurred 7 percent of the time during the summer of 1985; poor visibility (right: 118 km, 73 miles) occurred 12 percent of the time. In contrast, for both natural and manmade reasons, poor visibility (181 km or less) occurs 93 percent of the time at Shenandoah National Park.

In 1982, the Environmental Defense Fund, NPCA, and other environmental organizations sued EPA to force those states to address visibility provisions. In January 1984, EPA and the environmental organizations signed an agreement to implement the visibility program.

On July 12, 1985, EPA issued regulations for new sources of pollution and for developing a visibility monitoring program, two of the less controversial aspects of the visibility program.

The regulations set forth a permit process for major new pollution sources, requiring new industrial plants to install the best available pollution-control technology. Although a visibility monitoring program was mandated, no concerted action was taken.

EPA did not address the protection of integral vistas, however, because Interior Secretary Donald Hodel declined to take the prerequisite actions. On October 25, 1985, Secretary Hodel determined that the federal government would not designate integral vistas. Instead, Interior left recognition and protection of these park and wilderness resources entirely to the states.

Unfortunately, since Hodel's decision only Maine has adopted provisions to protect the integral vistas as identified by the National Park Service. (Colorado is reported to be considering the issue. Alaska and Washington adopted integral vista provisions before Secretary Hodel's decision.)

While the subject of integral vistas continues to be a sticking point, visibility in general demands more attention. Regional haze, in particular, is becoming more of an issue.

Air-monitoring studies by EPA and the National Park Service indicate that power plants, copper smelters (including the large Nacozari smelter in Mexico), and major metropolitan areas in the West are affecting the visibility in the Grand Canyon even though the sources are located hundreds of miles away.

Regional-haze monitoring is finally tracing the effects of this pollution on our national parks. Yet, unfortunately, increased monitoring efforts by the Park Service, EPA, Bureau of Land Management, and Forest Service have been targeted for reductions by EPA because of their costs.

The efforts to reduce research and monitoring come at a time when our previous investment in these monitoring networks is beginning to produce results. These efforts to reduce funding are inappropriate; and EPA is being sued by NPCA in conjunction with several other groups and states to address the issue of regional haze.

The Park Service, for instance, is developing the capability to trace the source of pollution—over hundreds of miles—by analyzing the composition of fine particulates.

Efforts to reduce funding also come at a time when EPA is beginning to develop a new, fine-particulate air quality standard. This standard could protect against adverse effects on visibility. I, along with several of my colleagues, have questioned EPA on these efforts to reduce research in regional haze.

During the recent debate on amendments to the Clean Air Act, I sought to establish the link between improvements in acid rain and improvements in our visibility.

Sulfur dioxide emitted from power plants and smelters can convert in the atmosphere to sulfates. These fine particles lead not only to acid rain but also to visibility degradation; and they can travel great distances.

Oxides of nitrogen from power plants and automobiles can also contribute to acid rain and visibility degradation. Controlling these pollutants in an effort to reduce acid rain will likely lead to improvements in visibility—improvements that would protect the air in our western parks and improve the air of national parks in the East.

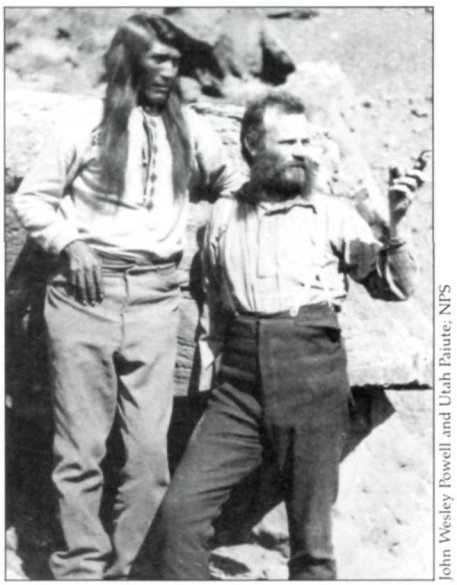
Even if we implement legislation to reduce emissions now, it will take time to see the improvement. We must protect the air quality and visibility in our national parks now, before we lose the grand vistas that we chose to protect as part of our national heritage.

Senator Harry Reid (D-Nev.) serves on the Senate Environment and Public Works and Appropriations committees. Prior to his 1986 Senate election, he served two terms in the House. In 1969, as a Nevada state legislator, he introduced the first air pollution legislation in the state's history. Jeff van Ee contributed to this article.

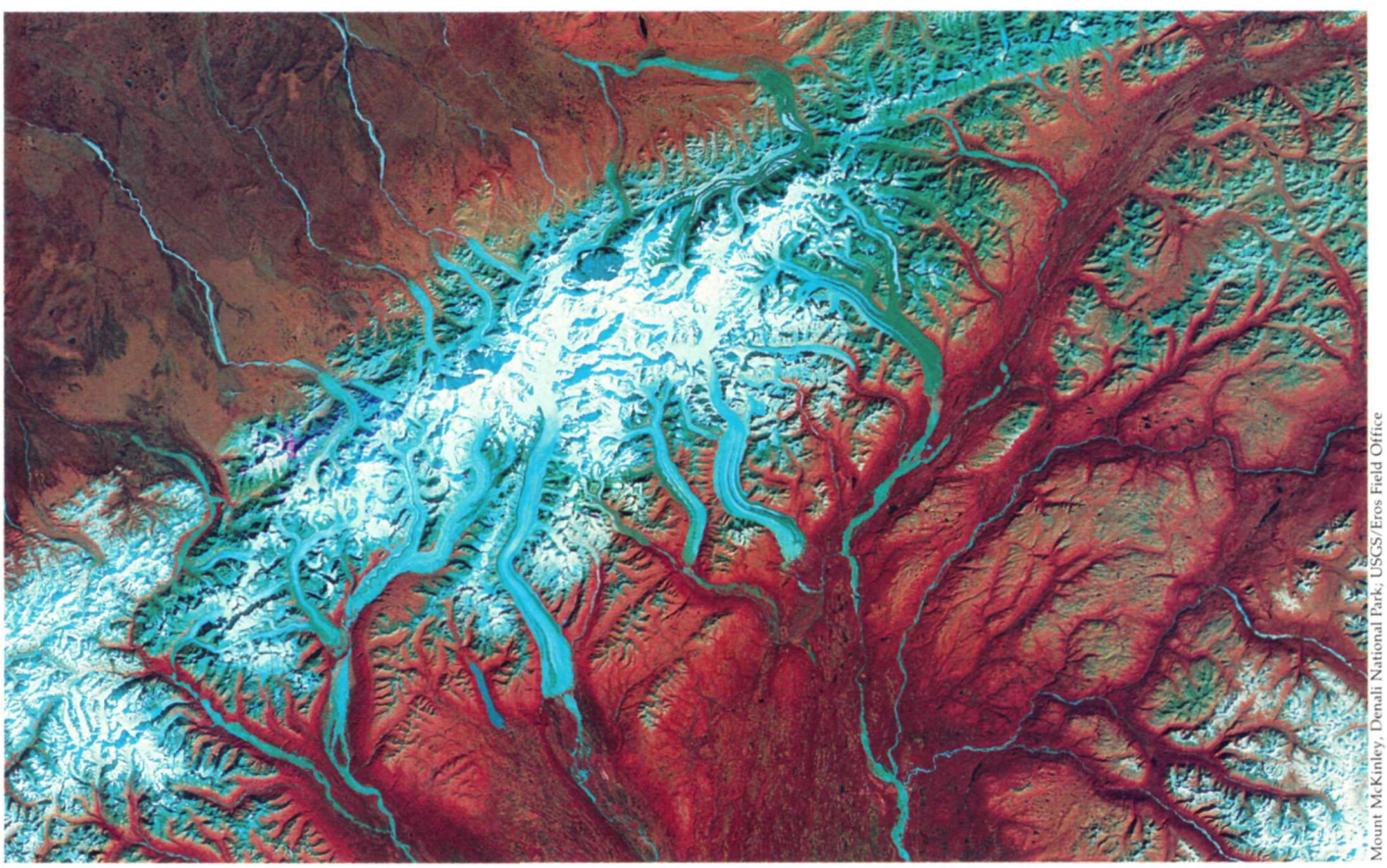
TERRA COGNITA

Mapping surveys opened the West. Now, high technology reveals more elusive territory.

by Terry Kilpatrick



John Wesley Powell and Utah Paiute; NPS



Mount McKinley, Denali National Park; USGS/Eros Field Office

ON MAY 24, 1869, Major John Wesley Powell stood on the bank of the Green River in southern Wyoming contemplating the muddied river's course. As the river hurried past toward the Unita Mountains and the deeply incised canyons of the Colorado Plateau, his crew of nine made final preparations for an uncertain voyage.

Powell looked down to study his maps, which were little more than crude sketches of the river's path and a considerable amount of blank space. This was to be the first descent down the last unknown major river in the United States, and to each of the men who volunteered to come along that meant something a little different.

Several were hoping that the faces of the eroded canyon walls would expose veins of gold, others were looking for adventure, and one is thought to have been a fugitive. But to Powell, the leader of the expedition, this trip served a singular purpose.

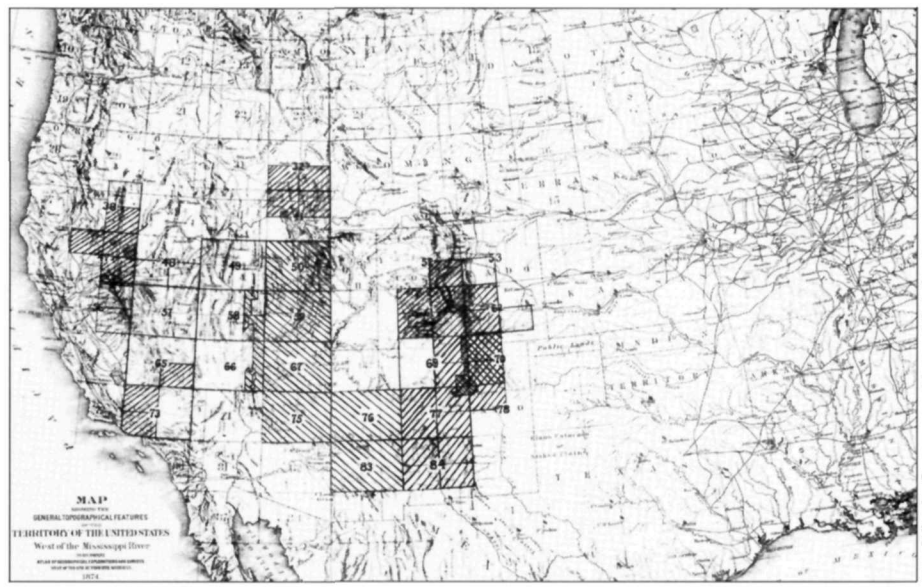
Powell was a man of science with a powerful curiosity and an exacting mind. It was his intent to return from this trip with facts. The river would be mapped, its canyons and river junctions named, and its geology identified.

To Powell, this great unknown was not an abyss of nature but of knowledge. It was not the earth that was void of features; the earth was rugged and wild, it was teeming with life, adorned with polished domes, delicate arches, and painted cliffs. Knowledge was what was missing from the blank maps Powell held in his hand.

He was not conquering the land, he was conquering ignorance and in the process he formalized a science and paved the way for a nation. In a matter of months, these blank spaces on the map would be filled with accurate cartographic data. Yet, it is doubtful that those lashing equipment onto boats understood the significance of this trip, or could perceive the role it would play in the settlement of the West.

Major Powell walked along the river's edge, away from the crowded launch site, and felt the sun's warmth on his face. Bending down, he reached his hand out to the river and, like a trusted friend, the cool, swift current of the Green ran across his fingers, assuring and invigorating his spirit.

Finally, the provisions were stowed and the boats were ready. Climbing aboard the lead boat, the *Emma Dean*, Major Powell took his seat, and his place in history, and shoved off.



1874 Wheeler Survey map; National Park Service

George Wheeler, chief of army surveys west of the 100th meridian in post-Civil War years, devised the contour map and a quadrant system later adopted by USGS.

THE CONTRIBUTIONS OF late 19th-century surveyors in settling the West and establishing national parks cannot be overestimated. And the push to map the country came directly from these men, rather than from any governmental agency.

The goal of the four great western surveys—led respectively by Powell, Hayden, King, and Wheeler—was to collect and map data on the topography, geology, mineralogy, biology, and archeology of the territories west of the 100th meridian. It was the first effort made to systematically and comprehensively map the nation, an effort that led to the establishment of the first national parks.

Ferdinand V. Hayden, leader of the Geological and Geographical Surveys of the Territories (1867-1878), epitomized the professional nature of these surveys. On his 1871 study of the Yellowstone country, for example, Hayden assembled a competent team that included geologists, mineralogists, botanists, a zoologist, an archeologist, paleontologists, and—most importantly for mapping—topographers, photographers, and artists.

In addition to a detailed written description of the area, the Hayden Survey produced a broad pictorial record of maps, photographs, and paintings. For those unable or unwilling to read the full text of the reports, the pictorial record described, in eloquent simplicity, the vastness, ruggedness, and promise of this new frontier.

In the winter of 1871-72, Hayden brought his written and visual reports to Washington, D.C. Thomas Moran's watercolors and W.H. Jackson's photographs deeply impressed previously uninterested congressmen. These images, more than anything else, helped Hayden lobby successfully to establish Yellowstone as our first national park.

Hayden's exploits and those of the other 19th-century surveyors provide some of the best stories and, in some cases, tall tales of the old West.

Major Powell, in addition to being the first known person down the

U.S. Geological Survey

Dr. F. V. Hayden (left), a University of Pennsylvania professor, set out to survey Yellowstone in 1871 with a party of 34, including artists and photographers.

Colorado, was also the first to ascend Longs Peak, now protected as a part of Rocky Mountain National Park. Much of the land through which the 1869 Powell expedition traveled, including the entire stretch of the Colorado River from its junction at the Green to the mouth of the Virgin River, is now protected as part of the National Park System.

Clarence King brought his team up many of the highest peaks in the Rockies and Sierra Nevadas. King also spent a great deal of time mapping the Great Basin in Nevada, as did George Wheeler, whose name was given to the peak of the newly established Great Basin National Park.

The Hayden Survey, while mapping southern Colorado, brought back the first descriptions and photographs of Mancos Canyon cliff dwellings, which eventually led to the creation of Mesa Verde National Park, Hovenweep National Monument, and Chaco Culture National Historical Park.

BECAUSE COMPETITION FOR money and discoveries was intense among the surveyors, Powell began pushing for one collective geological survey. Finally, in 1879, the four western surveys were combined into one, and established as the United States Geological Survey (USGS) under the Department of the Interior. Then, as now, the primary mission of the USGS is to collect, prepare, and distribute data on the nation's surface and subsurface resources.

For the first two years—under Clarence King—the USGS concentrated primarily on geology as it related to mining, devoting little time or money to topographic mapping or other research. Under John Wesley Powell, however, the agency's second and most prominent director, the USGS grew into one of the world's most respected earth science research agencies—a reputation it still commands today.

Under 17 years of Powell's direction, the mission and focus of the USGS were broadened extensively, leading to investigations in paleontology, biology, ethnography, hydrography, chemistry, physics, and astronomy. Although some of those programs eventually languished, the role of the agency as the nation's topographer flourished.

As any hiker to the National Park System's backcountry will attest, a USGS topographic map is as essential as shoes. The most popular topographic maps sold by the USGS are the 7.5 quadrangle maps.

Widely available for most of the United States (except Alaska, which is mapped on a less-detailed scale), these maps are drawn to a scale of 1:24,000. One inch on the map equals 24,000 inches—or 2,000 feet—on the earth.

Although some skill is required to fully understand topos, they are surprisingly straightforward when one considers the amount of information they contain. The maps show data on elevations and contours of the earth, landforms, the courses of rivers, plant distribution, road alignments, buildings, and the sprawl of cities. The boundaries of parks, forests, counties, and states are all marked; hills and valleys are all named. It is all there and all in the right place.

TOPOGRAPHIC MAPS HAVE changed little in appearance since the USGS began producing them in 1881. Yet, there have been quantum leaps in the way in which topo maps are produced.

One hundred years ago, men moved their equipment on pack trains, measuring distances with 100-foot chains stretched across the land. They maintained their bearings with a magnetic compass, measured elevations with a barometer, took field notes, and drew sketches at portable tables. The instruments were crude but the results were reasonably accurate.

The United States is more than 3,000,000 square miles, however, and as far as these surveyors might have ventured, the earth stretched even farther. As the interest of government agencies, planners, industry, and individuals became more pointed, they required more precise and more widely spread data on the nation's resources. The USGS had a hard time keeping up with the amount of data requested.

Cartographers in the 1930s desperately needed a revolution in mapping technology. Sparking that revolution and fulfilling the mappers' needs was the development of photogrammetry, a process of making maps by use of aerial photography. Photogrammetry challenged traditional methods, and it supplanted age-old theories, tools, and techniques.

Courtesy of the Environmental Research Institute of Michigan

Cape Cod National Seashore, Massachusetts, is visible in a natural-color image from data acquired June 12, 1984, from a Landsat 5 Thematic Mapper. Such images help researchers study sand migration and tides along barrier islands.

Based on techniques developed during World War I for aerial military reconnaissance, cartographers began to equip airplanes with specially designed cameras. These cameras recorded strips of land beneath the plane's flight path as a series of overlapping photographs.

Employing the principles of stereoscopic imagery, photographs of the same area—taken from two different points—were projected onto a flat surface. The resulting image appeared three dimensional.

Working in laboratories, this new breed of mapmaker could measure the photographic image and prepare more accurate maps. Another advantage of the aerial photograph was that a large area could be surveyed quickly.

The camera was like the keen eye of the surveyor, and the film a perfect memory. Field notes may not say whether a butte is 30 or 50 degrees north of a particular mesa; but the camera records everything, from the location of trees and the course of the river to the depths of canyons and heights of mountains.

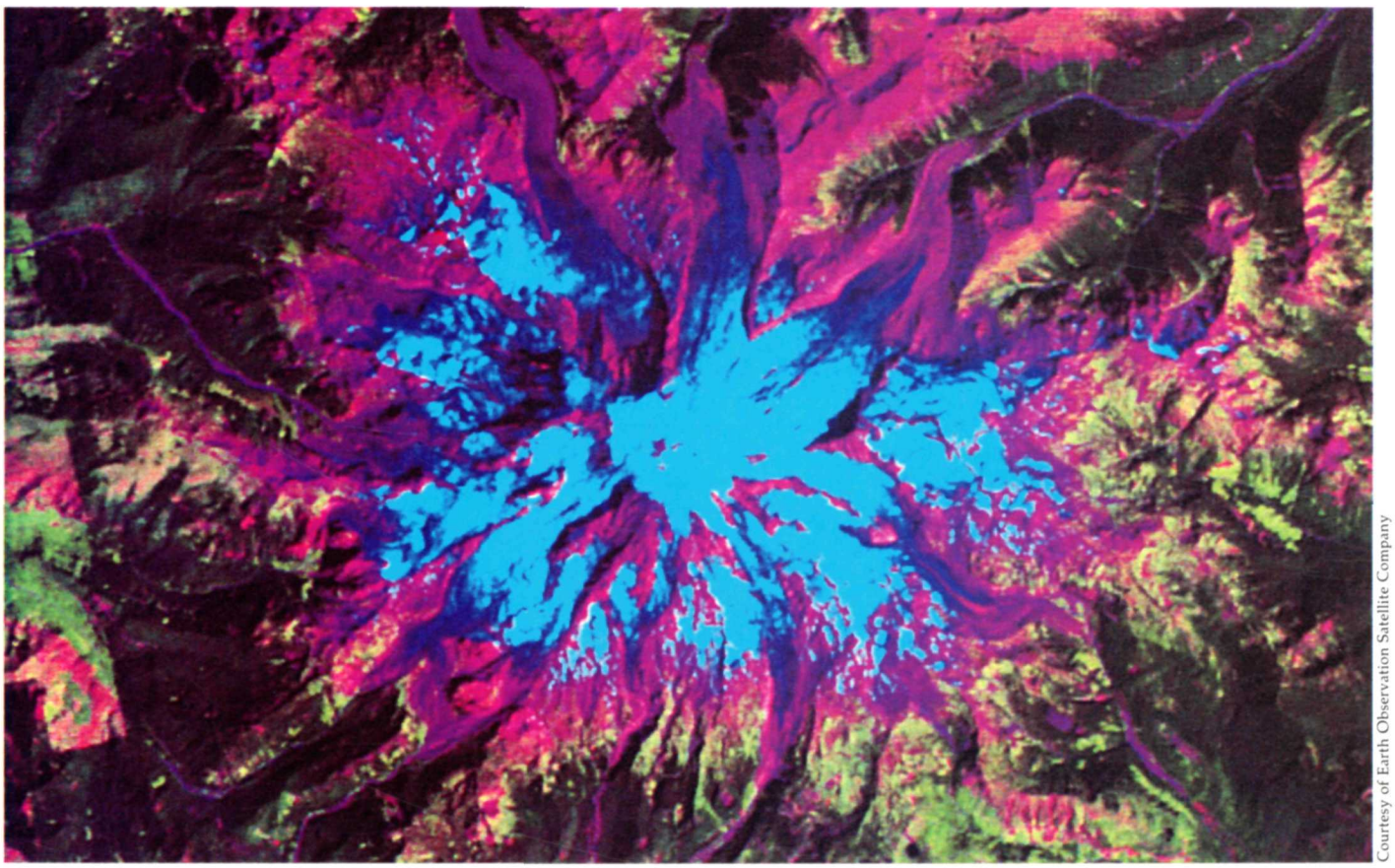
WHILE THE APPLICATION OF aerial photography contributed substantially to completing the nation's topographic data base, a new technology has begun to emerge. Digital cartography combined with remote sensing is the second revolution in mapping technology.

Traveling 560 to 590 miles above the earth's surface, remote scanning devices aboard Landsat satellites are recording a continuous series of digital images of the world's physical, biological, and cultural resources. These satellites circle the poles 14.5 times a day and drift across lines of latitude in an east to west direction, with a few degrees difference each day. It does not take long for these satellites to obtain complete coverage of the earth. Any particular spot on the earth's surface will be updated once every 16 days.

In some respects, these remote devices work like a camera in that they are recording light energy. Instead of recording data through a series of photographs, remote scanners record data in a digital format on tape.

The science of digital cartography is complex and heavily dependent upon the ubiquitous computer, but the theory is relatively simple. Think first of a typical map, which is basically composed of lines and areas, where lines represent roads or boundaries and areas represent homogenous resources, such as water or vegetation.

Whereas a line can be defined as the distance between two points, the digital line is defined all along its route by a series of two-point coordinates. It is simple geometry, where x is equal to latitude and y is equal to longitude. Defined by two-number coordinates, even the most



Courtesy of Earth Observation Satellite Company

From 438 miles in space, Mt. Rainier—in Mt. Rainier National Park—is shown in a false-color image in order to determine its mix of snow, rock, and vegetation. Here, snow is blue, rocky ground is pink, and the tree line is in shades of green.

sinuous line can be represented by a series of numbers.

A computer plotter, which is programmed to read this digital data and draw it on paper, is nothing more than a high-tech, connect-the-dot machine. In that respect, we have all been digital cartographers at some point in our youth.

When a camera takes a picture, it does so by exposing tiny grains of light-sensitive emulsion. The longer a grain is exposed, the darker it will appear on the film negative. Though each grain is unique, being only one of three primary colors, we do not see each grain. We see the total image.

Digital scanners work much the same way. A digital scanner takes a picture of an area. Instead of exposing a light-sensitive grain, however, it records the wave length of light.

Light travels in waves, and the length between the waves can be expressed as a number. The shorter wavelengths form the blue end of the visible spectrum and the longer wavelengths form the red. The digital scanner does not actually see blue; rather, it measures a wavelength, which for the color blue is about 400 nanometers (one billionth of a meter). Expressed as numbers, the computer can easily assess and manipulate line and area data.

For park resource managers, the application of this technology is exciting. In Yellowstone National Park, for example, researchers are using remote scanning devices to collect vegetation data on prime grizzly bear habitat. The NPS hopes this data will help protect such areas and improve the grizzly's chances for survival. Researchers are also assessing vegetation data at Saratoga National Historical Park as part of an effort to restore the landscape of the park area to its 1777 battlefield appearance.

Although the NPS is developing its own digital map base for specific projects such as those described above, the USGS is taking the lead in developing a digital data base for the nation.

"More than 90 percent of the nation has been mapped to scale of 1:24,000," notes Alan Stevens, assistant chief of USGS's eastern mapping center. "But," he adds, "to meet the needs of the public in the 21st century, that information must be available in a digital format."

There's little doubt that the USGS will meet that need.

Where there were pack trains and men trekking over mountains, there are now satellites racing 500 miles above the earth.

What once took a keen eye and a steady hand now requires a sophisticated assemblage of lasers and circuitry. What took weeks and often months now takes seconds, maybe minutes. A remarkable achievement in 119 years.

ALTHOUGH THE USGS IS the nation's primary mapping agency, the National Park Service has embarked on a mapping program to rival it.

Based on the campus of historic Storer College in Harpers Ferry, West Virginia, Harpers Ferry Center is responsible for the design, production, and distribution of park "folders," the fold-out brochures that are distributed at most national park areas.

Basically, the folder is a map; but unlike most maps, which are used to pinpoint a feature or navigate a course, NPS visitor guide maps tell a story. They are paper rangers, revealing the intricacies of the landscape and unraveling the tapestries of history.

Guide maps must portray North Cascades geology to a broker from Wall Street, describe the battle of Gettysburg to a third-grader from Phoenix, and depict places to picnic to a visitor from Japan. And, on top of it all, they must tell you where these places are and how to get there.

National Park Service map-brochures are the most widespread interpretive tools the NPS has, and the most popular. Unlike a road map, which is an abstract series of lines and symbols, NPS maps are like a combination of photograph and map; they help visitors visualize landforms, even entire ecosystems.

The value of these maps is that they are informative and easy to understand. There are few things in this world that are both.

At Yellowstone, for instance, park managers believed visitors would better understand the park's geology if the map depicted the remnant volcanic crater that encircles the central part of the park.

"Raw data alone is not enough," explained Vince Gleason, chief of NPS publications. "There remains a need for hand-crafted maps."

Gleason's opinion is mirrored in the NPS mapping program. Distinct from the Geological Survey's scientific approach to cartography, the National Park Service thinks of mapping as an art. If it is an art, then surely one of the masters is staff artist Bill von Allmen.

Trained at the USGS and the Swiss National Mapping Office ("The Swiss make the best maps") von Allmen is one of a handful of people in the United States, and the only one in the NPS, skilled in the art of shaded relief, a technique that renders the illusion of 3-D.

Using pertinent information—including photographs, descriptions, or preferably a personal visit to the site—von Allmen visualizes the ruggedness and complexity of the land. With a USGS map as his base, he begins painting with an airbrush, shading areas that would be darkened if the sun were shining from a 40- to 60-degree angle from the northwest, a traditional angle in shaded relief maps.

Shading provides an illusion of depth, and our eyes are trained to look for it. Von Allmen, by meticulously shading two-dimensional maps, raises mountains off of the printed page. On completion of one of these incredibly detailed drawings, place names, vegetation, trails, campsites, and other features are combined with the image and the final map is printed and distributed.

To produce a single park map, from start to finish, can take a year or two and thousands of dollars. But they are among the best maps made today, challenging and redefining the very essence of what a map is and what it can do.

There will always be a need for technical maps such as those produced by the USGS. Because the power of a map to educate is great, the need for NPS maps is growing. As our mastery over the land becomes more thorough, NPS maps can help us become better stewards as well.

Terry Kilpatrick, now on staff at Blueprint for the Environment, worked on the mapping portion of NPCA's National Park System Plan.

Getting a Good Map

MAPS OF PUBLIC LANDS are available from many government agencies. Below is a partial listing headed by the name of a brochure that includes a more complete listing. National Geographic Society has also been included because they produce excellent maps.

Types of Maps Published by Government Agencies; Government Printing Office Publication No. 1978-261-226/51, U.S. Geological Survey, National Cartographic Information Center, 507 National Center, Reston, VA 22092, (703) 860-6045.

Topographical maps: U.S. Geological Survey, Branch of Distribution, P.O. Box 25286, Federal Center, Denver, CO 80225, (303) 236-7477.

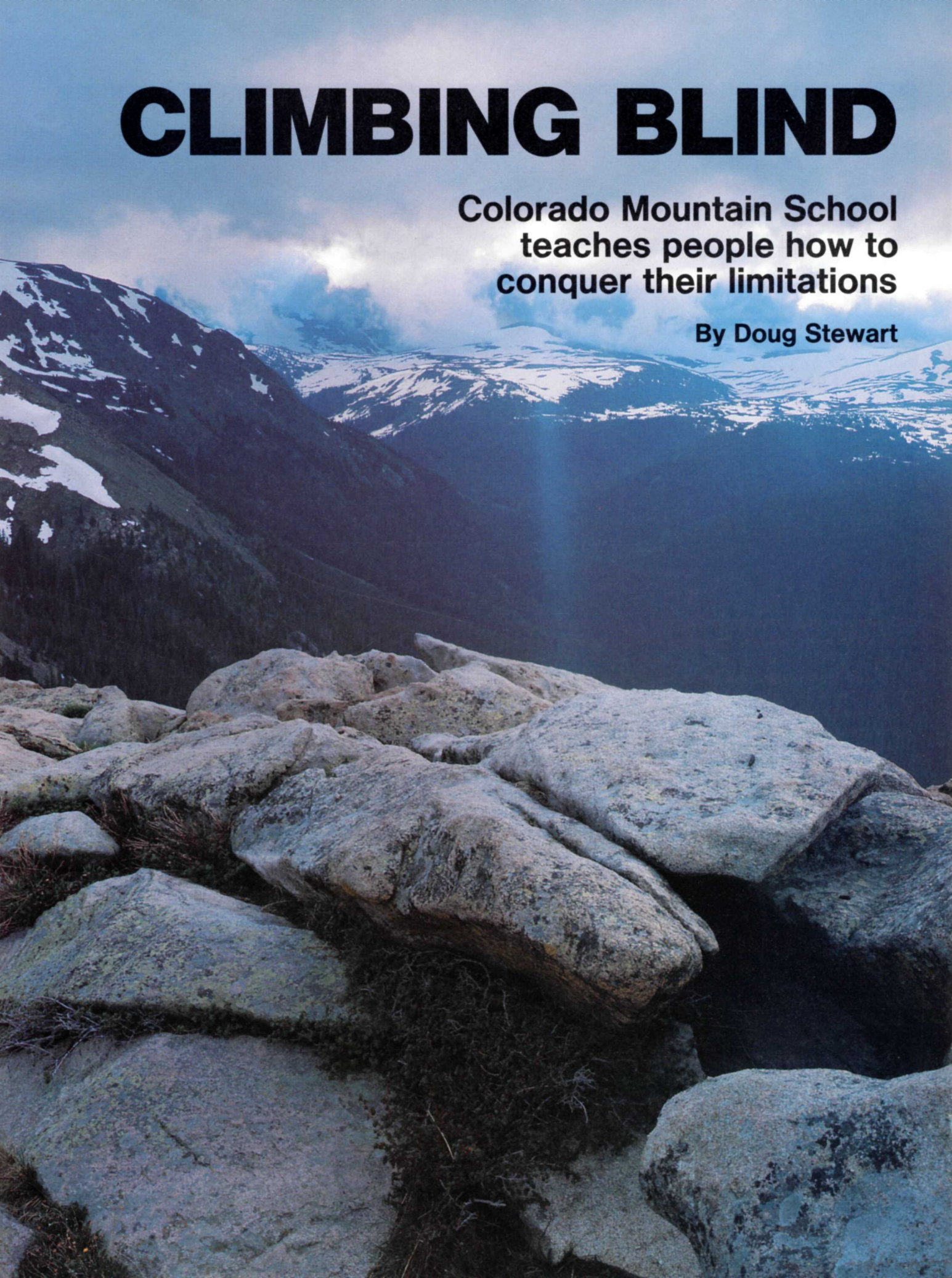
National park maps: Superintendent of Documents, U.S. National Park Service, Office of Public Inquiries, Room 1013, Washington, DC 20240, (202) 343-4747.

Historical and military maps: Library of Congress, Geography and Map Division, 845 South Pickett St., Alexandria, VA 22304, (202) 287-6277; and U.S. National Archives and Records Service, Cartographic Archives Division, Pennsylvania Ave. at 8th St. NW, Washington, DC 20408, (202) 756-6700.

Civil War maps: Superintendent of Documents, National Ocean Survey, Distribution Division (C-44), Riverdale, MD 20840, (301) 436-6990.

Treasure maps and charts: Superintendent of Documents, Library of Congress (see address above).

National Geographic: Publications Order List, National Geographic Society, P.O. Box 2806, Washington, DC 20013, (202) 857-7000.



CLIMBING BLIND

Colorado Mountain School teaches people how to conquer their limitations

By Doug Stewart

Courtesy of Colorado Mountain School

Left to right: Topher Donahue (Mike Donahue's son), Martha Villa, Shirley Smith, Sandi Kilishek, and instructor Bill McKee stop on their way up Trail Ridge Road in Rocky Mountain NP.

Rocky Mountain National Park; Tom Till

"I can't. I just can't find a handhold." Fear choked the soft Tennessee drawl. High on a granite wall, David Hunter pressed his belly into the rock for more friction.

"Push yourself away from the rock," said instructor Bill McKee, watching him from above. "Then, you can search for holds."

"You don't understand," said Hunter, growing desperate. "I can't see any." And he couldn't.

Nor could Hunter see the upthrust summits and flowering glacial valleys below him, which attract most other visitors to Rocky Mountain National Park.

Hunter's eyes stared fixedly while his hand groped for a higher grip on the gray rock of Lumpy Ridge. Solid ground was 40 feet below; but, for him, it could have been 20 feet, or infinity.

Blind since he was 12, Hunter had decided to learn rock climbing at Colorado Mountain School's annual Camp for the Visually Impaired. Each year the school offers students like David Hunter the chance to learn mountain climbing—a sport that even few sighted people ever attempt.

Climbing instructor Bill McKee's steady voice had guided Hunter through Lumpy Ridge, a series of craggy granite extrusions north of Estes Park. McKee knew firsthand about the small outcropping that was stopping Hunter now, because McKee had learned the route blindfolded, immediately before Hunter's climb.

Though a seasoned climber, McKee admitted that climbing blindfolded "got terrifying at times." But now, he knew how to direct Hunter's hands and feet.

McKee also has learned that few words are best. He allowed Hunter to solve his own problems, knowing that the best lessons are the ones we teach ourselves.

Below McKee, Hunter's hand finally located a crack it could trust. Slowly, he found the hand-foot combination that took him over the outcropping and to the top of the pitch.

McKee gathered the rope and looked for the next climb while Hunter rested on a ledge halfway up the large cliff. Hunter talked about his accomplishment as if it were a summit assault, which, in some ways, it was.

Helping people such as Hunter conquer their inner summits is the goal of Colorado Mountain School Director Mike Donahue. This ap-

proach to the outdoors was first developed by Donahue's grandfather, Frank Hannen. In middle age, he abandoned his profession, as a physician, to join a trail crew in Rocky Mountain National Park.

He found a "healing power" in the outdoors, and hoped, someday, to build a ranch on a piece of property he owned at the edge of the park. Here, he would share those healing powers with underprivileged youths. Frank Hannen never built the ranch. He did, however, spend the rest of his life in those mountains, and established his family there.

Growing up near Rocky Mountain, Donahue was attracted to mountaineering early. Ultimately, he completed some of the most difficult climbs in the area. For many climbers, the climbs themselves would be sufficient reward.

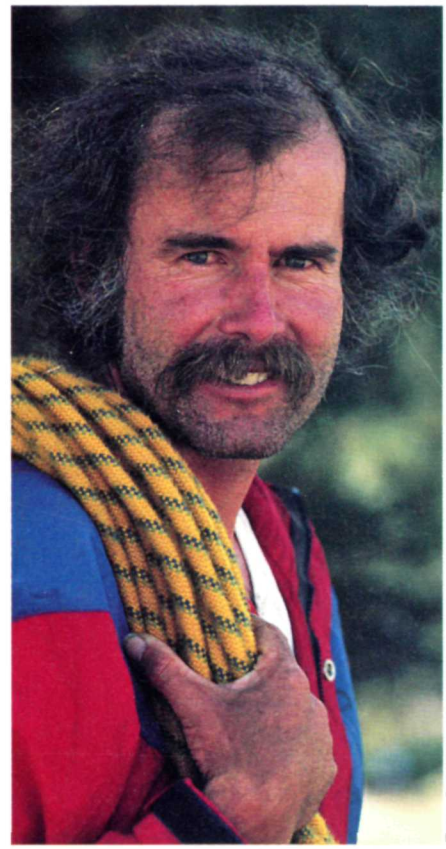
But Donahue found that he was increasingly irritated by the elitist attitudes of some serious rock climbers, who habitually snub anyone who is climbing below their own level of expertise.

"The longer I climbed," he says, "the more I could see that it didn't matter how hard the climb was. What mattered was the state of mind I was in.

"You can hardly do anything in the mountains if your weaknesses have control. Mountains are unyielding, so your strengths must have control of you."

When, in 1982, Donahue purchased Colorado Mountain School, the park's mountaineering concession, he "shifted the focus away from advanced technical rock climbing and toward the broader mountain experience." This shift allowed him to introduce the mountains and technical climbing to a wide range of people, including paraplegics, acrophobics (those afraid of heights), as well as the visually disabled.

Colorado Mountain School instructors have devised techniques to communicate the intricacies of climbing to the visually disabled through sound and touch. For instance, the guides continually describe what is going on around them—the trains of pack horses, the clouds building, the color of the rock.



Doug Stewart

Mike Donahue, like his physician grandfather, wanted to teach others about the healing power of nature.

Instead of only learning how to reach up for handholds—the way most sighted people climb—visually impaired students are also taught to reach down to find footholds with their hands. While training, students are taught to use a two-foot stick, called a signal stick, to calculate the depth and heights in front of them. While the student holds one end of the stick, the instructor above them lifts the other end to the angle of the next hold. The students can then determine the correct angle for their next step.

During their camp, visually impaired students not only rock climb, but backpack overnight. They learn wilderness techniques, such as how to stop themselves from falling on snow fields by using an ice axe.

Instructors get down on their hands and knees to guide their students' fingers through the shapes and textures of the tiny tundra plants found above timberline. They also teach their students to travel along rock by feeling and identifying differing rock formations, and to use sound where others might use sight. In fact, students are taught to use all the information available to them when they make their way up the rock.

The "mountain experience," according to student Shirley Smith, forces you "to be honest with yourself. You have to acknowledge both your limits and your strengths if you are going to make a go of it." Smith learned this lesson when she ran out of handholds high on an exposed granite wall.

Smith is accustomed to pushing the limits, despite the fact that she only has peripheral vision. As a child she climbed backyard trees with the rest of the kids in her neighborhood, so she welcomed the challenge of rock climbing.

At camp, Smith and her classmates spent much of their first morning learning to use climbing ropes. She followed her instructor's hands through the various climbers' knots, then traced the knots with her fingers and retied each.

Next, she was handed a tangle of nylon webbing—the climbing harness that would secure her waist and legs to the safety rope. "It was like figuring out a horse harness for the first time," she laughs. Knots and webbing sorted out, she began climbing Hen and Chicks, a formation of boulders on Lumpy Ridge.

Like most beginning climbers, Smith was reluctant to trust her feet. Relying more on the familiar grip of her hands, she slowly pulled herself up 30 feet of rock. She arrived at the top exhausted, wondering how any one ever climbed the park's high peaks.

"Climbing is as much technique as strength," says Donahue, back at the base of the rock. "Don't hug the rock, stand up on it."

He had Smith climb a short way up the boulder, and then lean away from the rock. She had to learn to

trust the soft rubber soles of her climbing shoes, which are designed to grab the rough surface of the rock.

Smith tried her climb again.

This time she kept most of her weight over her feet. This technique was much less exhausting, and it freed her hands to search for new holds.

When she returned to the bottom of the rock, Donahue asked Smith to trust her feet even more. "Climb it one-handed this time," he said. Smith tried and was surprised to find she succeeded. Instead of struggling against the rock, she had learned a new sense of balance and freedom.

During the camp's final climb she tested her limits still further. While climbing a face of Old Man Mountain, she confronted a difficult section of rock. The instructor above her suggested climbing the smoother face, but Smith chose a "nice cozy crack, with deep foot and handholds, instead."

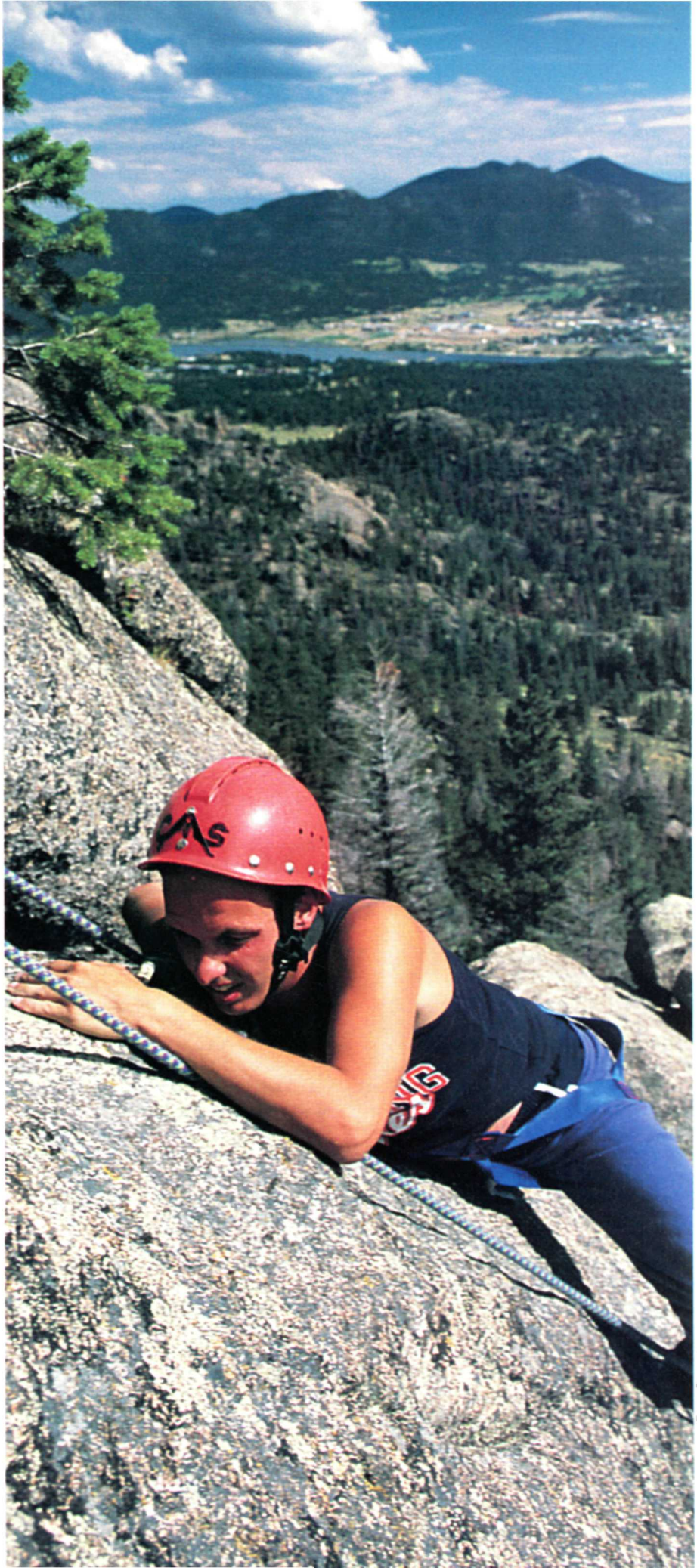
Soon, the crack ended and Smith's arms began to tremble from the strain of climbing. She had not noticed that she had followed the wrong fissure onto a difficult section of rock until she could not go forward and didn't know how to get back.

But, through the week, she had learned to find her own way on the rock. The angle of the rope attached to her harness pointed to her goal—Bill McKee—at the end of the climb. But how to get there?

By listening to echoing sounds, she could determine the shape and size of rock formations around her. Slowly, she found her way back to a seemingly less secure, but easier, route.

"The instructor never said anything," she recalls, "but, instead, he let me work my way out of it. That was great. When I was done, I knew that it was me who had solved the problem and nobody else."

Donahue teaches self-reliance



David Hunter, blind since the age of 12, climbs Lumpy Ridge in Rocky Mountain National Park on his first trip to Colorado Mountain School.

Doug Stewart

while he teaches rock climbing. Routinely, he asks students to climb a small boulder, then asks them to climb it again with one arm, and then using only fingertips. After that, they can attempt the big climbs.

Martha Villa, a translator from New York, was intimidated at first. But by the end of the camp she welcomed increasingly difficult routes.

"It was an unforgettable journey," she recalls. "At the beginning of the climb, I was constantly slipping and sliding on the rock. But, as I kept climbing, I noticed the different shapes and textures of the rocks." As instructors taught her how to find handholds and footholds, they made her pay more attention to the rocks—what they were made of, how they were formed.

"The crystals that Mike and Bill were trying to make me notice were difficult to find. Some were as smooth as the hands of a pianist; others had the roughness of a goat's neck.

"There were moments when I felt like giving up. The words of encouragement, however, from the rest of the group and my eagerness to reach the top helped me overcome my fear. When we reached the top I was neither physically nor mentally tired. It was as if I had a well of energy inside me."

Such are the rewards for Mike Donahue and his instructors. The financial compensation has been minimal.

Because instruction must be individualized, the costs of operating the camp far exceed the revenues. While private lessons for other classes can bring in as much as $200 per day, tuition for the five-day Beginning Visually Impaired Camp costs only $235, including equipment, food, and lodging.

Tuition is kept low so that the largest possible number of students can participate. To help keep costs low, instructors open their homes to the climbers.

Costs are reduced further through scholarships donated by other clients or by the school itself. Eventually, Donahue hopes to gain non-profit status for the Visually Impaired Camp.

Doug Stewart

Colorado Mountain School teaches precise sensory awareness to students.

For Donahue, providing a climbing experience for the visually impaired is a matter of personal principle, not business. The visually impaired camps do, however, contribute to the quality of his other programs.

"In a lot of ways we are dealing with the same mental handicaps with everybody. And there is a tendency to overlook that with sighted students and just climb to the top of the mountain, ignoring the needs of the people we are taking. When our students see storm clouds building or look up at the peaks looming above, they have mental doubts. We need the sensitivity to deal with those doubts.

"A lot of those sensitivities come out when we are dealing with disabled people. It makes us better guides. If a guide is sloppy describing and demonstrating to a person who can see, he'll have a difficult time describing how to climb to a person who can't see."

Despite the millions of dollars now being spent in this country to increase access for disabled people, the visually disabled are still confined by social attitudes about what they should and should not attempt.

Although Donahue advertises in publications such as *The Braille Forum,* visually impaired students are hesitant to come. Most of the climbers who do arrive at the camp have found little support from family and friends.

"Most of them don't realize that climbing is essentially a safe sport," says Donahue.

After her experience, Shirley Smith, an honors student in communications at California State Polytechnic, contacted several national organizations for the blind, trying to get them interested in sponsoring or participating in the program.

"The head of one of the largest foundations for the blind asked me if I thought blind people should be doing that. I found his attitude offensive and told him 'Yes. *I* enjoyed it very much.' I want to go back as soon as possible."

Others who have been through the program are just as anxious to return. David Hunter returned and learned winter mountaineering last February, and he hopes to hike a section of the Continental Divide this summer. Martha Villa is planning her assault on 14,255-foot Longs Peak and says she "would be climbing all the time if I lived in Colorado."

Lessons of self-reliance and problem solving learned high in the Rockies remain strong.

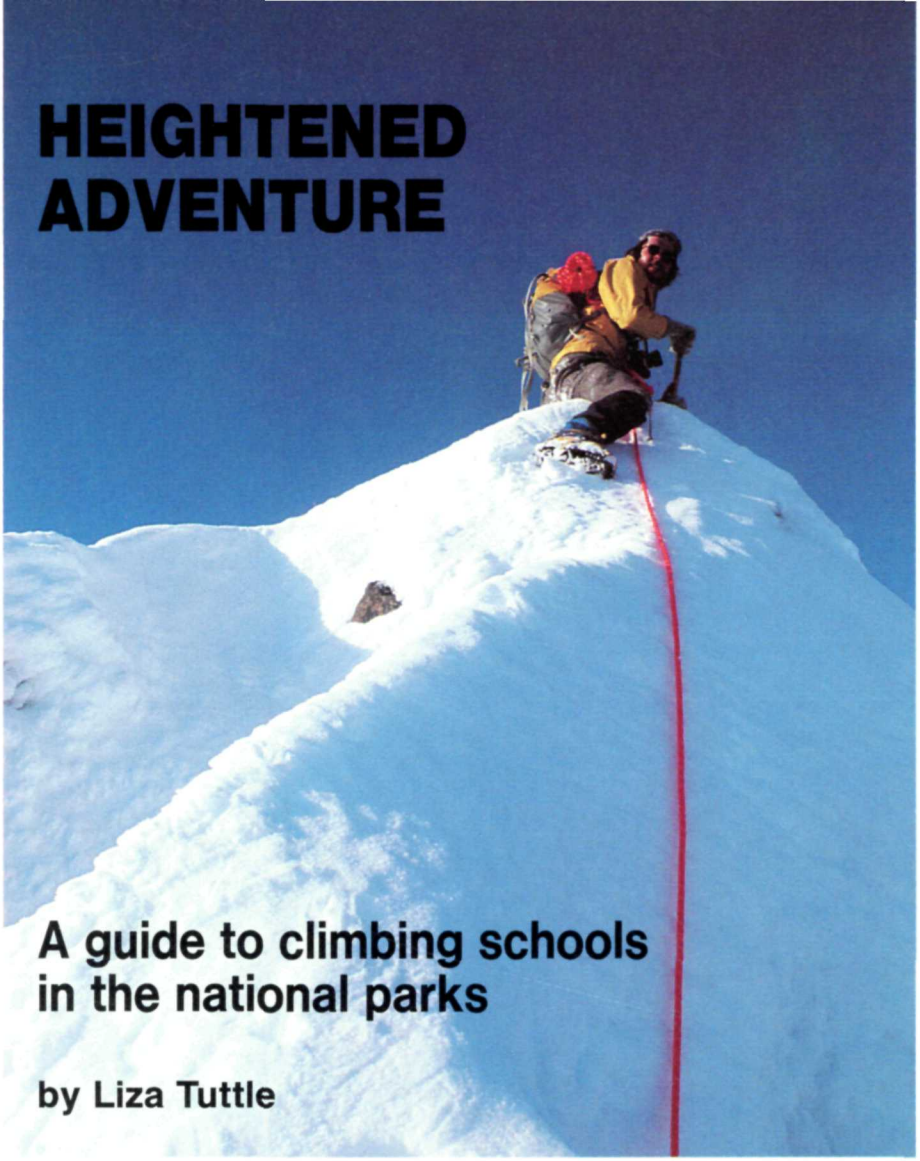
"You sort of forget about it in everyday living, but the experience is still there," says Sandi Kilishek, a Floridian who has decided to start her own business, largely as a result of the confidence she gained through her experiences at Colorado Mountain School.

Without your eyes "you notice so many new things—the sounds, the smells in a meadow," says Martha Villa.

Shirley Smith recalls a feeling vivid as any mountain sunset. "Once I stopped mid-climb and turned around to face the openness. I felt a tremendous sense of awe. I had never experienced openness like that before."

Doug Stewart, a freelance writer and photographer, is currently consulting at Colorado Mountain College.

HEIGHTENED ADVENTURE



Chlaus Lötscher

A guide to climbing schools in the national parks

by Liza Tuttle

Mount Everest and the Matterhorn are names we associate with the romance and adventure of climbing—faraway mountains scaled by daring people.

You may have never imagined yourself mountain climbing, but why not? Without leaving the country—and by taking advantage of our national parks—the challenge can be yours. You can conquer the likes of Mount Rainier in Washington, the Grand Teton in Wyoming, or Longs Peak in Rocky Mountain National Park. Of course, you needn't set your sights that high. Although the East does not have the altitude, it does offer some particularly good technical rock climbing, a first cousin to mountaineering.

Whether or not you've handled ropes, ice axes, and crampons before, there are mountaineering outfits to guide you to magnificent heights or to complicated rock problems in the parks. Outfitters offer scheduled trips of varying lengths as well as private, customized adventures.

And you needn't go out and acquire all the latest equipment. Many outfitters provide all the essential hardware, plus tents and cookware.

Outfitters often say that climbing experience is not as important as being in good physical shape. In fact, climbing is as much a mental achievement as a physical one.

The following directory lists climbing schools active in national parks, beginning in the West and moving eastward.

Denali National Park

Mountain Trip
Box 91161, Anchorage, AK 99509
(907) 345-6499

The climbing season in Alaska runs from April through July, and the most popular program offered by Mountain Trip is the three-week seminar and ascent of Denali (Mount McKinley). The length of the trip ultimately depends on weather, and on how long the group (ten to twelve in number, with two to three guides) is willing to wait at high camp before the weather permits a summit climb. Because of weather conditions, there is only a 60- to 65-percent chance of making the summit.

The expedition is open to beginners; physical fitness rather than climbing experience is crucial. The cost of the Denali trip is $2,000, including the $200 flight to the mountain base camp.

Mountain Trip also offers a popular two-week climbing seminar for $900. Climbers live at the mountain base camp for two weeks, learning the basics of mountaineering, then progressing to technical rock and ice climbing on 9,000- to 10,000-foot peaks. All food and nonpersonal gear are provided.

Other outfitters with a National Park Service permit in Denali include **American Alpine Institute**, (206) 671-1505; and **Fantasy Ridge**, (303) 728-3546.

Mount Rainier National Park

Rainier Mountaineering
201 St. Helens, Tacoma, WA 98402
(206) 627-6242

The most popular offering at Rainier Mountaineering is the one-day climbing class followed by a two-day climb to the summit of Mount Rainier. Total cost: $215. Next in popularity is the five-day "expedition seminar," which includes snow- and ice-climbing instruction plus a summit attempt, for $375. Rainier Mountaineering also conducts one-day seminars in crevasse rescue and ice climbing. Private instruction and guiding are available on a year-round basis.

Seminar groups are limited to 24 climbers. With more than 40 guides, Rainier Mountaineering manages to keep a one-to-four ratio of guides to climbers.

New this year is a ski mountaineering program in the backcountry of Mount Rainier National Park. A

series of weekend and five-day seminars is offered during February and March.

YOSEMITE NATIONAL PARK
YOSEMITE MOUNTAINEERING
YOSEMITE, CA 95389
(209) 372-1244
If time is short and you are interested in getting a taste of rock climbing, Yosemite Mountaineering conducts day-long climbs in Yosemite National Park. The classes are divided into basic, intermediate I, and intermediate II, and cost $35, $40, and $45, respectively.

This outfitter also offers the "Alpencraft Seminar," which is a five-day class for beginners with daily lessons and guided tours (for about $200; lodging not included). In addition, you can take a two-day technical ice-climbing seminar.

For those with an interest in general mountaineering and minimum-impact camping, a new guided backpacking course, which can include technical climbing or not, is available at a minimum price of $75, depending on your time and route choice.

Yosemite Mountaineering is the only authorized climbing outfitter in Yosemite, and their trips include scaling the well-known El Capitan and Half Dome, as well as the lesser-known peaks in the park. They guide between 2,500 and 3,000 climbers per season.

GRAND TETON NATIONAL PARK
EXUM MOUNTAIN GUIDES
BOX 56, MOOSE, WY 83012
(307) 733-2297
This is the oldest mountain-guiding operation in the country, started by saxophonist Glenn Exum who moved to Jackson Hole with his dance band in the 1930s and took up climbing. Now, the outfit has amassed the experience of approximately 30 guides, most of whom have led or taken part in expeditions around the world.

According to Al Read, president of Exum Mountain Guides, "Our single most popular program is one day of basic climbing instruction and a second day of intermediate instruction, followed by a two-day ascent of Grand Teton. We probably take 400 people to the summit in a season."

Doug Brown

Before ascending Grand Teton, climbers practice free rappelling.

The basic and intermediate courses are held on "practice rocks" in Grand Teton National Park. There the guides teach the essentials of careful climbing. Once you feel comfortable with rock climbing, you are ready for Grand Teton. The two-day climb begins with a hike to the glacial cirques at Lower Saddle where Exum maintains a hut complete with sleeping bags and cooking facilities. All you bring is food and clothing.

The next morning is an early one—3:00 or 4:00 a.m.—so as not to lose a moment of daylight for the final ascent. You reach the summit by noon, eat lunch, and, then, free rappel down a 120-foot overhang and hike the rest of the way down. No small accomplishment for four days.

Exum does offer several other programs, both shorter and longer, and more and less challenging than the Grand Teton climb.

ROCKY MOUNTAIN NATIONAL PARK
COLORADO MOUNTAIN SCHOOL
BOX 2062, ESTES PARK, CO 80517
(303) 586-5758
The Colorado Mountain School is open year-round with courses catering to the beginner as well as the advanced expeditioner. This school also offers programs for youth with behavior or self-image problems.

In the words of owner Mike Donahue, "Mountains are an experience all can enjoy." They also conduct a climbing program for the visually impaired and handicapped people (see story, page 22).

The bulk of the business at the Colorado Mountain School is in one-day climbing adventures. The rate of those who return for a second and third climb is high. A day's worth of mountaineering fun costs $22 for children under the age of 12, $48 for adults.

You might also consider a week-long beginning rock-climbing camp for $370. And, for more challenge, there are four- to six-day winter climbs.

GREAT BASIN NATIONAL PARK
SKY'S THE LIMIT, HCR 33/BOX 1,
CALICO BASIN, NV 89124
(702) 363-6336
Operating out of Las Vegas, Sky's the Limit is a mountaineering school and private guide service for Nevada state parks and our newest national park, Great Basin. Its programs range from mountain naturalist and orienteering to a five-day snow-and-ice climb across a glacier to the summit of Wheeler Peak.

Randal Grandstaff, who heads the group, is also the chairman of the American Guiding Association. In the interest of safety, the ratio of climbers to guides is three to one for the introductory classes and one to one for the Wheeler Peak trip.

MID-ATLANTIC REGION
There are several clubs and schools active in the Mid-Atlantic parks. The trips offered are primarily day rock climbs; and because there are a lot of enthusiasts in this part of the country, prime areas are in heavy demand. Some of the best spots include Carderock, along the George Washington Memorial Parkway, and Great Falls Park. Some climbing is also done in Shenandoah National Park.

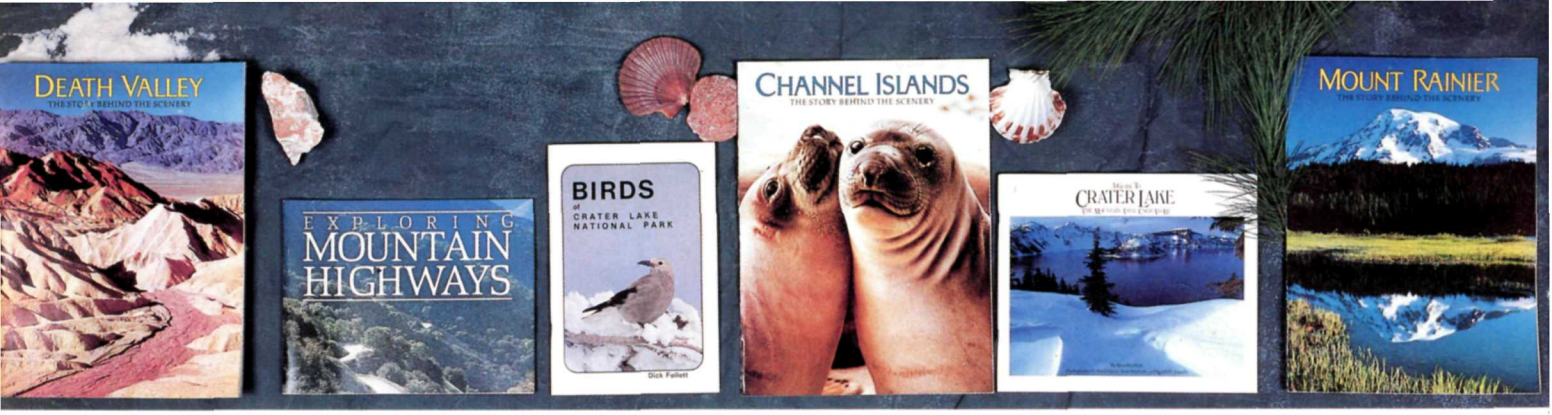
In northern Virginia, the people to call are **The Outdoor School** at (703) 759-7413; **Inner Quest** at (703) 478-1078; and the **Potomac Appalachian Trail Club** at (202) 543-3988.

Liza Tuttle is assistant editor for National Parks *magazine.*

PARK Publications

NPCA offers you the finest publications on the National Parks.

Here, in one convenient place, are the most exciting and informative books and guides available on our National Parks and an assortment of fine merchandise. So, take a moment to browse, and let your mind wander this land.



Catalogue Legend

Book titles are in **Bold Face.**
Order numbers are italicized, ie: *A101*

*—Part of KC Publications' **Story Behind the Scenery** series, large-format editions with full-color photos.

BM—Battlefield Memorial
NB—National Battlefield
NHP—National Historical Park
NHS—National Historic Site
NL—National Lakeshore
NM—National Memorial
NP—National Park
NPS—National Park Service
NRA—National Recreation Area
NS—National Seashore
HB—Hardback
PB—Paperback

Cover:

Canoeists photo by Connie Toops
Grand Canyon photo by Gary Ladd

Alaska & the Pacific Northwest Region

Alaska Parks

Alaska National Parklands: This Last Treasure, William E. Brown; 128 pp, color and b&w photos, illustrations, map; PB, *A101,* $5.95; HB, *A102,* $16.95
A fresh look at Alaska's parks, from the Pacific Rim to the far north reaches.

***Denali (Mt. McKinley): The Story Behind the Scenery,** KC Publications; large format, color photos; PB, *A103,* $4.50

The Denali Road Guide: A Roadside History of Denali National Park, Kim Heacox; maps, b&w and color photos, illustrations; 48 pp, PB, *A104,* $4.95

Glacier Bay: Official Handbook, Ruth Kirk; 128 pp, PB, *A105,* $7.00

Crater Lake NP

A Guide to Crater Lake: The Mountain That Used to Be, Ron Warfield; 48 pp, b&w and color photos, maps, illustrations; PB, *A106,* $4.95

Birds of Crater Lake NP, Dick Follett; 80 pp, color photos, b&w illustrations; PB, *A107,* $2.00
Habitat descriptions and a complete checklist of birds in Crater Lake NP.

***Crater Lake: The Story Behind the Scenery,** KC Publications; PB, *A108,* $4.50

Craters of the Moon NM

Craters of the Moon: Around the Loop, Paul Henderson; 20 pp, color photos, map; PB, *A109,* $3.00

Fort Clatsop NM

***Fort Clatsop: The Story Behind the Scenery,** KC Publications; PB, *A110,* $4.50

Fort Vancouver NHS

Fort Vancouver: Official Handbook, Archie Satterfield, David Lavender; 144 pp, PB, *A111,* $8.00

Mount Rainier NP

***Mount Rainier: The Story Behind the Scenery,** KC Publications; PB, *A112,* $4.50

North Cascades NP

North Cascades: Official Handbook, 112 pp, PB, *A113,* $5.50

Olympic NP

***Olympic: The Story Behind the Scenery,** KC Publications; PB, *A114,* $4.50

On Alaska & Pacific Northwest

***Mount St. Helens: The Story Behind the Scenery,** KC Publications; PB, *A115,* $4.50

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Cabrillo NM

Cabrillo National Monument, Joseph E. Brown; 44 pp, color and b&w photos; PB, *B101,* $3.95

The Old Point Loma Lighthouse, F. Ross Holland; 52 pp, color and b&w photos; PB, *B102,* $4.95
History of one of the earliest federal lighthouses on the Pacific Coast.

Whale Primer, Theodore J. Walker; 56 pp, maps, charts, b&w photos; PB, *B103,* $5.95
Guide to migration and feeding patterns, whale intelligence, and the history of whales and whaling.

Channel Islands NP

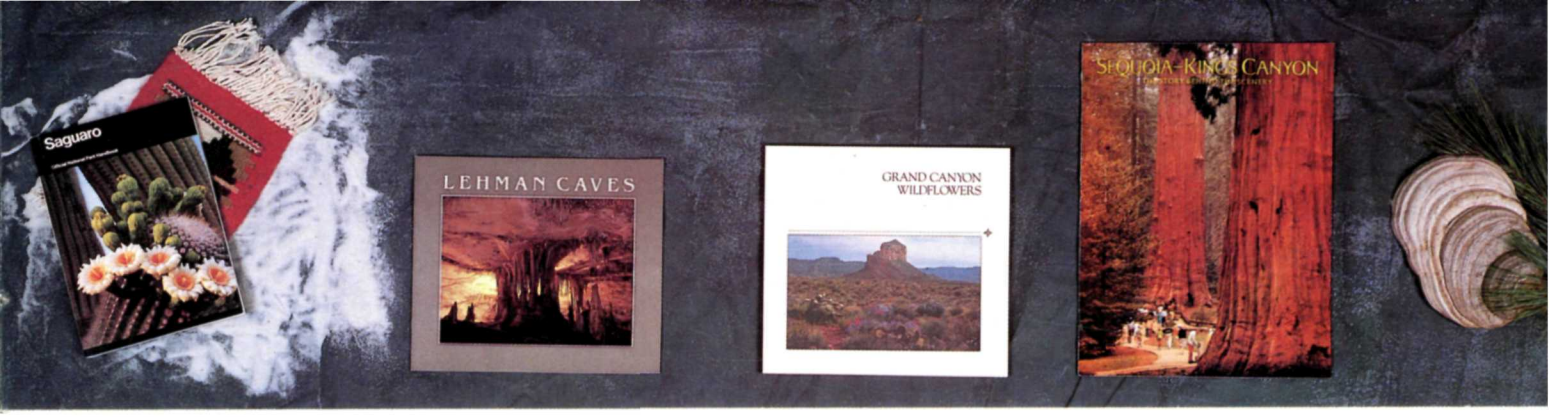
***Channel Islands: The Story Behind the Scenery,** KC Publications; PB, *B104,* $4.50

Death Valley NM

Death Valley: A Pictorial History, James Cornett; 48 pp, color photos, map; PB, *B105,* $6.95

***Death Valley: The Story Behind the Scenery,** KC Publications; PB, *B106,* $4.50

***Scotty's Castle: The Story Behind the Scenery,** KC Publications; PB, *B107,* $4.50



Golden Gate NRA

*__Alcatraz Island: The Story Behind the Scenery,__ KC Publications; PB, *B108,* $4.50

__The Complete Guide to the Golden Gate National Recreation Area,__ Karen Liberatore; 120 pp, b&w photos, illustrations, map; PB, *B109,* $7.95
A directory of each site within GGNRA, its address, fees, hours, facilities, and phone number.

__Official Map and Guide to Alcatraz,__ Golden Gate National Park Association; folder with a color map and b&w photos; PB, *B110,* $2.50
History of Alcatraz as fort, prison, and, now, a park.

__Muir Woods National Monument,__ Peter Jackson Holter; 20 pp, color photos, map; PB, *B111,* $2.95
Picturesque look at Muir Woods of yesterday and today.

Grand Canyon NP

*__Grand Canyon: The Story Behind the Scenery,__ KC Publications; PB, *B112,* $4.50

__In the House of Stone & Light: A Human History of the Grand Canyon,__ J. Donald Hughes; 137 pp, recent and historic b&w photos; PB, *B113,* $7.50; HB, *B114,* $12.00
Examination of Indian, Spanish, and American influences in this region before and after the creation of Grand Canyon NP.

__Introduction to Grand Canyon Geology,__ Michael Collier; 42 pp, color photos, illustrations; PB, *B115,* $2.95
In-depth examination of the geologic history of Grand Canyon, written in nontechnical language.

__River Runners of the Grand Canyon,__ David Lavender; 147 pp, b&w photos, map; PB, *B116,* $12.95
Expertly woven history of river running on the Colorado River.

__Recollections of Phantom Ranch,__ Elizabeth J. Simpson; pamphlet, *B117,* $1.50
History of Phantom Ranch, located at the bottom of Grand Canyon. Includes day hikes in the surrounding countryside.

Grand Canyon Guides

Hiking:
__A Guide to Hiking the Inner Canyon,__ Scott Thybony; 43 pp, color and b&w photos, maps, charts; PB, *B118,* $1.75
Information on permits, regulations, safety, and wilderness ethics.

Grand Canyon Trail Guides:
Booklets with maps, photos, natural history.
__Grandview Trail and Horseshoe Mesa,__ John Good; *B119,* $2.00
__Bright Angel Trail,__ Alan Berkowitz; *B120,* $1.25
__South Kaibab Trail,__ Rose Houk; *B121,* $1.25
__North Kaibab Trail,__ Alan Berkowitz; *B122,* $1.25
BONUS: All four guides, *B123,* $5.00

__A Guide to Grand Canyon Geology Along Bright Angel Trail,__ David Thayer; 65 pp, detailed maps, illustrations, b&w photos; PB, *B124,* $7.95

Other Guides:
__Along the Rim: A Road Guide to the South Rim,__ Nancy Loving; 52 pp, color and b&w photos, illustrations, maps; PB, *B125,* $2.95

__Grand Canyon Wildflowers,__ Arthur M. Phillips, III; 145 pp, color photos; PB, *B126,* $6.50

Great Basin NP

__The Lehman Caves Story,__ Orlynn J. Halladay, Varlynn Peacock; 28 pp, b&w photos; PB, *B127,* $1.50

__Lehman Caves,__ Jeremy Schmidt; 33 pp, exquisite color photos; PB, *B128,* $2.95

__Wheeler Peak Trail Guide,__ paper, *B129,* $.50
A pocket folder containing a map, hiking information, and natural history.

Haleakala NP

*__Haleakala: The Story Behind the Scenery,__ KC Publications; PB, *B130,* $4.50

Hawaii Volcanoes NP

*__Hawaii Volcanoes: The Story Behind the Scenery,__ KC Publications; PB, *B131,* $4.50

__Volcano Watching,__ Robert and Barbara Decker; 80 pp, color photos, maps, charts; PB, *B132,* $5.95
An easy to read, detailed book on how volcanoes work.

Joshua Tree NM

__Joshua Tree: Desert Reflections,__ Stephen Trimble; 34 pp, color photos; PB, *B133,* $2.00
A handsome book on the unique trees, plant and animal life of this area.

Lake Mead NRA

*__Lake Mead & Hoover Dam: The Story Behind the Scenery,__ KC Publications; PB, *B134,* $4.50

Lassen Volcanic NP

__Road Guide to Lassen Volcanic National Park,__ Paul E. Schultz; 40 pp, color photos, maps; PB, *B135,* $1.65

__These Happy Grounds: A History of the Lassen Region,__ Douglas H. Strong; 101 pp, b&w photos; PB, *B136,* $4.00

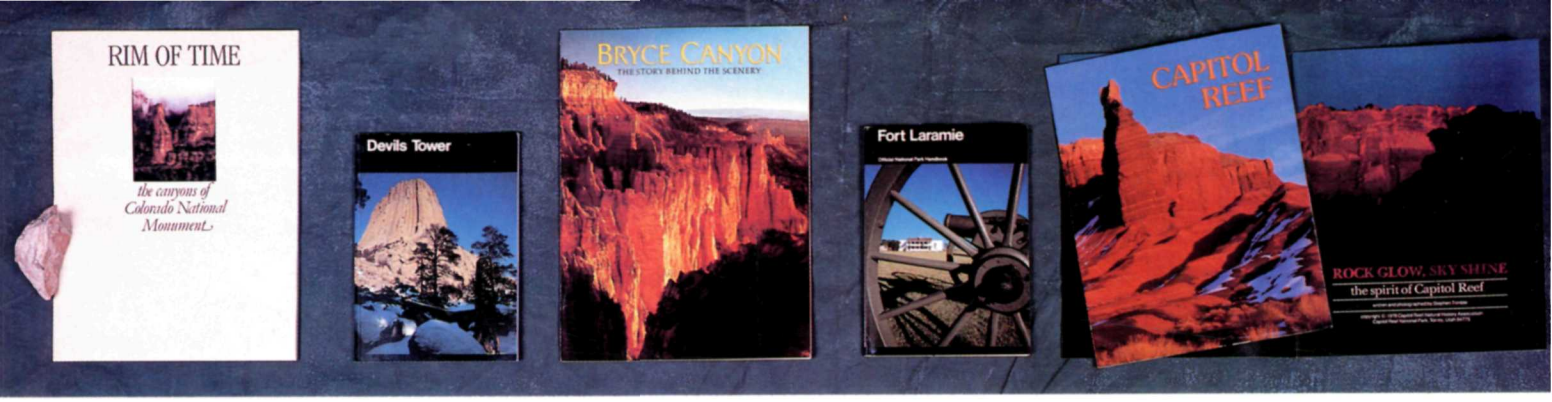
__Through Vulcan's Eye: The Geology and Geomorphology of Lassen Volcanic National Park,__ Phillip S. Kane; 118 pp, photos, illustrations; PB, *B137,* $5.25

__Lassen Volcanic National Park: A Photo Essay,__ Stephen C. Voorhees; PB, *B138,* $4.00
An exquisitely photographed book capturing the ever-changing moods of Lassen.

Montezuma Castle & Tuzigoot NM

__Montezuma Castle National Monument: Official Handbook,__ Albert Schroeder, Homer Hasting; 44 pp, PB, *B139,* $3.00

__Ruins Along the River: Montezuma Castle, Montezuma Well and Tuzigoot National Monuments,__ Carle Hodge; 48 pp, color photos; PB, *B140,* $4.95



Petrified Forest NP

Earth Journey: A Road Guide to Petrified Forest, Stephen Trimble; 40 pp, color photos, maps; PB, *B141,* $5.95

*__Petrified Forest: The Story Behind the Scenery,__ KC Publications; PB, *B142,* $4.50

Point Reyes NS

Point Reyes: The Enchanted Shore, Stephen Trimble; 32 pp, color photos; PB, *B143,* $2.50

Redwood NP

Monarchs of the Mist: The Story of Redwood National Park and the Coast Redwoods, Joseph E. Brown; 44 pp, color and b&w photos; PB, *B144,* $3.25

Saguaro NM

Saguaro: A View of Saguaro National Monument and the Tucson Basin, Gary Paul Nabhan; 75 pp, color photos; PB, *B145,* $6.95

Saguaro: Official Handbook, Napier Shelton, Natt Dodge; 104 pp, PB, *B146,* $6.25

Sequoia & Kings Canyon NPs

Exploring Mountain Highways: A Road Guide to Sequoia and Kings Canyon National Parks, William C. Tweed; 49 pp, color photos, maps, illustrations; PB, *B147,* $3.75

Giant Sequoias, H. J. Harvey, et al; 79 pp, color and b&w photos, illustrations, map, chart; PB, *B148,* $3.50

*__Sequoia & Kings Canyon: The Story Behind the Scenery,__ KC Publications; PB, *B149,* $4.50

To Find the Biggest Tree, Wendell D. Flint; 116 pp, color photos, b&w illustrations, graphs, charts; PB, *B150,* $4.95
Tale of one man and his dogged search for the biggest tree in the country.

Yosemite NP

Discovering Sierra Birds, Ted Beedy and Steve Granholm; 229 pp, color plates, photos, sketches; PB, *B151,* $9.95
Field guide to the birds of this region with detailed descriptions.

Discovering Sierra Trees, Stephen Arno and Jane Gyer; 89 pp, b&w photos, sketches, charts; PB, *B152,* $2.95
Excellent source of information on Sierran tree species.

Waterfalls of Yosemite Valley, Michael Osborne; 48 pp, color photos, sketches, map; PB, *B153,* $5.95
How Yosemite's waterfalls were formed and how to reach them.

*__Yosemite: The Story Behind the Scenery,__ KC Publications; PB, *B154,* $4.50

On the Western Region

These beautiful, large format, color books are published by KC Publications.

Big Sur, PB, *B155,* $4.50; HB, *B156,* $8.95
Catalina Island, PB, *B157,* $4.50
Grand Circle Adventure (A tour of 14 parks and monuments in the Western Region), PB, *B158,* $4.50
Maui: The Romantic Island, PB, *B159,* $4.95
Kaua'i, PB, *B160,* $4.95
The Sonoran Desert, PB, *B161,* $4.50; HB, *B162,* $8.95
Nevada's Valley of Fire, PB, *B163,* $4.50

Rocky Mountain Region

Arches NP

*__Arches: The Story Behind the Scenery,__ KC Publications; PB, C101, $4.50

Badlands NP

This Curious Country, Mike Harwood and Mary Durante; 64 pp, color photos, ink sketches; PB, *C102,* $8.95
Depicts the plants and animals, natural and cultural history of this region.

Bent's Old Fort NHS

Bent's Old Fort, Thompson, et al; 180 pp, b&w photos, illustrations; PB, *C103,* $6.95
Fascinating history of Bent's Old Fort from the 1830s to the present.

Bryce Canyon NP

The Bryce Canyon Auto & Hiking Guide, Tully Stroud; 45 pp, color and b&w photos, maps; PB, *C104,* $2.95

*__Bryce Canyon: The Story Behind the Scenery,__ KC Publications; PB, *C105,* $4.50

Capitol Reef NP

*__Capitol Reef: The Story Behind the Scenery,__ KC Publications; PB, *C106,* $4.50

Rock Glow, Sky Shine: The Spirit of Capitol Reef, Stephen Trimble; 32 pp, color photos, map; PB, *C107,* $2.95

Colorado NM

A Guide to the Rimrock Drive: Colorado National Monument, Rose Houk; 49 pp, b&w and color photos; PB, *C108,* $4.75

Rim of Time: The Canyons of Colorado National Monument, Stephen Trimble; 32 pp, b&w and color photos, illustrations; PB, *C109,* $3.00

Custer Battlefield NM

Custer Battlefield: Official Handbook, Robert Utley; 96 pp, PB, *C110,* $5.00

Devil's Tower NM

Devil's Tower: Official Handbook, Greg Beaumont; 80 pp, PB, *C111,* $5.25

Dinosaur NM

Dinosaur: The Dinosaur National Monument and Quarry, Linda West and Dan Chure; 41 pp, color photos, illustrations; PB, *C112,* $4.95

Dinosaurs and Dinosaur National Monument: A Resource Packet for Students and Teachers, Linda West; 60 pp, PB, *C113,* $2.25
A handy workbook including worksheets, quizzes, and class projects.

*__Dinosaur: The Story Behind the Scenery,__ KC Publications; PB, *C114,* $4.50

Fort Laramie NHS

Fort Laramie: Official Handbook, David Lavender; 160 pp, PB, *C115,* $8.00

Fort Laramie and the Pageant of the West, 1834–1890, LeRoy R. Hafen, Francis Marion Young; 427 pp, PB, *C116,* $8.95

A colorful history of Fort Laramie and the Oregon Trail.

The Queen of Bedlam, Charles King; 277 pp, PB, *C117,* $8.95

First published in 1889, this book presents life in Fort Laramie during the Black Hills gold rush.

Fort Union Trading Post NHS

Fort Union Trading Post: Fur Trade Empire on the Upper Mississippi, Erwin N. Thompson; 111 pp, PB, *C118,* $5.95

Glen Canyon NRA

*__Glen Canyon—Lake Powell: The Story Behind the Scenery,__ KC Publications; PB, *C119,* $4.50

Golden Spike NHS

Golden Spike National Historic Site: Official Handbook, Francis Ketterson, Jr.; 68 pp, PB, *C120,* $3.75

Glacier NP

*__Glacier: The Story Behind the Scenery,__ KC Publications; PB, *C121,* $4.50

Hiker's Guide to Glacier National Park, N. P. Nelson; 111 pp, trail maps, mileage, descriptions; PB, *C122,* $5.95

Many Storied Mountains: The Life of Glacier National Park, Official Handbook; 144 pp, PB, *C123,* $7.00

Roads and Trails of Waterton-Glacier International Peace Park, G. Ruhle; maps, photos; PB, *C124,* $6.95

Trains, Trails & Tin Lizzies, G. McFarland; 72 pp, quadtone photos; HB, *C125,* $34.95

Features the photography of George A. Grant documenting travel in Glacier in the early 1930s. Text is excerpted from historic superintendent and ranger reports.

Grand Teton NP

Birds of Grand Teton National Park and the Surrounding Area, Bert Raynes; 90 pp, color photos, maps; PB, *C126,* $7.95

The Early Days in Jackson Hole, Virginia Huidekoper; 131 pp, historic and recent b&w photos; PB, *C127,* $12.95; HB, *C128,* $19.50

Grand Teton: Official Handbook, 96 pp, PB, *C129,* $5.50

*__Grand Teton: The Story Behind the Scenery,__ KC Publications; PB, *C130,* $4.50

Origins: Place Names of Grand Teton, Cindy Nielson; 90 pp, historical photos; PB, *C131,* $7.95

An historical account of why and how various features in Grand Teton were named.

Teton Trails: A Guide to the Trails of Grand Teton National Park, Bryan Harry; 56 pp, maps, photos; PB, *C132,* $1.95

Great Sand Dunes NM

Great Sand Dunes: The Shape of the Wind, Stephen Trimble; 33 pp, color photos; PB, *C133,* $2.95

Mesa Verde NP

Flowers of the Mesa Verde National Park, Stephen R. Wenger; 47 pp, color photos; PB, *C134,* $2.50

The Story of Mesa Verde National Park, Gilbert R. Wenger; 79 pp, photos; PB, *C135,* $4.95

The Mesa Verde Story, Set of 5 cards, paper, *C136,* $1.00

Five cards depicting early Mesa Verde civilization from 1-1300 A.D. Historical notes on the back of each card. Each card measures 5.5 x 8.75 inches.

Mount Rushmore NM

*__Mount Rushmore: The Story Behind the Scenery,__ KC Publications; PB, *C137,* $4.50

Nez Perce NHP

Nez Perce Country: Official Handbook, Alvin Josephy; 224 pp, PB, *C138,* $7.50

Rocky Mountain NP

*__Rocky Mountain: The Story Behind the Scenery,__ KC Publications; PB, *C139,* $4.50

Timpanogos Cave NM

Timpanogos Cave: Window Into the Earth, Stephen Trimble; 48 pp, color and b&w photos, map; PB, *C140,* $3.50

Theodore Roosevelt NP

At the Open Margin: The NPS's Administration of Theodore Roosevelt National Park, David Harmon; 299 pp, PB, *C141,* $5.95

Roosevelt in the Bad Lands, Hermann Hagedorn; 475 pp, PB, *C142,* $9.95

*__Theodore Roosevelt: The Story Behind the Scenery,__ KC Publications; PB, *C143,* $4.50

Wind Cave NP

Wind Cave: Official Handbook, R. Woodward, G. Beaumont, W. Halladay, F. Tilden; 144 pp, PB, *C144,* $8.00

Yellowstone NP

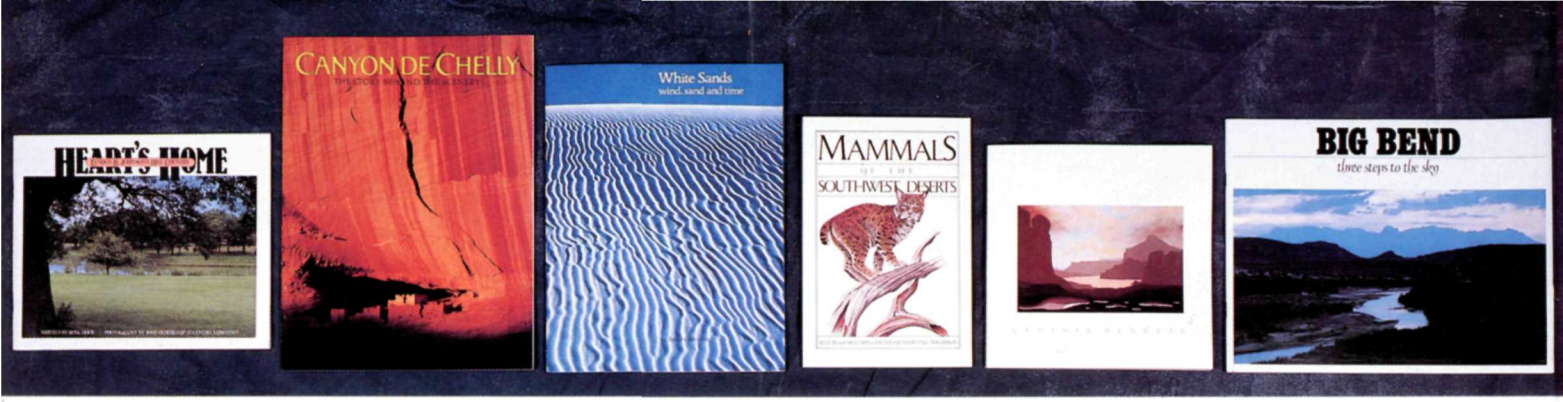
Chief Joseph's People and Their War, Alvin M. Josephy, Jr.; 22 pp, b&w photos, map; PB, *C145,* $.95

Ferdinand Vandiveer Hayden and the Founding of Yellowstone National Park, Department of Interior/Geologic Survey; 45 pp, b&w photos, maps; PB, *C146,* $1.00

The Geologic Story of Yellowstone National Park, William R. Keefer; 92 pp, color and b&w photos, map, illustrations; PB, *C147,* $3.95

Yellowstone: The Place Where Hell Bubbled Up. A History of the First National Park. Official Handbook; 72 pp, PB, *C148,* $3.25

*__Yellowstone: The Story Behind the Scenery,__ KC Publications; PB, *C149,* $4.50



Zion NP

The Sculpturing of Zion: Road Guide to the Geology of Zion National Park, Wayne L. Hamilton; 132 pp, color photos, map; PB, *C150,* $9.95

*__Zion: The Story Behind the Scenery,__ KC Publications; PB, *C151,* $4.50

Zion Album: A Nostalgic History of Zion Canyon, J. L. Crawford; 83 pp, historic photos; PB, *C152,* $10.95; HB, *C153,* $24.95
An exquisite book capturing the beauty of Zion country.

The Southwest Region

Big Bend NP

Big Bend: History of the Last Texas Frontier, Official Handbook, Ron Tyler; 300 pp, PB, *D101,* $12.00

Big Bend: Official Handbook, Helen Moss; 128 pp, PB, *D102,* $6.50

Big Bend Country: A History of Big Bend National Park, Ross A. Maxwell; 88 pp, photos; PB, *D103,* $9.95

Big Bend: Three Steps to the Sky, Frank Deckert; 44 pp, color photos; PB, *D104,* $3.95
An award-winning color publication on the Bend area, the Rio Grande river, desert life and the Chisos Mountains.

Secret Places: Photos of Big Bend National Park, Rome A. Hanks; 34 pp, b&w photos, PB, *D105,* $2.95

Big Bend Guides

Rivers:
River Guide to the Rio Grande: General Information, 24 pp, *D106,* $1.00
Regulations, equipment needs, helpful hints.
River Guide #1 to the Rio Grande: Colorado Canyon through Santa Elena Canyon; 16 pp, photos, maps, natural history, waterproof paper, *D107,* $3.00
River Guide #2 to the Rio Grande: Mariscal Canyon through Boquillas Canyon; 16 pp, photos, maps, natural history, waterproof paper, *D108,* $3.00
River Guide #3 to the Rio Grande: The Lower Canyons; 24 pp, photos, maps, natural history, waterproof paper, *D109,* $4.50
BONUS: All four guides, *D110,* $10.00

Hiking:
Chisos Mountain Trails, Quad maps that include all of the trails in the Chisos Mountains, b&w photos, natural history. Paper folder, *D111,* $.50.
Hiker's Guide to the Trails of Big Bend National Park, 32 pp, b&w photos; *D112,* $1.25

Road Guides:
Road Guide to Backcountry Dirt Roads of Big Bend National Park, 40 pp, b&w photos; PB, *D113,* $1.25
Contains mileage logs, descriptions of historic sites, scenery, human and natural history.

Road Guide to the Paved and Improved Roads of Big Bend National Park, 48 pp, b&w photos; PB, *D114,* $1.25

Canyon de Chelly NM

Canyon de Chelly: Official Handbook, Zorro Bradley; 64 pp, PB, *D115,* $4.00

*__Canyon de Chelly: The Story Behind the Scenery,__ KC Publications; PB, *D116,* $4.50

Chaco Culture NHP

Chaco Canyon: Center of a Culture, Douglas and Barbara Anderson; 60 pp, color photos, illustrations; PB, *D117,* $5.00

Fort Davis NHS

Fort Davis National Historic Site: Official Handbook, Robert Utley; 68 pp, PB, *D118,* $3.50

Fort Union NM

Fort Union: Official Handbook, Robert Utley; 68 pp, PB, *D119,* $3.25

Lyndon B. Johnson NHS

Heart's Home: Lyndon B. Johnson's Hill Country, Rose Houk; 42 pp, color and b&w photos; PB, *D120,* $4.95
A nostalgic look at the countryside LBJ called home.

White Sands NM

White Sands: Wind, Sand & Time, Richard Atkinson; 44 pp, color photos, illustrations; PB, *D121,* $3.95

Wupatki & Sunset Crater NMs

Fire & Stone: A Road Guide to Wupatki and Sunset Crater National Monuments, Scott Thybony; 48 pp, color photos, map; PB, *D122,* $4.95

On the Southwest Region

House in the Sun, George Olin; 206 pp, color photos, charts, maps, illustrations; PB, *D123,* $3.95
An easy to understand book about the desert habitat and how to keep yourself healthy when you visit it.

Lightfall & Time: Fifteen Southwestern National Parks, Paintings by Cynthia Bennett. Text by Susan Lamb; PB, *D124,* $14.95; HB, *D125,* $24.95
A collection of 15 paintings portraying the luminescence of the desert southwest.

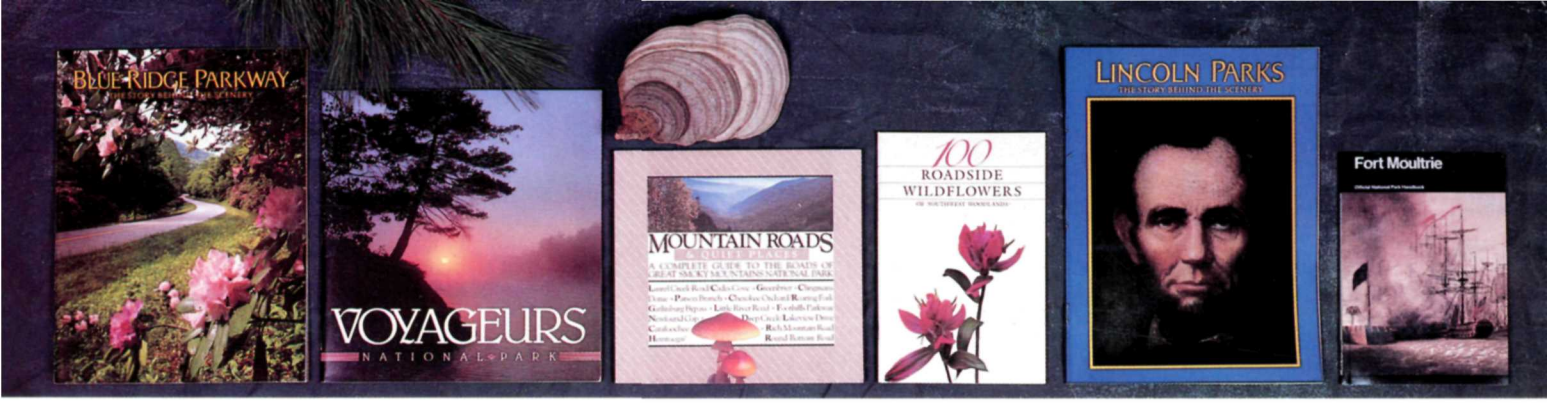
Those Who Came Before: Southwestern Archeology in the National Park System, Robert and Florence Lister; 184 pp, b&w and color photos, graphs, charts, maps; PB, *D126,* $12.95
An award-winning book about the priceless ancient ruins entrusted to the NPS for protection and interpretation.

Voices in the Canyon, Catherine W. Viele; 76 pp, color and b&w photos, sketches; PB, *D127,* $4.95
Insights into the Anasazi culture, cliff villages, and traditions within the Navajo tribe.

Field Guides to the Southwest Region

Flowers of the Southwest Deserts, Natt N. Dodge; 136 pp, color photos, b&w illustrations, map; PB, *D128,* $9.95
A color-coded, easy to use field guide to flowering desert plants.

Mammals of the Southwest Deserts, George Olin. Illustrated by Dale Thompson; 99 pp, b&w and color illustrations; PB, *D129,* $5.95



Flowers of the Southwest Mountains, Leslie P. Arnberger; 139 pp, color photos, b&w illustrations; PB, *D130,* $7.95

An easy-to-use guide to the evergreens, trees and flowers of this area.

100 Roadside Flowers of the Southwest Woodlands, Janice Emily Bowers; 28 pp, color photos; PB, *D131,* $3.95

Shrubs and Trees of the Southwest Uplands, Francis H. Elmore; 214 pp, color photos, b&w illustrations, map, charts; PB, *D132,* $9.95

A guide to common trees and shrubs.

Indian Culture of the Southwest Region

Southwestern Indian Arts & Crafts, KC Publications; PB, *D133,* $4.50; HB, *D134,* $8.95

Southwestern Indian Tribes, KC Publications; PB, *D135,* $4.50; HB, *D136,* $8.95

Southwestern Indian Ceremonials, KC Publications; PB, *D137,* $4.50; HB, *D138,* $8.95

Zuni Fetishes, KC Publications; PB, *D139,* $3.00

Kiva Art of the Anasazi, KC Publications; PB, *D140,* $14.95; HB, *D141,* $35.00

The Rocks Begin to Speak, KC Publications; HB, *D142,* $17.50

Navajo Treaty—1868, KC Publications; PB, *D143,* $1.00

The Midwest Region

Apostle Islands NL

Apostle Islands: Official Handbook; 64 pp, PB, *E101,* $3.25

George Washington Carver NM

Carver in His Own Words, Dr. Gary Kremer; 208 pp, HB, *E102,* $25.00

The story of George Washington Carver.

Carver of Tuskegee, Ethel Edwards; 237 pp, PB, *E103,* $2.75

This book follows Carver from his childhood days in Diamond Grove, Missouri, to his work as professor and scientist at Tuskegee Institute.

Isle Royale NP

The Life of Isle Royale: Official Handbook, Napier Shelton; 152 pp, PB, *E104,* $7.00

Scotts Bluff NM

Scott's Bluff: Official Handbook, Merrill Mattes; 68 pp, PB, *E105,* $3.50

Voyageurs NP

Voyageurs National Park, Greg Breining; 56 pp, color photos, b&w illustrations; PB, *E106,* $8.95

On the Midwest Region

*__Lincoln Parks: The Story Behind the Scenery,__ KC Publications; PB, *E107,* $4.50

The Southeast Region

Blue Ridge Parkway

*__Blue Ridge Parkway: The Story Behind the Scenery,__ KC Publications; PB, *F101,* $4.50

Carl Sandburg Home NHS

Carl Sandburg Home, Official Handbook, Paula Steichen; 128 pp, PB, *F102,* $7.50

Everglades NP

*__Everglades: The Story Behind the Scenery,__ KC Publications; PB, *F103,* $4.50

Everglades Wildguide: Official Handbook, Jean Craighead George; 116 pp, PB, *F104,* $6.50

Fort Frederica NM

Frederica, Colonial Fort and Town: Its Place in History, Trevor R. Reese; 81 pp, illustrations, maps; PB, *F105,* $3.00

A Voyage to Georgia, Francis Moore; 89 pp, PB, *F106,* $3.50

Written in 1744, this book describes the settling of Frederica, Georgia, and the customs of the time.

Fort Pulaski NM

Fort Pulaski: Official Handbook, Ralston Lattimore; 60 pp, PB, *F107,* $3.25

Fort Raleigh NHS

Fort Raleigh: Adventurers to a New World, Official Handbook, Charles Porter, III; 64 pp, PB, *F108,* $4.00

Fort Sumter NM

Fort Sumter: Official Handbook, Frank Barnes; 64 pp, PB, *F109,* $4.00

Fort Moultrie: Official Handbook, Jim Stokely; 80 pp, PB, *F110,* $4.00

Great Smoky Mountains NP

At Home in the Smokies: Official Handbook, Wilma Dykeman and Jim Stokely; 160 pp, PB, *F111,* $7.00

The Cades Cove Story, A. Randolph Shields; 116 pp, PB, *F112,* $3.50

A fascinating profile of the settlement, community life and individual families in this region.

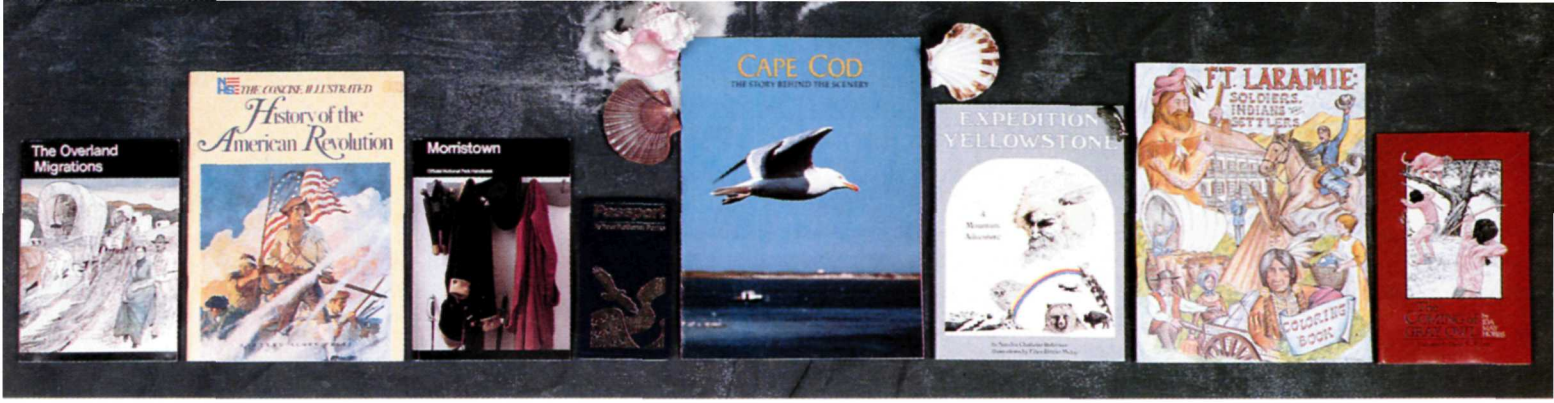
Great Smoky Mountains National Park: Official Handbook, Napier Shelton; 128 pp, PB, *F113,* $7.00

*__Great Smoky Mountains: The Story Behind the Scenery,__ KC Publications; PB, *F114,* $4.50

Mountain Roads and Quiet Places: A Complete Guide to the Roads of Great Smoky Mountains National Park, Jerry DeLaughter; 96 pp, color photos, illustrations; PB, *F115,* $5.95

A Naturalist's Notebook: Great Smoky Mountains National Park, Robert G. Johnsson. Illustrated by John D. Dawson; 130 pp, large format, PB, *F116,* $7.95

Lavish sketches and well-written text serve as an excellent introduction to the diverse plant and animal life in the Smokies.



Ocmulgee NM

Ocmulgee National Monument: Official Handbook, G. D. Pope, Jr.; 64 pp, PB, *F117,* $5.50

Vicksburg NMP

Vicksburg: Official Handbook; 80 pp, PB, *F118,* $4.50

Vicksburg: U.S.S. Cairo: The Story of a Civil War Gunboat, Official Handbook; Virgil Jones, Harold Peterson; 56 pp, PB, F119, $3.50

Virgin Islands NP

*__Virgin Islands: The Story Behind the Scenery,__ KC Publications; PB, *F120,* $4.50

Wright Brothers NM

Wright Brothers: Official Handbook, Omega East; 68 pp, PB, *F121,* $3.75

On the Southeast Region

U. S. Virgin Islands, KC Publications; PB, *F122,* $4.95

The Mid-Atlantic & National Capital Regions

Antietam NB

Antietam National Battlefield: Official Handbook, Frederick Tilberg; 64 pp, PB, *G101,* $3.25

Appomattox Court House NHP

Appomattox Court House: Official Handbook, J. Luvaas, J. Cullen; 64 pp, PB, *G102,* $7.00

Arlington House, the Robert E. Lee Memorial

Arlington House: Official Handbook, 48 pp, PB, *G103,* $3.00

Assateague Island NS

Assateague Island: Official Handbook, William Amos; 176 pp, PB, *G104,* $7.00

Clara Barton NHS

Clara Barton: Official Handbook, Elizabeth Pryor; 80 pp, PB, *G105,* $6.50

Ford's Theatre NHS

Ford's Theatre: Official Handbook, Stanley McClure; 48 pp, PB, *G106,* $2.50

Fredericksburg & Spotsylvania County Battlefields Memorial NMP

Fredericksburg & Spotsylvania: Where a Hundred Thousand Fell, Official Handbook, Joseph Cullen; 56 pp, PB, *G107,* $4.50

Gettysburg NMP

Gettysburg National Military Park: Official Handbook, Frederick Tilberg; 68 pp, PB, *G108,* $3.00

*__Gettysburg: The Story Behind the Scenery,__ KC Publications; PB, *G109,* $4.50

Harpers Ferry NHP

Harpers Ferry: John Brown's Raid, Official Handbook, W. Everhart, A. Sullivan; 76 pp, PB, *G110,* $4.00

Hopewell Furnace NHS

Hopewell Furnace: Official Handbook, Walter Huggins; 96 pp, PB, *G111,* $3.75

Independence NHP

Independence: Benjamin Franklin's "Good House," Official Handbook, Claude-Anne Lopez; 64 pp, PB, *G112,* $4.25

Independence: The Framing of the Federal Constitution, Official Handbook, Richard Morris; 64 pp, PB, *G113,* $5.75

Independence: Official Handbook, Richard Morris; 112 pp, PB, *G114,* $4.25

National Capital Parks

Let Us Remember: The Vietnam Veterans Memorial, Louise Graves; 31 pp, color photos; PB, *G115,* $3.00

Lincoln Memorial: Official Handbook, E. J. Applewhite, P. Angle; 48 pp, PB, *G116,* $3.00

Thoughts for All Times, Frederick Douglass. Edited by Louise Graves; 32 pp, illustrations; PB, *G117,* $1.50

Selections from the speeches and writings of Frederick Douglass.

Washington, D. C. : City of the Constitution. A Guide to Selected Sites, Parks & History Association; 63 pp, photos, map, illustrations; PB, *G118,* $3.95

Petersburg NB

Campaign for Petersburg, Official Handbook, Richard Lykes; 76 pp, PB, *G119,* $4.75

Richmond NB

Richmond National Battlefield: Official Handbook, Joseph Cullen; 52 pp, PB, *G120,* $3.50

Shenandoah NP

Guide to Skyline Drive and Shenandoah National Park, Henry Heatwole; 226 pp, b&w photos, maps, charts; PB, *G121,* $4.50

A complete hiking and road guide to the Shenandoah area.

*__Shenandoah: The Story Behind the Scenery,__ KC Publications; PB, *G122,* $4.50

On the Mid-Atlantic & National Capital Regions

*__Civil War Parks: The Story Behind the Scenery,__ KC Publications; PB, *G123,* $4.50

Mid-Atlantic National Parks: Five Tour Guidebook, Michael Frome; 142 pp, b&w photos, maps; PB, *G124,* $4.95

The tours outlined in this book include: 1. Colonial and Revolutionary times, 2. rivers and wild nature, 3. industry and engineering, 4. Civil War scenes, and 5. great Americans tour.

North Atlantic Region
Acadia NP

*__Acadia: The Story Behind the Scenery,__ KC Publications; PB, *H101,* $4.50

Cape Cod NS

*__Cape Cod: The Story Behind the Scenery,__ KC Publications; PB, *H102,* $4.50

Morristown NHP

__Morristown: Official Handbook,__ Russell F. Weigley; 112 pp, PB, *H103,* $6.50

Salem Maritime NHS

__Salem: Official Handbook;__ 160 pp, PB, *H104,* $6.00

Vanderbilt Mansion NHS

__Vanderbilt Mansion: Official Handbook,__ Charles Snell; 56 pp, PB, *H105,* $3.00

Kid Stuff

__Bent's Old Fort: Adventure Guide for Kids,__ Doug Rudig; 30 pp, PB, *J101,* $2.00
History of Bent's Old Fort brought to life through text, illustrations, games, and activities.

__The Bloody Summer of 1742: A Colonial Boy's Journal,__ Joyce Blackburn; 63 pp, PB, *J102,* $4.25
The diary of a young boy that reveals the daily experiences, color, and activity at Fort Frederica, Georgia, at that time.

__The Coming of Gray Owl,__ Ida May Hobbs; 96 pp, PB, *J103,* $2.95
A book about Indian children's lives in the stone houses of Mesa Verde.

__Expedition Yellowstone: A Mountain Adventure,__ Sandra Chisholm Robinson; 173 pp, ink sketches, b&w photos, map; PB, *J104,* $7.95
An award-winning book about a fictional mountain man, Joshua Grimes, and his descendants. The land and the folklore of Yellowstone's settlers are skillfully interwoven into this tale.

Parents and Teachers: An educational curriculum, based on Robinson's book, for 4th, 5th, and 6th graders is available. Called **Expedition: Yellowstone!** this excellent teacher's workbook contains lessons and activities covering mathematics, science, social studies, and art. For more information, contact Jack de Golia, Program Coordinator, Expedition: Yellowstone! Yellowstone National Park, WY, 82190.

__Fort Laramie: Soldiers, Indians and Settlers: A Coloring Book,__ Craig Sodaro; 32 pp, PB, *J105,* $2.00

__Where Do I Look?,__ Jacque Franklin and George Huey; 40 pp, b&w photos; PB, *J106,* $6.95
A delightful tale of a child's search for the Grand Canyon.

Special Titles of Interest

__An Army Wife's Cookbook,__ Edited by Mary L. Williams; 71 pp, b&w illustrations; PB, *K101,* $4.95
A nostalgic collection of recipes, household hints, and home remedies from the mid-1800s.

__Artillery Through the Ages: Official Handbook,__ Albert Manucy; 96 pp, PB, *K102,* $3.75

__The Concise History of the Civil War & The Concise History of the American Revolution,__ James I. Robinson and Joseph P. Cullen; 2-volume set, 64 pp each, b&w photos, illustrations; PB, *K103,* $4.95

__Construction of Hoover Dam,__ KC Publications; PB, *K104,* $1.50

__Exploring the American West, 1803–1879, Official Handbook,__ R. A. Bartlett, W. H. Goetzmann; 128 pp, PB, *K105,* $7.00

__The Interpreter's Handbook: Methods, Skills and Techniques,__ Russell K. Grater; 129 pp, color photos; PB, *K106,* $3.50
A "must-have" for anyone involved in interpretive work in natural, historical, archeological and recreation parks, forests, and museums.

__Lewis and Clark: Voyage of Discovery,__ KC Publications; PB, *K107,* $4.50; HB, *K108,* $8.95

*__National Park Service: The Story Behind the Scenery,__ Albright, Dickenson, Mott; 96 pp; PB, *K109,* $9.75; HB, *K110,* $17.50.
Beautiful photographs paired with text by current and former NPS directors.

*__National Parks: The Story Behind the Scenery Calendar,__ 1989 Edition, color photos; *K111,* $5.95

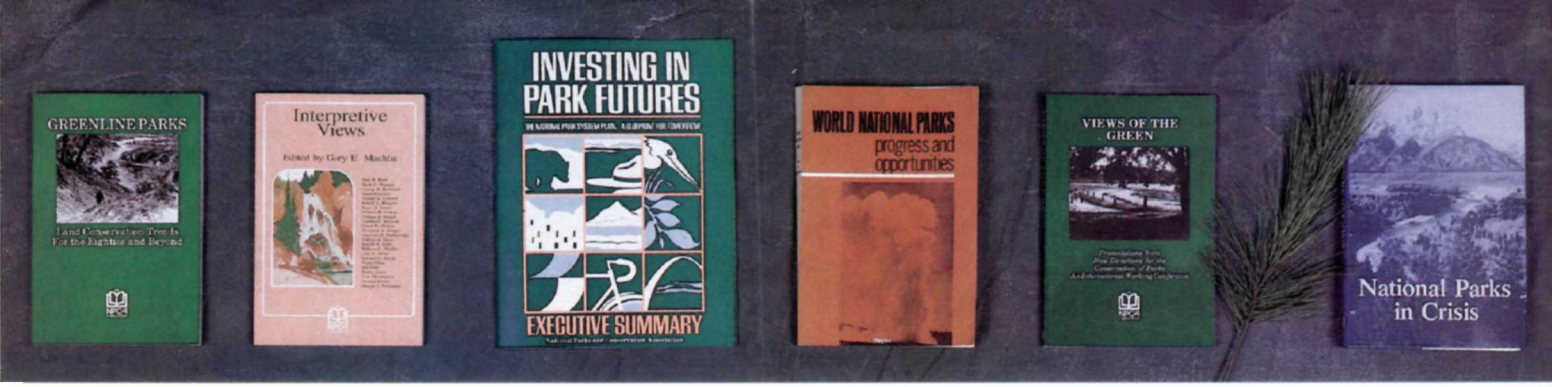
*__National Seashores: The Story Behind the Scenery,__ KC Publications; PB, *K112,* $4.50

__One Blanket & Ten-Days' Rations,__ Charles and Jacqueline Meketa; 99 pp, b&w photos, illustrations, maps; PB, *K113,* $3.50
A detailed account of the First Infantry New Mexico Volunteers in Arizona from 1864 to 1866.

__Overland Migrations: Settlers to Oregon, California and Utah, Official Handbook,__ David Lavender; 112 pp, PB, *K114,* $6.00

__Passport to Your National Parks,__ Eastern National Park & Monument Association; 104 pp, color photos, maps; PB, *K115,* $2.95
A convenient pocket guide featuring maps, park listings, and other information. Park visitors can also buy commemorative stamps to put in the passport that can be "canceled" at the parks.

__Whales-Dolphins-Porpoises of the Pacific,__ KC Publications; large format, color photos; PB, *K116,* $4.95



NPCA Publications

Interpretive Views. A diversity of views evaluating interpretation programs in the National Park System. 1986. PB, *L101,* $9.95

Investing in Park Futures. The National Park System Plan: A Blueprint for Tomorrow. Executive Summary. Details NPCA's landmark three-year study of the National Park System. Includes discussions of nine major isssues. 1988. PB, *L102,* $9.95

Volume 1. **To Preserve Unimpaired: The Challenge of Protecting Park Resources.** Analyzes resource threats to parks and makes recommendations for preservation. PB, *L102a,* $9.95

Volume 2. **Research in the Parks: An Assessment of Needs.** Justifies the need for a major new science and research initiative. PB, *L102b,* $12.95

Volume 3. **Parks and People: A Natural Relationship.** Visitor use and recreation management of the parks, emphasis on carrying capacity, concessions, and tourism. PB, *L102c,* $8.50

Volume 4. **Interpretation: Key to the Park Experience.** The need to enhance the role of interpretation and environmental education in the parks. PB, *L102d,* $6.65

Volume 5. **Park Boundaries: Where We Draw the Line.** Summary of the process. PB, *L102e,* $5.50

Volume 6. **Planning and Public Involvement: Constituency Building for the Parks.** NPS planning and public involvement processes, with recommendations on a new citizen involvement initiative and restructuring the NPS Denver Service Center. PB, *L102f,* $4.50

Volume 7. **Land Acquisition: Completing the Parks.** Three key aspects of the NPS land acquisition program are analyzed. PB, *L102g,* $4.95

Volume 8. **New Parks: New Promise.** Descriptions of 321 areas qualified for inclusion in the national park system, with special emphasis on 86 areas requiring immediate attention. PB, *L102h,* $21.50

Volume 9. **The National Park Service: Its Organization and Employees.** An analysis of the organizational structure of the NPS that recommends that the NPS be made an independent agency. PB, *L102i,* $6.95

Full **10-volume Set.** PB, *L102j,* $83.00

Greenline Parks: Land Conservation Trends for the Eighties and Beyond. Greenlining has emerged as an exciting conservation trend that can create a new generation of national parks. 1984. PB, *L103,* $9.95

The Moore House. The Moore House was the first historic structure that was renovated by the NPS. B&W photographs. 1981. HB, *L104,* $8.45; PB, *L105,* $4.20

National Parks in Crisis. Conservation leaders explore the problems of America's national parks. 1982. HB, *L106,* $13.95

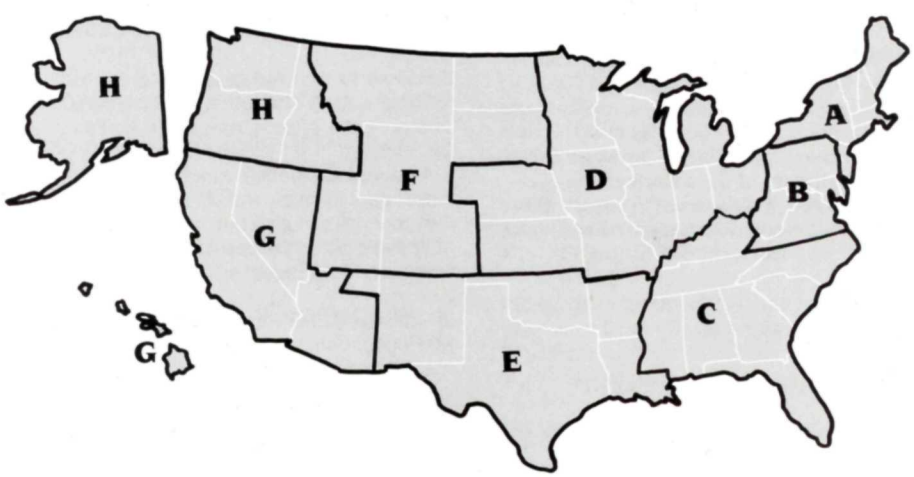
Our Common Lands: Defending the National Parks. Essays on the legal issues of protecting public lands. Available August, 1988. PB, *L107,* $22.95; HB, *L108,* $34.95

Views of the Green. Exploration of American and European conservation practices, including discussions of land availability, citizen participation, and philosophy. 1985. PB, *L109,* $9.95

World National Parks: Progress and Opportunities. Published in Europe, this book offers thoughtful contributions from 21 nations on principles of conservation, history, marine parks, tourism, and more. 1972. PB, *L110,* $9.95

NPCA Regional Guides

An eight-volume set of guides on national and state parks. Includes information on facilities, trails, recreation opportunities, camping areas, visitor services, and more. Softcover, $2.50 each.



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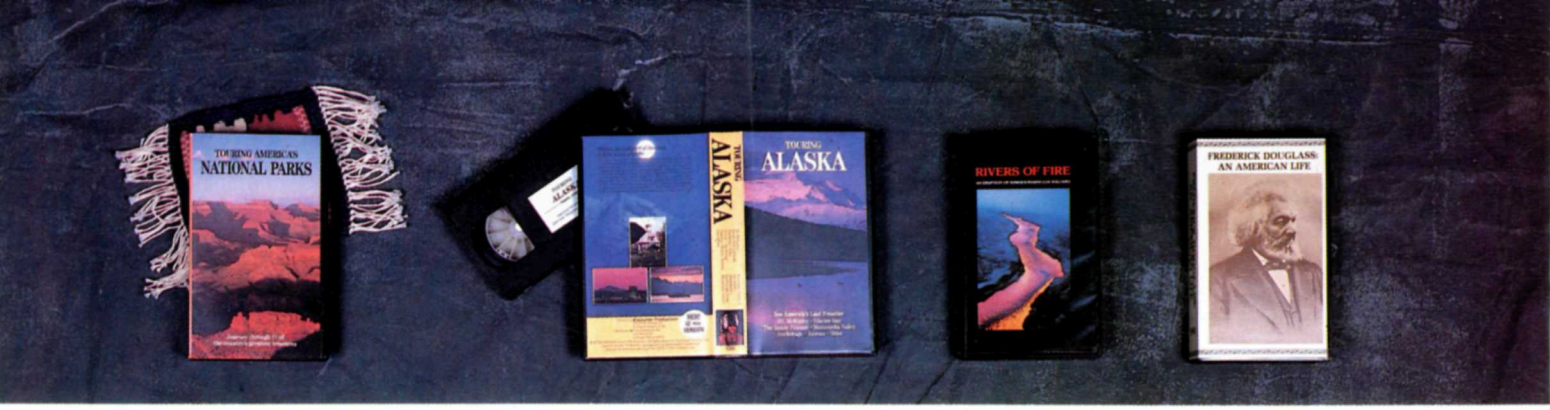

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Produced with the visitor in mind, these video tapes are an entertaining and informative way to discover the landscapes and people that make America what it is.

Carver: Man of Vision. The life of George Washington Carver, the famous black agronomist. 30 minutes. VHS, *P101*. BETA, *P102*. $19.95

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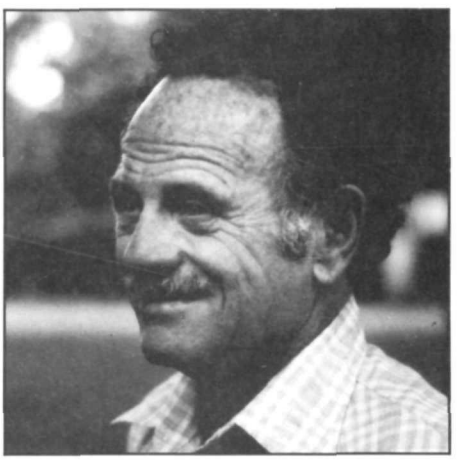
TRIBUTE TO EXCELLENCE

Marjory Stoneman Douglas Award

The Marjory Stoneman Douglas Award is presented by the National Parks and Conservation Association and the Bon Ami Co. to recognize an individual for an outstanding effort that results in protection of a unit or a proposed unit of the National Park System. The award is named in honor of Marjory Stoneman Douglas for her many years of dedication to preserving the fragile ecosystem of the Florida Everglades.

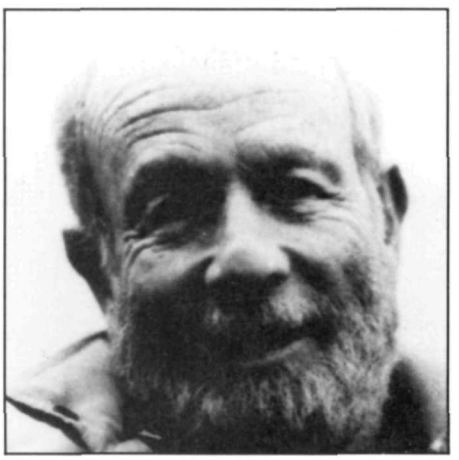
1985 RECIPIENT

MARJORY STONEMAN DOUGLAS. Author of *The Everglades: River of Grass,* Mrs. Douglas was largely responsible for the establishment of Everglades National Park in 1946 and continues her work as the Founder and President of Friends of the Everglades.



1986 RECIPIENT

MICHAEL FROME. Mr. Frome, a writer and an environmental scholar, has been a persistent advocate for our national parks and other public lands. Mr. Frome is the author of "The Promised Land" and is currently working on a book about the National Park System.



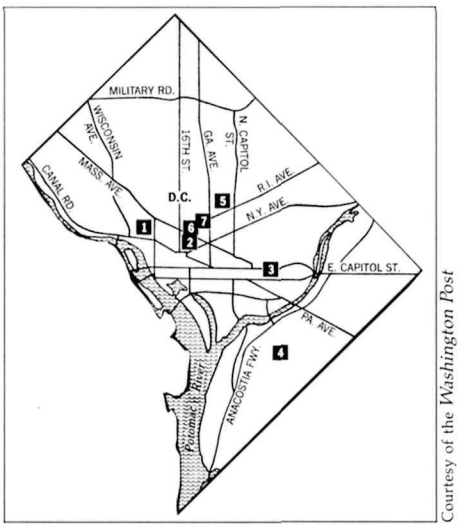
1987 RECIPIENT

DR. EDGAR WAYBURN. For forty years, Dr. Wayburn has been a leading environmentalist. He was the principal conservation architect for the establishment of Redwood National Park and Golden Gate National Recreation Area, and for the 1980 Alaska National Interest Lands Conservation Act.

The Faultless Starch/Bon Ami Co. wishes to congratulate the recipient of this award and thank them for the excellent contribution they have made to the protection of our environment.

The Bon Ami Co. has actively supported the efforts of organizations such as National Parks and Conservation Association for over 100 years and will continue to work toward the goal of preserving our natural resources for future generations.

Gallery



Courtesy of the *Washington Post*

1. Mount Zion and Female Union Band cemeteries.
2. Metropolitan A.M.E. Church
3. Lincoln Park
4. Frederick Douglass Home
5. LeDroit Park and Howard University
6. Mary McLeod Bethune Council House NHS
7. Carter G. Woodson Home

Ten Years, 3,265 Calls Later: A Black History Trail

Most new parks are the result of individual doggedness, and the new Washington, D.C., Black History National Recreation Trail is no exception. William Hutt began working on the trail for a Boy Scout Eagle merit badge when he was 17. He and the National Park Service thought the project would take him six months. Instead, it took ten years, 3,265 phone calls, 3,285 letters, and 75 meetings, which changed the plan seven times.

The trail was dedicated as part of the National Trail System in February. Instead of following a specific route, it identifies "magnet" sites in historic neighborhoods. Trail brochures are available at NPS bookstores and the NPS National Capital Region office (202) 485-9666.

Spending the Summer Learning About Nature

For most children today, summer isn't what it once was—a time to spend long, hot afternoons in fields and among trees, by yourself, musing and watching. Instead, most summer vacations are much more regimented, with summer school and lessons here and trips there.

Yet, if children don't learn to explore nature while they are young, they may never feel really at home in the wild. For more than a decade, the National Wildlife Federation's Wildlife Camps have been offering children the chance to spend part of their summers immersed in nature study.

These camps (one in North Carolina and one in Colorado) offer most standard camp activities, but they add an important element. Each staff member must either hold or be pursuing a college degree in natural resources, education, wildlife biology, or recreation and parks.

In July and August, Wildlife Camps offer 12- and 15-day sessions for children aged 9 and 13 and Teen Adventure sessions for ages 14 and 17. The teen sessions include more rigorous outdoor experiences, such as backpacking and river rafting.

For more information, contact the National Wildlife Federation, Wildlife Camps, 1412 16th Street, NW, Washington, D.C. 20036-2266 or call (703) 790-4536.

American Youth Hostels: Exotic Travel on a Shoestring

This is the decade of adventure travel. Trips to exotic and, heretofore, lonely places are being offered everywhere.

Those of us who can go only if the price is right should check into the trips offered by American Youth Hostels (AYH). Its catalogue offers biking, hiking, and motoring trips, even adventure trips in 24 countries. All trip participants must be members of AYH. You can, however, choose the age group with which you want to travel, and there are no age limitations. Their free catalogue is available from AYH Travel Department, P.O. Box 37613, Washington, D.C. 20013-7613.

Classifieds

Videos

THE BLUE RIDGE AND SMOKY MOUNTAINS come alive in this fully narrated, 40 minute video. Excellent picture quality. Radiant colors. Mountain music and sounds. VHS only. $24.95 includes shipping and handling. MC/VISA accepted. Call toll free 1-800-444-2245 Ext 911. No COD's. Group II Productions, 513 Florham Drive, High Point, NC 27260.

Books

Author's Query: For a foundation-sponsored book on "greenways"—linear parks and protected natural areas in cities, suburbs, or the countryside—I would appreciate hearing from anyone who has worked on a greenway project, either currently or in the past, at the local level. This will help to identify exemplary projects, a large number of which will be featured in the book. CHARLES E. LITTLE c/o Greenways for America, P.O. Box 423, Oakton, VA 22124.

A YELLOWSTONE SAVAGE—book relives working in Nature's Wonderland. 68 photos, illustrations. $9.95 postpaid. JD Charles Publishing, Box 7833, Colorado Springs, CO 80933

Publications

THE TETONS. YELLOWSTONE. JACKSON HOLE. Limited edition prints and posters on the landscapes and western lore of Wyoming. Free color brochure. Mountain Graphics, Box 3139, Jackson, Wyoming. 83001.

Miscellaneous

Wanted: Your Participation in "The National Association for Outlaw and Lawman History, Inc." For membership information contact Hank Clark, NOLA Secretary, P.O. Box 2026NP, Niles, CA 94536-0026.

Univ. Credits, Study at Home, Geology of the National Parks. Dr. R.L. Mauger, Geology Dept., East Carolina Univ., Greenville, NC 27858 (919) 757-6360

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LOS PINOS RANCH. Cowles, New Mexico, near Santa Fe, Pecos Wilderness. Accommodates 16 in relaxed atmosphere. June to October. No poisonous snakes, scorpions, mosquitoes. Magnificent riding, trips, trout, excellent food. Address: Rt. 3, Box 8, Tererro, NM 87573.

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PARKS ARE GREAT IN 88: Fieldtrip for teachers and others to fourteen national parks and monuments. August 2-15. Write John Jedlicka, Box 140, Loyola College, Baltimore, Maryland 21210.

National Parks and Conservation Association

NPCA Annual Report 1987

Fiscal Year 1987 was a year of extraordinaries for National Parks and Conservation Association: a 15-percent increase in membership; new headquarters; the National Park System Plan, a major focus for all programs; a special, bicentennial of the Constitution issue of *National Parks*, distributed to all National Park System areas; new accounting procedures; work toward including new parklands; a 13-percent increase in the size of our budget—and much more.

Our members, contributors, volunteers, and friends have all provided the necessary support for us to continue as the only national conservation organization solely devoted to protecting the National Park System. We thank all of you for your concern and care for America's great natural and cultural heritage.

Natural Resources

NPCA made significant gains this past year in its efforts to protect park natural resources. Among the foremost was completing the Research Needs Assessment section of NPCA's National Park System Plan. The assessment investigates how the NPS research program could better provide the scientific information needed for wise management of park resources.

We played a major role in establishing South Moresby National Park Preserve in British Columbia's Queen Charlotte Islands, and we were instrumental in organizing the first session of the International Parks Forum of the Americas and the Carribean. Participants from 17 countries attended the September meeting in Estes Park, Colorado, to discuss issues and exchange information of international concern.

NPCA was a leader in the effort to limit park aircraft overflights and to reintroduce the wolf to Yellowstone. NPCA pressed for approval of House and Senate bills to enlarge Big Cypress by 146,000 acres, thus helping the survival of the endangered Florida panther.

Cultural Resources

NPCA was no less active in protecting our nation's cultural resources in 1987. The association continued to promote legislation protecting such national historic landmarks as the Mark Twain Boyhood Home, the Scott Joplin Home, and the Waterford Historic District. We also helped to shape legislation establishing the Jimmy Carter National Historic Site in Plains, Georgia.

Other victories included reauthorization of the Lowell Historic Preservation Committee, and relocation of a heavily trafficked section of Highway 27 that passes through Chickamauga and Chattanooga National Military Park.

Work continues on persuading Congress to include the Glorieta Battlefield and Albuquerque Petroglyphs in the park system. NPCA also pushed for the expansion of Gettysburg, Harpers Ferry, and Salem Maritime, and worked to educate the public about threats to cultural resources, such as artifact looting and urban encroachment.

Urban Parks and Recreation

During 1987, NPCA continued its efforts to persuade the Reagan administration to act on recommendations made by the President's Commission on Americans Outdoors (PCAO) and to inform citizens about the work of the commission. In particular, the association has been pushing to establish the Land and Water Conservation Fund as a true trust fund.

Grassroots

NPCA continued to defend our parks on the local level. Association staff cohosted a forum for friends of the parks and organized a skills conference for park watchers, those concerned citizens who keep NPCA apprised of threats to parks in their vicinity. We added a number of park watchers to the network for units such as Joshua Tree and Cabrillo national monuments.

Budget and Land Acquisition

Congress voted to reject the Reagan administration's proposed 15-percent reduction in NPS funding and chose a slight increase instead. NPCA worked to ensure that this money was judiciously allocated. We succeeded, for example, in persuading Congress to earmark $125,000 to assess the effects of a proposed coal mine in Bryce Canyon. NPCA also helped formulate the new entrance-fee structure for the park system, which requires that monies generated by the parks are retained by the National Park Service.

Carrying Capacity

NPCA released a management-process document this past year that is another step toward completion of our on-going carrying capacity study. We continued studying the application of these processes at Glacier National Park.

Field Programs: Southwest/California

NPCA's Southwest office enjoyed a major success this past year, securing El Malpais as a national monument. Elsewhere in New Mexico, NPCA supported a proposal for an Albuquerque Petroglyphs National Monument.

Association staff blocked a plan for a large, open-pit talc mine in Death Valley National Monument, and opposed Department of Energy plans for seismic blasting in that park area. NPCA also objected to the proposed Yucca Mountain nuclear waste dump.

Rocky Mountains

NPCA's Rocky Mountain regional office took the lead in organizing widespread public support for Utah's plan to protect its park vistas from air pollution.

Association staff also supported plans for an Anasazi National Park in southwestern Colorado, and a plan to expand Gunnison National Monument.

NPCA warded off a proposal to construct a power line through Capitol Reef's backcountry; filed a lawsuit challenging the proposed upgrading of Burr Trail; and opposed the use of Yellowstone's Highway 191 by truck traffic.

The association also battled a proposed coal strip mine next to Bryce, a dam and hydropower plant outside Capitol Reef, and commercial development adjacent to Mesa Verde.

Alaska

NPCA's Alaska office continues to oppose the Interior Department's failure to comply with the National Historic Preservation Act. The act requires Interior to identify and evaluate cultural resources on federal lands before any of those resources are transferred to a state, a native corporation, or to an individual.

NPCA also helped to forge an agreement between the NPS and the people of Anatuvuk Pass regarding the use of all-terrain vehicles (ATVs) in Gates of the Arctic. NPCA also worked to prevent

proposed U.S. Geological Survey research drilling in Katmai.

NEW YORK STATE

The New York Parks and Conservation Association (NYPCA) led the successful effort to increase budget and personnel for state parks. The New York office also prepared a feasibility study for developing a greenway, to be coordinated by NYPCA, along the 80-mile Delaware and Hudson Canal in the Catskill Mountains.

NYPCA also sponsored two popular forums that examined strategies for citizen activists and the role of the private sector in leasing and managing historic properties and parklands.

NATIONAL PARK TRUST

NPCA's National Park Trust enjoyed a successful year, facilitating NPS acquisition of the last privately owned parcel of land in Appomattox Court House National Historical Park.

The trust continued its attempts to help the NPS acquire privately held lands in and around national park areas in Maine, Alaska, Arizona, Virginia, Texas, and Hawaii, while compiling a list of more than 40 other potential project sites.

Association staff also completed an evaluation of state statutes encouraging landowners to permit the recreational use of their lands without incurring owner liability.

PUBLIC EDUCATION

National Parks magazine continued its coverage of issues vital to the park system—such as the preservation of the Arctic Wildlife Refuge, the evolving role of the ranger, proposals for new parks, artifact looting, and park systems in other countries. The magazine published a special issue commemorating the bicentennial of the Constitution. It served as the official NPS publication for this event, and half a million copies were distributed throughout the National Park System.

NPCA also poured a great deal of time and energy into publishing *Investing in Park Futures: A Blueprint for the Future*, the first comprehensive plan for the future of the National Park System.

Last year's publications included *Acid Rain Invades Our Parks* and the visitor ethics brochure, which is being distributed in the parks. Public relations staff increased our media contacts. We also established the Park Education Materials Center, a vehicle to provide the public with information on individual areas within the park system.

For the complete financial statements for the fiscal year ending December 31, 1987, please write to NPCA Accounting Department, 1015 Thirty-first St. NW, Washington, D.C. 20007.

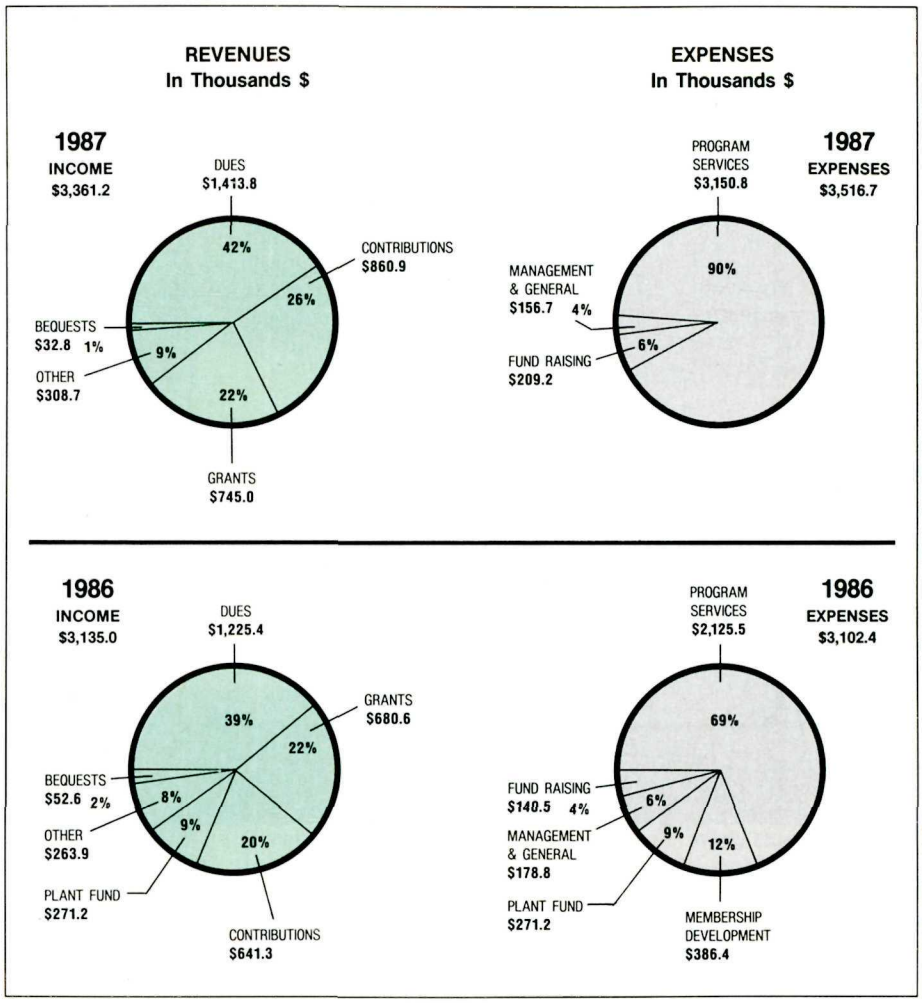


Chart by Barbieri and Green

Balance Sheet

For the Year Ended December 31, 1987 (With Comparative Totals for 1986)

	Operating Fund	Land Acquisition Revolving Fund	National Park Trust Properties	Endowment Fund	Total 1987	Total 1986 (Restated)
			ASSETS			
Cash	$ 377,607	$ 69,357	$ —	$ 75,327	$ 522,291	$ 869,211
Accrued interest receivable	7,366	—	—	—	7,366	8,260
Other receivables	88,754	—	—	—	88,754	20,447
Accrued distribution from investment in partnership	9,936	—	—	—	9,936	—
Investments	551,990	71,232	—	49,791	673,013	535,549
Land, equipment & furniture *at cost, net of accumulated* depreciation	265,666	—	17,000	—	282,666	290,773
Other assets	135,560	—	—	—	135,560	30,741
Total Assets	$ 1,436,879	$ 140,589	$ 17,000	$ 125,118	$ 1,719,586	$ 1,754,981
			LIABILITIES AND FUND BALANCES			
Liabilities:						
Accounts payable	$ 143,490	$ —	$ —	$ —	$ 143,490	$ 90,765
Payroll taxes withheld, accrued	3,603	—	—	—	3,603	16,106
Security deposit	346	—	—	—	346	—
Accrued expenses	129,390	—	—	—	129,390	110,660
Deferred amount:						
Restricted	361,826	—	—	—	361,826	34,956
Unrestricted	1,412	—	—	—	1,412	72,458
Total Liabilities	640,067	—	—	—	640,067	324,945
Fund Balances:						
Unrestricted	796,812	—	—	—	796,812	1,288,982
Restricted-nonexpendable	—	140,589	17,000	125,118	282,707	141,054
Total Fund Balances	796,812	140,589	17,000	125,118	1,079,519	1,430,036
Total Liabilities and Fund Balances	$ 1,436,879	$ 140,589	$ 17,000	$ 125,118	$ 1,719,586	$ 1,754,981

Alcatraz Island; Mike Yuschenkoff

Alcatraz Island

Park Portfolio

The placement of a federal penitentiary on Alcatraz Island was in response to a nationwide crime wave in the 1930s. Bands of criminals terrorized the American heartland while gangsters exerted considerable influence in major cities.

These supercriminals were better armed and equipped than most small-town or rural police; the most notorious felons gained the distinction of being declared public enemies. The Department of Justice fought back with a superpolice force: the Federal Bureau of Investigation. Plans were prepared for the modification and modernization of Alcatraz, and work began in April of 1934. [Alcatraz had been used as a military fortress and prison since 1852.]

In the cellblocks the original soft-iron straps and bars were removed and replaced with hardened tool-proof steel. A new locking system, which allowed prison staff to open selected cells automatically, replaced the earlier system.

Inside the cellhouse, officers carried neither guns nor keys; officers stationed in the gun galleries controlled the keys, lowering them when needed. The officers in the gun galleries could also trigger the release of glass teargas containers suspended from the ceiling of the dining hall.

During much of its existence, Alcatraz was an enigmatic presence in San Francisco Bay. The public's only view of the prison was through telescopes at Fisherman's Wharf. Because prison officials sought to discourage escape by sea, boats were warned to keep 300 yards off or risk being fired on.

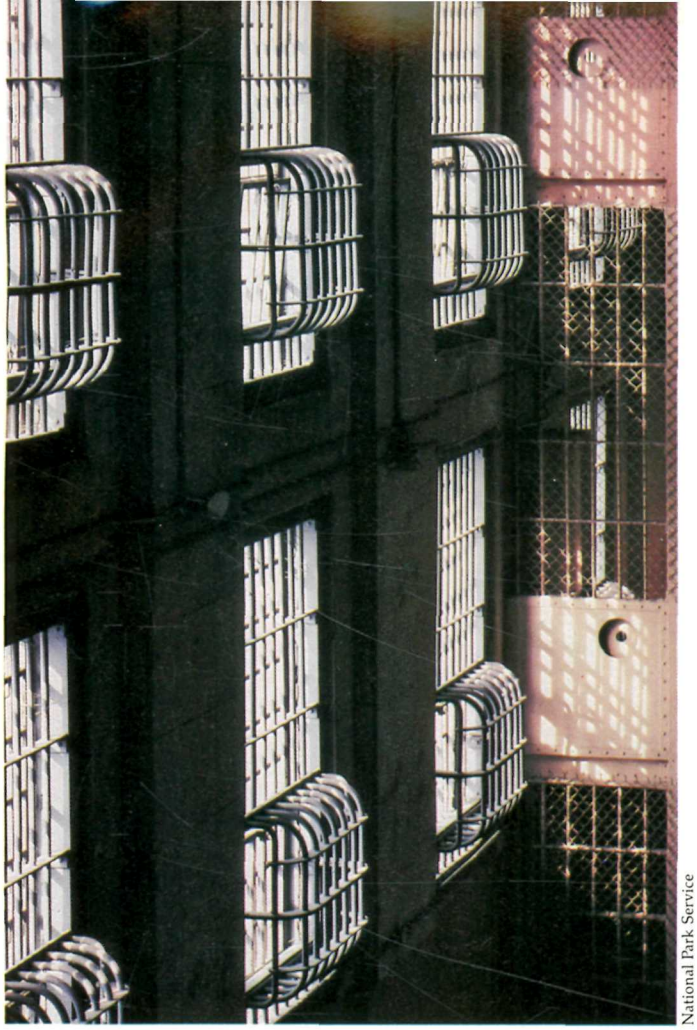
The Bureau of Prisons maintained a policy of keeping life on the Rock a secret, so it was only on rare occasions that the press was allowed on the island. Publicity almost always centered on the trials of inmates accused of assault or murder in the prison, the revelations of those released, and attempts at escape.

Inmate testimony in Alcatraz cases usually characterized the prison as a horrible place of confinement. Whatever the facts may have been, the public always perceived Alcatraz as a grim, forbidding, hate-filled place.

Public pressure and rising maintenance expenses ultimately spelled the end of Alcatraz. In 1961, a detailed survey of structures and engineering systems found that repairs and reconstruction would require $5 million.

Alcatraz's inmate population gradually thinned, and on March 21, 1963, the last 27 prisoners left. The last to leave, Frank C. Weatherman, spoke the eulogy: "Alcatraz never was good for anybody."

Excerpted from Alcatraz Island: The Story Behind the Scenery, *by James P. Delgado, photographs by Jeff Gnass; KC Publications, Box 14883, Las Vegas, Nevada 89114; $4.50.*



National Park Service

LIFE AT ALCATRAZ: The new penitentiary was intended to house dangerous, notorious, and recalcitrant inmates of the federal prison system. No one was to be committed directly to Alcatraz; all prisoners were transferred from other institutions. Rehabilitation was not the purpose of the prison; its inmates were to serve "hard time."

Alcatraz was a limited-privilege prison. Later regulations succinctly stated, "You are entitled to food, clothing, shelter, and medical attention. Anything else that you get is a privilege."

Prison regulations were rigidly enforced, and violations were swiftly punished. Serious violations resulted in the loss of earned "good time," the reduction of privileges, and finally incarceration in "segregation," also known as solitary or the special treatment unit. Violent offenses were punished with "dark cells," blacked-out bare cells.

One early, controversial regulation was the rule of silence. Inmates could not converse except at meals or in the recreation yard. This rule was eventually modified, and subdued conversation was allowed.

Receiving visitors was a privilege, as was sending and receiving mail. Original letters were not delivered to inmates, only typewritten copies, to ensure that coded or invisible messages were not received. And only with the written permission of the attorney general could inmates obtain a lawyer.

NPS/Richard Frear

Top: The cellblocks at Alcatraz were prisons within a prison—separate from other cellblocks and exterior walls. Above: These heads were made for an escape on June 11, 1962. The dummies, fashioned from papier-mache, paint, and hair from the prison barbershop, were tucked into the beds—to be counted during nightly roll call. The prisoners escaped through the ventilators to the prison roof and then paddled away from the shore on floats made from rubber raincoats.

Mt. Woodring, Grand Teton National Park.

JOY.

Spirits soar in the vast vistas of our national parks —a precious heritage of land and water and sky that we should all cherish and protect.

PET

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