



NPS imports and exports "park idea"

By Ronnie Spiewak
NPS Newsletter Staff Writer

The National Park Service gets around. We've been in the forefront of the world park movement since 1872. They know us in Petra National Park, Jordan; Tikal National Park, Guatemala, and Gran Sabaña National Park, Venezuela. More than 100 NPS managers, interpreters, naturalists, rangers, and

planners have traveled the world over providing technical assistance on an invitation-only and on a reimbursement basis to about 40 nations who have or are establishing national parks and equivalent reserves.

Even at this moment several Park Service employees are on foreign assignments. Lloyd Loope, a research biologist from the chief scientist's office, is in Paris working on "Man and the Biosphere" (UNESCO's international program to conserve ecosystems). Ann Webster Smith, a compliance officer from the Advisory Council on Historic Preservation staff, is also in Paris working as deputy to Dr. Ernest A. Connally, secretary-general of ICOMOS (Inter-

national Council on Monuments and Sites). Others like Dave Morris in Malawi and Mike Baffrey in the Philippines have left Park Service on leave to volunteer in the Peace Corps in the conservation field.

The difficult decision as to who goes where is made in consultation with members of the Division of International Park Affairs staff in Washington. In a nutshell they are the liaison between NPS and the world. They arrange for the study of our areas by foreign park planners and managers, maintain a vast amount of global correspondence, keep up with and initiate international meetings on parks and coordinate visits by foreign delegations to our national parks.

In a way they import and export park ideas. Says Rob Milne, chief of the Division, "We obviously must share with the rest of the world a responsibility for the conservation of the global ecosystem and the perpetuation of the world's rich fabric of cultures. Why not learn from their (other countries') solutions, share our discoveries, our expertise with the world? We stand to gain as much as we give socially and ecologically."

As a first step the Park Service encourages developing nations to train their park people in regional institutions such as M'weka in Tanzania, a 2-year college oriented in park management and practical park operations, and in the Ecole de Faune, Cameroon, where ideas may be exchanged in an atmosphere of common understanding of the land and people.

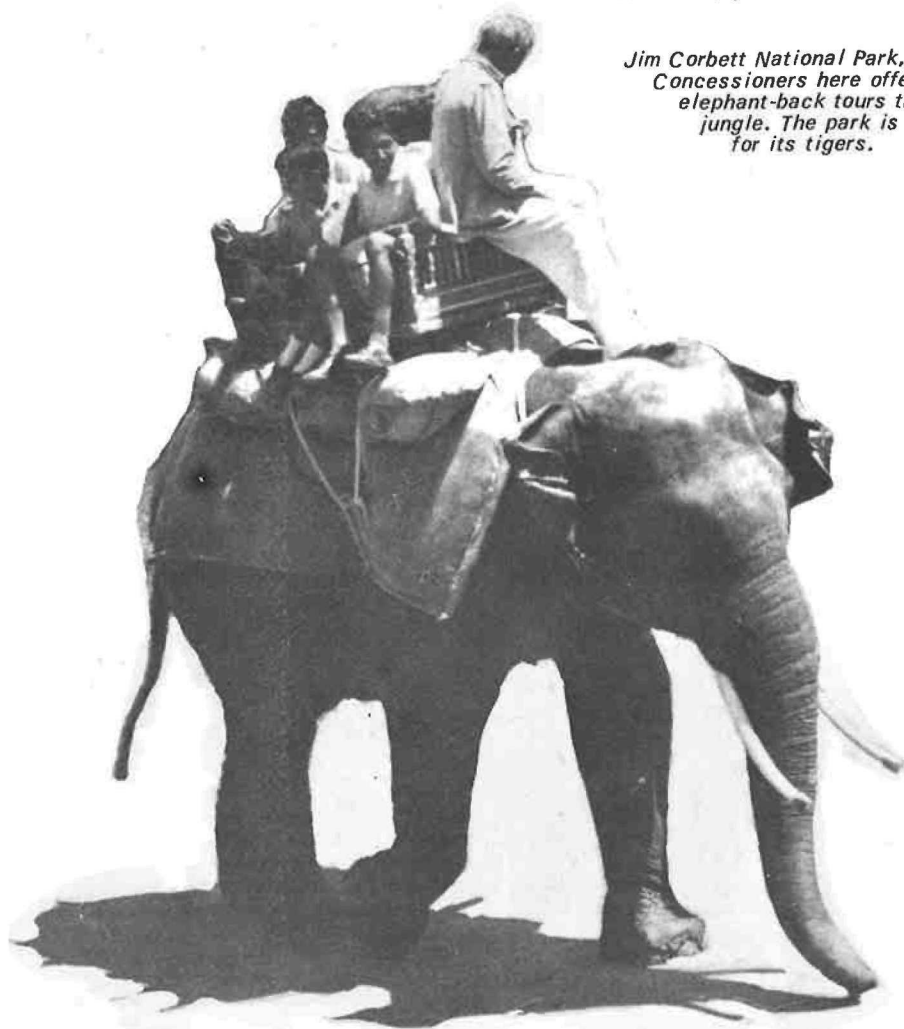
On the other hand NPS arranges comprehensive tours for visiting planners and managers in search of their own insights into parks. Last year Fred Packard, international specialist, consulted with 30 foreign visitors here and arranged custom visits to park areas similar to their own. On site, the foreign specialists and their NPS counterparts shared common views and experiences.

NPS also operates a limited exchange program with counterpart agencies in other nations as a method of employee training.

The Division launched the annual International Seminar on National Parks and Equivalent Reserves in 1965 as another source of park information. The program, co-sponsored by The University of Michigan, Parks Canada and Mexico, is designed for administrators, professionals, and leaders in conservation and has attracted some 300 park people from 81 countries through the years.

More and more countries are recognizing the need to protect and preserve natural and cultural resources. Yet lack of funding challenges the ambitions of most developing nations. Many

*Jim Corbett National Park, India.
Concessioners here offer
elephant-back tours through
jungle. The park is known
for its tigers.*





Rob Milne

rely on international conservation organizations such as African Wildlife Leadership Foundation (AWLF); Food and Agricultural Organization of the United Nations (FAO); and Agency for International Development (A.I.D.) to provide

monies for technical assistance and training. (See 1975 July/Aug/Sept *Trends* for more information.)

In recent years young countries have begun teaming up with their neighbors to conserve natural and human resources and to attract the attention of funding organizations.

In fact, bilateral agreements, international cooperative agreements, commissions, multinational programs and bilateral exchanges are on the rise all over the world. Two nongovernmental bodies, ICOMOS and IUCN (International Union for Conservation of Nature and Natural Resources) have established themselves as two leading conservation assistance and counseling organizations for the world. ICOMOS deals in the preservation and study of cultural monuments and sites and the cultural heritage of nations; IUCN provides scientific and technical counsel and intervenes at the highest levels of government on behalf of parks, reserves and wildlife. Both sponsor international conferences and publish reports. Theodor R. Swem, head of the Alaska Planning Group, was recently named acting chairman of the Commission on National Parks and Protected Areas of IUCN. Brown Morton is chairman of the U.S. ICOMOS committee.

The 1973 US/USSR Environmental Agreement precipitated the recent USSR visit of NPS

preservationists to study historic preservation techniques. Similar cooperation in the field of natural history has resulted in a proposal for a joint publication that will open communication.

"Our activities abroad should be of service to our own parks," Milne says. He cites one of the Division's major accomplishments as the role they played in curbing commercial tourist development in Pinacate Natural Park, Mexico. "Three years ago Mexico never would have requested NPS review of their development plans. Communications were closed. But through the International Seminar on National Parks and the 1972 Conference on World Parks we have become accessible to each other. We arranged for the counterpart professionals to work together and averted extensive development and the construction of a road in Mexico that would have had a major impact on the shared Soñoran ecosystem only partially protected by Organ Pipe Cactus National Monument."

NPS may very well be moving into a new era of activities. Recent enacted legislation such as the Endangered Species Act; UNESCO's Man and the Biosphere program, and the World Heritage Convention are designed to promote conservation around the world. More than 100 nations have now established over 1700 national parks and equivalent reserves. We are only beginning to share in the world's vast pool of experience and knowledge in conservation.

Don Brown, left, director of the International Seminar on National Parks and Equivalent Reserves, and Alan Robinson, far right, DSC marine biologist, demonstrate use of snorkeling equipment to participants of the 10th seminar, held in Akumal, Mexico last August.



Reed, Everhardt testify on Park Service budget

(In February, Assistant Secretary Nathaniel P. Reed and Director Gary Everhardt went before Subcommittees of the Senate and House Committees on Appropriations to testify on the budget request for the National Park Service for Fiscal Year 1977. Following are excerpts from their statements and a summary of the budget figures.)

Assistant Secretary Reed said, in part:

"In my visits to the units of the National Park System, I am aware that in recent years the superintendents have been faced with increasing densities and numbers of park visitors.

"Expanded mining operations in the several parks still open to mineral entry is another problem. We strongly support legislation now before the Congress to eliminate this threat to the integrity of the national parklands.

"As we proceed in the second century of the National Park Service management, it is time for all of us to take stock of what should remain in the System and what needs to be added to round out the System. Certainly, we will agree that the units of the National Park System should meet the criteria of being nationally significant—otherwise there are numerous other appropriate management entities.

"In my retrospection, and I have the honor to have held my position much longer than any of my predecessors, I must admit that the National Park Service's involvement with the performing arts raises a serious question in my mind as to whether such functions might not more properly belong elsewhere.

"Further along this line, I admit that I find it questionable that we are involved in urban recreation in our National Capital, particularly in light of the relatively recent home rule for the District of Columbia.

"On the other hand, presently before the Congress for its consideration are the proposed additions of the tremendous natural resources in Alaska to the National Park System. There is no doubt that this is a 'once in a lifetime' opportunity for all of us to preserve and protect these resources for present and future generations.

"My retrospection convinces me that priorities must be set and I am ready to conclude that some units of the National Park System ought to be shifted to other management entities and that some units ought to be considered for deauthorization.

"The Secretary and I are indeed proud of the National Park Service and particularly the dedicated people who have made it an example for all the world to appreciate.

Director Everhardt and the capable personnel of the Service are striving to make it even better."

Director Everhardt said, in part:

"I am convinced that the American public has an abiding concern for the welfare of the National Park System. (This) is reflected in the thousands of letters we receive each year, in the increased citizen participation in the public hearing process, in the coverage of threats to the national parks in the media and in the personal contacts I have made. Mr. Chairman, the message comes through loud and clear. The American public wants to see the natural, cultural, and historic resources that have been mandated through the years managed and perpetuated to the highest possible standard.

"While more funding and manpower could alleviate some of the problem areas, these are not the only solutions. The Service, like most other agencies, has in the past and will continue to face budgetary constraints. The situation demands that we make the most effective use of the fiscal resources available to us, that we improve our management efficiency, and in keeping with the Service priorities, assure that allocations are directed to the most significant needs of the parks. This approach in effect seeks the answers to whether we are applying sufficient human resources and fiscal resources to our physical facilities, roads, trails, public use and administrative buildings, historic structures and so on. Are we applying the fiscal resources we have to those areas of greatest need—those in imminent threat of loss or in an unsafe condition.

"I believe the Fiscal 1977 budget before you and the initiatives I have taken during my first year as Director do in fact convey the Service's effort in achieving management efficiency and assuring that our highest priority needs are provided for."

The Director noted that the budget request provides for program increases necessary to implement the three basic goals of the Service in 1977:

Resource Preservation and Protection
Quality of Visitor Services
Operating Recently Authorized Areas

The appropriation request for the National Park Service totals \$355.6 million. This request places special emphasis on the operating needs of the parks, providing increases for its higher priority park management and operations programs while proposing offsetting reductions in other program areas.

A \$21 million increase for park management programs is distributed among the following major programs:

- management of park areas, \$4.2 million.
- concessions management program, \$312,000.
- interpretive services programs, \$2.7 million.

- visitor protection and safety \$1.5 million. (This will provide basic protection and safety services at newly authorized areas and improve services in areas receiving increased use.)
- maintenance programs, \$9.6 million.
- resource management program, \$1.7 million. (Special attention will be given to preparing resource management plans, restoring backcountry trails and campsites, and further implementation of natural fire management and prescribed burning programs.)
- built-in increase requirements, \$6.1 million. (Primarily for GSA space rental and services and annualization of pay increases.)

Other increases proposed are:

- John F. Kennedy Center for the Performing Arts, \$423,000. (To provide for additional costs and annualization of pay increases.)
- planning, development and operation of recreation facilities, \$818,000.
- buildings, utilities and other facilities, \$6.6 million. (Projects to correct deficiencies in sewage systems and preserve historic resources.)
- Alaska Task Force, \$1.2 million. (To support field work involved in the implementation of the Alaska Native Claims Settlement Act.)

Program reductions include:

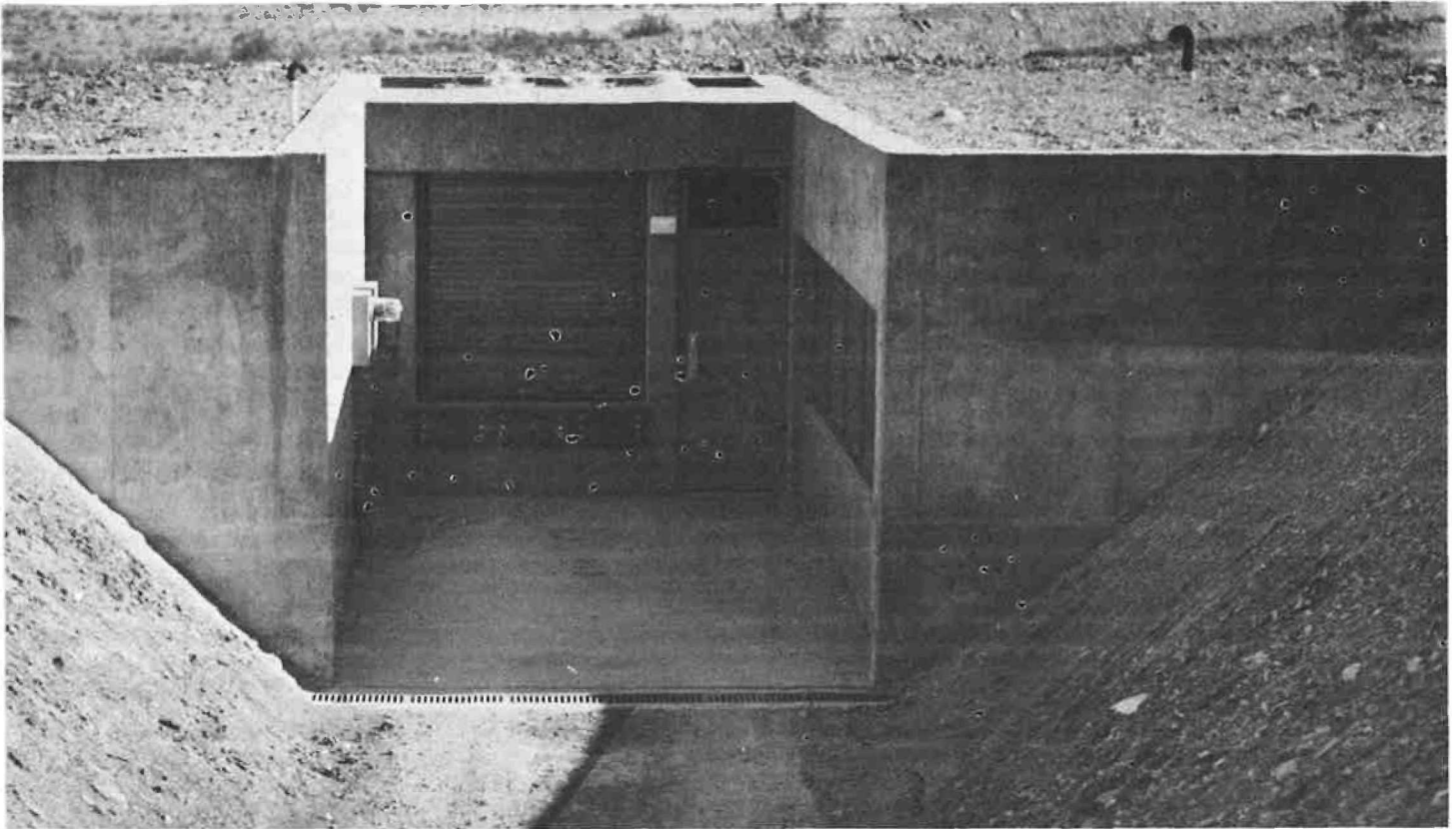
- preservation of historic properties, \$10,166,000.
- planning and construction (excluding buildings and utilities activity), \$1,780,000.
- road construction, \$22,100,000.

In conclusion, Director Everhardt said:

"The unique role of the National Park Service in our Nation's Bicentennial celebration has focused current attention on the Service throughout the country. A record number of visitors will tour the park areas this year. At the same time, we must reexamine our resources to determine how we can best utilize our dedicated employees not only during this year of celebration but in the face of changing priorities in the future as well. Certainly, in this regard, we cannot neglect thanking the Volunteers-in-Parks who contribute so many hours yearly to so many of our programs for visitors.

"Above all, I would like to close by again emphasizing the National Park Service's commitment to making the public a vital part of our planning and deliberations for the future of the National Park System. Only through this citizen involvement can we responsibly fulfill our mandate to faithfully manage the great heritage of parks."

Getting water out of a desert



Death Valley National Monument's reverse osmosis plant was "buried" to protect it from extreme summer heat and to retain the park's natural appearance.

By Darrell Condra
VIP, Public Affairs, WRO

"You can't squeeze blood out of a turnip," as the saying goes, but the Park Service can—and is—squeezing fresh drinking water out of salt brine in Death Valley National Monument, California.

Finding potable water in Death Valley, one of the hottest, driest places in the world, is a challenge. Summer temperatures top 100 degrees for weeks at a time. The area gets less than 2 inches of rainfall a year.

A new campground and more visitors at the Stove Pipe Wells Village, a complex of lodging and service facilities, caused a water shortage so acute that water had to be hauled from a spring 30 miles away. Wells seemed promising, but drilling produced only undrinkable brine.

The problem: Make fresh water out of foul. Gerard S. Witucki, Chief, Division of Water Resources, Western Region, came up with an innovative solution: "reverse osmosis."

Straight osmosis is a process that occurs naturally when you have saltwater, fresh water, and separating the two, a semi-permeable membrane (similar to the thin skin inside the shell of an egg). The saltwater draws the fresh water through the membrane, much as a magnet draws iron filings. Just as a magnet is able to attract only a limited amount of iron filings, the saltwater is able to draw only a limited amount of fresh water through the membrane. The final result is more, but diluted, saltwater and less fresh water. Reverse osmosis, Witucki explained, involves putting the saltwater under pressure to counter the magnet-like draw of the

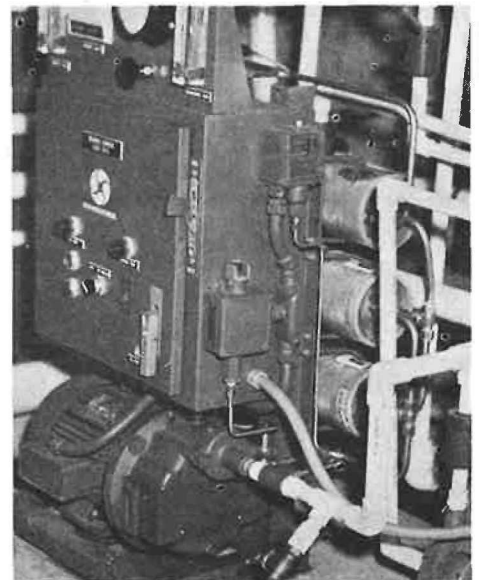
salt brine on the fresh water. The brine is gently forced by pumps through a manmade semi-permeable membrane. The membrane acts like a very fine screen that allows only clean water to pass through, filtering out the salt. The result of the reverse osmosis is more potable water on one side of the membrane and a concentrated brine on the other.

With the method for converting brine into fresh water selected, the next step for Park Service engineers was to design a water treatment plant that would blend with the desert landscape and could withstand the extreme heat and occasional flash floods that occur in Death Valley. The solution was an air conditioned, concrete facility—placed underground!

The environmental impact of the water desalting unit had to be considered also. Ten test wells were drilled in the surrounding area to observe any changes in the underground water level that could adversely affect the fragile desert ecology. Though no significant changes in the water level occurred, the wells are continually monitored as a precaution.

Construction of the 6,000-gallon-a-day underground plant at Stove Pipe Wells was started in mid-1973, and it began operation the following June. The entire facility, including the innovative reverse osmosis mechanism and the unusual underground facility cost \$225,000. The initial costs were high but not compared to the cumulative cost of hauling water to Stove Pipe Wells, year after year. The unique underground reverse osmosis water treatment plant now produces all the water needed at Stove Pipe Wells village and campground—water vital for cooking, cleaning, cooling, and, above all, for drinking.

The filter membranes, heart of the reverse osmosis system, are behind the square control cabinet.



Theater in a trunk

By James C. Corson
Chief, Interpretation NAR

Have you ever tried to make history "come alive" for children? Of course the answer is "Yes." We try to do it all the time. For this reason the following extracts from a recent batch of letters will be of interest:

"I hope I can come and see you again because I really liked your show and it really made me feel like I was in the Revolutionary War."

"I learned a great deal from the play very easily. I think it was the best and funniest play I ever saw."

"I'm sorry this is the last week for this play. I wish the whole school could see your play."

"When I went to sleep I couldn't forget about it."

Reading reviews like these from the St. Agnes school children of Atlantic Highlands, near Sandy Hook, New Jersey, you have to feel that the "Theater in a Trunk" company is doing something very right with their traveling show "One, Two, Three, Four, Dump the Tea and Start the War." This road show, a special Regional Bicentennial activity, got its start with the Park Service in New York at Theodore Roosevelt Birthplace.

This Bicentennial tour specifically planned and produced for NPS-children audiences has completed its Fall '75 loop and will be on the road again in the Spring of '76.

For adult audiences the "Four Winds Theatre" has a similar role—to produce a dramatic and emotional inward reaction to the historical facts of the Revolutionary War. The Four Winds productions are based entirely on the non-heros, diaries of sailor, soldier, captive and stay-at-home, and provide the stuff from which these tales are told by skillful dramatic and musical presentation. Two plays "The Raree Show" and "If Liberty Be There" were produced specifically to meet felt needs within the service for a new look at old stories. It is an easy "roadable" show that can capture an audience not "susceptible" to our usual campfire talks and guided hikes. While they do go over well with the downtowners, experience now indicates that the backpackers and campfire crowd enjoy them too. The best part about using the theatrical and dramatic approach based solidly upon historical facts is that almost any park could do it. Most parks have the resource and somewhere nearby is a dramatic group, little theater, club or college department that could add the necessary expertise. The Four Winds Theatre has even put together a proposal to provide a low budget seminar on "How To" for would-be dramatists.

Further details on this non-profit educational cooperative activity can be obtained by writing to North Atlantic Region, Office of Interpretation.

You might also be interested in our brief article in "In Touch" Nov. '75, p. 18, as will the article "Participating Theater Brings Drama to the Classroom" by Maureen L. Lagomarcino, Parks and Recreation, Jan. '76.



Theater in a Trunk players are Liis Kailey, Bill Mesnick, Dennis Kelly, Kathryn Mullen, Michael Varna, and Jan Buttram. Alfie and Reggie are the puppets.



Photos by Gerry Goodstein, New York City



A walk in Muir Woods



By Grant W. Midgley
Chief, Publications and Public Inquiries, WASO

"This is the best tree-lovers' monument that could be found in all the forests of the world."

Those were John Muir's words, spoken in 1908, when he learned of the donation of several hundred acres of land on the southwestern slope of California's Mt. Tamalpais as a monument in his honor. Later-to-be Congressman and Mrs. William Kent donated the land, located in Marin County north of San Francisco, and President Theodore Roosevelt proclaimed Muir Woods a National Monument.

The monument safeguards a stand of one of nature's most fascinating productions—its tallest species of plant, which seemingly has no life span, the coastal redwood, *Sequoia sempervirens*.

In ages past, the ancestor of today's sequoias grew throughout the northern hemisphere. But now the giant sequoia (*Sequoiadendron giganteum*) grows only in a 400-kilometer-long area on the western slopes of the Sierra Nevada, while the coast redwood grows in a belt 870 kilometers long and 48 wide along the Pacific Coast from south of Monterey to southwest Oregon. This is a land where summer fogs add to the bountiful moisture of the other seasons.

Last fall, we had the opportunity of strolling the primary trail in Muir Woods with park technician Robert E. Jordan who has been at the monument for 6 years. On this trail, visitors may walk a half-mile, a one-mile or a two-mile loop.

Near the trail's beginning, a cross section of a redwood tree is on display, painted to show 1021 years of history. Rings are marked for the years of the Battle of Hastings (1066), the Magna Carta (1215), the Discovery of America and the signing of the Declaration of Independence.

The mid-morning woods were quite cool, even though the sun glowed in the upper branches and in places burst through to put patches of sunlight on the forest floor.

Two men hikers strode past, wearing shorts and carrying knapsacks. Bob surmised they were aiming to scale Mt. Tamalpais.

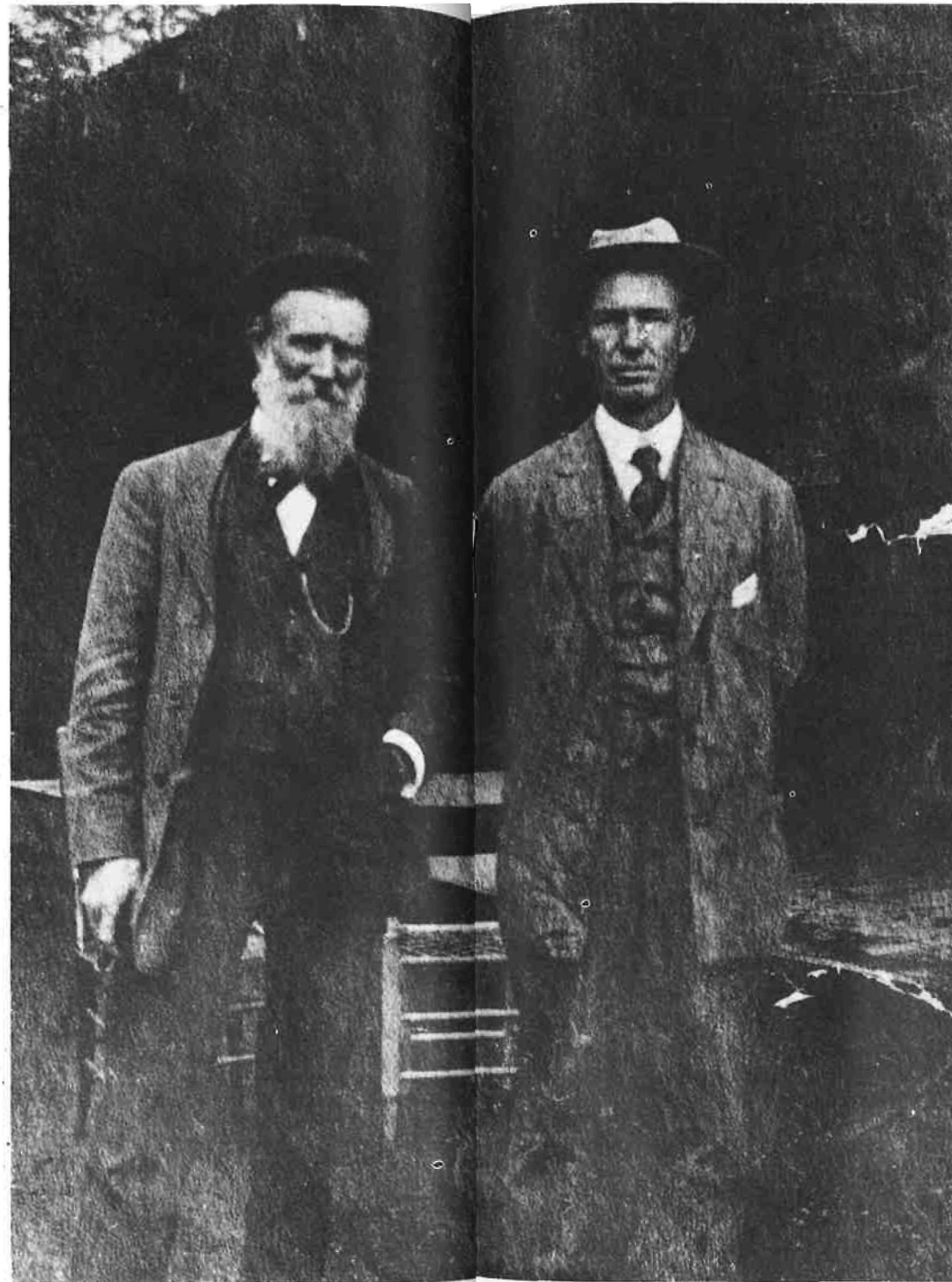
Once this trail was open to the woods. But now, to protect the growth on its borders, it is fenced with rough-hewn, square-cut redwood logs. Seeing-eye dogs are permitted, but pets have been banned since May 1974. There are no picnicking or camping facilities.

As this was fall, Redwood Creek was nearly dry. But during the rainy season it becomes a torrent, rising until silver salmon and steelhead trout struggle upstream from the ocean to spawning grounds in Muir Woods.

Along our way, Bob pointed out characteristics of the sequoias and other forest growth.

He explained that the redwoods are notably fire-resistant because of thick, asbestos-like bark, and a lack of pitch. They flourish best where fire occasionally burns, because a heavy layer of humus makes it difficult for seeds to germinate and young trees to get a start. The last fire to sweep Redwood Canyon occurred about 1845, and most younger trees there have grown not from seeds but from the redwood's alternate method of reproduction—sprouts.

But fires sometimes burn cavities into redwoods. Bob showed us some of these and re-



John Muir (left) and William Kent.

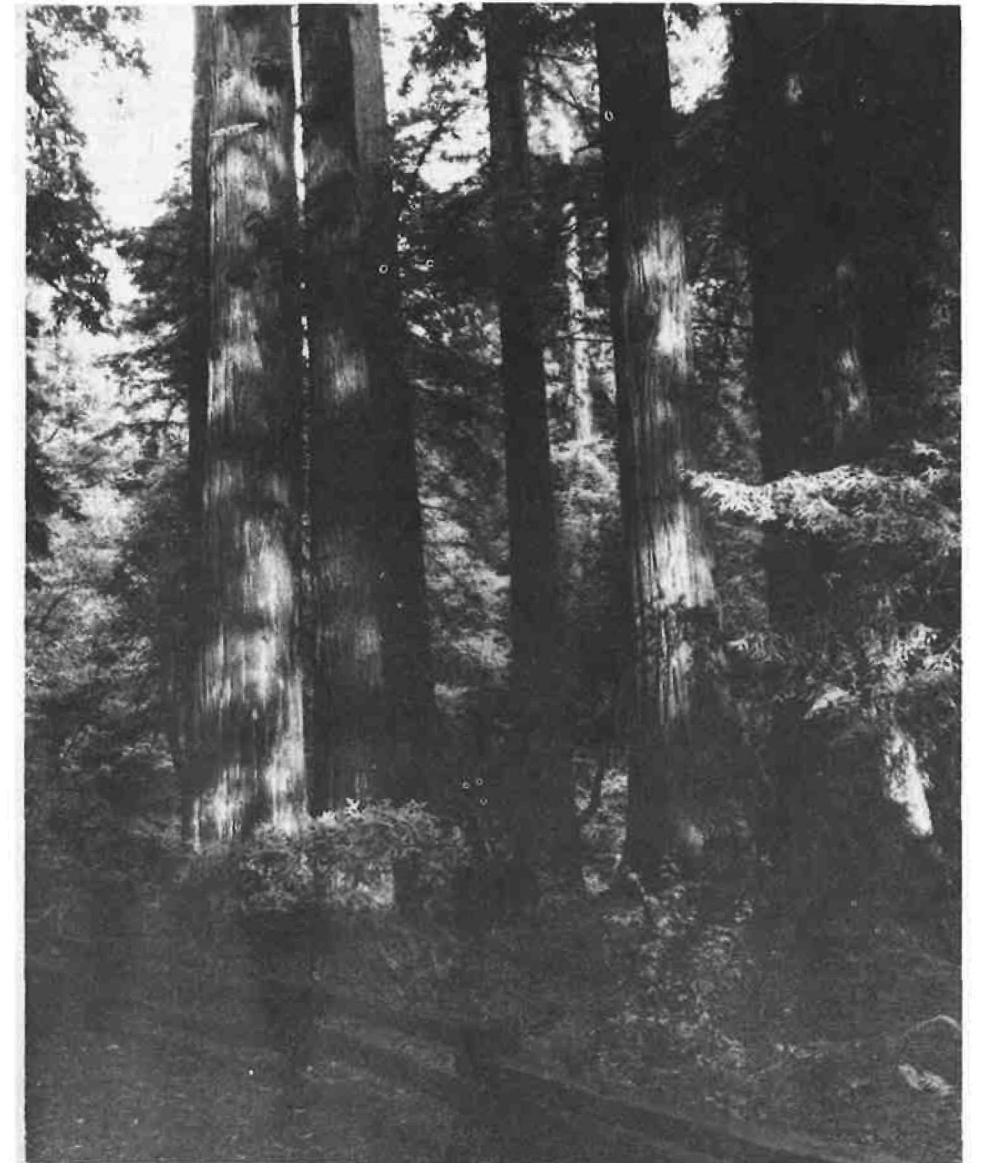
lated how a severe fire can burn a hole in the bark, making a section of the trunk subject to dry rot. Then a subsequent fire may penetrate there and place in the tree's heart a fire that may smoulder for months.

The giants in Muir Woods are estimated to be 500 to 800 years old. Here they grow to 72 meters in height, not as tall as those in Redwood National Park, Calif. where the tallest reach 109 meters.

Nourished by plentiful moisture and rich soil, many ferns grow under the deep shade of the redwoods. We also saw California hazel,

tanoak, and streamside plants such as red alder and big leaf maple. Another plant on the creek bank, giant horsetail, is more ancient than the sequoias, being a descendant of the Carbon Age when it grew 15 to 30 meters tall.

Muir Woods is unusually popular with foreign visitors because of its proximity to San Francisco, the world-wide interest in the California Redwoods and possibly because of the reputation of John Muir. The monument produces its own interpretive brochures in Russian, French, German, Italian, Spanish and Japanese, and single-sheet information pieces in Chinese



and Swedish. The day of our tour, travelers from Australia were walking the trail. They were delighted with it, and eagerly gathered when they heard Bob explaining the features of the monument.

Visitation to Muir Woods has increased steadily. According to Superintendent Richard B. Hardin, the monument hosted 143,700 visitors during the month of August 1975, an increase of 27,370 over the previous year. Total visitation for 1975 was 980,364 compared to 811,229 for 1974. He advises that

visitors arrive before 10 a.m. or after 4 p.m. on weekends and throughout the summer months to avoid crowds.

A walk in Muir Woods reaffirms the importance to modern man of the natural areas of the National Park System. Here is a bit of primeval wilderness, where the visitor can see how the land around San Francisco looked before Europe discovered America. Here the urban-dweller may spend a little time in a forest at peace, its plant and animal life tied to the gentle rhythm of the seasons.

Is solar energy the answer?

The Denver Service Center recently completed studies on the possible use of solar energy for heating in certain buildings in the National Park System. The study showed the following potential annual fossil fuel savings in these areas:

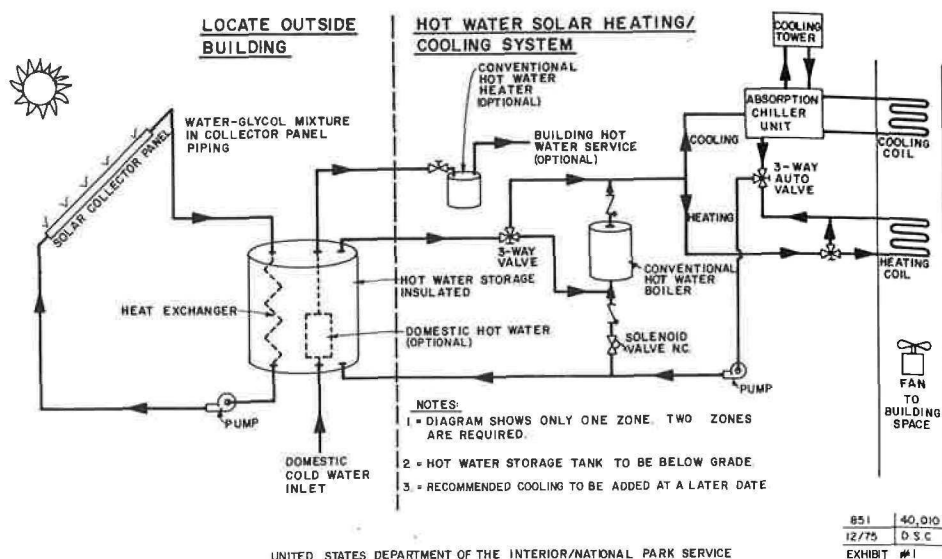
Big Bend National Park Panther Junction, Texas, Visitor Center—savings of 100,000 kilowatt hours of electricity with 60 percent of the heating by solar energy.

Carlsbad Caverns National Park, New Mexico, Visitors Center—savings of 13,800 gallons of fuel oil with solar energy furnishing 80 percent of the heating.

White Sands National Monument, Georgia, Visitor Center—savings of 400,000 cubic feet of natural gas with 73 percent heating furnished by solar energy.

Glen Echo Park, Chautauqua Tower, Maryland, Shed—savings of 7,900 gallons of fuel oil with solar energy furnishing 75 percent of heating.

Solar energy studies are either planned or underway at the following park areas: Mammoth Cave National Park, Ky.; Everglades National Park, Fla; Natchez Trace Parkway,



Miss.-Tenn.-Ala.; Cumberland Gap National Historical Park, Ky.-Va.-Tenn.; Gulf Islands National Seashore, Fla.; Death Valley National Monument, Cal.-Nev.; Petrified Forest National Park, Cal.; Saguaro National Monument, Ariz.; Fort Davis National Historic Site, Tx.; Navajo

National Monument, Ariz., and Golden Gate National Recreation Area, Cal.

In the National Capital Area studies are being conducted for Antietam National Battlefield Site, Fort Hunt, Prince William Forest Park and Wolf Trap Farm Park.

Midwest planner directs urban "games"

By Bill W. Dean
Associate Regional Director
for Cooperative Activities, MWR

When Ken Smith, a one-time electrical engineer in the auto industry, went back to the University of Michigan to be re-tooled as an urban planner, he worked for the Extension Gaming Service, a simulation/gaming consulting unit of the University.

Ken got back into the gaming business at the recent meeting in Omaha of the Midwest Regional Advisory Committee playing GOD (Game Overall Director) in an urban park planning simulation he designed for this meeting.

The exercise was part of a day-long seminar on urban parks which brought together the Advisory Committee, 20 members of the regional office staff and two superintendents of essentially urban parks, Indiana Dunes National Lakeshore and Jefferson National Expansion Memorial.

Since its establishment 3 years ago, the committee has given most of its attention to natural and historic areas and problems. However, in May it will visit two urban parks in the Midwest Region, Indiana Dunes near Chicago and Cuyahoga Valley National Recreation Area between Cleveland and Akron, Ohio.

The Omaha meeting provided the committee with some essential background on urban parks. At the same time it brought new information about those parks to Regional staff members and gave the staff and committee a chance to get better acquainted.

Smith, who is doing his doctoral dissertation on National Park Service advisory bodies, is on a year's assignment in the Midwest Regional Office. Region management is looking to his study to provide better insight into the use and function of such advisory groups.

In addition to the Regional committee, there are five park advisory commissions in the Midwest Region.



Urban Park Planner Ken Smith, left, with hand on the table, meets with NPS Midwest regional park planners. Madonna McGrath, special assistant to the Secretary of the Interior, Chicago, is at upper right.

New tool for recording historic buildings

(Editor's Note: The following article is a reprint from the EXPONENT, a quarterly publication of planning and design in the National Park Service, published by the Denver Service Center.)

As a first step in any architectural preservation activity, the structure must be recorded accurately. The two basic recording devices are drawings and photographs. Drawings have been used traditionally to indicate specific measurements, and photographs have been used to record form, character, immediate environment, and individual characteristics such as texture and tonal quality.

A highly accurate photographic recording system is stereophotogrammetry. This system is based on a pair of photographs viewed in stereo, which makes it possible to obtain measurements in three dimensions. This is the accurate method for translating photographs directly to scale. The procedure is expensive and consequently is being used primarily when exact knowledge of slight variations is required, when a building is going to be razed, or when the building is extremely complex.

The recording system currently being uti-

lized by the Branch of Historic Architecture, Denver Service Center, is rectified photography. This system produces a two-dimensional representation at a specified scale. In contrast to the stereo system, the final image is produced from a single photograph. Thus, it is not possible to obtain the third dimension. However, rectified photography is far less costly and time consuming. It is not different in theory from a single photograph of an object, but does differ in using a more precise system for positioning the camera in relation to the building. The results are an image at a known and easily workable scale. The use of the view-type camera, with this positioning system, minimizes optical distortion and results in an extremely accurate image.

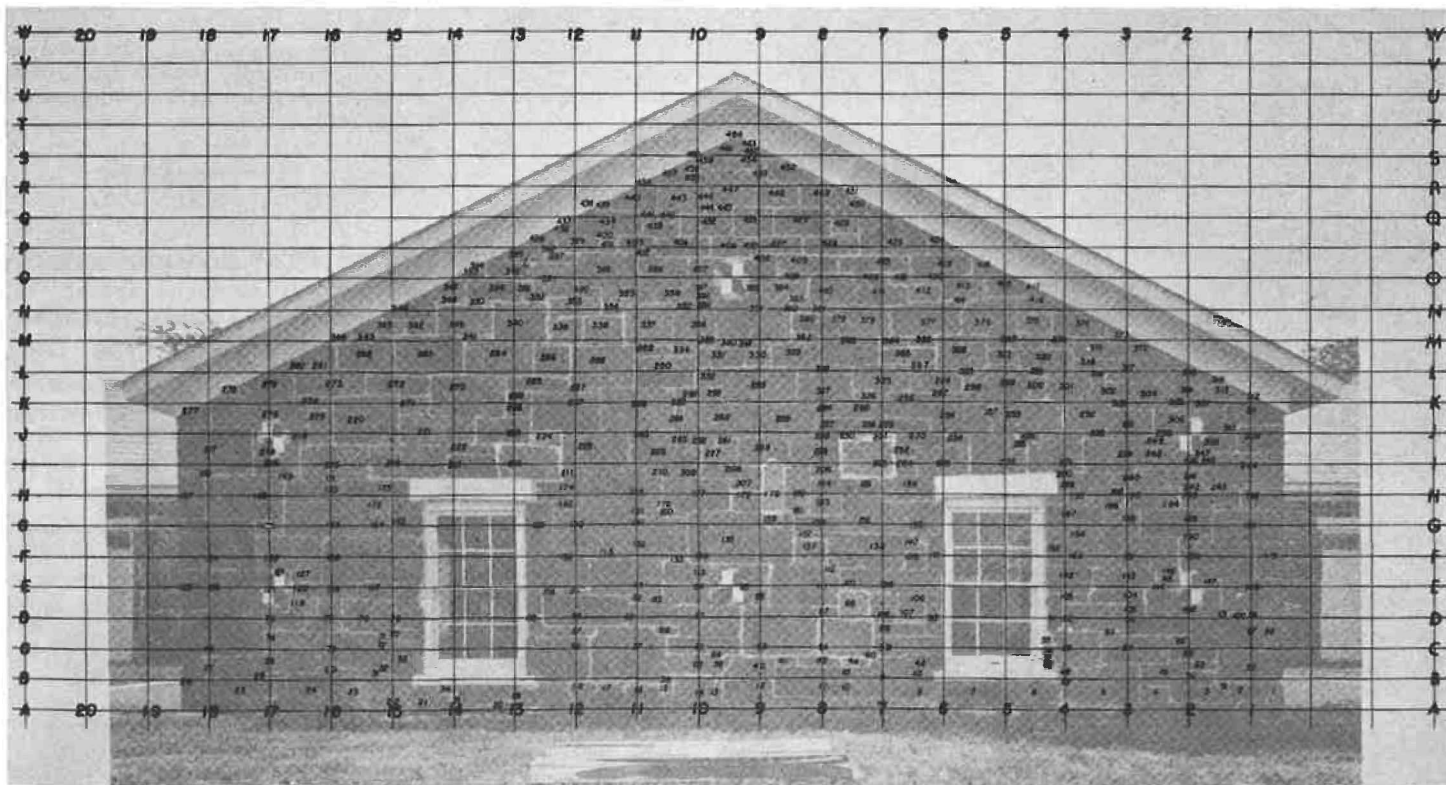
At Fort Larned, the example shown here, several stone buildings are structurally unsound and will require the dismantling and reconstruction of some walls. The buildings have been recorded by rectified photography. The back and side walls of the enlisted men's barracks kitchen wing were photographed, and the photographs were printed at a scale of $\frac{1}{2}$ inch equals 1 foot. A grid was superimposed over each photograph and all major

stones numbered to provide the elevation control necessary in rebuilding.

The degree of accuracy will vary with photographer, camera, equipment, and darkroom sophistication. However, based on experimentation and actual field work by the Branch of Historic Architecture, normal accuracy in the range of $\frac{1}{4}$ inch over 10 feet is expected.

When feasible, rectified photography will be included in Historic Structures Reports—first to identify existing conditions and then to show recommended treatment. The photographs will be printed on a matte-surface photographic mylar, reproducible film, which will allow other information to be added. Rectified photographs, with proposed work shown, will be used for construction working drawings. Sometimes the photographs will only form a base for accurate drawings.

Rectified photography is a new advantageous tool for the recording of buildings, both historic and modern. However, it should not be considered as the all-encompassing solution. It is a valuable tool, but just one of many necessary for the process. It has proven to be a savings in both time and money and its use will be expanded.





Headliners

In park news last month: Secretary Kleppe (top photo, center) talked with (l to r) Foster R. Freeman, Vance L. Kaminski, and Regional Director Merrill D. Beal during a visit to MRO; Director Gary Everhardt (left) participated in Lincoln's Birthday ceremonies at the Lincoln Memorial, D.C.; and (below) Mrs. Nelson A. Rockefeller visited Harpers Ferry National Historical Park, W. Va., and was escorted by Supt. Marty Conway.



The Frederick Douglass Home



The Frederick Douglass Home, Wash.D.C., a memorial to the distinguished black statesman, was recently repainted and is being relandscaped and redecorated. Also, a new book, "Frederick Douglass: The Clarion Voice," by Dr. John Blassingame of Yale University, will be published by NPS this year.

Everglades is not forever

It was called Pa-Hay Okee, this river of grass
A beautiful evocative name from the past,
Water flows like blood thru the veins of the land
Life-giving to wildness, also to man,
But we ditch it and drain it—progress they say.
If the glades are to perish, it is we who must pay.

Glenn VanNimwegen
VIP, Everglades National Park, Fla.

Shenandoah's first 50

Shenandoah National Park will soon be celebrating the 50th anniversary of its authorization. Former employees and friends should plan now to attend an old-timers picnic near Luray on Saturday afternoon May 22nd.

An open house will be held at park headquarters on May 23rd.

Letters

Naomi L. Hunt, Editor
NPS Newsletter
Room 3416, Interior Building

To the Editor:

Independence National Historical Park has indeed taken "a giant leap back in time," flattening at the same time a fine collection of nineteenth and early twentieth century commercial buildings. Leaving open spaces that never existed in Colonial times ignores the mix of uses that have historically been found in the area.

What happened to the tannery that used to foul the air near Carpenters' Hall, or the cast

iron fronted monuments to America's architectural history that were "an untidy clutter along the riverfront?" The clutter included three Frank Furness buildings, the Guarantee Trust and Safe Deposit Company, The Provident Life and Trust Company, and the National Bank of the Republic; the Jayne Building, Philadelphia's first skyscraper; and the Penn Mutual Life Insurance Company, Philadelphia's first cast iron building.

It may be nice to have a unified setting for Philadelphia's Colonial heart but please do not forget what was irretrievably lost in the process.

Sincerely,

John A. Burns, Architect
Historic American Buildings Survey
WASO

P.S.: The Second Bank of the United States is an excellent example of a Greek Revival building, not Neo-Gothic.

Wanted: a freezing river story

Just finished the interesting story on Mt. McKinley mashing by Bill Garry in the Jan. 16 Newsletter. Several of us here in Denver think a little item by Mr. Garry explaining how rivers freeze from the bottom up would be most interesting. I've drilled on occasion through several feet of mountain-river ice to get to the water below for winter fishing opportunities, but understanding the exceptional way that rivers freeze in Alaska would certainly enhance our personal information bases. Thanks.

George Fisher,
RMRO reader

Errata

Due to a typographical error the article on Big Cypress in our Feb. 23rd issue stated that NPS is purchasing 552 acres of privately owned land. The correct figure is 522,000 acres.

People on the move

New Faces:

ANGLIN, Audrey K., Info Receptionist, Assoc Reg Dir Park System Mgmt, SWRO
BORDEN, David H., Park Tech, Shenandoah NP
BURNS, John L., Jr., Maintenance Worker, Colonial NHP
CAMPBELL, Christine R., Clerk-Typist, Assoc Reg Dir Admin, SWRO
CARTAGENA, Cruz, Guard, Chamizal NM
DICKERSON, Ural D., Maintenance Worker, San Juan Island NHP
DONAGLIA, Enrico, Motor Vehicle Operator, Zion NP
EMERSON, Leonard C., Personnel Mgmt Spec, Personnel Div, WASO
ERISMAN, John R., to Park Aid, Grand Canyon NP
FIERO, Donald C., Archeologist, Zion NP
HARDY, William E., Painter, Colonial NHP
HUNT, Lestus, Carpenter, Colonial NHP
LAMB, Marvin D., Supply Clerk, Lake Mead, NRA
LOGAN, Aaron C. Jr., Laborer, Golden Gate NRA
LUCERO, Roberto, to Janitor, Chamizal NM
LUNA, Richard C., to Maintenance Worker, Lyndon B. Johnson NHS
MARRERO, Michael K., to Graphics Designer, Div Publications, HFC
MYZEL, Solomon, Architect, Independence NHP
PETSCH, Deborah A., Clerk-Typist, Lyndon B. Johnson NHS
SENA, Ernest L., Janitor, Mesa Verde NP
SHACKELFORD, Lyne M., Park Tech, Colonial NHP
WHISSEN, Robert E., Structural Engineer, Assist Mgr RM/MW Regions Team, DSCX

ESPELAND, Barbara J., to Cardpunch Operator, PNRO
FREET, Bary A., Forestry Tech, Sequoia NP
GARRETT, John E., Position Classification Spec, Imm Off Assoc Reg Dir Admin, SERO
SANDS, Lois A., Clerk, Grand Canyon NP
SHAFTER, William M., to Clerk-Typist, Sequoia NP
SWART, Ann Frances, Occupational Health Nurse, Kennedy Support Group

New Places:

ALLEN, Trudy A., Planning & Design Clerk, Assoc Reg Dir Prof Serv, WRO, to Clerical Assist, San Francisco Archeological Office
BECK, John W. Jr., Supv Park Tech, C&O Canal NHP, to Park Ranger, Kings Mountain NMP
BROWN, Doris W., Sec, NPS, to Group Programs Assist, Div Visitor Services, NCP
EASTMAN, William E., Park Tech, Yosemite NP, to Supv Park Tech, Yosemite NP
GRIFFIN, Deborah, Park Tech, NCP, to Park Ranger, Gateway NRA
HITE, Calvin F., Park Tech, Independence NHP, to Park Ranger, Delaware Water Gap NRA
KASTELLA, Sandra A., Clerk-Typist, Glacier NP, to Realty Spec, Joshua Tree NM
MULCAHY, Paul R., Civil Engineer, Assist Mgr RM/MW Regions Team, DSC, to Same, W/PN Team, DSC
NEWGREN, Richard A., Supv Park Ranger, Lassen Volcanic NP, to Same, Capitol Reef NP
RAMIREZ-DIAZ, Elias, Guard, Chamizal NM, to Park Tech, San Juan NHS
ROBERTS, Bertrum C., Park Mgr, Cumberland Island NS, to Admin Ofc, Operations Evaluation, WRO
SCHAB, Joyce M., Clerk-Typist, Assoc Reg Dir Prof Serv, MWRO, to Payroll Tech, Personnel, MWRO
SHOLLY, Dan R., Supv Park Ranger, Yosemite NP, to Same, Crater Lake NP
VENUTO, Louis J., Supv Park Tech, Colonial NHP, to Park Ranger, Petersburg NB
WIDDIFIELD, Larry D., Park Tech, Buffalo NR, to Park Tech, Walnut Canyon NM
YOAS, Carl E. Jr., Marine Engine Repairer, Amistad RA, to Maintenance Mechanic, Katmai NM

New Places:

ANDERSON, Lillian M., Clerk-Steno, Portland Field Office, to Visitor Info Assist, Fort Vancouver NHS
BREAZEALE, Robert M., Facility Mgmt Spec, Assoc Reg Dir Park System, WRO, to Same, Hatteras Island
BRUNO, Joseph W., Civil Engineer, Assist Mgr W/PN Regions Team, DSC, to Same, Assist Mgr RM/MW Regions Team, DSC
COOPER, Bennett M., Park Tech, Great Smoky Mountains NP, to Same, North Cascades NP
CROWFOOT, Susan J., Sec, Surveys Div, DSC, to Wildlife Research Clerk, Zion NP
DAVIS, Wilson, Park Tech, Wupatki NM, to Same, Sunset Crater NM
DUNN, Billy D., Tree Worker Leader, Tree Group, NCP, to Tree Maintenance Foreman, Meta Craft Shop, NCP
GRETTEMBERG, Zandra B., Admin Assist, Point Reyes NS, to Admin Ofc, Coulee Dam RA
GRIEGO, Jayne, Clerk-Steno, Rocky Mountain Region, to Sec, Surveys Div, DSC
HOLLINGSWORTH, John E., Park Tech, Big Bend NP, to Same, Natchez Trace Pkwy
KEITH, Larry D., Maintenance Leader, Wind Cave NP, to Maintenance Mechanic, Bighorn Canyon NRA
KYRAL, Jo Ann, Admin Assist, Rocky Mountain NP, to Same, Buffalo NR
McMULLIN, Helen L., Supv Park Ranger, Grand Canyon, to Park Ranger, Grand Canyon NP

McKEE, Janet I., Accounts Maintenance Clerk, Assoc Reg Dir Admin, RMRO, to Clerical Assist, Zion NP
MONTALBANO, David R., Park Tech, Branch Training & Devel, WASO, to Same, Montezuma Castle NM
POINTS, Doris E., Payroll Clerk, Yellowstone NP, to Payroll Supv, Assoc Reg Dir Admin, RMRO
REYES, Enrique, Janitor, Chamizal NM, to Laborer, Padre Island NS
ROSS, Charlotte L., Clerk Steno, Imm Off Assoc Reg Dir Prof Serv, SERO, to Clerical Assist, Atlanta Archeological Office
VAN DUYNE, Joan B., Clerk-Steno, Glen Canyon NRA, to Project Clerk, Glen Canyon NRA
YARBROUGH, Peggy E., Park Aid, Point Reyes NS, to Motor Vehicle Operator, Point Reyes NS

Out of the Traces:

AMATO, Beverly J., Clerk-Typist, Assoc Reg Dir Park System Mgmt, RMRO
ARNOLD, Edwin L., Supv Landscape Architect, Portland Field Office
ATTARIAN, Frederick L., Engineering Tech, Surveys Div, DSC
GANDARIA, Donato, Maintenance Worker, Pinnacles NM
GONSOROIK, John R., Private, US Park Police
GRIMM, Weller M., Maintenance Worker, NCP
JOSHUA, Marvin G., Janitor, Grand Canyon NP
KAHO, Herman, Laborer, Natchez Trace Pkwy
KNOX, Linda M., Accounting Tech, Assoc Reg Dir Admin, RMRO
LANKTON, Lillian R., Personnel Assist, Blue Ridge Pkwy
LUTT, Carolyn L., Equal Oppor Spec, NCP
McGINNIS, Brenda B., Park Tech, Mammoth Cave NP
MUNDELL, Raymond L., Museum Tech, Midwest Archeological Center
OTT, George R., Admin Ofc, Big Cypress Lands Office
ROSENBERGER, Charles H. Laborer, Cabrillo NM

SMITH, Royce D., Supv Travel Assist, Assoc Reg Dir Admin, RMRO
SUTTON, Lucille M., Clerk, Great Smoky Mountains NP
TAPERT, Lois J., Payroll Clerk, PNRO
WIESEMANN, Peggy A., Legislative Staff Tech, Div Concessions Mgmt, NCP
WOOD, John N., Supv Park Ranger, Grand Teton NP

BLACK, Donald M., Park Ranger, Joshua Tree NM
BOLANDER, Joseph C., Park Tech, Pipe Spring NM
BROWN, Raymond, Auto Mechanic, Branch Transportation, NCP
BROWNLEE, Mosco, Jr., Gardener, NCP
CARROLL, William M., Painter, Tree Group, NCP
CHAMBERS, Teva A., Admin Clerk, Hot Springs NP
CHRYSS, Pauline, Legislative Liaison Assist, Legislative Serv Div, WASO
CUMMINGS, Georgia M., Voucher Examiner, PNRO
DAVIS, William B., Private, Special Operations Force, NCP
GUTHRIE, Janice K., Clerk-Typist, Imm Off Assoc Reg Dir Prof Serv, SERO
HAYES, Alden C., Supv Archeologist, Chaco Center
JENSEN, William P., Facility Mgr, Lake Mead NRA
LANHAM, Joseph E. Jr., Automotive Mechanic, Branch Transportation, NCP
LOTT, Carolyn L., Equal Opportunity Spec, Div Interp Recreation & Resource Mgmt, NCP
NELSON, Edward D., Park Tech, Death Valley NM
NICHOLS, June T., Admin Clerk, Chaco Canyon NM
SCHULTE, Lois H., Sec, Assist Dir Devel, WASO
SPENCER, Wallace T., Maintenance Mechanic, Hatteras Island
YOUNG, Jon N., Archeologist, Interagency Archeological Serv Div, WASO



U.S. Department of the Interior
Secretary Thomas S. Kleppe
National Park Service
Director Gary Everhardt



Issued biweekly for Service employees through the Office of the Director, Edited and published by the Office of Public Affairs.

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