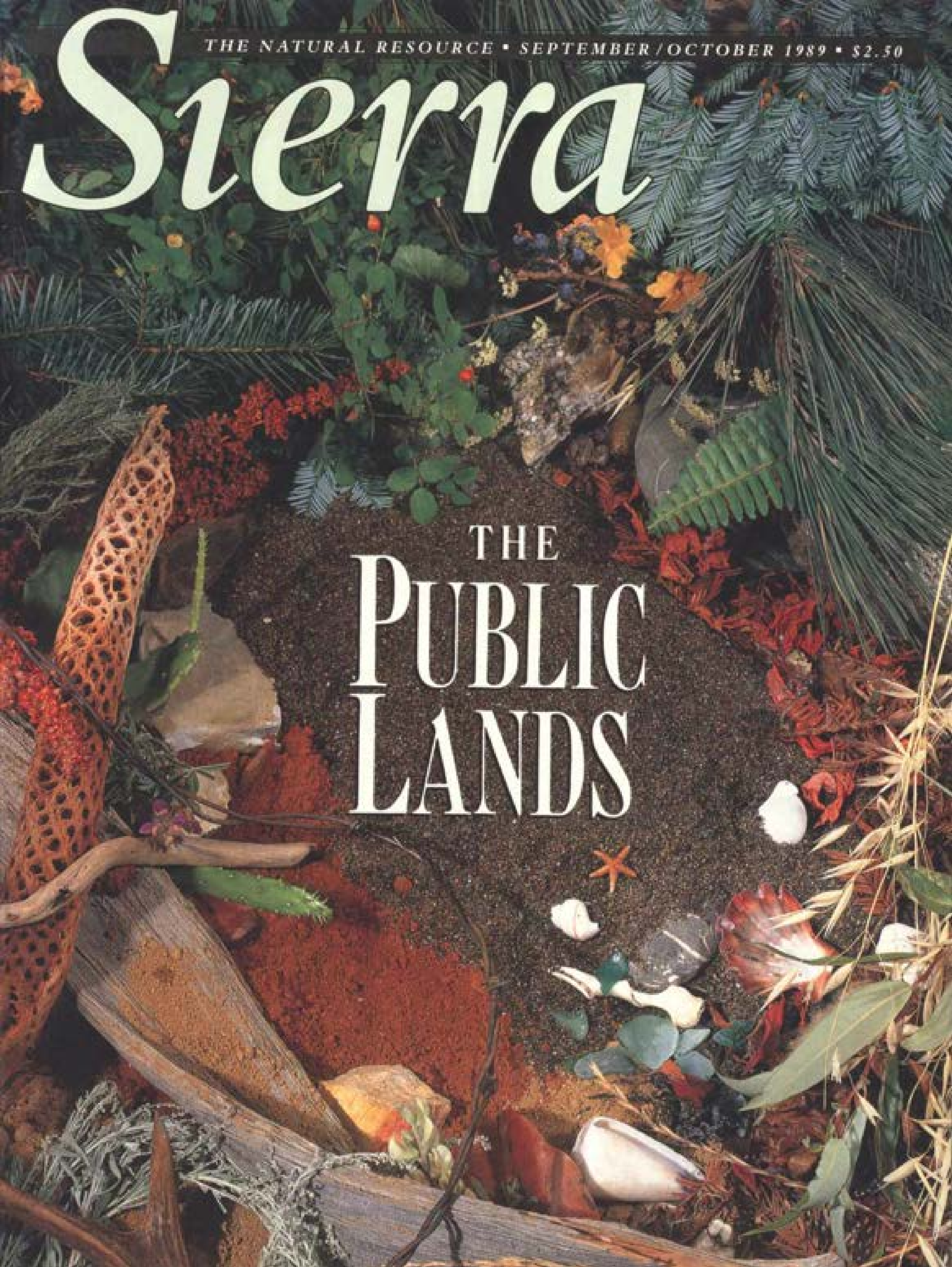
Sierra
THE NATURAL RESOURCE • SEPTEMBER/OCTOBER 1989 • $2.50
THE PUBLIC LANDS

THINK

A new Geo-Logical evolution in imported automobiles. A new kind of 4 x 4 sports/utility vehicle. Now both are at selected Chevrolet dealers.

THE LOGIC OF GEO-LOGIC

As times change, things change.
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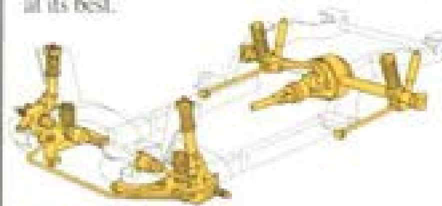

RATIONALE

The Versatility of All Outdoors.

In keeping with its evolutionary flexibility as passenger car, sports car, pickup truck, station wagon, and recreational vehicle, the Geo Tracker offers two distinctively versatile ways to go: There's the all-weather security and tightness of a rigid, non-removable steel roof. Or the sunshine-and-fresh joys of a weather-tight, fold-and-stow canvas top with a built-in sun roof. And the security of you-choose-when four wheel drive on the Tracker stands ready to take on slick roads, torn up streets, and the pathways and by-ways of America in the raw.

Top: Geo Tracker Convertible

Bottom: Geo Tracker LSi

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Sierra

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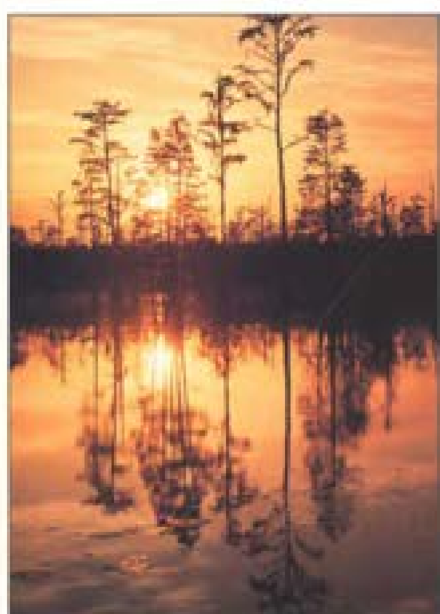

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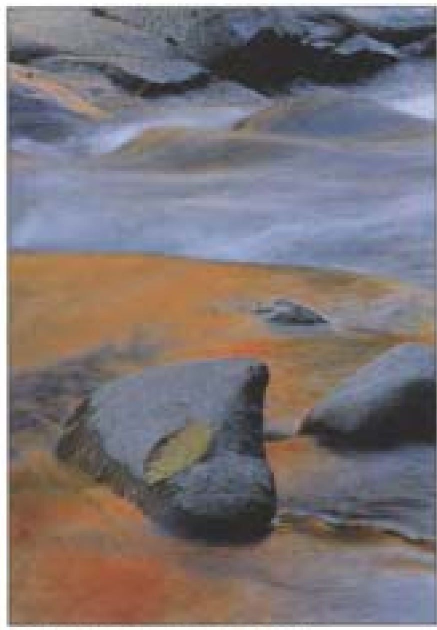

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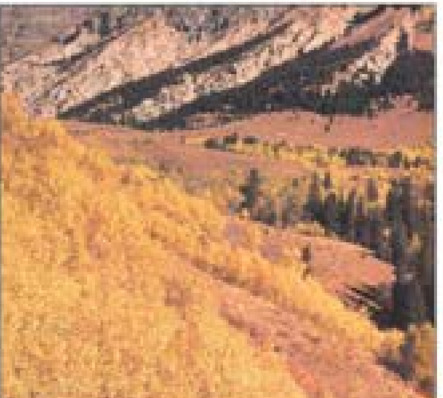

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   ☐ 2. 25-34 ☐ 4. 45-54 ☐ 6. 65 or over

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7. Which of the following interest you? (Check as many as apply.)
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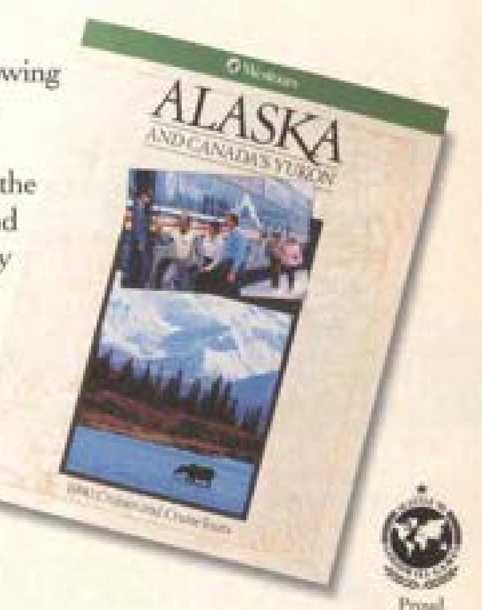

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To Defend and Enjoy

This issue of *Sierra* is devoted to a single theme: the preservation, protection, and appreciation of the public lands of the United States—our commonly held forests, deserts, grasslands, rivers, mountain ranges, and seashores.

It's a theme worth a sermon, and we won't deny that there's some fire and brimstone in these pages. For nearly 100 years the Sierra Club has preached—and fought—on behalf of the public lands. As we prepare for our second century of political work in this arena, we remain attentive to the values, both human and wholly wild, that motivate our efforts. We've had our share of defeats as well as triumphs, and though the former may have left us momentarily subdued, we've carried on—because the triumphs have been great and energizing victories indeed, and the cause has never seemed worth less than our total dedication.

For the public-lands concept itself is an inspirational one: millions upon millions of acres under the protection of the federal government, administered not stealthily for private profit but rationally for the common good. And when we've found it necessary to point to some of the many instances where things haven't worked out that way (as we do in "Unfinished Business," page 48), it's been our hope to inspire action instead of reverie. If you were to write—either in support or opposition—to one or more of the lawmakers whose conservation initiatives are described herein, we'd consider the modest amount of sermonizing we've subjected you to as a contribution to our mutual heritage—one made concrete by virtue of your concern and commitment.

Of course, it's a huge topic we've elected to tackle in a very few pages, and the political approach is but one of several we can take to get a handle on our theme. As Wallace Stegner observes in his salutatory essay ("Our Common Domain," page 42), it's important not only to stand guard over the public lands—in some measure to protect them from their nominal protectors—but to enjoy them as well. (That same observation was proffered by the late Edward Abbey and is illustrated well, we think, on this issue's final page.) So we've made sure to temper our hectoring zeal with appeals to our readers' extra-political sensibilities.

For example, in "Lines on the Land" (page 66), C. L. Rawlins constructs a rough-and-ready wilderness cosmology that centers on the shifting distinction between *here* and *there*, and inveighs against the reductive view of the public lands that only emphasizes our physical and emotional distance from them. A little later on, an alternately scholarly and celebratory Gary Snyder examines the many senses we attach to the words *wild* and *nature*, counseling us in consequence to lead a mindful and mannerly (and hence ethical) life, particularly in our relations with the world that watches and listens to what we do as we pass through it ("The Etiquette of Freedom," page 74).

All of our contributors knocked themselves out for us this issue, and we're grateful (wildly, naturally) to them for it. We also happily acknowledge our debt to the donors whose generosity made elements of this special issue possible: Bert Fingerhut, Raymond F. Mikesell, the Christopher Karlin Memorial Fund, and the Heartline Fund.

Finally, we're both grateful and a bit apologetic to the 2,000 entrants in our tenth annual photo contest, who were expecting the prizewinners to appear, as always, in the September/October issue. We simply had too much pertinent public-lands material on hand to give those images the space they deserve—so instead we'll deliver a gala contest-winners' package to you next time out, as the photo-contest champs accompany the winning entries in our second annual nature-writing competition.

Jonathan F. King
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Sierra

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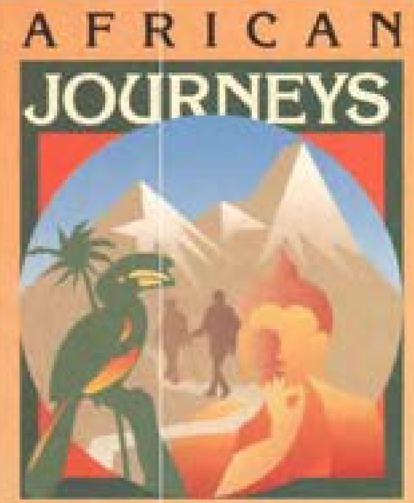

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THE RIGHT PATH TO ADVENTURE

LETTERS

REALITY OUTSIDE OUR DOOR

I was surprised to find, in a publication given to stock visual evocations of natural "perfection" and "sublimity," a survey of some of the most intelligent and uncompromising artists working with the land today ("Uncommon Perceptions: A Gallery of Contemporary Landscape Photography," July/August). Just how "uncommon" their perceptions are, however, seems debatable: Our American environmental experience is defined not by the relatively diminutive, self-consciously pristine park system, but by the compromised and battered landscape that we have ourselves created. For better or worse, the "common" American experience of the environment is about human impact on the land as much as about the land itself. None of these artists is willing to shirk this fact of modernity.

But the vocabulary of facts that their work employs does not, as Rebecca Solnit argues in her introduction, render it "deeply pessimistic." While some might see such imagery as strident, bleak, or banal, it seems to me that the very act of leaving the grand landscape tradition for a less escapist, more honest reality that includes a human presence is extraordinarily beautiful, a coming home of sorts. The real environment—and the real subject for environmentalists—is right outside our doors: beautiful and terrible, it's all we've got.

Is that so pessimistic?

Michael Light
San Francisco, California

BLUEPRINT FOR FAILURE

Even with an extensive revision in 1977, the Clean Air Act has utterly failed to achieve its objectives during a nearly two-decade-long tryout. It's been a very expensive disappointment. The act's command-and-control strategy is the reason for its failure to reach its achievable objectives. If adopted, the "blueprint for clear skies" developed by Southern California's air-quality agencies ("Priorities," July/August) will be a costly failure for the same reasons.

The thought of a maze of controls on the daily activities of millions of consumers and businesses is offensive (because of its intrusiveness) and absurd (because it'll be costly and unenforceable, and will depend on still-unknown technologies). The government does not have enough information or enforcers to make a command-and-control strategy work—and because of its inherent inefficiencies and intrusiveness, let's hope it never will.

With controls, individual creativity turns to efforts to evade detection and enforcement. With economic incentives, individual creativity is harnessed for the benefit of all. We don't need more regulators telling us who can do what, how, where, and when.

John Merrifield
San Antonio, Texas

WORDS OF WARMING

Bravo for your coverage of global warming and what we can do about it ("Climate Shock," July/August). However, none of the corrective steps outlined in those articles will amount to anything if the problems of population growth and urban sprawl are not soon curbed.

Mary Jo Gibbons
Fort Wayne, Indiana

One very important action we can take to lessen global warming is to curb our appetite for meat.

The number-one cause of rainforest destruction is the clearing of land for cattle grazing. This not only destroys trees and releases carbon dioxide but leads to an increase in methane-producing cattle.

The process of producing beef is also terribly wasteful. The average amount of energy used to produce a serving of meat large enough to power the human body for one mile is greater than that wasted by an automobile traveling the same distance.

Joshua Beddingfield
Monterey, California

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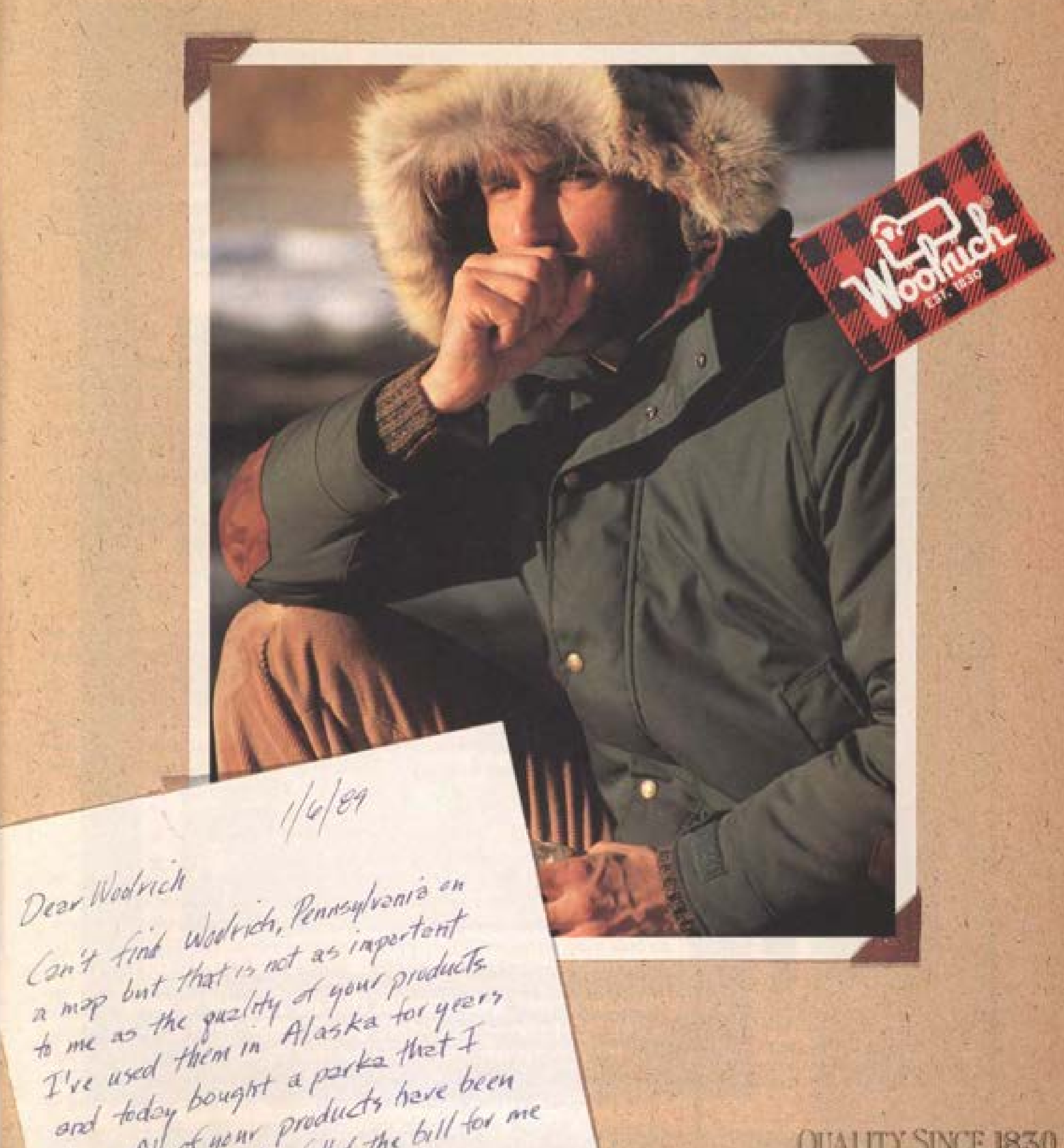

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coal mining for their livelihoods, and will probably fight to maintain the use of fossil fuels for as long as they can—unless, somehow, environmentalists join with other political pressure groups to assure them of an alternative economic future that makes sense.

The Sierra Club must start thinking about job-retraining programs for miners, about major federal efforts to develop renewable-energy factories in coalfield areas, and about generous income-maintenance payments and mortgage subsidies for communities disrupted by change. Conservationists also should revive the concern for federal "infrastructure" spending that flourished briefly in the 1980s; we must employ people to repair our bridges, sewers, subways, and dams as we shrink employment in the mines. Going beyond this, we should develop some sort of solar-capitalist Marshall Plan—a "green" regional economic-development program not just for the Third World, but also for Kentucky, Ohio, and West Virginia.

What conservationists must *not* do is dismiss the social-dislocation aspects of the greenhouse dilemma as "non-environmental" problems that will resolve themselves. That's not only an unholistic way to think about a holistic problem; it's also asking for our best climate-stabilization efforts to be opposed in a few years by jobless, angry, and probably militant coal miners.

John Andrews
Washington, D.C.

Your photo of a logged area in Alaska was accompanied by a caption that states: "Logging . . . amid the temperate rainforests of Alaska eliminates one of nature's most effective CO_2-trapping devices. Conservationists are calling for curbs on cutting and for increased tree-planting worldwide."

The calls for tree-planting worldwide are certainly right on target. The calls for curbs on cutting offer a mixed bag of virtues, however, and unfortunately the picture you selected is absolutely the wrong choice to illustrate the point. Logging in a temperate rainforest in Alaska is followed by reasonably rapid regrowth of woody plant material. This regrowth material has a higher rate of carbon dioxide removal and carbon fixation than did the mature forest that existed prior to the cutting. Moreover, if the wood harvested (or a percentage of it) goes into products that have a long life (lumber, poles, pilings, etc.), the carbon in the wood is in storage until the product decays or deteriorates, or is scrapped and burned.

If the picture had been taken in the tropics, and following logging there was burning and clearing, and conversion to ranching or agriculture, the point made would have a lot more validity.

Lawrence S. Hamilton
Honolulu, Hawaii

CAR COMMENTARY

Congratulations on your hard-hitting, well-informed "Afield" section devoted to the automobile (May/June). Few magazines have challenged the dollars of the automakers with the frank truth about the destruction of mass transit in America. You've made a compelling case; now we need a modus operandi for recovering mass transit.

Lee Baxandall
Oshkosh, Wisconsin

People drive cars because cars are convenient, private, comfortable, and generally quicker than the alternatives. A sensible transportation policy for the Sierra Club would emphasize correcting the environmental effects of automobiles, not fantasizing about a world in which there were none.

Robert Levine
Glendale, Wisconsin

In the early days of this century, the automobile gave Americans a wild new freedom, a freedom to travel anywhere, anytime—fast! The license (soon regarded as a right) to drive a car became almost as sacred as the right to speak and worship freely, and was exercised more often than either of them. Building more and wider highways to accommodate our cars has become almost the only public enterprise we are willing to raise our *own* taxes to pay for.

The responsibility for our love affair with—our addiction to—the automobile rests squarely and decisively with the 150 million of us who drive cars. And the blame for the current

today's the day!

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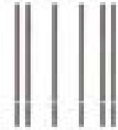

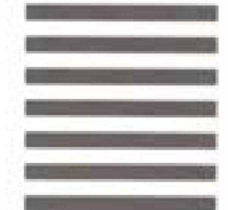

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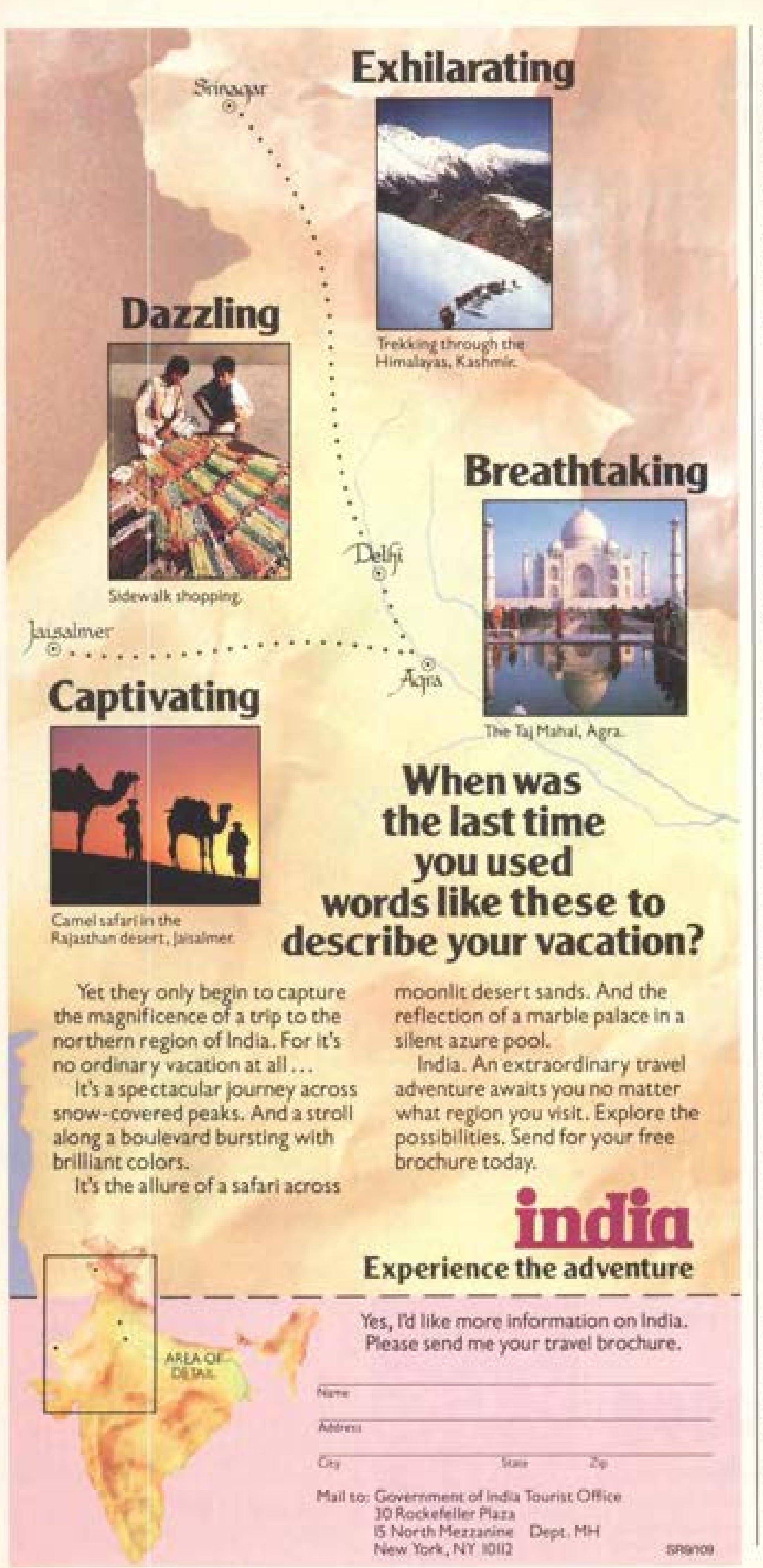

transportation crisis rests with this same vast majority—not the automakers, the oil companies, the highway bureaucracies, and the other usual suspects. It is this huge constituency of motorists that clamors to widen freeways, that squanders scarce urban space to make room for more cars, and that pressures government to subsidize our car habit at an annual cost of $400 billion.
Mark Woodbury
Oakland, California

Not only do motorcycles, mopeds, and motorscooters consume a great deal less fuel than autos do, they require less than one-fifth the natural resources to manufacture, occupy little more parking space than a bike (though they can carry two passengers), and are safer than bikes on streets because they keep up with traffic.
Steven R. Green
Los Angeles, California

YA MIGHT AS WELL WALK

Dennis Coello's "Vicious Cycles?" (May/June) was a malicious anti-bicyclist propaganda piece. Most mountain bicyclists are responsible individuals with the same concerns for the outdoors as other Sierra Club members. Painting these people with the same tar brush as the few irresponsible riders is the same as condemning all hikers or equestrians because of the obnoxiousness, vandalism, and littering of a few.

A workable program of access to the outdoors requires rational thought and open discussion between users, not yellow journalism. Our Club can accomplish much more by working together than we can by attacking each other.
Donald Herzog
Mill Valley, California

We can't cycle where there are no trails (it's no fun), we can't cycle where there are motorcycles and four-wheel drives (it's too dangerous), we can't cycle where there are horses (they spook too easily), nor can we cycle where there are hikers (they get in the way). So where are we supposed to ride? You say: on approved trails, going slow. All the mountain bikers I know, myself included, enjoy riding at moderate to fast

speeds because it is fun (the purpose of mountain biking). If I have to go slow, I might as well be walking.
S. Johnson
San Diego, California

Why should wilderness have to cater to stimulation junkies looking for a new and higher high? The thousands of miles of fire roads, jeep trails, and logging roads should keep the cyclists busy for several lifetimes without having to invade the trails. If cyclists would take the trouble to walk into a place they want to see—to appreciate it for itself—they too would fight to keep bicycles out.
Margarite Hoefler
Kansas City, Missouri

Bicycles on single-track trails are really no problem at all. Hikers just have to remember to place logs or rocks on trails at appropriate places where they cannot easily be ridden around. While some bikers will view these "speed bumps" as a challenge to be overcome, most will get the idea and stay away.
Mike Savino
Sacramento, California

NO PICNIC IN B.C.

The ad for Tourism British Columbia that ran in your May/June issue, showing a photograph of a deer in an old-growth forest, is one of the most egregious pieces of governmental doublespeak ever published.

The headline ("If you go down to the woods today, you're in for a big surprise") is monstrously ironic to those familiar with B.C.'s timber industry. Logging knows few bounds there: The ancient forest is reportedly being cut at the unbelievable rate of almost three square miles per *day* (680,000 acres per year)—ten times the rate in Oregon and Washington. So the "big surprise" in the Canadian woods is that the remaining scattered shards of unique old-growth ecosystem are being laid waste. British Columbia's Minister of Tourism, Bill Reid, should get letters not requesting travel information but complaining about the greedy overlogging that makes pristine forest scenes like the one in the ad increasingly hard to find!
Gary Braasch
Portland, Oregon

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ACRES
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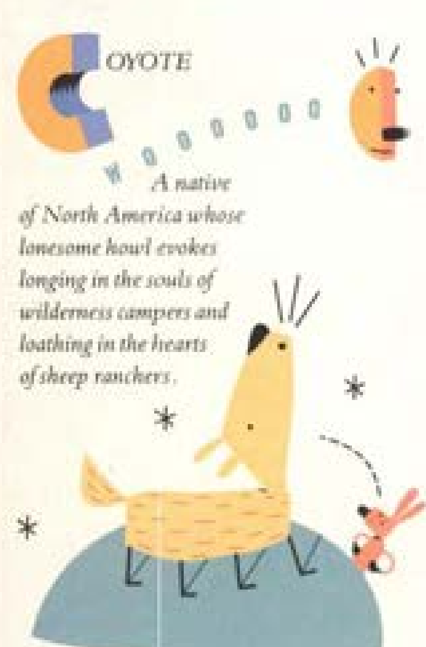
BUREAUCRACY
It takes a lot of red tape to keep the public domain in one piece. The major federal land-management agencies—the Forest Service, the Fish and Wildlife Service, the Park Service, and the Bureau of Land Management—together employ some 85,000 people and have a budget of more than $6 billion per year.



COYOTE
A native of North America whose lonesome howl evokes longing in the souls of wilderness campers and loathing in the hearts of sheep ranchers.

DESERTIFICATION
Conservative estimates indicate that half the public land in the American West is losing its natural vegetation, the effect of decades of livestock grazing. The resulting erosion transforms semi-arid grasslands into barren desert.

GREG RYAN – SALLY BEYER

ENVIRONMENTAL IMPACT STATEMENT
Preparation of these oft-disputed documents is required by the National Environmental Policy Act of 1969, which directs the federal government to evaluate the effects of any proposed development that may have a significant impact on the human environment and to outline possible alternatives.

FOREST PLAN
Cut or conserve? The National Forest Management Act of 1976 required administrators of all 156 national-forest units to spell out their long-term intentions. Only two of the plans submitted to date have gone unopposed by conservationists.

GRASSLAND
Nineteen national grasslands encompass 3.8 million acres, mainly in the Plains states. Although they are supposed to be protected, they are often subjected to overgrazing and energy development.

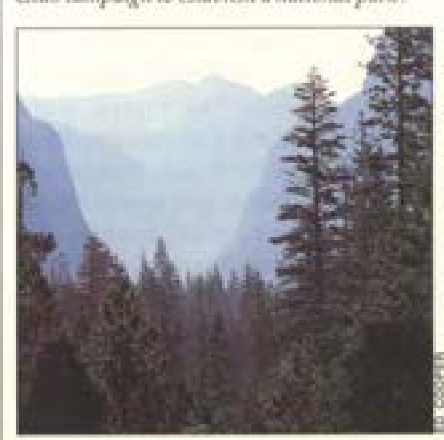
HISTORIC SITE
Leave your backpack behind when you visit any of these 64 units administered by the National Park Service. Designated by Congress, they include John Muir's home in California, Ford's Theatre in Washington, D.C., and Edgar Allan Poe's house in Pennsylvania.

INHOLDING
The U.S. government often permits private citizens to retain their properties even when surrounding acres go public. The National Inholders Association routinely lobbies against new parks, wild rivers, and, of course, land acquisition.

JOHN O' THE MOUNTAINS
Founder of the Sierra Club, John Muir was a tireless explorer and defender of western wildlands. His outrage over the despoliation of the public domain was matched only by the spiritual values he found in its midst.

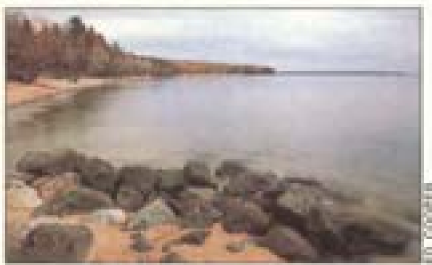
JOHN MUIR COLLECTION, SIERRA CLUB PHOTO ARCHIVE

KINGS CANYON
A California mountain sanctuary beloved of John Muir and, in the 1930s, the focus of a lengthy (and ultimately successful) Sierra Club campaign to establish a national park.



ED COOPER

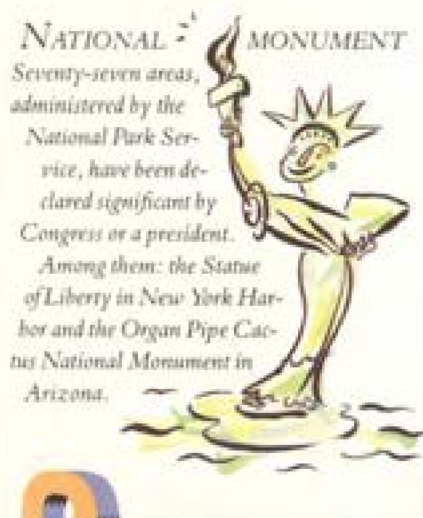
Lakeshore
A major midwestern contribution to the National Park System. The four national lakeshores are Apostle Islands, Wisconsin; Indiana Dunes, Indiana; and Pictured Rocks and Sleeping Bear Dunes, Michigan.



ED COOPER

Multiple use
Officially, the principle by which resources are managed "in the combination that will best meet the needs of the American people." But in practice, powerful economic interests tend to prevail over less influential petitioners, such as recreationists and wildlife.

National monument
Seventy-seven areas, administered by the National Park Service, have been declared significant by Congress or a president. Among them: the Statue of Liberty in New York Harbor and the Organ Pipe Cactus National Monument in Arizona.



Off-road vehicle
Scourge of the public lands, ORVs can be noisy, destructive, dangerous, polluting, and—unfortunately—lots of fun. Their owners, demonstrating increasing political savvy, pose a threat to preservation of fragile landscapes throughout the West.

Pinchot, Gifford
The first formally trained American forester, Pinchot became chief of the U.S. Forest Service when it was established in 1905. His utilitarian vision put him at philosophical odds with John Muir and other preservationists, but during his five-year tenure he met his goal: to manage the forests to the "benefit of the many, not merely profit of the few."

THE BETTMAN ARCHIVE, INC.

One of the nonquantifiable values of the public lands seldom considered in cost-benefit analyses, yet immediately apparent to the visitor.

Recreation area
Congress has set aside 31 special places to play. Originally situated near reservoirs (the first national recreation area was Lake Mead), they now encompass a variety of terrains.

Seashore
Ten national seashores, managed by the Park Service, are scattered along both coasts and the Gulf of Mexico.

Trail
Some 120,000 miles of trails wind across the public lands. Paths to knowledge of a special sort, these byways are increasingly undervalued (and underfunded) by land-management agencies.

Underground
To really get into the public lands, visit one of the eight Park Service units beneath Earth's surface, including Russell Cave, Alabama; Carlsbad Caverns, New Mexico; and Jewel Cave National Monument, South Dakota.

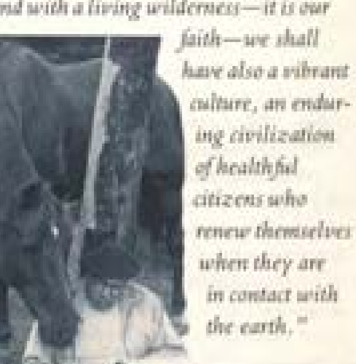
Visitors
Together we whiled away approximately 7 billion hours on the public lands in 1987.

Wilderness Act
Passed in 1964, this legislation directed Congress "to secure for the American people of present and future generations the benefits of an enduring resource of wilderness." In the ensuing 25 years, 90,760,106 acres have been set aside as wild places where (in the act's own words) "man himself is a visitor who does not remain."

Xanadu
Wherever on the public lands you choose to erect your own stately pleasure dome (tent).

Yellowstone
A corner of Wyoming and pieces of Montana and Idaho were designated in 1872 as the world's first national park. At 2,219,823 acres it is the largest such park in the Lower 48, home to elk, moose, bison, and bear—and, not least, Old Faithful.

Zahnhiser, Howard
Chief architect of the Wilderness Act, Zahnhiser worked to pass the legislation for 14 years; he died four months before it was enacted. "Out of the wilderness," he told Congress, "has come the substance of our culture, and with a living wilderness—it is our faith—we shall have also a vibrant culture, an enduring civilization of healthful citizens who renew themselves when they are in contact with the earth."



COURTESY OF THE WILDERNESS SOCIETY · ILLUSTRATIONS C, F, O, Q, T BY J. OTTO SEIBOLD · ILLUSTRATIONS B, N, X BY BARBARA MCGREGOR

WHO ARE THOSE GUYS?

Wilderness areas aren't designated by Mother Nature; each is the result of a long, often acrimonious campaign. The power brokers in this process tend to be federal politicians, a few of whom we introduce below in a sometimes affectionate, sometimes critical light.

EXECUTIVE BRANCH

Manuel Lujan, Jr.
Secretary of the Interior
Lujan served for 20 years on the House Interior Committee, where he compiled a generally poor environmental record. Unfortunately, no perceptible greening has accompanied his rise to prominence. Lujan's loyal oil boosterism leaves conservationists wondering what his boss, the "environmental president," was really saying when he made this appointment.

Cy Jamison
Director of the Bureau of Land Management
A former aide to a pro-development House member, Jamison comes to the BLM giving no indication that he has the will or expertise to correct the numerous problems at the agency.

James Ridenour
Director of the National Park Service
Former president of the Great Lakes Chemical Association and director of the Indiana Department of Natural Resources for eight years, Ridenour brings a dubious résumé to the Park Service. As Indiana's resources chief he believed there was no state park that wouldn't benefit from the addition of a hotel, parking garage, or water slide.

Dale Robertson
Chief of the U.S. Forest Service
The head of the largest of the federal land agencies is supposedly a nonpolitical civil servant. Robertson enjoyed a reputation as a moderate during his 28 years at the agency, but lately he has clashed with environmentalists over timber quotas, roadbuilding, and the general direction of forest planning.

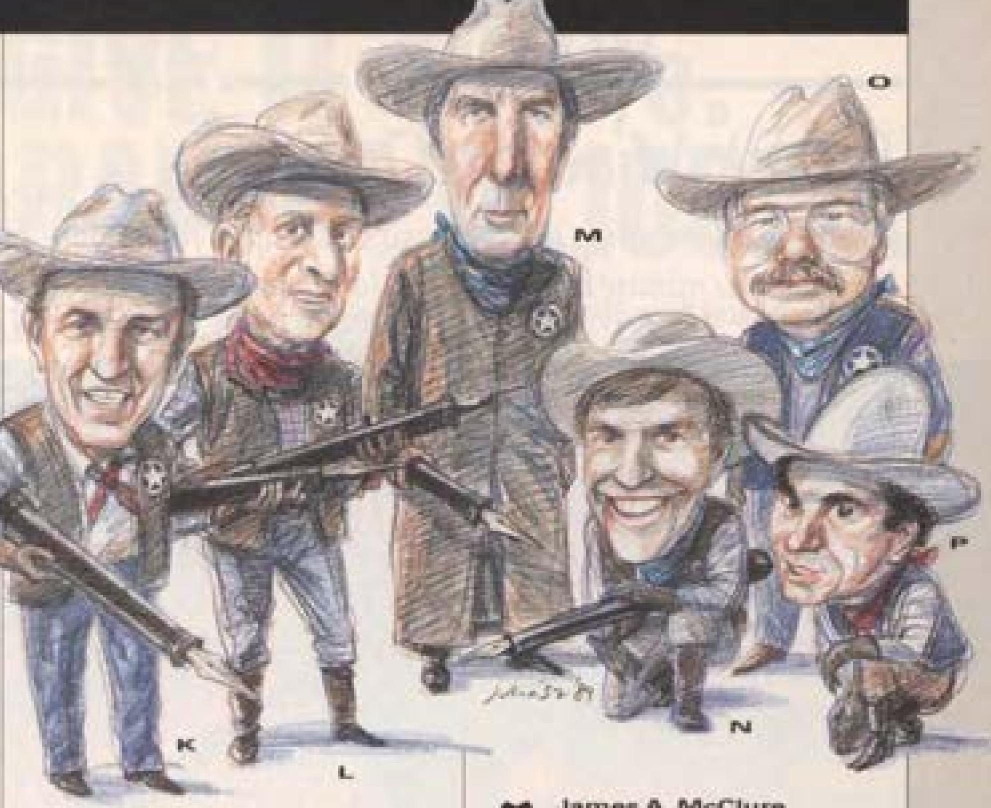
HOUSE

Morris K. Udall
(D-Arizona)
Chair of the Interior Committee since 1977, Udall has maneuvered innumerable historic pieces of environmental legislation through the House, including the Alaska National Interest Lands Conservation Act and the Reclamation Reform Act. Everybody likes Mo, a senior statesman of the highest order.

Ron Marlenee
(R-Montana)
An indefatigable saboteur of preservation efforts, Marlenee sits on the Interior National Parks and Public Lands Subcommittee. He is often the intercessor for grazing, mining, timber, and water-development interests, and can be counted on to oppose almost any wilderness bill he sees.

Bruce F. Vento (D-Minnesota)
Chair of the Interior National Parks and Public Lands Subcommittee, one of the most legislatively prolific committees in Congress, Vento oversees almost every scrap of paper that pertains to the public domain—and is strongly committed to keeping developers at bay.

Sidney R. Yates (D-Illinois)
For 14 years the chair of the Appropriations Interior Subcommittee, Yates controls the purse strings of the federal land-management agencies. He has consistently used his position to stand up for good environmental policy, including repeated moratoria on offshore-oil leasing.



George Miller (D-California)
As his seniority and expertise have increased, the liberal heir apparent to Mo Udall has become a stalwart and feisty defender of the Arctic National Wildlife Refuge, the outer continental shelf, and wilderness water rights.

Don Young (R-Alaska)
The ranking Republican on the Interior Committee, Young can be a pragmatist when he wants to be. He is willing to work with conservationists on minor, uncontroversial bills, but most often pushes the pro-development views of his party's western members.

SENATE

J. Bennett Johnston (D-Louisiana)
One of the wiliest, most able legislators in Congress, Johnston has a genius for putting together bills that pass. In his role as chair of the Energy and Natural Resources Committee, he has favored oil leasing in the Arctic and on the outer continental shelf. A personable man, he seems to like environmentalists—he just doesn't understand what they're trying to do.

Dale Bumpers (D-Arkansas)
This stellar orator is the second-ranking Democrat on the Energy and Natural Resources Committee. Though he picks his battles carefully, he has been steadfast in his dedication to parks, wilderness, forests, protection of the Arctic National Wildlife Refuge, and reform of the 1872 Mining Law.

James A. McClure (R-Idaho)
Principal ally of the oil and nuclear industries, paladin of timber and mining profiteers, McClure is the ranking Republican on both the Energy and Natural Resources Committee and the Appropriations Interior Subcommittee. His seniority and conservatism make him a formidable opponent on most environmental issues.

Malcolm Wallop (R-Wyoming)
The ranking Republican on the Energy and Natural Resources public-lands subcommittee and a master at exercising a senator's unique privilege of holding up legislation, Wallop is an irksome blot on conservationists' public-lands agenda.

Timothy E. Wirth (D-Colorado)
This relatively junior senator has quickly established himself as an energetic and talented friend of the environment. A member of the Energy and Natural Resources Committee, he is an eco-omnivore, taking the lead on issues ranging from Colorado wilderness to global warming.

ILLUSTRATIONS BY VICTOR JUHASZ

RESOURCE POLICY

What's Mined Is Theirs

Written at a time when the West was still wild, a federal law from 1872 permits mining at any cost—to land, water, air, or people.

WILLIAM CONE

Philip Hocker and Stewart Udall

In Questa, New Mexico, the Molycorp mining company has flushed out fine rock dust from its ore-processing operations; across the flats it has formed a chalky desert where nothing grows. When the wind blows, the dust blows, carrying a mix of heavy metals and the threat of cancer into the halls of a neighboring high school. Despite protests by the townspeople, Molycorp wants to build a new pond upwind of Questa and fill it with even more tailings from its open-pit molybdenum mine. The Bureau of Land Management, which owns the site, has agreed, without even considering alternatives to the project.

If this were any other type of development, the BLM would have more options. Because it's a mine, though, the story is different: The very existence of molybdenum in Questa gives Molycorp the right to mine it, regardless of any damage that may result. This license is granted by the General Mining Law of 1872, the preeminent federal law controlling mining of publicly owned minerals in the United States.

A relic of the California Gold Rush, the Mining Law was intended to encourage the exploration and development of the nation's minerals. Under its provisions, anyone who finds a valuable deposit on the country's open public lands may stake a claim and exploit it, or the prospector may patent the claim and purchase the land for as little as $2.50 per acre. Now, conservationists and many members of Congress want to end the environmental degradation and the land giveaways that have gone on for 117 years.

Although the General Mining Law originally applied to "all valuable mineral deposits in lands belonging to the United States," its scope has narrowed over time. Since 1920 coal, phosphate, sodium, potassium, oil, and gas have been regulated under a separate leasing system. Laws passed in 1947 and 1955 also exempted sand, stone, and gravel from the 1872 regulations. But the metals, or "hard rock" minerals—chiefly copper, gold, iron ore, lead, silver, titanium, uranium, tungsten, zinc, and molybdenum—are still managed under the original Mining Law.

The law has a great many problems, but its worst feature is its environmental blindness: It prohibits land managers from weighing wilderness values or the requirements of water- and air-quality protection against the potential benefits of a mine. In fact, mining generates twice as much hazardous waste each year as all other industries and municipal landfills in the United States combined—but because of the Mining Law,

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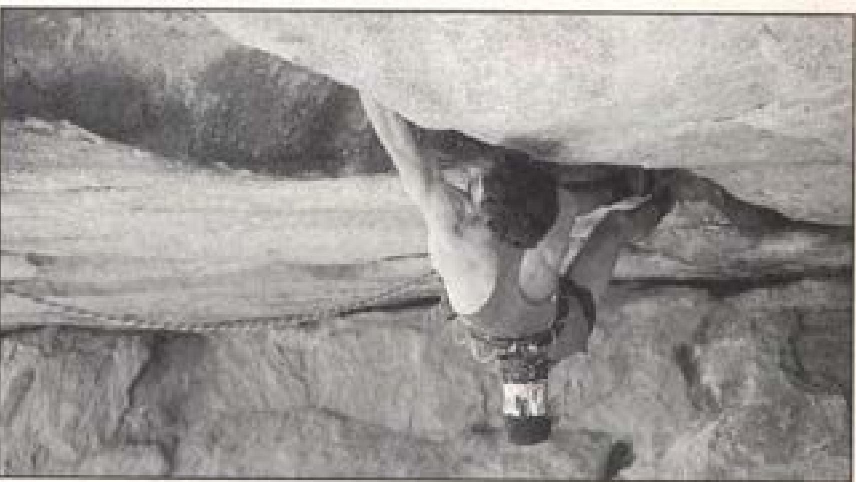

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federal agencies are not able to control the industry. As a result, many fragile environmental resources throughout the country have been abused:

- In Soda Butte Creek, seven miles upstream of Yellowstone National Park, the water runs red with iron and acid, the aftermath of silver and lead mining at nearby Fisher Mountain. Like thousands of miles of free-flowing streams throughout the West, the creek has been poisoned by mine tailings dumped there; now it's a hazard to trout and to anyone who drinks from it.
- High in the Cabinet Mountains of northern Montana, drilling rigs, bulldozers, and helicopters herald a new copper and silver mine. The mine's owner, the American Smelting and Refining Company, is seeking a fortune here, just as the Noranda Minerals Corporation seeks its fortune on the opposite side of the range. Although the operations are destroying prime habitat for grizzly bear, a species threatened with extinction in the Lower 48, conservationists are unable to keep the mines out of the region.
- Near Battle Mountain, Nevada, giant machines scoop ore blasted from the McCoy mine and pile it on "heaps" outside the hole. A cyanide solution is sprinkled over the heaps to absorb minute flecks of gold from the rock; the deadly mixture then percolates downhill to a solution pond, where the gold is stripped from it.

McCoy is only one of many mines that use this "heap-leaching" technique in Nevada, where some $1.5 billion in gold will be lifted in 1989 alone. Taxpayers won't receive anything for that metal, however; the government receives no royalties for hard-rock minerals, even if they are mined from publicly owned lands.

Furthermore, a claimant may choose to obtain a patent and purchase a parcel of land and any metals on it for a mere $2.50 or $5 an acre, depending on the type of claim. More than 2,000 such claims exist in units of the National Park System, and thousands more in established and proposed wilderness areas—all lands taken from the public at far below their value. To obtain a patent, a claimant must prove that metals are present on a 20-acre claim site and that

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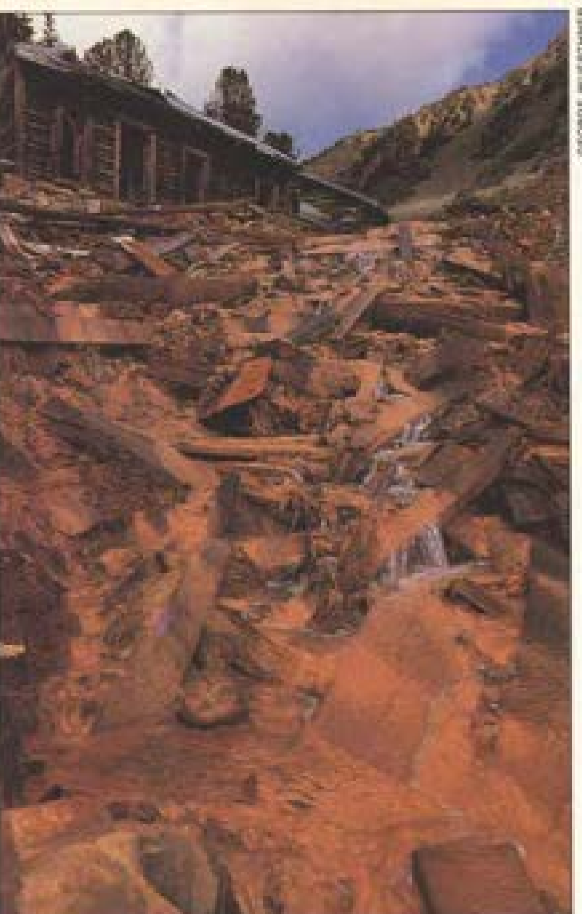
they can be extracted at a profit. But once an inholding is purchased, it is often more likely to be developed for condominiums than for quarries. (A Japanese consortium is proposing to develop a resort on mining claims in Denali National Park and Preserve, and a claimholder in Wrangell–St. Elias National Park and Preserve plans to develop one-acre "cabinsites.")

Even as an instrument for mineral development, the law works poorly. Its 20-acre claim size has little meaning in today's era of multithousand-acre mining projects, and its condition that a claimant must physically occupy a claim is futile when most prospecting is now done with high-tech core drilling and laboratory sampling. Requiring a miner to complete $100 in mineral "assessment work" per year to maintain a claim neither promotes true development nor protects the land from bulldozing under the false name of geological assay.


GEORGE WUERTHNER

Mining was once big business in Cooke City, Montana. Now poisonous tailings flow toward Soda Butte Creek.

Past attempts to reform the Mining Law have been hotly contested by miners, whose petitions and complaints claiming abridgment of constitutional rights have been accompanied by aggressive shovel rattling. In 1977, Representative Morris Udall (D-Ariz.), as chair of the House Interior Committee, strongly supported comprehensive reform. But when the small miners of his home district in and near Tucson threatened Udall with a recall, he dropped the issue. "I may not have seen the light," he said at the time, "but I have felt the heat."

Now Congress has taken fresh interest. A House subcommittee held hearings on the law in the summer of 1987, and it heard testimony last spring on the problems associated with cleaning up abandoned mining sites. A Senate Energy subcommittee also held hearings on reform legislation (S.1126) introduced by Dale Bumpers (D-Ark.) in June.

This time the climate may be less vitriolic. Some ideas of land management and environmental obligation that were only developing in earlier decades are commonly accepted today, and some mining executives are more willing to accept responsibility for environmental stewardship. Furthermore, potential revenue to the U.S. Treasury from a fair return on mining activities would be substantial; The Wilderness Society estimates that a 12.5-percent royalty on hard-rock minerals (the same as levied on offshore oil) could pull in more than $480 million per year. Several members of Congress are also determined to end the giveaway of land through the patenting process, and many are interested in tailoring the law for a modern mining industry.

The Mineral Policy Center, the Sierra Club, and other organizations are helping revive the push for mining reform, though the positions of these groups differ in some details. The Sierra Club,

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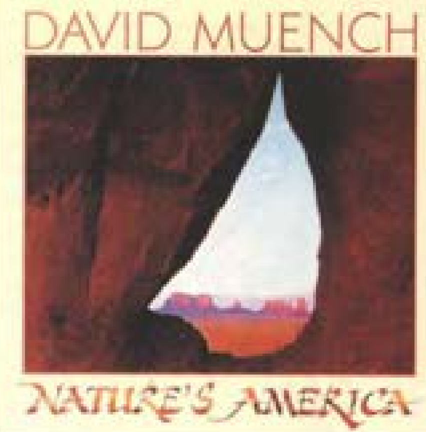

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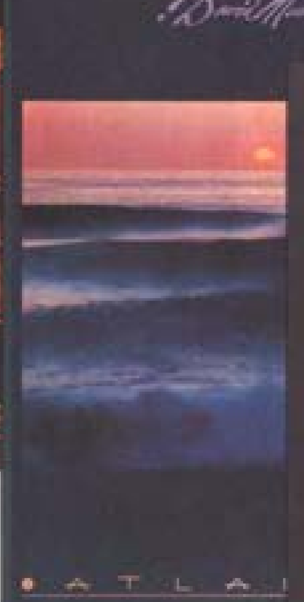

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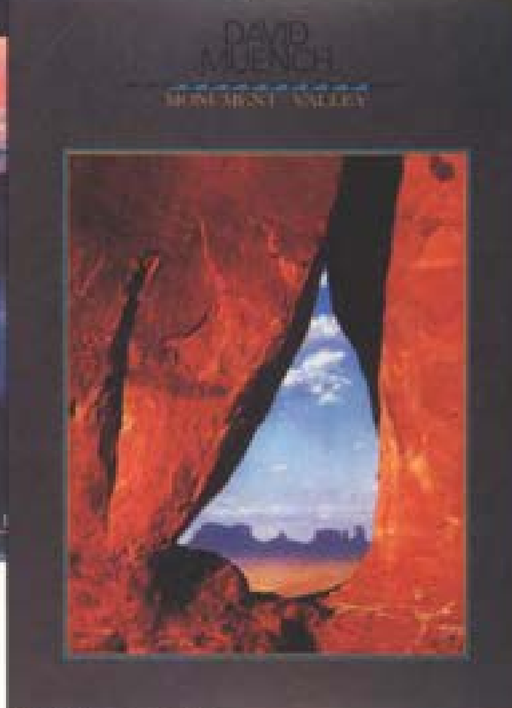

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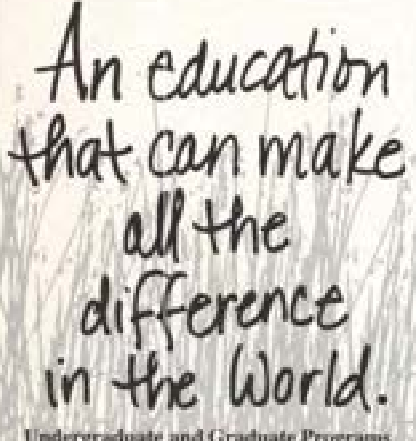

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for example, believes that mining activity should be prohibited in all wilderness and wilderness-study areas, national parks, wild and scenic river corridors, and other public lands under special protection. But while the Mineral Policy Center agrees that values such as wilderness, wildlife habitat, and watershed should be considered before mining is permitted, it advocates keeping the public lands open for any exploration and prospecting that will not significantly disturb the surface.

Despite their differences, these organizations are united in the conviction that the time has long since come for environmentally damaging mining to end. True reform must not only address the most glaring problems of the 1872 law—the patenting process and the lack of federal revenue—but even more important, it must ensure that mining in the future will be balanced with other uses of the public lands and that it will be permitted only if it is in the public's best interest.

PHILIP HOCKER *and* STEWART UDALL *are president and chair, respectively, of the Mineral Policy Center in Washington, D.C. Udall was Secretary of the Interior under presidents Kennedy and Johnson.*

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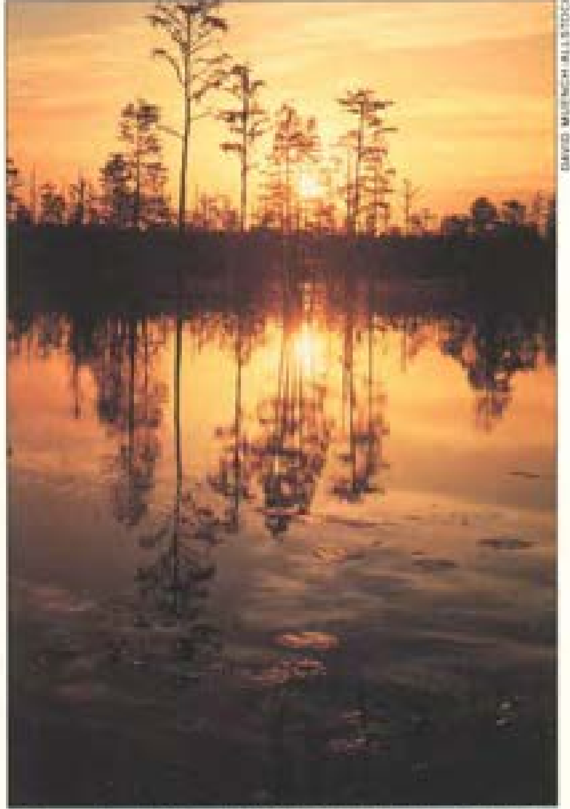
What's a wild animal to do when it shares its only sanctuary with an oil rig, a toxic dump, a herd of cattle, or a hunter?

Cass Peterson

LIKE A GRAVESTONE in a forgotten cemetery, a sign on the two-lane road heading north from Los Baños, California, still identifies the Kesterson National Wildlife Refuge. Once some 1,200 acres of shallow ponds at Kesterson teemed with ducks, geese, cranes, and other waterfowl. Now all that remains is an expanse of grass—flat, dry, and uninviting.

Five years have passed since an eco-tragedy at Kesterson awakened the federal establishment and the public to the threats facing the nation's wildlife sanctuaries. Puzzled by high rates of deformity and embryo mortality among Kesterson's birds—coots, eared grebes, avocets, and others—biologists discovered that the agricultural drainage water feeding the refuge's artificial marshes was heavily contaminated with selenium, salts, metals, and pesticide residues. Far from being a haven, the refuge was a death trap.

The Kesterson disaster is only the most grotesque example of pollution and development pressures that threaten to undermine the world's most comprehensive land-management program for wildlife. Established to "pre-



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The serenity of Georgia's Okefenokee National Wildlife Refuge isn't always mirrored at other U.S. refuges.

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serve a natural diversity and abundance of fauna and flora," the National Wildlife Refuge System encompasses nearly 90 million acres in 49 states and 5 trust territories. It includes more than 430 units, ranging in size from Florida's 3-acre Pelican Island to the 19.6-million-acre Yukon Delta in Alaska.

The benefits of refuges to some species are almost inestimable. The system has, for example, set aside lands to preserve nesting and breeding areas all along the "flyways" that waterfowl follow in their annual migrations. The Aransas National Wildlife Refuge in Texas is renowned for the role it has played in providing wintering habitat for the endangered whooping crane; and large, well-managed refuges like Georgia's Okefenokee provide homes for a diversity of species. Recently the refuge system has been a focal point of efforts to acquire habitat critical to the survival of such endangered species as the California condor.

But many units in the National Wildlife Refuge System have become refuges in name only. The problems, says public-lands activist Brandt Mannchen of the Sierra Club's Lone Star Chapter, stem largely from the fact that the system lacks an organic act—a clear mission statement and guiding philosophy. Such acts presently govern the National Park Service, the U.S. Forest Service, and the Bureau of Land Management. By means of an organic act, says Mannchen, the U.S. Fish and Wildlife Service, which administers the refuge system, could require all units to be managed consistently for the optimum maintenance of ecosystems.

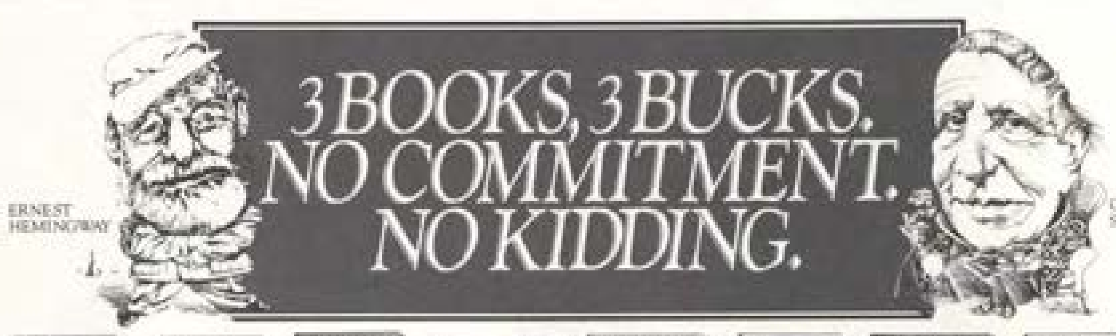
"There is no system to the system," says M. Rupert Cutler, president of Defenders of Wildlife. "It was established on a piecemeal basis, refuge by refuge."

The result is that many refuges are vulnerable to local or regional pressures that may not be compatible with their role as wildlife sanctuaries. Legislation that established some refuges in the West, for example, explicitly sanctions grazing. Along the Gulf Coast, oil-and-gas development is allowed. Some refuges were established specifically for hunting—a purpose that many conservationists believe leads to refuge management for game animals at the expense of other, less-coveted wildlife species.

Congress tried to get a handle on the problem with the National Wildlife Refuge Act of 1966, but many observers say the law is weak and grants far too much leeway to political administrators. Among other things, it permits the construction of power lines, canals, ditches, and roads at the discretion of the Secretary of the Interior.

"It's not supposed to be a multiple-use system," says Cutler, whose organization has joined with the Sierra Club and others in seeking new legislation that would provide an overall policy framework for administering the refuges. "This should be a model for the protection of biological diversity. It's the only system where wildlife preservation is the primary management objective."

In a report last year, Bill Reffault, former chief of refuge management for the Fish and Wildlife Service and now a wildlife specialist with The Wilderness Society, identified the ten most-endangered refuges, based on the agency's own data. He found a staggering array of threats, ranging from asbestos tailings dumped on the Great Swamp ref-



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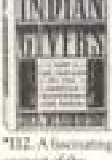
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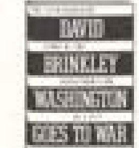
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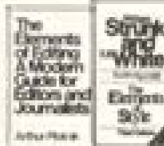
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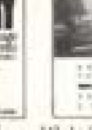
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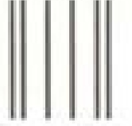

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uge in New Jersey to a proposed U.S. Army Corps of Engineers project that could flood thousands of acres of irreplaceable bottomland and wetland habitat within Mississippi's Yazoo refuge. Other refuges on the list include Florida's Loxahatchee, Virginia's Chincoteague, and Nevada's Stillwater.

The most pervasive problem is pollution, much of it streaming in from adjacent farmland or from oil-and-gas development on refuge lands. In a 1986 survey, the Fish and Wildlife Service identified toxic contamination or potentially serious air- and water-quality problems affecting more than 60 national refuges. Agricultural chemicals were the worst offenders, but there were also reports of cyanide wastes from mining operations, sewage leakage from nearby municipalities, and contamination from buried military wastes.

Another common problem is urban encroachment, which is turning many refuges into little more than green prisons. At the southern tip of Florida, for example, dwindling numbers of Key deer struggle to survive on 7,500 acres set aside for their use. The surrounding area is developing rapidly, and traffic has emerged as an overwhelming threat to the tiny deer. About 20 percent of the animals, barely two feet high at the shoulder, die each year under the wheels of cars and trucks.

Several years ago, the Key deer population at the National Key Deer Wildlife Refuge was estimated at about 400. Today it hovers between 250 and 300, and is likely to shrink even more as development on islands adjacent to the main refuge on Big Pine Key cuts the animals off from alternative supplies of fresh water. Fish and Wildlife Service officials say a major hurricane could wipe out the entire herd.

The plight of the Key deer is an extreme case, but even species not threatened or endangered are suffering from similar problems. Millions of acres of refuge land are managed primarily for waterfowl, but that has not prevented sharp declines in duck and geese populations as unprotected habitat dwindles and disappears.

California's Central Valley, once the heart of the Pacific Flyway, has lost more than 90 percent of its natural wetlands, forcing migrating birds to crowd into a few federal and state refuges. As a result, disease has become rampant. Avian cholera epidemics kill tens of thousands of birds each year, and biologists fear that increasing levels of farm-linked toxic contamination will add to the toll. The bird population along the Flyway, where 12 million birds once migrated annually, has shrunk by two thirds and is still declining.

The debate over the future of the refuge system boils down to a question of whether human and wildlife interests are compatible. That is certainly the controversy in the case of Alaska's Arctic National Wildlife Refuge, where the Interior Department is promoting oil exploration in an area that former Interior Secretary Stewart Udall calls the site of "the last great animal pageant in North America." Thousands of caribou migrate to the area each year in a ritual reminiscent of the massive bison migrations that have long since vanished from the Great Plains, or the waterfowl overflights that awed the continent's early explorers.

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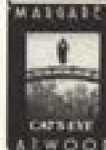

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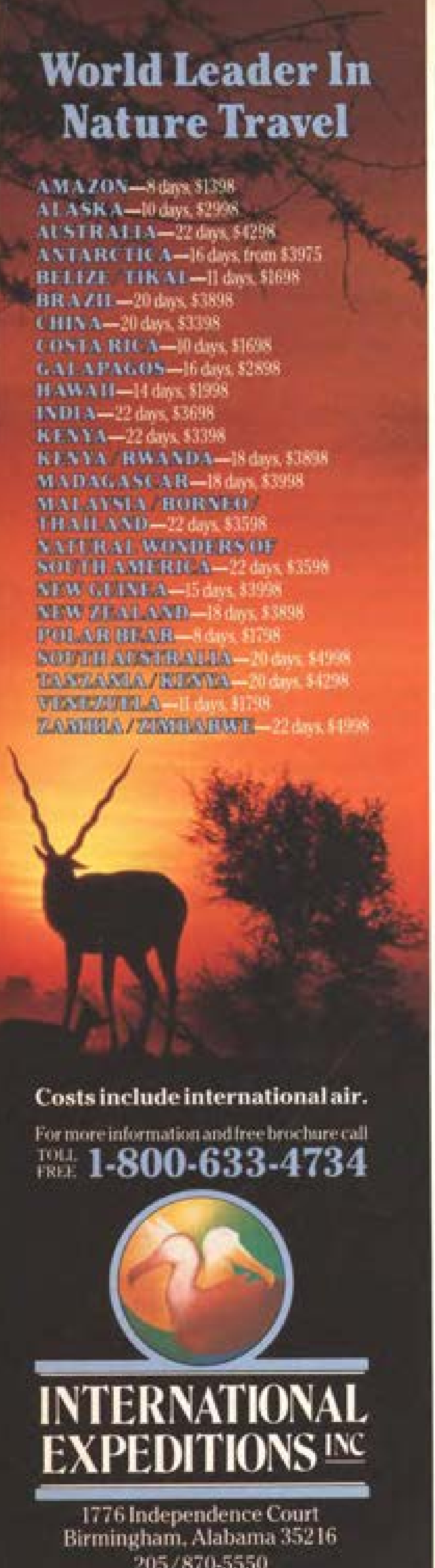

same, albeit on a smaller scale, at virtually all the nation's refuges. Wildlife experts are concerned that even recreational use is having an adverse impact on some refuges, just as some national parks are literally being "loved to death" by visitors.

"You have to look at the cumulative effects," says Fish and Wildlife Service ecologist Ronald E. Kirby. "Are 10 visitors in an area too many, or is it not bad until you have 11, or 15, or 25?"

For Reffault and many of his former colleagues in the Fish and Wildlife Service, the most immediate concern is that wildlife habitat is succumbing to development, and to them the solution is clear: Add more refuge land.

"The problem is getting bigger every year," Reffault says. "We need to get ahead of the curve, to move in ahead of the crises."

But even where the will is present, the wherewithal is sometimes missing. In Texas' Lower Rio Grande Valley, the federal government has been struggling to piece together an authorized 125,000-acre refuge to preserve the vanishing ocelot and jaguarundi. The refuge has 26,200 acres now, much of it in the path of the advancing citrus industry and under siege from pesticide drift.

There are willing sellers, but no money to buy more land. "There isn't the money and there isn't the manpower," Reffault says. "We can't stay ahead of the bulldozers."

Reffault includes the Lower Rio Grande on his list of most-endangered refuges. But he leaves off California's Kesterson, even though the ruined sanctuary retains its official status as a refuge.

"We're talking about the endangered," he says, "not the extinct."

CASS PETERSON *is a freelance writer living in Warfordsburg, Pennsylvania. She is a former staff writer for* The Washington Post.

LAND USE

Going Against the Graze

The Bureau of Land Management has resisted its obligations for years. Congress is belatedly calling the agency to account.

Dyan Zaslowsky

THIRTEEN YEARS AGO Congress passed the Federal Land Policy and Management Act, the organic act of the Bureau of Land Management. The long-overdue charter of an agency established in 1946, FLPMA was intended to guide the BLM in its administration of more than a third of the public domain—some 272 million acres, mostly in the West and Alaska. Primarily arid, rugged, and unsuitable for farming, these lands resisted white settlement so successfully for generations that the federal government could not even give them away.

Today FLPMA requires that the agency retain that territory rather than dispose of it. And in July, following the first reauthorization hearings to review the BLM in more than a decade, the House passed legislation that would force the agency to increase its consideration of environmental impacts when making managerial decisions. That bill, H.R. 828, introduced by Representative Bruce Vento (D-Minn.), now goes to the Senate.

The BLM is the descendant of two now-defunct federal agencies: the Grazing Service, committed to promoting livestock interests; and the General Land Office, which for nearly a century had been responsible for disposing of public lands. Prior to 1976 the BLM was governed by a hodgepodge of some 3,000 land laws, often outdated and sometimes contradictory. But in a single stroke, FLPMA overrode all those earlier laws and provided the agency with a clear and comprehensive mandate for stewardship.

Despite that mandate, most BLM land has been maintained in either fair or poor shape, according to a 1984 agency survey, the most thorough to date. Conditions have scarcely improved since then; two June 1988 reports by the General Accounting Office cite modest restoration of some rangelands, but note

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continuing degradation of riparian zones because of overgrazing.

The problem is not in the law, says Rose Strickland, vice-chair of the Sierra Club's Public Lands Committee. The agency simply has not done its job as the law intended.

On paper, FLPMA has a lot for conservationists to admire: Among its many provisions, the charter stipulates that land-management decisions be made in accordance with the principles of even-handed multiple use and sustained yield; emphasizes protecting scientific, scenic, historical, ecological, environmental, air and atmospheric, water-resource, and archaeological values; insists that the nation receive fair-market value for use of its lands and resources; and calls for prompt regulation to protect areas of critical environmental concern. The new amendments, among other things, would require agency directors to be career employees rather than political appointees; strengthen the agency's mandate to minimize adverse environmental impacts on public lands; include plant- and animal-life maintenance as appropriate land uses; and require the agency to maintain an inventory of riparian areas.

That the BLM has failed to implement its charter is generally acknowledged by public-lands activists, who recognize that a lack of financial resources accounts for much of the problem. The agency administers one-third more land than the Forest Service does but works with only about half the budget and one-third the staff. Furthermore, because of the agency's historical link to the Grazing Service, much of its territory had been abused long before the BLM even existed.

But the BLM's approach to management has often been in flagrant contradiction of its charter. Testifying at congressional hearings, conservationists faulted the agency primarily for failing to carry out FLPMA's principle of multiple use. "With very few exceptions, livestock and mining interests are as entrenched as before," said Aubrey Stephen Johnson, Southwest representative for Defenders of Wildlife. Nowhere is this alliance between the BLM and traditional users more apparent than in the Sonoran, Mojave, and Great

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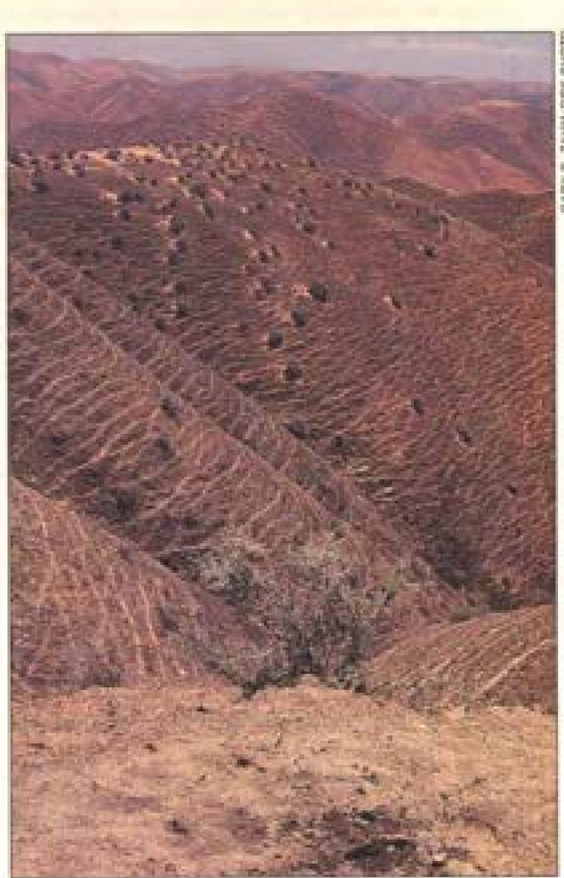
Basin deserts, where grazing continues despite debilitating ecological consequences.

"The BLM continues its efforts to legitimize a traditional use that had already impoverished these arid lands before the agency itself existed," Johnson told a House Interior subcommittee. As an example of the agency's failure to balance competing interests—the heart of the concept of multiple use—Johnson cited the desert tortoise, which competes with cattle for forage on western deserts. Although the tortoise lives on only 23 pounds of forage a year, it is now close to extinction, chiefly because of improper grazing management. (A cow and calf consume 12,000 pounds of forage a year.) Johnson asked: "If this innocuous, ancient herbivore of such modest needs cannot survive in our desert ecosystems, what of other, far more demanding species?"



GARY R. ZAHM / DRK PHOTO

Years of grazing on the Panoche Hills in California have left the BLM territory marred by cattle trails.

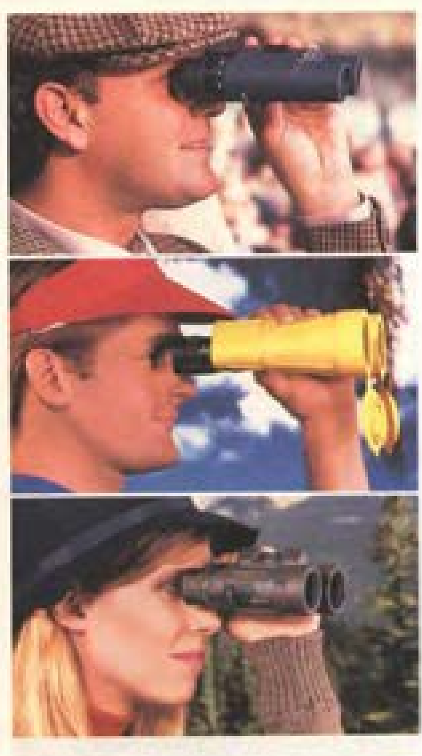
What appears to be missing, Sierra Club lobbyist Debbie Sease told the same congressional subcommittee, is "the will of the agency to enforce and implement the spirit and the letter of the law." For example, she noted, the BLM has often avoided designating areas of critical environmental concern. Even when it has made that designation, Sease says, the agency has failed to fulfill its obligation to protect the areas' natural and cultural resources and continues to permit incompatible activities such as grazing and mining.

The BLM has also been charging below-market grazing fees, despite FLPMA's requirement that the federal government receive fair value for use of its resources. While fees fluctuate, they generally remain about one-quarter the cost of grazing on comparable private land. The money collected does not even pay for administering the agency's grazing program.

Neither the older, more visible Forest Service nor the National Park Service is required by its organic act to undergo regularly scheduled reauthorizations. Such a provision in FLPMA reflects in part an effort to increase congressional oversight following the Watergate era of the early 1970s. But it also confirms a tacit belief that the BLM needs more guidance than other agencies do. Because of its non-conservationist progenitors, the BLM has no institutional memory bank to aid it in enforcing FLPMA's environmental mandate.

Although the BLM's charter requires the agency to undergo reauthorization every four years, hearings had not been held since 1978, two years after FLPMA was passed; twice since then the House Rules Committee granted waivers. But now, at last, the issues are being aired — and the House has determined that the BLM must change its ways. "The agency has obviously failed to get FLPMA's message for multiple-use management," says Lawson LeGate, the Sierra Club's associate Southwest regional representative. "The House has now clarified that mandate." ■

DYAN ZASLOWSKY *is a freelance writer in Evergreen, Colorado.*



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WILDERNESS

Water developers, with their dams and diversions, are taking dead aim on the wilderness system. It's up to Congress to send a clear signal that wildlands and water go hand in hand.

Water Rights and Wrongs

Charles Wilkinson

ROCKY OUTCROPS, subalpine forests, and the fabled Mount of the Holy Cross define Colorado's Holy Cross Wilderness. But it's the water that captivates a visitor most of all. Where creeks careen over piles of rock, the valleys of Holy Cross are boisterous with water. Elsewhere streams spread out to nourish vegetation—Square Meadow, Long Meadow, Meander Meadow, Reeds Meadow, and numerous unnamed wetlands. Dozens of lakes are tucked away in the upper reaches of the wilderness.

Yet Holy Cross is a wilderness that is not fully wild, for its water is not protected. Water developers have repeatedly scuttled attempts to protect the streams that flow through Holy Cross and other wilderness areas. They have forced changes in some legislation to accommodate dams and other water projects, and blocked proposals to add new lands to the wilderness system.

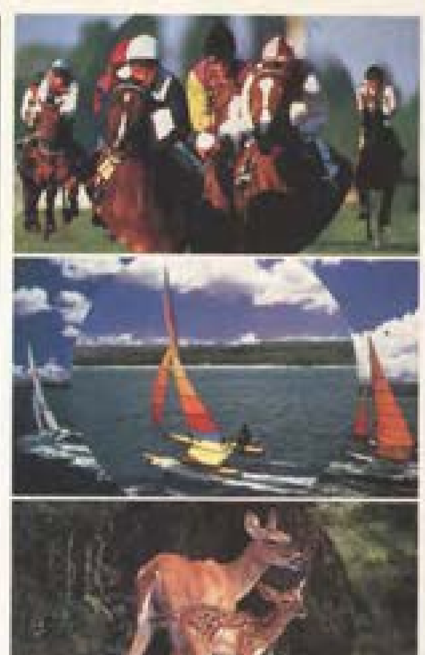
The Homestake water project carves a large chunk out of the Holy Cross Wilderness, drawing away water for Aurora and Colorado Springs, two booming cities along the Front Range, Colorado's urban corridor at the edge of the Rockies. A dam and a network of collection pipes have reworked the upper Homestake Creek watershed, causing the wetlands below the dam to dry up. The willow and sedge are mostly gone, and the beaver dams are silted in. The reservoir inundated a stretch of wetlands more than a mile long that once hosted cutthroat trout, deer, waterfowl, and eagles.

The Front Range cities have further plans. They want to build Homestake II, a system of tunnels and diversions that would reach deep into the wilderness area. The project would drain 90 percent of Cross Creek and its tributaries during spring runoff, drawing down spectacular waterfalls and depleting more wetlands.

The Beaver Dam Wilderness exists in a setting very different from Holy Cross, but in terms of water it faces a similar dilemma. This remote, serene area straddles the Arizona/Utah state line at an elevation that varies between 2,400 and 3,500 feet. This is hot country in the upper part of the Mojave Desert, dotted with Joshua trees, creosote bushes, and bunch grasses, and populated by deer, bighorn sheep, birds of prey, and tortoises.

Water is scarce in the Southwest, but the Beaver Dam Wilderness is blessed with the Virgin River. The stream supports numerous fish species, including the endangered woundfin minnow. Rafters ride the river's deep, pastel gorge during spring runoff. The Virgin, however, is tapped upstream of the wilderness area for agricultural irrigation. During some summers the river is so low in places that it runs dry.

No water projects are proposed within the Beaver Dam Wilderness, but several are slated for the river above it. The bustling town of St. George, Utah, lies ten miles north; developers want to expand the region's residential and farming areas. One proposed damsite is in an area now also being evaluated by the Bureau of Land Management (BLM) for its wilderness potential. Another project, on a branch of the Virgin's North Fork, is directly upstream of Zion National Park; diversions there would draw down the river in Zion as well as in



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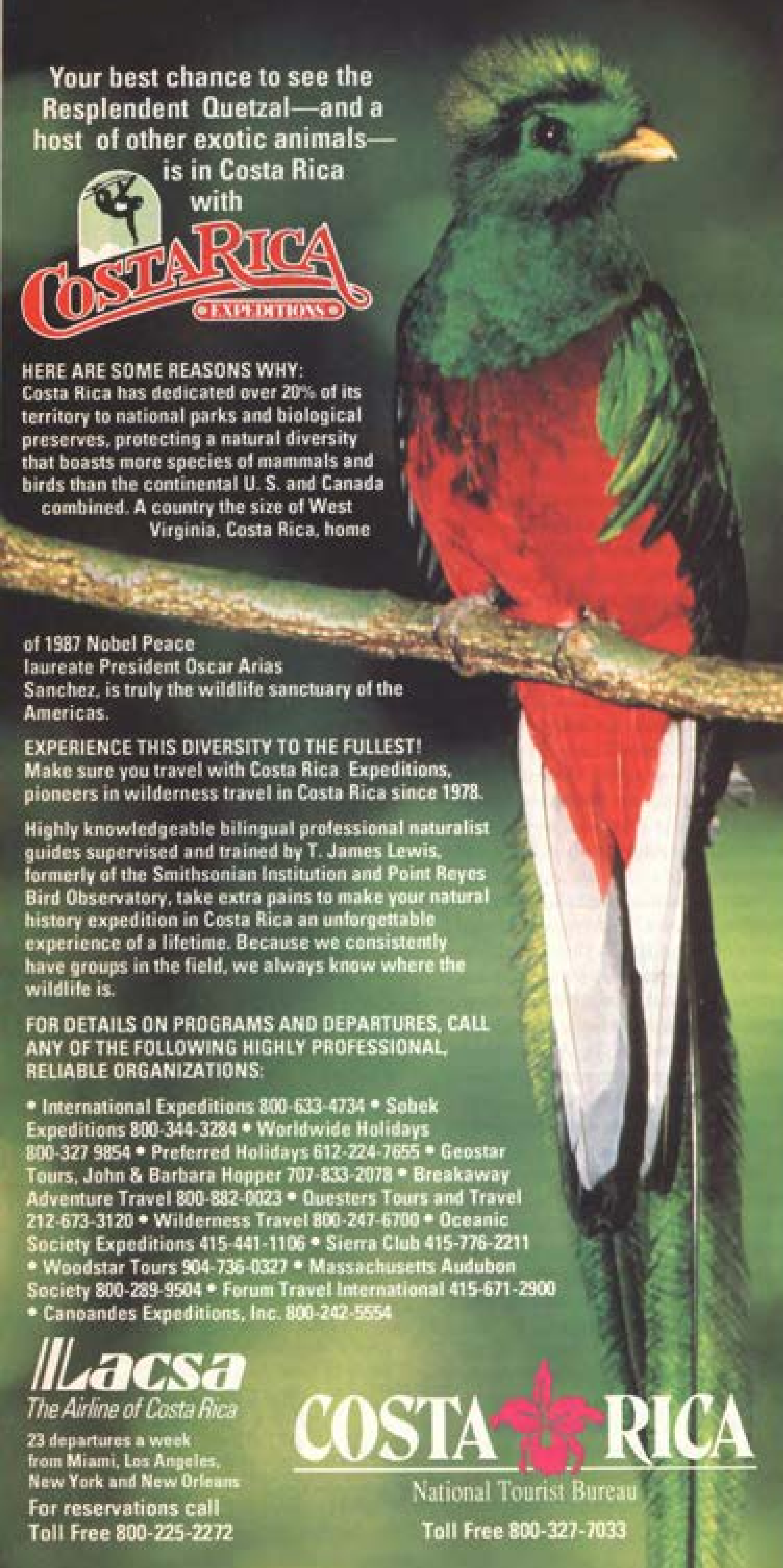

Beaver Dam. If development proceeds, the Virgin may run dry in Beaver Dam during much, most, or all of the year.

Holy Cross and Beaver Dam have run dead-on into western water law. Born in the California goldfields of the 1850s, state water laws put western water exactly where 19th-century society wanted it: in the mines and fields. Under the guiding rule of "first in time, first in right," a senior water user's needs took precedence over those of all junior users. The water was free, and there were no protections for free-flowing water. Diverters could and did dry up entire creeks, streams, and rivers.

State water agencies, which grew up around the turn of the century, were created to administer and protect the seniority system. To this day, the law requires the state agencies to be advocates for water developers, not for rivers. In the West this means dams and diversions.

Recently, most states have adopted instream-flow programs—laws that protect water for recreation, wildlife, or aesthetic purposes—but they claim too little water and are poorly enforced. Colorado's version, adopted in 1973, is considered one of the strongest instream-rights laws in the West; however, it sets only minimal "rescue level" flows to prevent the destruction of fish habitats. At Holy Cross, this means that enough water will be left in Cross Creek to keep most of the fish alive, but nothing will be done to preserve the wetlands or the animals that depend on them. The waterfalls get no consideration at all.

In Utah, where permits to divert water are granted routinely, the instream-flow law is even less helpful. The state's clumsy procedures for preserving a free flow require, among other things, approval by the state legislature.

Faced with such intransigence at the state level, conservationists often turn to federal laws—specifically, a legal device called a federal reserved water right. If Congress calls for protection of a free-flowing river, that claim will hold up in court against any junior rights. But even

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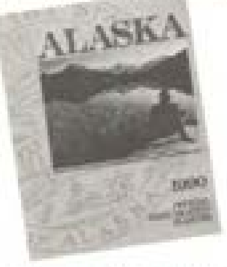

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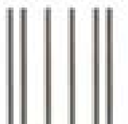

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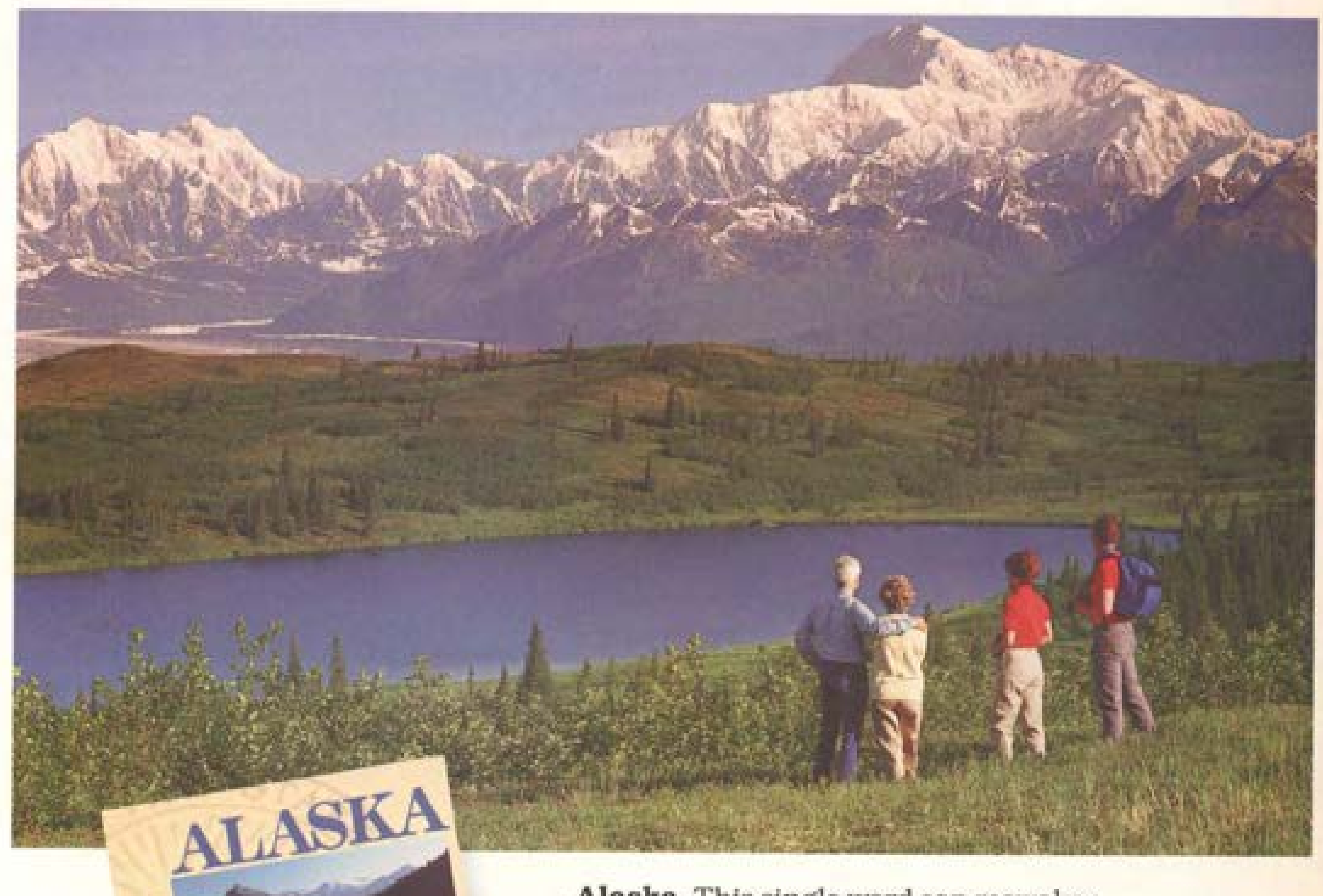

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A L A S K A

if no law expressly requires it, an instream flow can be preserved. The courts reason that Congress, when making a special designation of land (such as a wilderness, national forest, or national park), expects the classification to be a *viable* one. In the words of the Supreme Court, the courts will imply sufficient instream protection to "fulfill the purposes of the reservation."

But the high court has also decided that the federal government has very limited water rights in national forests. A forest's purpose, the court said, is to furnish timber and water for users downstream, not to provide recreation and sustain wildlife.

One would expect instream flows for wilderness areas to receive more protection than they do on national-forest lands. The Wilderness Act spoke of wilderness as an area that retains "its primeval character and influence"; it is only logical that Congress intended for wildlands to have full flows of water.

The matter of reserved rights for wilderness first received official attention in 1979, when the legal arm of the Interior Department ruled that Congress did intend for wilderness streams to remain in their natural condition. "Water is the lifeblood of the wilderness areas," wrote a Colorado federal judge in 1985.

Water interests turned up the heat after the 1985 ruling. In Colorado, after all parties had agreed to include more than 750,000 acres in a wilderness bill, water developers insisted on language disclaiming all reserved water rights in the new lands—and in all existing Colorado wilderness areas. The bill floundered and died.

Water rights have been argued in nearly every wilderness or parks bill debate since. Great Basin National Park, established in 1986, disclaimed water rights, as did the 1988 statute establishing the Hagerman Fossil Beds National Monument in Idaho. Conservationists prevailed in the 1988 Washington Park Wilderness Act, and Congress affirmed water rights when it created El Malpais National Monument in New Mexico in 1987 and San Pedro National Riparian Conservation Area in Arizona in 1988. But developers helped stall wildlands bills in Colorado, Idaho, Montana, and Nevada.

The matter heated up still more during the twilight of the Reagan administration. At the urgings of the water establishment, the Interior Department reversed its recognition of wilderness water in 1988. Then–Attorney General Ed Meese followed up by stating that the Justice Department would not assert federal reserved rights in court. These rights are lost if not affirmed in a state stream adjudication, a proceeding that decides all claims to water in a designated watershed. Such a proceeding is pending on the Virgin River, but the government still has not claimed any water rights for Beaver Dam.

The situation is even bleaker at Holy Cross. When Congress designated the wilderness area in 1980, it also gave Homestake II the go-ahead. State courts have rejected conservationists' challenges. Only Congress or federal courts can stop the project.

Federal water rights are not the only devices for keeping wilderness water free-flowing. The Endangered Species Act has blocked a few water projects where an imperiled species is present. Further, a water developer must obtain a right-of-way to dam or divert water on federal lands, and under the Wilderness Act only the president can grant access for water development in wilderness areas. This "presidential exemption" has never been exercised.

But the limitations do nothing in two situations. Water diversions can proceed on private inholdings within wilderness areas. Far more critically, relatively low-lying areas may be subject to diversions above the wilderness area.

The best way to guarantee wilderness water rights is for Congress to demand them when it designates a wilderness. Then there can be no doubt.

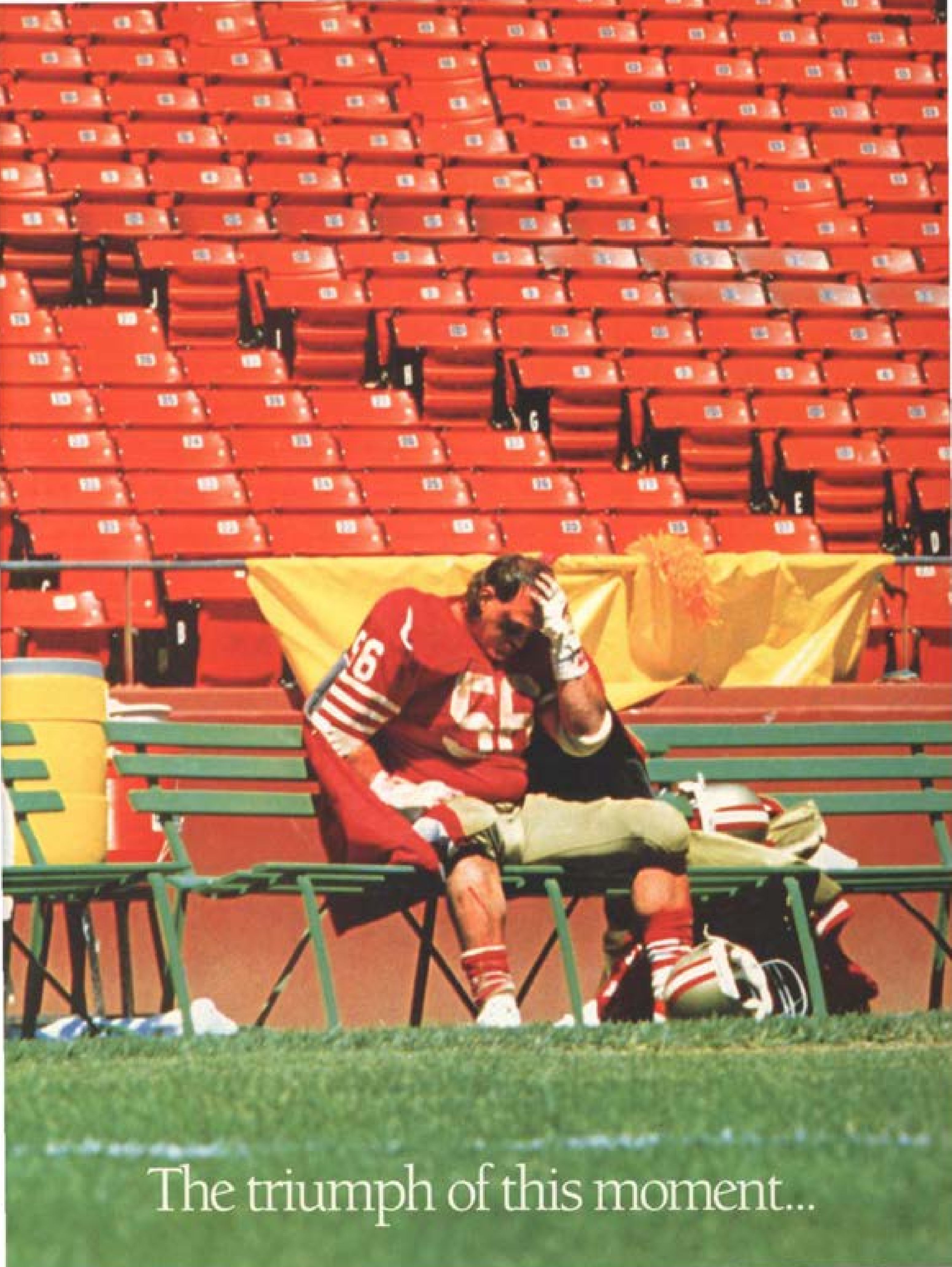
This is especially important in low-lying wilderness areas. Over the next several years, Congress will be considering proposals for official wilderness on BLM lands, most of which are at low elevations. So far, the agency has identified about ten million acres that Congress ought to declare as wilderness. Conservationists will press for many millions more.

Low-lying wildlands like Beaver Dam sometimes need to be treated differently than areas like Holy Cross. The high-mountain areas require full natural flows: Diversions, if needed, can be made below the wilderness boundaries. As to the lower lands, cities like St. George should be accorded reasonable diversion rights if they have adopted comprehensive conservation programs and if other water sources have been tapped. But downstream wilderness areas still need substantial water rights or they will never be secure, any more than would a wilderness area that permits logging.

Water developers intend to brook no compromises. In May a settlement in a long-pending Colorado wilderness dispute was near. At the eleventh hour, hard-liners demanded a guarantee that no water rights would be recognized in any future bills dealing with low-lying areas. Despite a lack of support from developers, Colorado Senator Tim Wirth (D) introduced a compromise bill in July; it would fully protect only conflict-free headwaters areas, but would allow low-lying areas to remain wilderness study areas.

The debate over wilderness water rights, as wildlands issues so often do, pits conservation against consumption. Are we willing to count beauty and solitude as real things? Are we willing to reduce society's waste so as to lessen the stress on the land and water? Some of the answers will follow from our efforts to keep the meadows and noise alive at Cross Creek, to let the Virgin River flow through its deep-cut gorge, and to guarantee that new wild areas will be, as the Wilderness Act requires, places "where the earth and its community of life are untrammeled by man." ■

CHARLES WILKINSON *is the Moses Lasky Professor of Law at the University of Colorado in Boulder.*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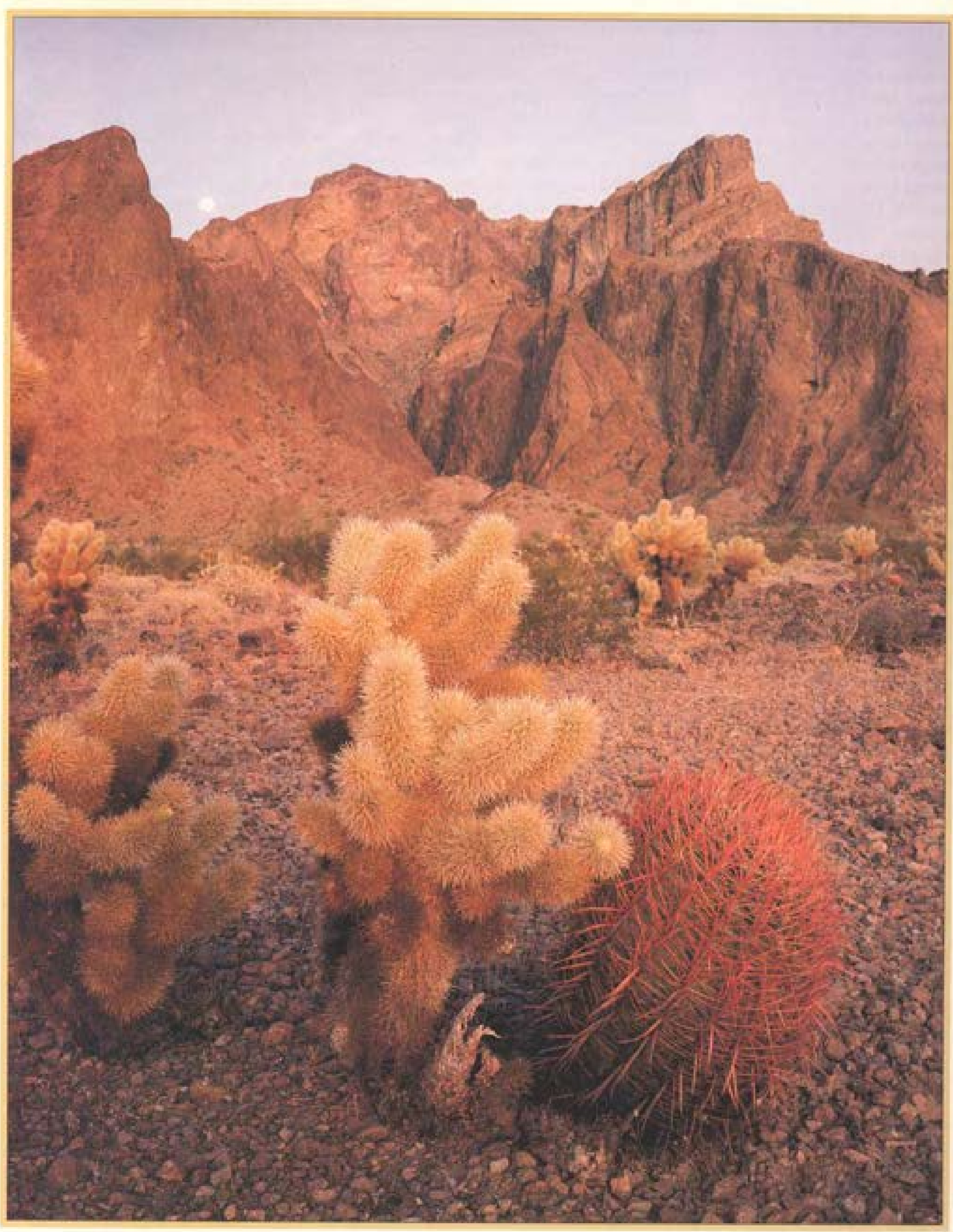
OUR COMMON DOMAIN

The public lands of the United States are the heritage of each citizen, and their preservation is our mutual responsibility. But beyond those solemn considerations, they are a world of wonder and inspiration away from "the specious persuasiveness of human control."

BY WALLACE STEGNER

The present public lands, most of them in the West and Alaska, remain public for a variety of reasons. ♦ The national parks are there because they are so spectacular that no country with pride in itself could have resisted preserving them in the public interest. ♦ The national forests are there because if we hadn't protected our remaining timberlands, the loggers would have cut them clean from sea to sea. ♦ The Bureau of Land Management lands are there because successive resource booms busted and retreated, because the attempt to tame the dry country into family farms withered and died, and because until recently nobody thought they were worth anything—and by the time realization began to dawn, the federal government had had to bite the bullet and accept responsibility for their management. ♦ The bureaus that now manage the public lands take a good deal of flak, some of it well deserved. Environmentalists get on them if they don't do their job, stockmen and lumbermen and miners get on them if they do. Local residents resent them as absentee landlords, local interests try to undermine or intimidate them. ♦ For a long time the federal government was reluctant to carry out its responsibilities to the public lands. Early in the Depression, Herbert Hoover and his Interior Secretary, Ray Lyman Wilbur, got up a plan to give a lot of troublesome land to



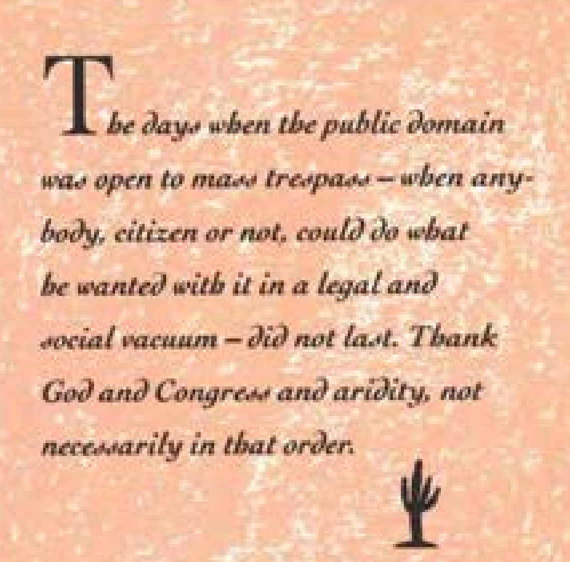
Kofa National Wildlife Refuge, Arizona — *Larry Ulrich*

the states. The states laughed. "Who needs any more desert?" asked Utah's Governor Dern.

But times and minds change. By the mid-1940s the stockmen's associations were finding federal rules too restrictive, and launched legislation aimed at getting Grazing Service and Forest Service range transferred to the states. The states, controlled by the same interests that started the landgrab, would know whom to convey it to. Bernard DeVoto almost singlehandedly broke up that steal, but if he had lived he would have had another chance to fight the same people in the '80s. The Sagebrush Rebellion marched to the same tune, repeated the same slogans, misread law and history, and abused the bureaus in precisely the same way. That bunch will be back, for there are resources in the public lands that tempt the spirit that won the West.

Nevertheless, I see little danger that the million-square-mile public domain, or any part of it, is in serious danger of becoming un-federal. The real danger is that it will be *left* federal, so that the feds can pay the bills for inadequate protection, so that the lands will be open, as they are to some extent now, to be everybody's booty and nobody's responsibility.

The national parks, the best idea we ever had, are the best-protected public lands, though they labor under the excruciating mandate to provide lands for use but without impairment—hard doctrine when annual visitation has passed 300,000,000. In a good many years of association with the parks and the Park Service, I have heard complaints that the system is too small, underfunded, a stepchild on appropriations day; and that as islands in less-protected territory the parks are threatened from without; and that the Park Service and Congress spend too much on maintaining facilities and too little on protecting the land resource; and I have heard exploiters who covet Olympic's timber or Dinosaur's damsites or Yellowstone's geothermal potential. But I never heard anybody, even the parks' enemies, suggest that the parks be sold off or turned over to the states.



How about the Fish and Wildlife Service, whose territory was so enormously enlarged by the Alaska National Interest Lands Conservation Act of 1980? Its lands aren't as safe as the parks, as witness the determination of the last two administrations to drill the Arctic National Wildlife Refuge for oil. President Bush and Interior Secretary Lujan backed off that idea in the wake of the *Exxon Valdez* spill, but they didn't drop it for good. Mr. Lujan has expressed the "hope" that drilling can be revived after the furor has died down. His hope will be realized, too, unless Congress wraps that lovely, pristine, soul-enlarging Arctic Eden in the protective blanket of wilderness designation. But it is not likely to be de-federalized. Degrading it, breaching its protections, will be enough—under the pretense, in the face of all experience, that we can keep Eden and pump its oil too.

And the Forest Service? Once the most respected of federal bureaus, it has for 30 years been diligently trying to destroy its image as protector of a vital resource. In the view of many environmentalists, including me, it has become the stooge of the timber industry and an enemy of conservation. It talks multiple use and thinks only in board feet. It is not immune to the bureaucratic jealousies that put turf rights ahead of the public good. It resents every chunk of its domain that it loses to the higher protection of the Park Service or the wilderness system. It drags its heels on wilderness study and pushes roads through untouched wilderness in the apparent effort to disqualify it as wilderness and set it up for cutting. It over-roads and overcuts, often at a financial loss, at a time when the world should be planting ten trees for every one it cuts down, and perhaps should be cutting no trees at all. Even when it plants, it thinks a tree farm is a forest.

As for the Bureau of Land Management (BLM), it too seems bent on serving the interests it was set up to control. It seems to feel its duty is not to the land, but to the stockmen for whom it drags chains across square miles of piñon, juniper, and sage to clear expensive, subsidized, artificial range for cattle already too numerous on the public lands and dubiously salable in the market. Like the Forest Service with its road-building and below-cost timber sales, the BLM's chaining and fencing subsidize an industry whose expansion, or even continuation at present levels, is a threat to the land's health. According to a 1983 report by the Council on Environmental Quality, desertification—the conversion of a viable dryland ecosystem into a barren waste—proceeds faster in the western United States than in Africa. One of the chief villains is overgrazing, which the BLM is supposed to control. It should know, if anyone does, that pastoralism in arid country, unless it learns the two dryland imperatives of sparseness and mobility, is a desert-maker, with or without the chaining-off of ground cover.

The land-management bureaus are far from perfect, and many people both inside and outside them would like to see them emancipated from political control and the shortsighted immediate-profit pressures of private interests, and set to their proper purpose of serving the long-term interests of the land. As Marcus Aurelius once remarked, what is bad for the beehive cannot be good for the bee. What destroys the habitat will make itself felt upon people and society.

Zion National Park, Utah *William Neill*

Nevertheless, imperfect as they are, politicized, corrupted by local pressures and cowed by local threats, the federal bureaus are absolutely essential, the only possible barrier to real disaster in the arid and drought-threatened West where they function. They represent the country's effort, inadequate and faltering, to stand in the way of that good old American spirit of enterprise that according to myth won the West, and according to history half ruined it.

The public domain *must* remain public.

◆ IT WAS NOT, OF COURSE, INTENDED TO BE. When the American colonies with western land claims relinquished them to the federal government in 1781, in order to get Maryland's agreement to the Articles of Confederation, the public domain thus created was meant to be disposed of, and was. It was granted to individuals and corporations in return for the building of roads, bridges, canals, and railroads; it was sold in wholesale lots to speculators who in turn sold it to settlers. The states between the Alleghenies and the Mississippi were made out of it, and by the outbreak of the Civil War the original "Public Domain" was well on the way to liquidation.

The policy of disposal was not changed by later, enormous additions to the public domain. The Louisiana Purchase took the nation to the crest of the Rockies; the Florida Purchase consolidated the Southeast; the Mexican War and the settlement of the Oregon dispute with Great Britain took us to the Pacific. All of that was federal land. All of it, it was assumed, would someday be in private hands, and the process of disposal would bring in revenue, build up communications, and create the farms and fields that in the booster language of the time are always "smiling," and the towns and cities that are forever "bustling."

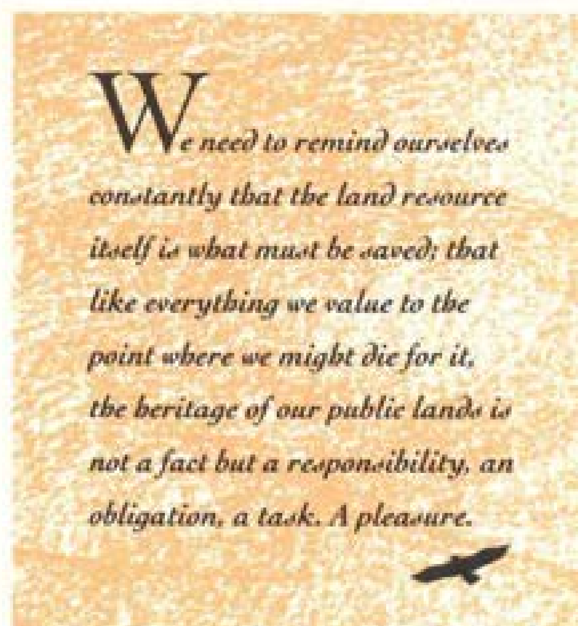
Bemused by the vigor of our history, we sometimes forget how much of our territory came by conquest, and how our opportunity and freedom came at the expense of native Americans and through a bullying war with the inheritors of Spain's fading empire. Stolen or not, that free land was the basis of American freedom. It gave opportunity and optimism to settlers; it invigorated the westward movement that is a salient event in our history. The public domain was the very seedbed of the American Dream, and if the country beyond the 98th meridian had been watered instead of dry, the pattern that operated well east of the Missouri would have continued all the way. All the land that now comprises the public domain would be subdivided into private farms, ranches, and town lots. The public domain itself would be no more than a collection of scenic and forested islands—fragments scattered, as Charles Little has said, like jewels in the wake of a fleeing thief.

Instead, forced by aridity, we have retreated from much of the dry country we once tried to occupy. We created an oasis

civilization in the West—towns on water, separated by great reaches of arid federal space. As a westerner, I can't think that anything but a blessing. We were prevented by timely land withdrawals and by lack of water from defacing the West completely, and changing it into something man-made. We have had the chance, or the necessity, to preserve space, openness, distance, the natural world, the remnants of a vigorous dryland ecology, and along with that the illusion at least of self-reliance and independence. We have had to learn sparseness and mobility, and though every boom deludes us with the notion of a great permanent increase in the western population, every bust brings us back to sanity, the land reclaims its own, and many of the people get out, leaving the rest the dignity of a tough rareness.

It would not be that way if the federal government had washed its hands of the public domain as Hoover and Wilbur proposed. The days when the public domain was open to mass trespass—when anybody, citizen or not, could do what he wanted with it in a legal and social vacuum—did not last. Thank God and Congress and aridity, not necessarily in that order.

◆ IT IS CUSTOMARY at political rallies and in faith-promoting history books to celebrate the American Spirit that "won" or "conquered" or "tamed" the West. I do not join in that celebration. The ruthlessness and greed that dominated the frontier seem to me American in the very worst sense of the word. I would rather celebrate another kind of Americanism, quieter, less greedy, more far-sighted, more public-spirited.



If we need a celebratory date, we can hardly do better than the day in 1872 when Congress, with enthusiastic public support, voted to create Yellowstone National Park, and thus took the first step toward a permanent public domain in the public interest. We can celebrate the day in 1891 when the General Revision Act opened the door for Presidents Harrison, Cleveland, and Theodore Roosevelt to set aside the "forest reserves" that have become the national forests. (I have just panned the Forest Service, but it must be said that in the beginning it did a marvelous job, and continued doing it until sometime in the 1950s when board feet took over. Fallen or not from its once-high estate, it prevented in the West, until recently, the tree slaughter that desolated Michigan and Wisconsin.) Or we can make a festival of the day in 1903 when Theodore Roosevelt established the first wildlife refuge, to protect Florida birds. Or even that day in 1934 when dust clouds blown all the way from Kansas and Colorado darkened Washington's sky as Congress passed the Taylor Grazing Act that in effect closed the public domain to any further entry.

Those acts, congressional or presidential, were inspired by something higher than American initiative in the raping of resources from a fragile environment. They were the product of a genuine, humane concern with things that make life more than a rat race, a response to natural beauty and grandeur, a solidarity with other creatures, a concern for the rights and pleasures of future generations, a sense of membership in the community of nature and of the family responsibility that derives from that membership.

All the fragile values that our public domain now preserves and protects would have been chewed to bits by the kind of American initiative that Mr. Reagan used to celebrate. Intractable aridity and federal action saved them, and the latter created machinery for their management—and sometimes for the benign hands-off neglect that is better than management.

Relieved from political domination and pressure from local resource interests, the bureaus could provide that management, or that benign neglect. They could learn to operate as an interdependent system rather than as entities competing for territory and appropriations. As for the public that inherits and uses and enjoys the public lands, it might someday learn both respect and responsibility for its priceless inheritance. No other nation on Earth so swiftly wasted its birthright; no other, in time, made such an effort to save what was left. We need to remind ourselves constantly that the land resource itself is what must be saved; that like liberty, democracy, all the freedoms guaranteed by the Constitution, like everything we truly value to the point where we might die for it, the heritage of our public lands is not a fact but a responsibility, an obligation, a task. A pleasure.

The pleasure must be emphasized. I do not mean the pleasure of tearing up the wilderness with ORVs, tote-goats, dune buggies, cross-country motorbikes, and other implements of the permanently juvenile. Those destructive activities cannot be condoned, and should not be permitted except in special sacrifice areas. I mean the sort of pleasure reported by John Moore, a literate cattle rancher from Miles City, Montana, who took his children out with him onto the range one day and was with them when a hawk labored over with a struggling snake in its talons. "I'm glad they saw that," Moore said. "Not many people anymore see that sort of thing. I'm glad they saw it, and that I was with them when they did."

Moore is struggling to make it, and perhaps failing, on

White Mountain National Forest, New Hampshire — *Willard Clay*

40,000 acres of dry Montana plains. It is not out of the question that his spread will eventually be returned to the public domain, or added to other uneconomic spreads in some larger unit or commons grazed only in alternate years, or every third year, as the buffalo might have grazed it. But what matters is that love of the land that he himself feels and that he wants his children to feel. His 40,000 acres, uneconomic or not, are about as close as a private landowner can provide to the public-domain experience—that wide openness, those lilac distances, those wild dust storms, blizzards, thunderstorms, downpours of savage hail, that sense of the largeness, wonder, mystery, danger, of the natural world.

I grew up with that, in and among and around the vast emptinesses of the public domain in the years when we were still trying to domesticate it. I would not trade that experience for any experience of my life. Like Aldo Leopold, who said he would not like to be young again without wild country to be young in, I would feel I had been cheated if I had grown up on concrete and in the tameness of artificial lawns. I grew up knowing the kind of silence that rings in the ears like quinine, knowing the feel of a night wind groping through the spokes of a wagon under which I slept. I grew up hunting, trapping, lamentably killing, the wild creatures of my childhood country; the only good thing about all that is that in killing them I learned to know them, and in knowing them, eventually learned to love them.

Most of all, I was awed, very early and indelibly. I remember winter nights in Saskatchewan when the moon was round as a dollar, the snow dead white, the shadows blue, the stars myriad and icy and distant. The universe was neither hostile nor friendly, simply indifferent to my small, freezing-handed, steam-breathing figure in the white waste. You do not feel that mystery in city canyons or on suburban lawns. What you feel is the specious persuasiveness of human control, human management and organization and rearrangement. You do not know who the ultimate Authority is. Out in the public lands, where the nearest neighbor may be ten miles away and the stars are closer than the nearest town, you do.

That is the best reason I know for keeping the public lands healthy, keeping them as natural as they can be kept, keeping them public. They are indeed the safety valve that they were once called; but the safety valve is there not to keep city mechanics from revolutionary unrest by providing them with land where they can make farms. This safety valve is a safety valve of the spirit, the most precious antidote to the spiritual demoralization that immersion in our industrial culture is likely to breed. ♦

WALLACE STEGNER, *novelist and historian, is author of* The American West as Living Space, *among many other titles. He has won both a Pulitzer Prize and a National Book Award for his fiction.*

UNFINISHED BUSINESS

YOU CAN FEEL IT IN the Arctic National Wildlife Refuge in Alaska. You can see it in the Ouachita National Forest in Arkansas and in the California Desert National Conservation Area. There's a quiet crisis on the nation's public lands. ♦ The federal government holds nearly one third of the nation's land—659 million acres—for the benefit and enjoyment of all Americans. Only a small percentage of that land is still wild. Yet the agencies entrusted with these lands continue to open the door to development in the pristine places that remain. In the Arctic they're promoting oil drilling; in the Ouachita Forest they're advocating extensive clearcutting and herbicide spraying; in the California Desert they plan to allow open-pit gold mining in an area Congress is considering for national-park status. ♦ Because of these and similar instances of destructive planning and mismanagement, conservationists have lost confidence in the federal land-management agencies. These institutions (or their forerunners) were born from a recognition of the need to conserve the nation's natural resources: In 1905 the U.S. Forest Service was set up to protect forest reserves from logging abuses; in 1916 the National Park Service was established to protect and promote valuable scenic and historic wonders; in 1940 the U.S. Fish and Wildlife Service was founded to inventory species and to preserve the habitat of those needing protection; in 1946 the Bureau of Land Management (BLM) was established to protect the open range from grazing abuses. ♦ But over the years the agencies have strayed

Each of the federal agencies that stand guard over the public lands is a disappointment in its own way. Strong on promises, they are all weak – sometimes shockingly so – on protection.

BY BRUCE HAMILTON

from their missions. Two in particular, the Forest Service and the BLM, have developed cozy relationships with the very commercial interests they were designed to keep at bay. While there are conservation-minded employees in all the agencies, the general culture of these bureaucracies is pro-development. According to a recent *Forest Science* report, Forest Service district rangers agree with conservationists less than 5 percent of the time and with developers more than 47 percent of the time. A major reason for this bias, the publication says, is Forest Service employees' belief that their future career advancement is linked to good relationships with commodity interests.

"We are too biased toward the resource-extraction industries, particularly the timber industry," Forest Service timber planner Jeff DiBonis complained in a recent letter to the chief of the agency. "We support their narrowly focused, short-sighted agenda to the point that we are perceived by much of the public as being dupes of, and mere spokespeople for, the resource-extraction industries."

After passage of the National Forest Management Act in 1976, conservationists were hopeful that new regulations and a forest-by-forest planning process for land use would lead to more balanced Forest Service decisions. But the planning process has deteriorated into an irrelevant, costly, and time-consuming brawl. Because most of the plans for the 156 units of the National Forest System recommend continued acceleration of logging, roadbuilding, mining, and grazing at the expense of wilderness, recreation, wildlife, and watershed protection, conservationists have attempted to thwart them by filing administrative appeals and lawsuits. Only two plans have escaped challenge by citizen groups.

Though generally happier with the plans' recommendations, loggers, energy companies, and other commercial interests have also filed many appeals, presumably to ensure that conservationists don't get too many concessions. All sides but the Forest Service concede that the once-promising forest-planning process has been a colossal failure.

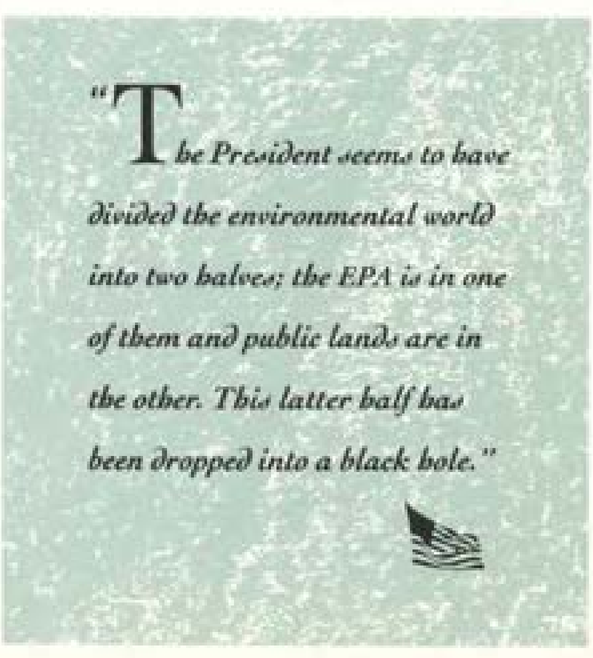
The BLM, too, seems incapable of keeping a respectable distance from commodity interests. The U.S. General Accounting Office, an investigative arm of Congress, testified earlier this year: "The BLM has often placed the needs of commercial interests such as livestock permittees and mine operators ahead of other users. . . . As a result, some permittees have come to view the use of these lands as a property right for private benefit." No wonder people sometimes refer to the agency as the Bureau of Livestock and Mining.

Again, new legislation gave conservationists hope that reform was on the way—but that hope was quickly dashed. The 1976 Federal Land Policy and Management Act (FLPMA) required the BLM to prepare detailed local land-use plans and to open its decision-making process to the public, potentially breaking the close ties between the regulator and the regulated. Today, though, the process appears to be going nowhere. Due in part to a 50-percent cut in the agency's planning budget in the Reagan years, only 37 percent of the plans are finished.

Where plans have been completed, the BLM has refused to make the tough choices necessary to regain conservationists' trust. The BLM acknowledges that overgrazing is the leading cause of the deterioration of its rangelands, but on 75 percent of the overgrazed allotments studied by the General Accounting Office, the BLM, bowing to rancher opposition and political pressure, has not recommended livestock reductions. (See "Going Against the Graze," page 30.)

Because the Fish and Wildlife Service and the Park Service are more preservation-oriented than the BLM and the Forest Service, they should have an easier time turning down loggers, ranchers, dam-builders, energy developers, and miners. These users are generally prohibited in national parks and are allowed in wildlife refuges only if the Secretary of the Interior decides that their activities won't conflict with wildlife.

These areas are far from conflict-free, however. Dozens of threats face every park and refuge in the nation. Some problems are internal—such as grazing and mining rights "grandfathered in" when a park is established, tourist developments that the Park Service has allowed to get out of hand, or energy developments approved within refuges for political reasons. Others are external—including pollution or destruction of wildlife habitat caused by activities just outside park or refuge boundaries, such as logging, mining, and energy or urban developments. No park or refuge in the Lower 48 includes a complete ecosystem; most wildlife ranges, watercourses, and other natural systems are politically subdivided. Thus development outside a park or refuge can easily lead to destruction of natural features inside the preserve.



Management problems are compounded when the public-lands agencies are administered by unsympathetic political appointees. The marching orders for these agencies trickle down from the top, and political interference by development-oriented appointees can easily override the judgment of conservation-conscious members of the professional staff.

A proposal to open the Arctic National Wildlife Refuge to oil-and-gas development, promoted first by Ronald Reagan and now by President Bush, is a glaring example of how an administration can undermine the integrity of its agencies. Reagan's

appointees in the Interior Department went so far as to have Fish and Wildlife Service reports on the Arctic Refuge rewritten to make the potential impacts of oil development there appear less severe. Interior officials also imposed a gag order on Fish and Wildlife Service employees, instructing them not to openly question or contradict the administration's pro-development position on the Arctic.

Political interference at the Fish and Wildlife Service has affected far more than just the refuge lands. The agency also provides expert advice on the implications for wildlife of other agencies' development proposals. Unfortunately, that advice has been acceptable to the Reagan and Bush administrations only when it promotes the party line.

New wilderness, new parks, strengthened agencies, new kinds of protection, overhauled laws – the conservation agenda for the public lands is ambitious, urgent, and up against tough odds.

"We're viewed as a threat," a Fish and Wildlife Service employee recently told *Business Week*. "It's only a matter of time before we're removed entirely from assessing impacts on fish of offshore-oil development."

This kind of intimidation, which has occurred with unprecedented frequency in the 1980s, has also extended to the National Park Service. Reagan's Park Service chief William Penn Mott had strong opinions about how to improve the park system, but he was regularly overruled by his supervisors in the Interior Department. At one point he and several of his subordinates were placed under investigation by Interior Secretary Donald Hodel on charges of improper conduct. Their alleged wrongdoing involved helping citizens organize a week of outdoor celebration. While innocuous to most observers, the event enraged Hodel because it promoted the work of the President's Commission on Americans Outdoors, a group that had earlier recommended bold federal land-acquisition initiatives.

At all agencies, political influence is most strongly applied in the budget process. Politicians in the administration and in Congress who shape budgets regularly disrupt even the best-laid agency plans. At the Forest Service and the BLM, for instance, wildlife and recreation programs are chronically underfunded and understaffed, while logging, roadbuilding, mining, and grazing programs prosper. In the case of the Park Service and the Fish and Wildlife Service, almost all programs are underfunded. For eight long years the Reagan administration recommended no funding for land acquisition, one of the budget items most critical to these agencies. President Bush recommended some funding for acquisitions in his first budget, but an amount that conservationists consider inadequate. Producing livestock, logs, and minerals is so costly that little money is left for expanding and managing parks and refuges.

The problem of political interference by administrators hostile to the land agencies' missions reached its apex when Ronald Reagan took office in 1981. Top career professionals with environmental sympathies were hounded from office. Reagan's lieutenants slashed positions and resource-protection programs alike.

Unfortunately, Bush's appointees didn't strike conservationists as much of an improvement. Interior Secretary Manuel Lujan, BLM Director Cy Jamison, Park Service Director James Ridenour, and Assistant Secretary for Fish, Wildlife, and Parks nominee Constance Harriman—vocal supporters of former Interior Secretary James Watt's aggressively pro-development policies—bring to their offices a history of supporting development at the expense of preservation. Jamison recently named his predecessor, Robert Burford, special assistant for western issues. Under Reagan's leadership, Burford proved himself to be the most anti-conservation director ever to head the agency.

Bush's nominee to oversee the Forest Service as assistant secretary of agriculture is James Cason, a former Watt deputy. Most Forest Service personnel, including the chief, are not subject to replacement when a new administration takes over. But the agency is not made up entirely of career professionals. Doug MacCleery, a former timber-industry lobbyist and Agriculture Department appointee, was made assistant director of the Forest Service for timber sales earlier this year.

These Bush appointments represent a continuation of the Reagan-era assault on conservation-minded professionals within the federal public-land-management agencies. The one bright spot is the selection of Wyoming state Senator John Turner to head the Fish and Wildlife Service. But Turner, a wildlife biologist, dude rancher, and backcountry guide with strong conservation credentials, will have a difficult time winning support from his superiors.

With such a commodity-oriented crew in control, there is little hope that the agencies will spearhead conservation campaigns and win back the respect they once enjoyed. Addressing environmentalists in April, Sierra Club Chairman Michael McCloskey contrasted the largely unsympathetic land-agency appointees with the excellent choice of William Reilly to head the Environmental Protection Agency: "The President seems to have divided the environmental world into two halves; the EPA is in one of them and public lands are in the other. This latter half has been dropped into a black hole. One must only conclude that public-lands policy questions are treated as not important to the White House—they are 'off the screen.'"

Continued on page 106

Sierra Club Public Lands Campaigns

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2. Tongass National Forest
3. Pacific Northwest forests
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5. California Desert
6. Idaho and Montana wilderness
7. Utah wilderness
8. Arizona wilderness
9. Colorado wilderness
10. New Mexico petroglyphs
11. Ouachita National Forest
12. Tallgrass prairie
13. Wisconsin biodiversity
14. Illinois wilderness
15. Smoky Mountains wilderness
16. Everglades National Park
17. Northeast forests

WARD SCHUMAKER

KIM HEACOX / DRK PHOTO

1 ARCTIC

A Refuge for Oil Interests?

Nowhere is the federal government's commitment to stewardship of our public lands more in doubt than within the frigid fastness of the Arctic National Wildlife Refuge in Alaska. One of the most valuable unspoiled wildlife habitats in North America, the refuge is the birthing ground for 180,000 caribou and millions of migratory birds, as well as musk-oxen, polar bears, grizzlies, and arctic foxes. But the energy industry and the Bush administration want to open the refuge's coastal plain to oil development.

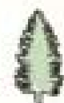
Conservationists are determined to prevent the drilling. The Sierra Club strongly supports H.R. 39, sponsored by Representative Morris Udall (D-Ariz.), and S.39, sponsored by Senators William Roth (R-Del.) and Bill Bradley (D-N.J.). These two bills would prevent any development on the coastal plain by granting it wilderness status. ◆

MATTHEW MCVAY/ALLSTOCK

The embattled coastal plain of the Arctic National Wildlife Refuge (top); dueling musk-oxen (above).

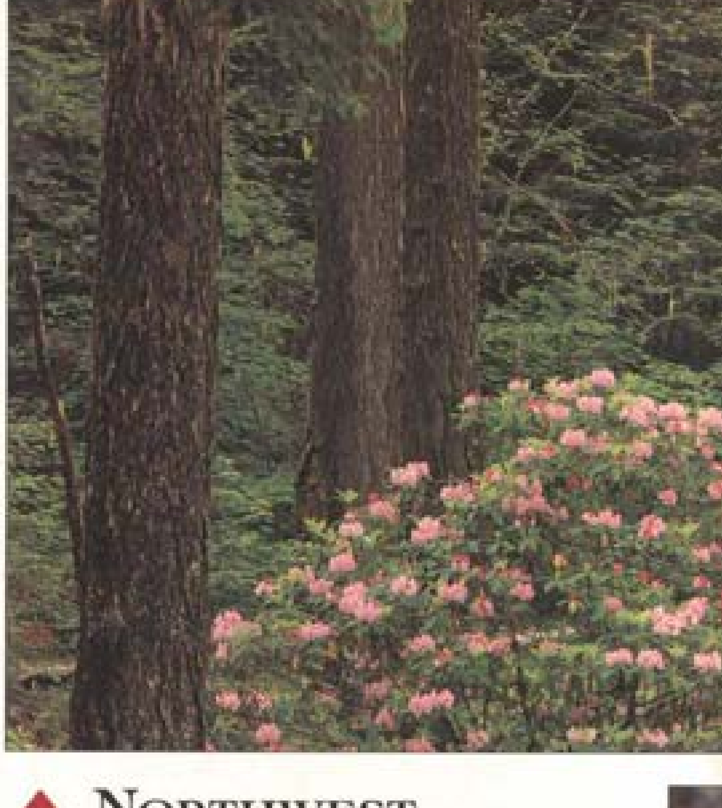
TONGASS

The Ultimate Forestry Fiasco



Alaska's Tongass, the largest national forest in the United States, provides the nation's best examples of logging run amok. Congress exacerbated the problem in 1980, when it agreed to allow heavy logging in the Tongass as a way of winning broad support for the environmentalist-backed Alaska National Interest Lands Conservation Act. The act requires the Forest Service to offer for sale timber totaling 450 million board feet per year, a level that grossly exceeds both the market's demand for trees and the forest's ability to regenerate them. It has also provided an automatic $40-million annual subsidy to support this timber mining. Adding insult to injury, Congress exempted Tongass timbering from key laws governing management of all other national forests.

Even as Congress now appears ready to mend its Tongass ways, the Forest Service continues to defend these policies vigorously. Conservationists, including the Sierra Club, support two bills that would repeal the mandated sales and guaranteed subsidies: H.R.987, sponsored by Representative Robert Mrazek (D-N.Y.), and S.346, sponsored by Senator Tim Wirth (D-Colo.). Conservationists prefer Mrazek's bill, which has already been passed by the House, because it also designates 23 Tongass areas as wilderness. ♦



NORTHWEST FORESTS

A Last Stand for Old Growth

Pacific Northwest forests still host trees hundreds of years old and hundreds of feet high. But if logging continues at the rapid rate mandated by Congress in recent years, ancient stands outside parks and wilderness areas will be only a memory by the turn of the century.

Under tremendous public pressure, the Forest Service recently recommended some old-growth preservation in its Washington, Oregon, and Northern California forest plans. In addition, legal action brought by the Sierra Club and other conservation groups to protect the northern spotted owl—a species dependent on old-growth habitat—has forced the Forest Service and the Bureau of Land Management to stop the logging of key old-growth stands.

This summer, in congressional testimony, the Sierra Club presented a comprehensive package of proposals that would protect ancient forests and timber-industry jobs. The Club urges reducing the timber harvest to allow ecologically significant stands of old growth to remain untouched and to protect watersheds and wildlife. The Club is also pushing for bills to help keep domestic sawmills in business while decreasing the pressure for big timber cuts: H.R.1191, sponsored by Representative Peter DeFazio (D-Ore.), and S.755, sponsored by Senator Bob Packwood (R-Ore.), would allow states to limit the ex-

PAT O'HARA

Tongass National Forest

LARRY ULRICH

ART WOLFE

port of logs from state and private lands; S. 754, also sponsored by Packwood, would permanently ban the export of raw logs from federal lands. To provide additional protection for the most significant and endangered ancient forests, the Club is formulating wilderness, park, and other protective proposals. ♦

Douglas fir and rhododendrons in Oregon's Umpqua National Forest (top); the controversial spotted owl (above).

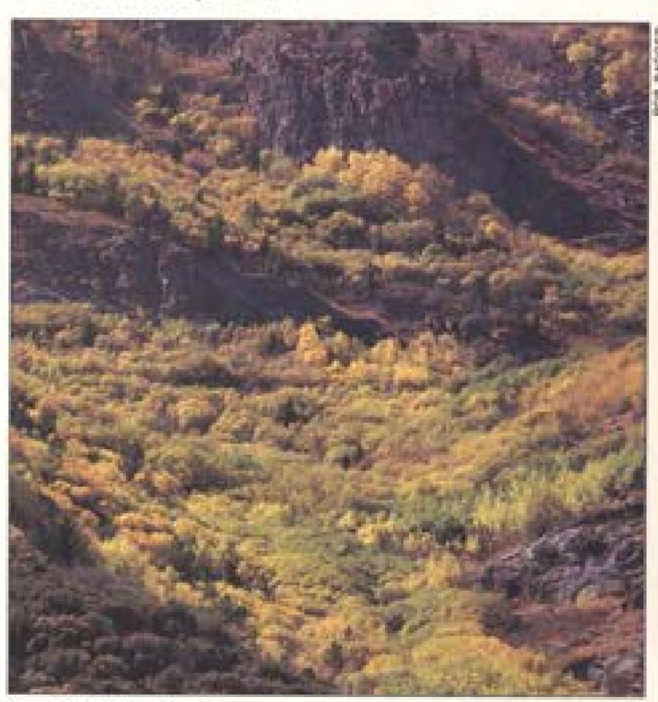
NEVADA

Wanted: 21 Wilderness Areas

Eighty-five percent of Nevada is publicly owned—the highest percentage of any state in the Lower 48. But Nevada has the smallest amount of wilderness of any western state: merely one small area, the 64,000-acre Jarbidge Wilderness.

As a first step toward increased protection for Nevada's millions of acres of roadless land, the Sierra Club and Friends of Nevada Wilderness are promoting wilderness status for 21 national-forest roadless areas covering 1.4 million acres. Representative George "Buddy" Darden (D-Ga.) has introduced an excellent bill that protects all but two small areas recommended by conservationists. The Sierra Club is also supporting, and working to improve, bills introduced by Nevada Senators Harry Reid (D) and Richard Bryan (D) and Representative James Bilbray (D), which include 14 areas. Their legislation, H.R. 2320 and S. 974, would protect 733,000 acres of wildlands. The Club opposes H.R. 2066, a bill introduced by Representative Barbara Vucanovich (R-Nev.) that would protect only 132,000 acres.

Last year Nevada wilderness legislation died in the Senate because of opposition from then-Senator Chic Hecht (R). Now that Bryan has replaced Hecht, the Sierra Club is hopeful that a strong bill can finally be passed. ♦

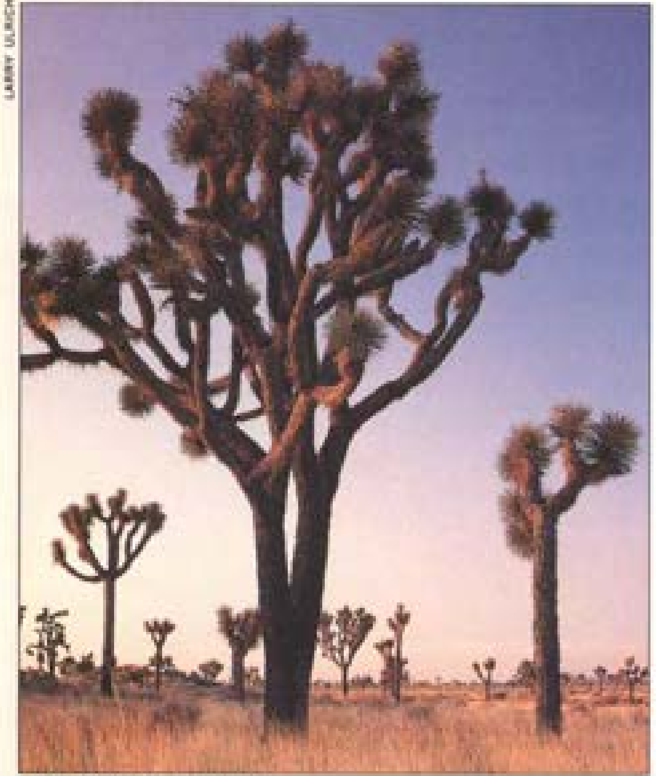


ROB BADGER

Nevada's Ruby Mountains

DAVID MUENCH

LARRY ULRICH



Cadiz Valley Dunes in the Mojave Desert (top); Queens Valley in Joshua Tree National Monument (above).

5 California Desert

BLM Protection Falls Short

The California Desert Conservation Area, established by Congress in 1976, was meant to demonstrate the Bureau of Land Management's dedication to the environment.

Today it is obvious the BLM has failed. The agency has allowed California's arid and spectacular southeastern quarter to be abused continually by livestock, mining claims, new utility corridors, and new cross-country motorcycle and dune-buggy races. Irreplaceable wildlife habitat, wilderness, and archaeological sites are disappearing right from under the BLM's not-so-watchful eyes.

To guarantee stronger and more permanent protection for the desert, the Sierra Club and other conservationists have helped shape the California Desert Protection Act. The legislation, introduced as H.R. 780 by Representative Mel Levine (D-Calif.) and as S. 11 by Senator Alan Cranston (D-Calif.), calls for the establishment of 4.5 million acres of new BLM wilderness areas. It also would transfer 3 million acres of BLM land to the National Park Service, which conservationists think would manage them better. The transferred lands would be part of three new national parks: Death Valley and Joshua Tree (existing national monuments that would be expanded and upgraded to park status) and Mojave (an entirely new park unit). ◆

IDAHO AND MONTANA

Unprotected Mountain Splendor

The largest chunks of roadless national-forest land still outside the wilderness system lie in the northern Rocky Mountains. Home to bighorn sheep, elk, moose, abundant trout, and the endangered woodland caribou, these refuges cover some 9 million acres in both Idaho and Montana.

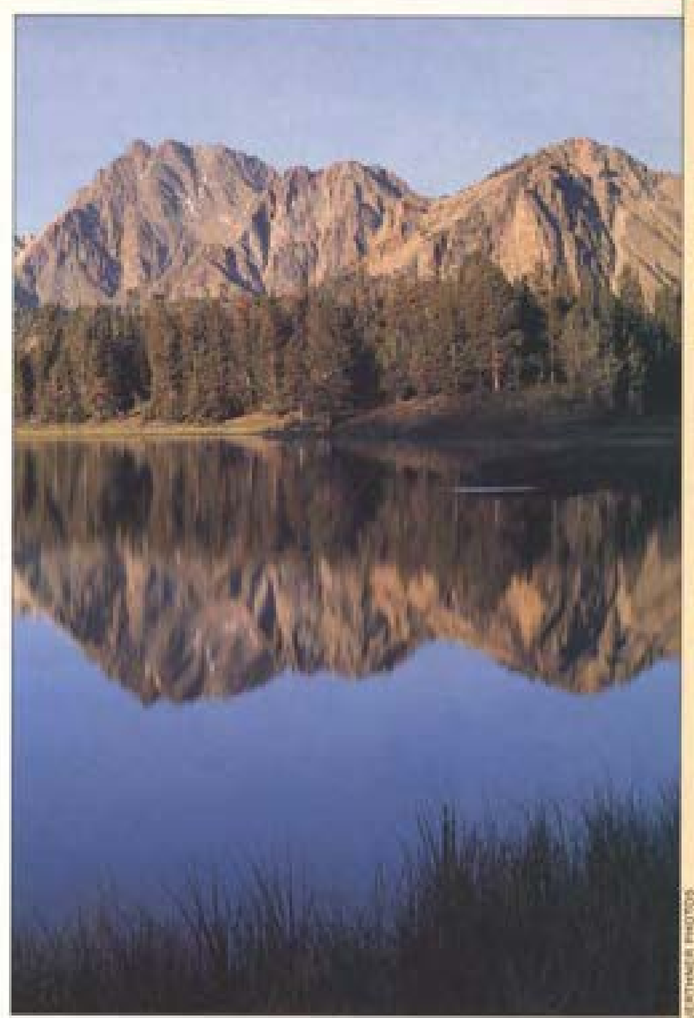
Last year Congress passed a Montana wilderness bill supported by the Sierra Club, but it was vetoed by President Reagan. The bill designated 1.4 million acres as wilderness and 700,000 acres as wilderness study and national recreation areas. Idaho wilderness legislation failed even to clear a committee.

At press time, last year's Montana bill had not been reintroduced. This year's Idaho bills line up as follows:

♦ H.R. 2213, introduced by Representative Peter Kostmayer (D-Penn.), would protect 4 million acres and is backed by the Club and Idaho conservation groups.

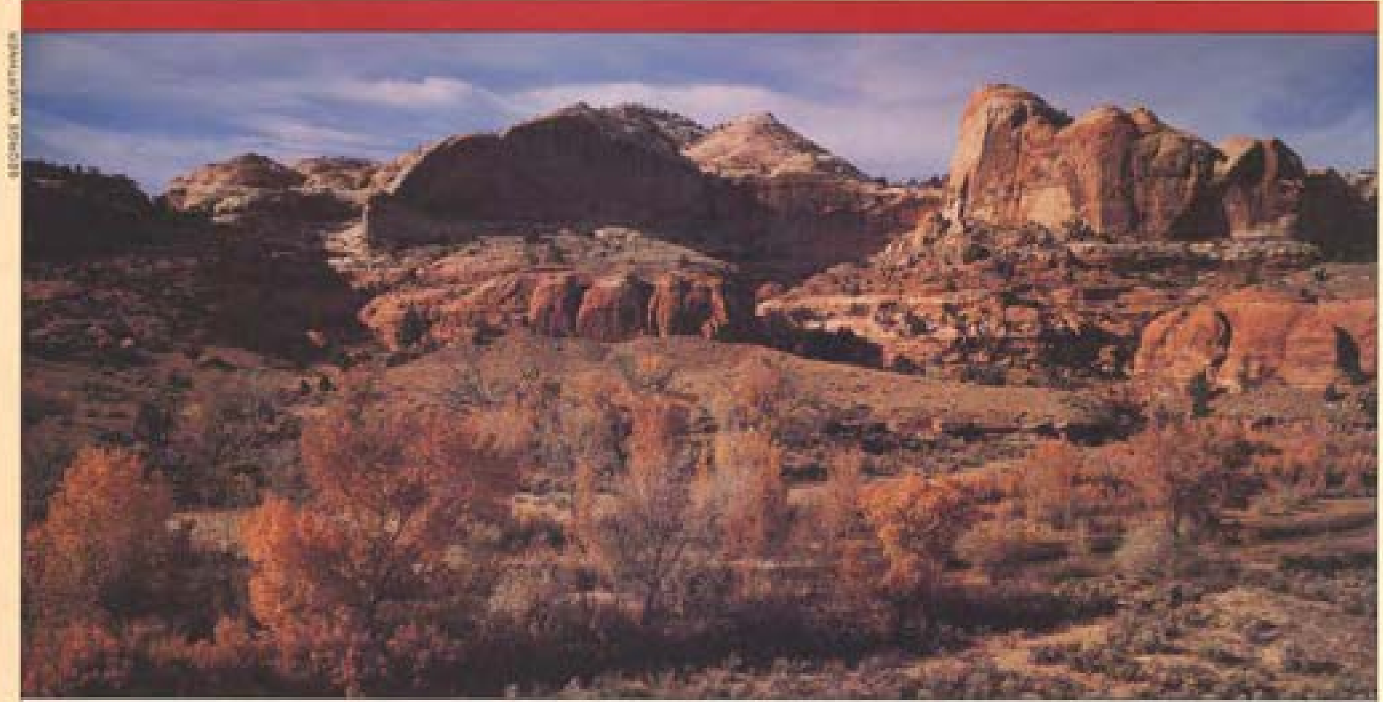
♦ S.371, introduced by Senator James McClure (R-Idaho), protects only 1.4 million acres and includes precedent-setting language that would strip wilderness areas of water rights. (See "Water Rights and Wrongs," page 35.) It would also mandate high logging levels outside designated wilderness areas. (See "Idaho Wilderness: The Sequel," page 81.)

These bills have fomented the most politically difficult national-forest debates in the country. Because of the vast acreage at stake, they are drawing national attention from developers and conservationists alike. ♦



GEORGE WUERTHNER PHOTOS

Morning sun on Castle Peak in Idaho's White Cloud Mountains (top); Hylite Peak from Mt. Blackmore in Montana's Gallatin Range (right).



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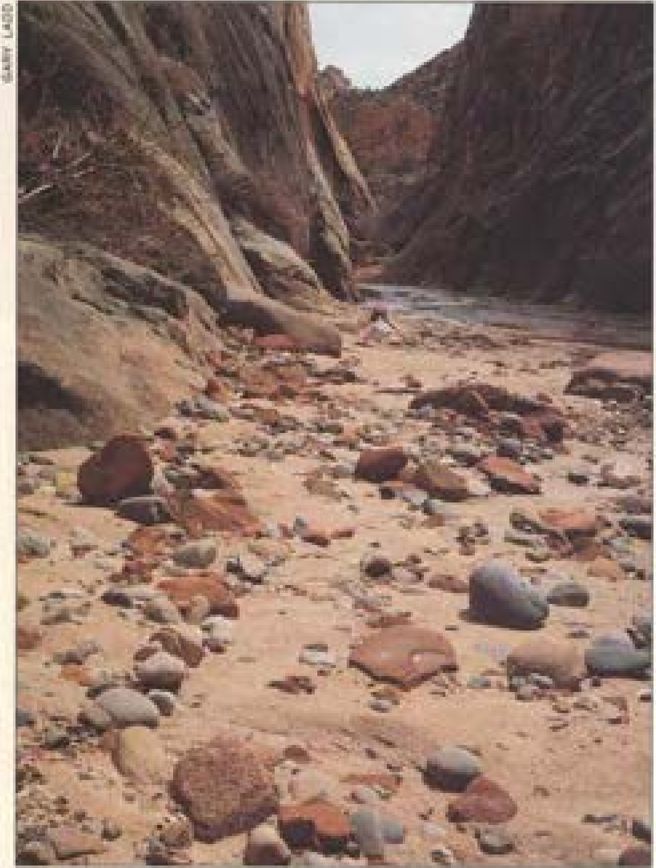


GARY LADD

Phipps Death Hollow along the Escalante River (top) and Hackberry Canyon (above), both unprotected BLM wildlands in southern Utah.

Utah

Overcoming the BLM's Bias

The Bureau of Land Management's 22 million acres of deserts, rivers, canyons, mesas, and arches in Utah were part of a congressionally mandated inventory of wilderness lands. But nowhere in the nation was the wildlands search more reluctantly and superficially carried out.

When the BLM submitted its Utah inventory to the public for review, the document was roundly rejected by conservationists, who saw it as biased, flawed, and woefully inadequate. In a letter to Interior Secretary Manuel Lujan, who oversees the BLM, House Interior Committee Chair Morris Udall and his four subcommittee chairs noted "substantial evidence suggesting the need for reconsideration" of some 2 million acres of roadless lands in Utah. These lands had been rejected by the BLM as too unworthy even to include in its studies. Although the agency's initial wilderness recommendation was only 1.9 million acres, Udall and his colleagues called upon Lujan to protect 5.1 million acres from development until Congress acts.

Meanwhile, Representative Wayne Owens (D-Utah) has introduced H.R.1500, which would protect the 5.1 million acres recommended for wilderness designation by the Sierra Club and the Utah Wilderness Coalition. The rest of the Utah delegation is vehemently opposed to Owens' bill. Representative James Hansen (R-Utah) has introduced H.R.1501, which would protect only 1.4 million acres. No one expects legislation to pass in this session of Congress, but the ensuing debate over how much of Utah is worth saving will continue to command the attention of public-lands activists in the months and years ahead. ♦

Arizona

A Three-Pronged Wildlands Package

The Sierra Club and the Arizona Wilderness Coalition are promoting a 4.1-million-acre package of wilderness areas and wild and scenic rivers that includes lands administered by the Forest Service, the Bureau of Land Management, and the Fish and Wildlife Service.

Arizona's senators, Dennis DeConcini (D) and John McCain (R), have responded—weakly—by introducing S.1080, which would protect 900,000 acres as wilderness but open nearly three times as much land to development. For example, it would strip existing safeguards from 1.4 million acres of the Kofa and Cabeza Prieta national wildlife refuges, home to desert bighorn sheep and the endangered Sonora pronghorn antelope.

In contrast, Representative Morris Udall (D-Ariz.) has introduced H.R.2570 and H.R. 2571, which would establish wilderness on 1.4 million acres each of BLM and Fish and Wildlife Service lands. Sierra Club activists are supporting these bills as starting points, hoping to win additions such as the Blue Range Primitive Area and protection of a longer stretch of the Verde River.

Unlike the Senate bill, Udall's legislation focuses on stream and ecosystem protection and would ensure water rights for all new BLM wilderness areas. ♦

DAVID MUENCH

Colorado's Sangre de Cristo Mountains

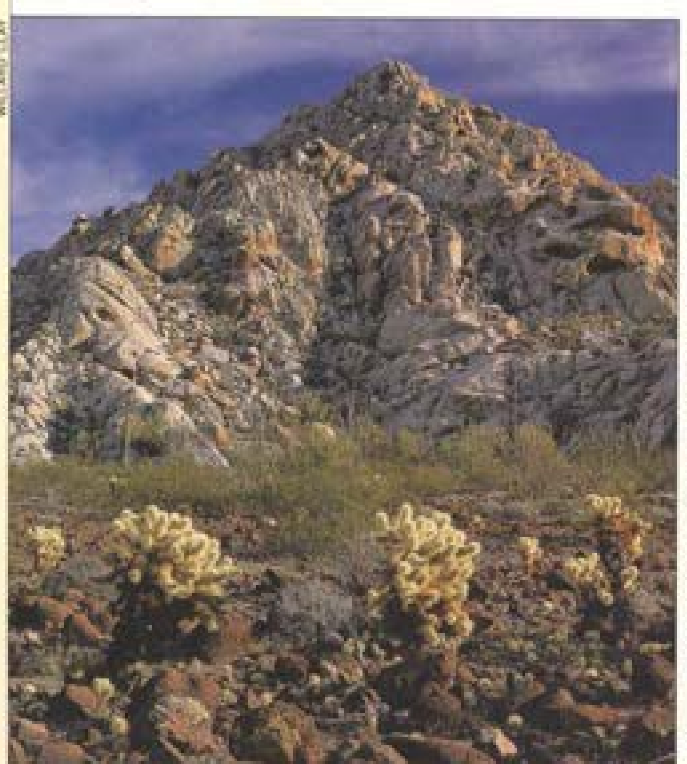
Colorado

Where Wilderness Waits for Water

A 1980 Colorado wilderness bill left many of the state's national-forest roadless areas in limbo. Passage of a second statewide bill has been hung up on one issue: how to deal with water rights in wilderness.

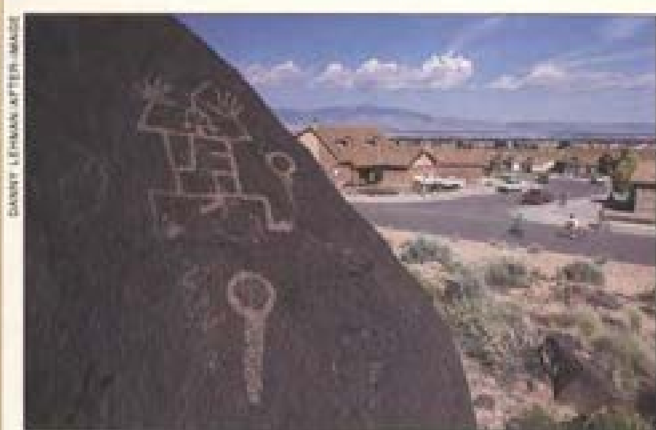
Water developers want ironclad assurance that wilderness designations will not limit their options. Conservationists, on the other hand, maintain that the federal agencies charged with managing wilderness areas should have rights to enough water for recreation, maintenance of aesthetic appeal, and protection of fish and wildlife habitat.

With the two sides at a stalemate, Senator Tim Wirth (D-Colo.) has come up with a compromise. In mid-July Wirth introduced a bill that would declare water rights for Colorado wilderness areas and establish about 750,000 acres of additional wilderness in the state's national forests—all in conflict-free headwaters areas. The bill avoids passing judgment on roadless lands of interest to water developers, proposing to leave them in their current wilderness-study status. Although the Sierra Club has been pressing for 1.2 million acres of additional forest wilderness in the state, it supports the Wirth compromise. ♦



WILLARD CLAY

Cabeza Prieta National Wildlife Refuge


DANNY LEHMAN/AFTER-IMAGE

Albuquerque's city limits

10 NEW MEXICO
A New Park for Petroglyphs

On Albuquerque's western edge is an array of prehistoric Indian rock art unmatched anywhere in the world. More than 15,000 different figures and designs adorn a 17-mile-long volcanic escarpment just inside what are now the city's residential limits.

Booming growth has left these petroglyphs at great risk of being overwhelmed by off-road vehicles, houses, even golf courses. According to the National Trust for Historic Preservation, the area is among the nation's most endangered historic places.

To the Rio Grande Chapter of the Sierra Club, preservation of the Albuquerque petroglyphs is a top priority. The Club and other groups are working for establishment of a national monument, jointly administered by the National Park Service and the city of Albuquerque, to protect these cultural treasures.

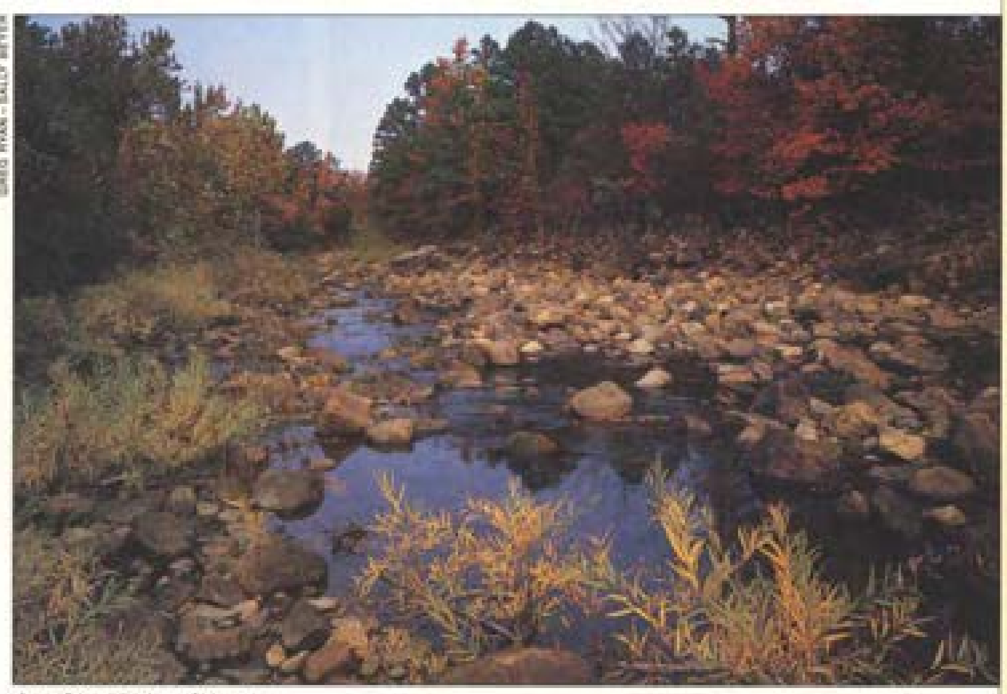
Petroglyphs National Monument bills have been introduced by Senator Pete Domenici (R-N.M.) and Representative Steven Schiff (R-N.M.). The Sierra Club is urging passage of these bills so that the petroglyph sites may be acquired before it is too late. ♦

11 ARKANSAS AND OKLAHOMA
A Revolt in the Ouachita

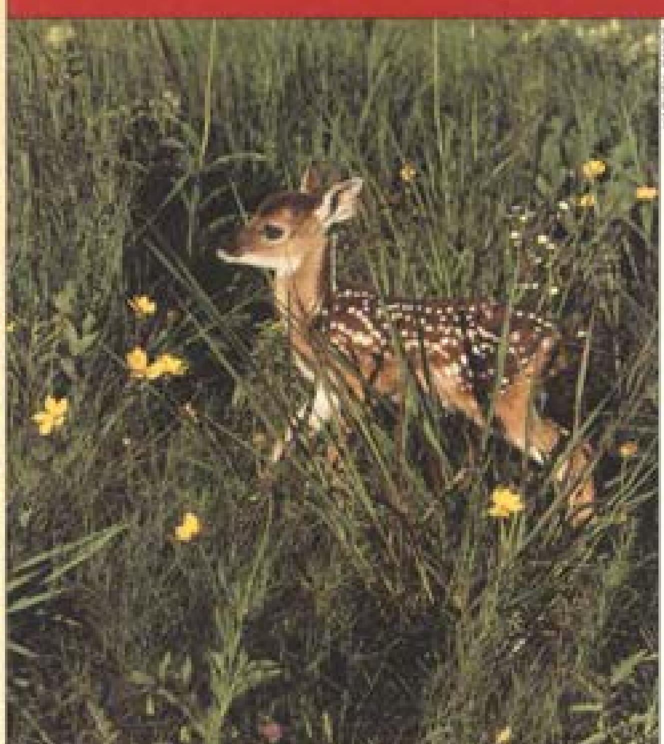
A hornet's nest of citizen complaints is not unusual when the Forest Service allows clearcutting, herbicide spraying, and single-species replanting in a national forest. But Oklahoma and Arkansas citizens have mounted an unusually effective protest of such practices in the Ouachita National Forest.

In 1986 the Sierra Club and other conservation groups filed an administrative appeal of the Ouachita's most recent forest plan. When the Forest Service delayed action on the appeal, the Oklahoma appellants took their complaints to Congress. They convinced the state's congressional delegation to introduce a bill designating a Winding Stair Mountain National Recreation Area (NRA) on the Oklahoma side of the Ouachita, with strict limits on all forms of clearcutting and "type conversion" (changing a forest's typical mix of trees). Also proposed within the NRA are two wilderness areas and two botanical areas in which logging would be prohibited entirely. Over the vigorous protests of the Forest Service, Congress adopted the bill in 1988.

Now citizens in Oklahoma and Arkansas have formed the Ouachita Watch League (OWL) to spread the reform movement to the rest of the forest. (See "Watching Over the Ouachita," page 80.) The *Arkansas Gazette*, the state's largest paper, has already endorsed OWL's platform. If the Forest Service doesn't respond, legislation similar to Oklahoma's may soon emerge in Arkansas. ♦


GREG RYAN - SALLY BEYER

Ouachita National Forest



HARVEY PAYNE

Tallgrass prairie, Oklahoma

12 OKLAHOMA AND KANSAS

Preserving the Tallgrass Prairie

When white settlers first reached the Great Plains, a sea of head-high grasses stretched from Canada to Texas. Today less than 3 percent of the original tallgrass prairie remains, mostly in small, isolated pockets.

One of the rare large tracts left drew the attention of Congress in 1987, when Representative Mickey Edwards (R-Okla.) introduced legislation to establish a Tallgrass National Preserve in the Osage Hills of northeastern Oklahoma. The state's senators, David Boren (D) and Don Nickles (R), introduced parallel legislation. At first the administration appeared willing to support the bills: Park Service Director William Penn Mott had said that establishing such a preserve was his number-one priority. But Interior Department officials overruled Mott, instructing him to tell Congress that only state and local monies should be used to purchase preserve lands. Meanwhile, back in Congress, disagreements surfaced over the size of the area and how it should be managed. In 1988, Edwards finally withdrew his bill.

At press time in July, The Nature Conservancy was poised to purchase and protect 40 percent of the land available in the Osage Hills. But here, and in Kansas as well, the Sierra Club is still working toward an even larger, public preserve. In both states high-quality lands remain, and the big bluestem still stands head-high. ◆

13 WISCONSIN

Looking Beyond the Trees

Once heavily forested, Wisconsin had 80 acres of virgin trees in 1955. "That was left only because someone had made a mistake in land description," explains forester Gordon Robinson in *The Forest and the Trees* (Island Press, 1988; reviewed on page 90). "It did not pay to have the loggers return for the small quantity after the error was discovered."

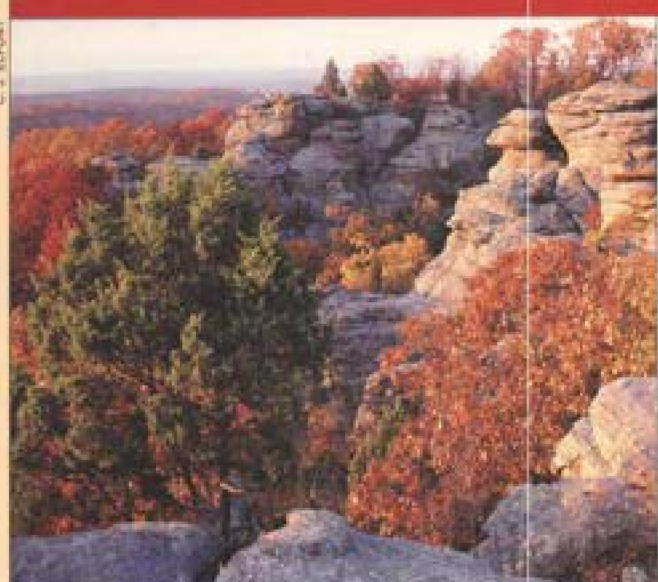
For destruction of the original forests of the region we can blame our forebears, but today's Forest Service roads and clearcuts may be further diminishing Wisconsin's natural heritage. To save what remains, conservationists have filed appeals of Forest Service plans for the Nicolet and Chequamegon national forests, pointing out that the National Forest Management Act requires the agency to protect biological diversity.

The matrix of roads and clearcuts in these areas is eliminating species dependent on older forests. Without large blocks of trees of various ages—including snags and rotting logs—the woodpecker, moose, bear, pine marten, wolf, and other species will continue to decline.

All federal agencies may eventually have to consider this issue more carefully than they have in the past. The National Biological Diversity Conservation and Environmental Research Act, H.R.1268, introduced by Representative James Scheuer (D-N.Y.), would make conserving biological diversity a national goal and would require federal agencies to alter their programs accordingly. A similar measure is part of Tennessee Senator Albert Gore's World Environment Act, S.201. ◆

ART WOLFE/ALLSTOCK

The gray wolf, a symbol of Wisconsin's biodiversity



C. J. ELFONT

Shawnee National Forest

14 ILLINOIS

The Wildest Lands of Lincoln

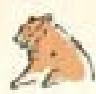
Public land was an afterthought in Illinois. At one time colonists had claimed, cleared, tilled, and occupied the entire public domain here. But some farmers' dreams died, and their lands reverted to public ownership. Many of those lands are now part of the Shawnee National Forest.

Eighty-five percent of the Shawnee is managed primarily for timber production. Some 43,000 acres of wildlands still exist, however. A ridgetop here, a steep river valley there—these lands are virtually the only remaining pockets of wilderness in the state, and conservationists are recommending that they all be so designated by Congress. At press time, legislation to protect these vulnerable lands had not been introduced but was expected soon.

Developers regularly criticize environmentalists for being uncompromising. But in Illinois the compromising was done 200 years ago. It is time now to show restraint, before all that is wild vanishes from the Land of Lincoln. ♦

15 THE SMOKY MOUNTAINS

One Senator Stands in the Way



Each year more than 10 million people flock to Great Smoky Mountains National Park, making it the most visited park in the entire system. Within its 520,270 acres straddling the North Carolina/Tennessee border, visitors find a land still vast and wild enough to sustain the black bear and the endangered eastern cougar.

Ever since the park was established more than 50 years ago, conservationists have sought permanent protection for its undeveloped lands. Today only one man—Senator Jesse Helms (R-N.C.)—stands in the way of making that dream a reality.

Last year the House unanimously passed a bill that would have designated 419,000 park acres as wilderness. A similar bill passed the Senate Energy and Natural Resources Committee. But when it reached the Senate floor, Helms filibustered, stalling the vote long enough to kill the legislation.

This year several of the senators who supported Helms' filibuster are no longer in office. And the bill's Senate champions, James Sasser (D-Tenn.), Albert Gore (D-Tenn.), and Terry Sanford (D-N.C.), plan to push again for legislation to keep the spectacular Smokies wild. ♦

WILLARD CLAY

Great Smoky Mountains National Park

STEPHEN J. KRASEMANN/DRK PHOTO

THE EVERGLADES

A Thirsty, Threatened Park

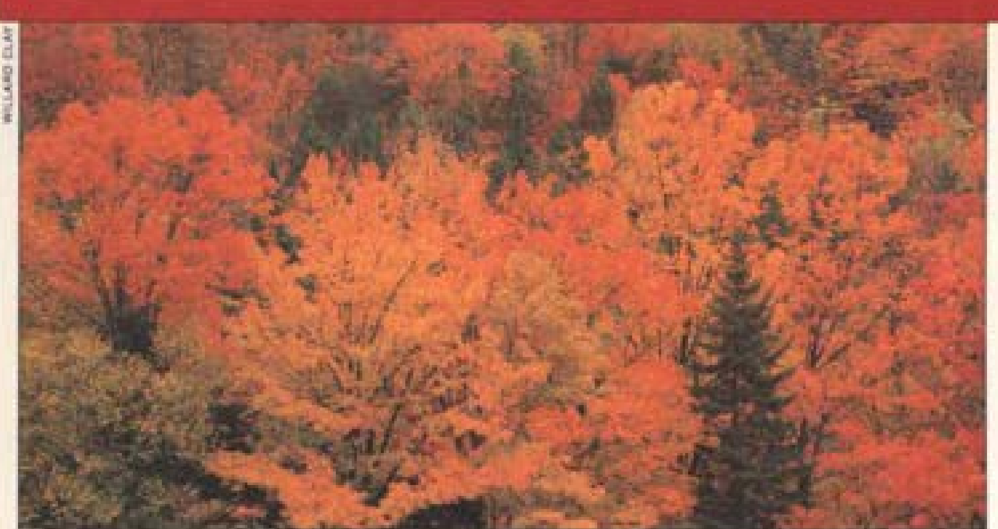
Like many national parks, Everglades is a mere fragment of an ecosystem. Its alligators and woodstorks, its egrets and anhingas, are dependent upon water and lands to the north and east of the park's protective boundary.

Development on these lands has already led to drastic declines in the park's wildlife populations. To guard against further losses, Representative Dante Fascell (D-Fla.) and Senator Bob Graham (D-Fla.) have introduced legislation that would expand Everglades National Park by 107,600 acres. These bills, H.R.1727 and S.724, don't extend protection to the entire Everglades ecosystem, but they would add an important, large piece to the puzzle.

Farther north, the Sierra Club is working with the state and its congressional delegation to convince the U.S. Army Corps of Engineers to restore a major tributary of the Everglades, the Kissimmee River. Once a meandering, wildlife-rich waterway, the Kissimmee was straightened and dredged for flood control in the 1960s. The resulting ditch supports little wildlife and is heavily polluted with agricultural runoff. At the suggestion of conservationists and the state delegation, Congress in 1988 directed the Corps to undo the damage. But the agency, under pressure from President Reagan's Office of Management and Budget, refused to spend the $2.3 million that Congress appropriated for the restoration effort. ♦

ART WOLFE

Life in an eco-fragment: roseate spoonbills (top); the endangered Florida panther (above).



WILLARD CLAY

Fall in a Vermont forest

17 NORTHEAST FORESTS

Public Lands for the Future

Most of the forests of New England are owned and managed by the timber industry. The region's two small national forests—the 308,000-acre Green Mountain in Vermont and the 729,000-acre White Mountain in New Hampshire and Maine—were pieced together and purchased by the Forest Service years ago. Now the timber economy has soured and millions of acres of private timberland are coming on the market.

This turnover provides a once-in-a-lifetime opportunity to establish new public lands in a heavily populated region where only 3 percent of the land is federally owned. State and federal officials are considering acquisition of at least some of the lands for public purposes, including new state parks, national forests, and maybe even national parks. But the multimillion-dollar price tag is a major hurdle.

Congress has directed the Forest Service, with help from the states of Maine, New Hampshire, Vermont, and New York, to spearhead a Northern Forest Lands Study. Meanwhile, the Sierra Club and other conservation groups are developing their own proposals to present to these states and to Congress. Quick action is essential here, before the prime lands on the market are converted to private subdivisions. ◆

THE SIERRA CLUB

Who's Who on the Public Lands

Conservationists who want to defend the public lands can obtain information and support from the Sierra Club's Public Lands Committee.

The committee's quarterly newsletter, *Public Lands*, provides a forum for some 2,500 Sierra Club activists and subscribers. For a subscription (free to any Club member), contact John Hopkins, the committee's chair and newsletter editor, 409 Jardin Pl., Davis, CA 95616; phone (916) 756-6455.

The group's ten subcommittees help develop Sierra Club positions on and responses to public-lands problems nationwide. For more information, contact the following subcommittee chairs:

◆ National Forests: Dennis Baird, P.O. Box 8787, Moscow, ID 83843; phone (208) 882-8289; and Dan Heinz, P.O. Box 574, Bozeman, MT 59715; phone (406) 586-8175.

◆ National Parks: Bob Hartman, 1988 Noble St., Lemon Grove, CA 92045; phone (619) 462-3162; and Ben Zerbey, P.O. Box 687, Mesilla, NM 88046; phone (505) 526-6207.

◆ National Wildlife Refuges: Michael Caire, 221 McMillan Rd., West Monroe, LA 71291; phone (318) 325-6790.

◆ BLM Grazing: Rose Strickland, 619 Robinson Ct., Reno, NV 89503; phone (702) 329-6118.

◆ BLM Wilderness: Mark Pearson, P.O. Box 204, Grand Junction, CO 81502; phone (303) 434-6848.

◆ Mineral Resources: Susie Van Kirk, 1162 C St., Arcata, CA 95521; phone (707) 822-6066.

◆ Off-Road Vehicles: George Barnes, 960 Ilima Way, Palo Alto, CA 94306; phone (415) 494-8895.

◆ Biological Diversity: Robert Smythe, 4807 Wellington Dr., Chevy Chase, MD 20815; phone (301) 656-0654.

◆ Wilderness Management: Martin Sorenson, P.O. Box 422, Golden, CO 80401; phone (303) 642-0224.

◆ Public-Lands Law: Robert Girard, Stanford University Law School, Stanford, CA 94305; phone (415) 497-0391.

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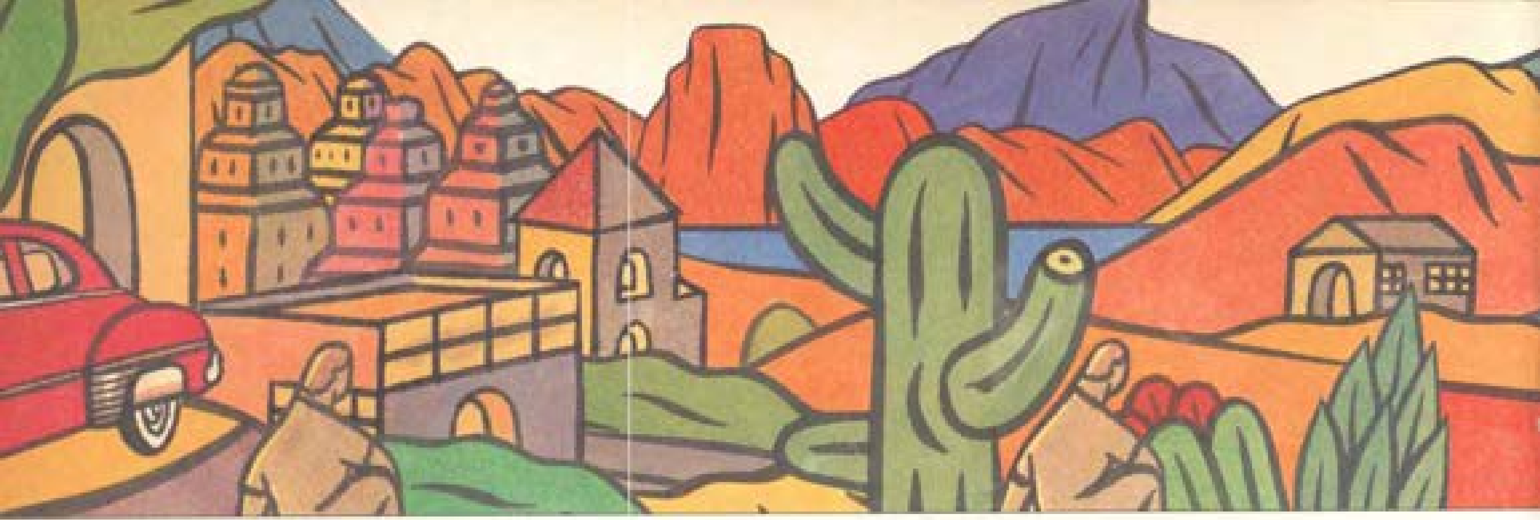


LINES ON

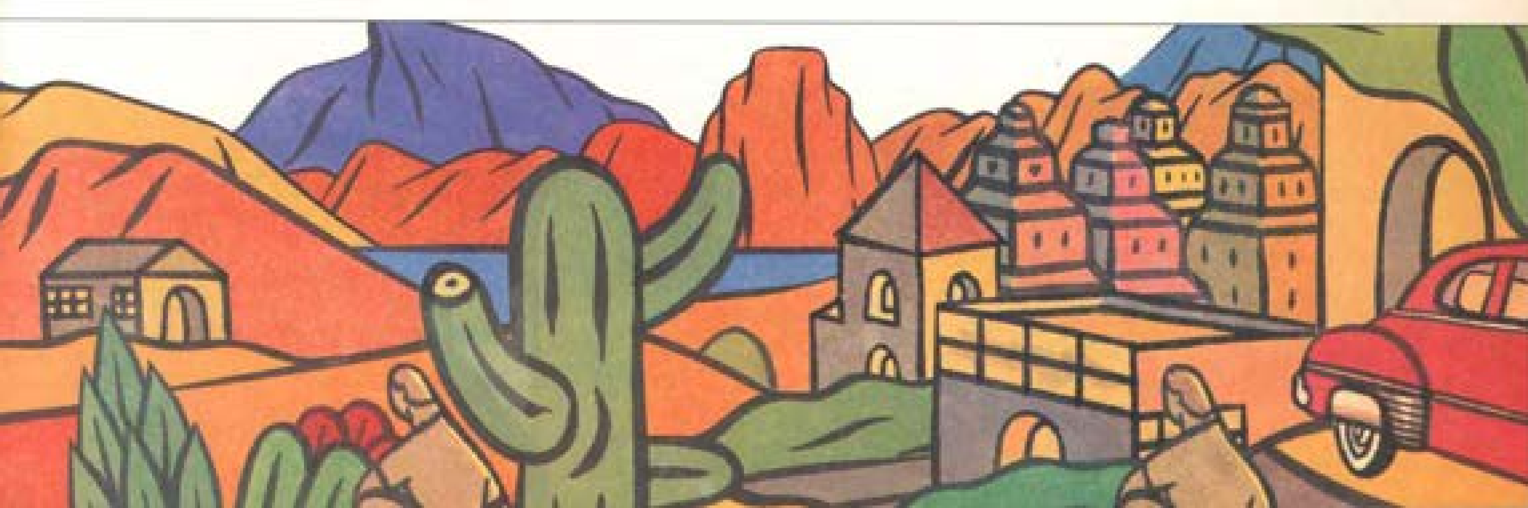
BY C. L. RAWLINS

WHEN I WAS TOO YOUNG to say "public domain," let alone know what it might be, I still knew three sorts of places. The first was *where we live*. The second was *where they live*. The third was *out there*. ♦ *Where we live* had the right smells and the right food—I knew it the way a badger knows its burrow. *Where they live* was strange—in the houses of friends, different smells, different ways. Artichokes. Egg salad. A different word for toilet. ♦ The frontiers of *where they live* were dangerous places. An old woman like the witch in night stories might burst screeching from a door. A black man in a T-shirt might catch a chicken and—*ka-chunk*—chop off its head with a hatchet, the body flailing and spouting as the head lay still on the block, one eye going blink-blink-blink. Strange kids might get a notion to put dirt in your hair. ♦ *Out there* was the desert, where nobody lived. There were stickery bushes that didn't grow where we live, and lizards tracking the sand. You could pee anytime, anyplace. There were

JEFF HANNA

THE LAND

things you did only once, like stand on an anthill to watch the ants or pick the bloom from a prickly pear, but nobody told you not to do them. You suffered and learned. ♦ *Out there* you could sneak to the ditch and take off your clothes and lie in the mud because the mud was cool. Back *where we live* you would be cussed out and hosed down, though there was never any doubt that the pleasure was worth the risk. You could dig holes in the sand and roof them with plywood signs or the hoods of cars. You could have wars with kids from the houses on the other side of the strip of desert; you could throw clods and rocks, punching and kicking and spitting and running away, for the rush of real fear. ♦ *Out there* was the bush, the rock, the bull, the beast, the ghost. *Out there* was the golden sand, the patch of cottonwood shade where no one could say "Go home." You could wear your own skin, look and listen and hide, watch cars shimmer by on August asphalt through a thorny screen of mesquite, and see, above



the road, a blue line of peaks, the solid, cool promise at the edge of the world.

In the Anglo-imperialist notion of the frontier, *out there* coincided with the *where we live* of the Lakota, Cheyenne, Shoshone, Crow, Blackfoot, Paiute, Apache, Hopi, and Comanche. The logic of manifest destiny was brutally simple: If there are no streets or deeds or lawyers, then rightfully speaking no one lives there. We drew the lines, hard and fast.

The public domain is what was left of *out there* by the turn of the century, land that none of the miners, ranchers, farmers, bankers, speculators, or congressmen wanted urgently enough to file papers or pay taxes. In the West, where most of it is, it tends to be high or dry or rough, often all three. During the period of conquest/theft, when we called it frontier, much had been accomplished toward its wrack and ruin. For all its beauty, it didn't fit our dream.

Privatizers (or privateers) and their academic apologists conveniently forget that the notion of protecting the unowned lands as public domain was a response to disasters: the wholesale slaughter of buffalo; huge forest fires that followed a rampage of logging; landslides and floods from overgrazing; dead trees and acid streams from mines and smelters; arson and bushwhacking that erupted from conflict over the right to graze and to divert water.

The desirability of unowned land was in part the opportunity to use it without having final responsibility for it, to get what was good and then get out. *Land of many uses.* This is an ethic we still follow today, as oil companies or as backpackers.

Consider the problem of the public domain: How are we to grasp its immensity? The Big and Scratchy. The tragic commons. William Bradford's "hideous and desolate wilderness" and Whitman's "voluptuous, cool-breath'd earth." Storehouse of energy or genetic reservoir? Property of U.S. Government or, to quote John Muir, The People's Playgrounds? Diversity, as a quality of thought, is not particularly comfortable.

We could fill a hundred articles with statistics wrung from the public land and still miss the sense of it, though numbers are good tools. Defining the landscape in terms like acreage, boundaries, resources, elevations, or "outstanding wilderness characteristics" is reductive, like defining a human being as ten gallons of water and a few dollars' worth of chemicals. We draw the lines, then argue about them.

The way we have been drawn into this reductive view of public land and wilderness reflects two things: The battle for control of the commons has been fought largely on legal grounds; and our personal knowledge of these commons—our public lands—has suffered. Most of us live in and around cities. Mortgages, careers, investments, the traffic report—these are what we know. The commons are visited on weekends or brief vacations.

Despite all the books, calendars, and memberships with which we try to fill our need to know this landscape, in our hearts we know it less each year. Thus lacking the moral authority of native and resident, we must fall back to barricades of facts and figures, to cost-benefit justifications of wilderness, retreating from love into politics, from rage into sophistry.

I'VE MANAGED TO SPEND at least the warmer halves of the last 15 years *out there* in a number of guises. Campjacking, buck fencing, horsepacking, range riding, guiding, firefighting, rangering, doing field science—these are all legal ways to reside in the public domain, *out there*, with nothing but the weather and your own good sense to tell you to go home.

Not many Americans do this. There is little practical advantage in loyalty to a certain place unless one owns it. In the West three quarters of us live in cities. In the dreams of our ancestors, heaven was a city with golden streets, golden stairs. We live in those cities, careering down the golden streets to work each day. The city gives—big money, big science, big fun—and takes away. There's no quiet, no place to park, no stars. The night sky glows a smoky orange, and the darkness hides between abandoned buildings or inside rooms with blackout drapes.

High-tech gringos regard me with suspicion: "You mean you work out here? You *live* out here? You're kidding! Really?" So far, the pay's lousy, no pension fund or health insurance. Fair prospects for survival, poor for advancement. When someone says "career" you respond with a bitter laugh. Rhymes with beer, you say. *Out here.*

The realization that I considered the backcountry as home probably lurked in the back of my head for years. One afternoon, carrying a pack sloshing with half-filled sample bottles of rain, on a trail deep in late-summer dust, I saw a man. He wore five flaming colors, not counting his pack—which was electric blue.

Ranged behind him were several younger, similarly bedecked persons. He was leading them, it seemed. He stopped. They stopped. I shrugged. Stopped. Smiled.

"Heading in?" he asked. This guy is bassackwards, I thought.

"Not today. I'm going out, to the trailhead and then to Pinedale."

"Yeah," he smirked, "I knew you were headed in."

Geek, I thought, but then decided that our terms were

JEFF HANNA

reversed. His in was my out. His trek into the wilderness was a vacation in the absolute sense of that word. Getting away from it all. Going *out there*.

Walking in the opposite direction, I was also headed *out*, away from my place of residence, across the line into America, where I hoped to indulge in pizza and showers. In two days I would fill up the faded pack with empty collection bottles and head back *in*, toward the center, closer to home. *Out there* had become *where we live*. I had redrawn the lines, not by thinking but by living.

PUZZLING BACK, I FIND that except for a year of academic exile in the San Francisco Bay Area, even when I've been off the commons I've never lived more than a half-hour's meandering walk away. One of the reasons the Bay Area seemed like exile was the excess of *where they live* and the lack of *out there*. I spent a year belly-crawling under fences with posted warnings, snaking through poison oak, musing in the green gloom of second-growth redwoods that belonged to someone else, casting an illegal shadow and breathing expensively private air. Crossing lines.

Where there were parks and good weather, there were usually hordes. I found out, if I didn't already know, that when a crowd of my fellow beings are *out there* it isn't *out there* anymore.

It's not that I hate people. I'm married to one of the best. I spend a fair amount of time in town. I go to supermarkets and poetry readings. I live—for better or worse—as an American. It's simply that freedom, wisdom, divine grace—all those grand abstractions—aren't abstract. They're alive *out there*, and nobody owns their country.

As William Kittredge, one of our finest living writers, says:

There was a great dream about a just and stable society, which was to be America. And there was another dream about wilderness individuals, mountain men we have called them, who would be the natural defenders of that society. But our society is hugely corrupt, rich and impossibly complex, and our great simple individuals can define nothing to defend, nothing to reap but the isolation implicit in their stance, nothing to gain for their strength but loneliness.

IN APRIL I'M HIGH UP in Wyoming's Wind River Mountains on touring skis in diamond weather. At dawn the crust is solid; we slot our skis along the sides of our packs and kickstep up the steep slopes. Later the sun will soften the snow into a moist, granular, blessed surface called corn. My partner, Marty, has earphones plugged into his head, grinning along with the Replacements. The sun is rising and we're covering country. On the uphill he leaves me panting; on the downhill shots he chops narrow turns along the fall line beside my looping telemarks.

We have a good camp, a good tent, good skis, good food, and even a good, brown bottle each of Cooper's Ale in the snow awaiting our return. Around us are big Rastafarian granite peaks buffed out with snow; above us, snapping blue sky. *Niños Altos* is how we feel, Pinup Boys of the high and lonesome.

Though we might be up here in any event—Marty skis the backcountry fanatically at least five days a week—in this case we're employed as acid rangers, collecting wilderness snow samples to monitor air pollution, tracking the downwind effects of industrial boondocks and urban blight.

In summer I set out rain collectors, simple devices made of a funnel, a tube, and a bottle. Winters we set up tubes of galvanized steel, 12 feet tall and 18 inches across, and line them with special plastic bags to collect snowflakes. In two months at 11,000 feet, a lot of snowflakes fall. We climb to the collectors, seal the bags, and ski them out.

Despite this manifestly sad mission, which we repeat three times each winter, we manage to lay aside the implications of our task in favor of the details. We think about the state of the snow—will it set hard or must we wallow and thrash? We alternately curse and cherish our tools—ice axes, skis, and stoves. We get hungry and we eat.

When one lives with snow, travels over it, melts it for a drink, it becomes a metaphor for the world. The snow we melt is by no means innocent. I often wonder what it holds this time: exhaust from Salt Lake City, burnt sulfur from power plants or volcanoes, ashes from Chernobyl? When the far-off labs analyze the samples we carry, new lines may be drawn, lines that cross the older ones.

We sip our chocolate and don't talk about much that we can't see. We have the quiet, the peaks, the sunset, the impending storm. These long, hard, free moments of dream are what we really crave, our frontier, our peace.

The next day, puffing and snarling at each rise in the ski track, I haul a pulk sled with 90 pounds of melting snow in plastic bags, a metal snow-coring kit, and polyethylene bottles of cores. Heavy burdens, modern times. The difficult part is not slipping into the dream of winter and wilderness—a measure of this time is that we speak of real things as dreams—but in crossing the line, coming back to America.

We don't do it for the advancement of science or The Environment or even the money, which never quite matches construction wages in Jackson. Monitoring pollution is not the same as doing something about it. Why sweat and strain? Kittredge again: *Western rednecks cherish secret remnants of those*

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THE PASTURES OF CLASS-I HEAVEN

Discovering a piece of the sky in the Mojave Desert.

DAVID DARLINGTON

By David Darlington

IN THE MORNING I AM AWAKENED BY A HUMMINGBIRD. IT MAKES several passes over my sleeping bag, vibrating with a low-pitched buzz that I initially mistake for the croak of a frog. Roger says the sound occurs when the bird opens its tail feathers at the bottom of a dive; it's a territorial display. In other words, as the sun rises and other birds welcome us with tranquil morning melodies, this diminutive creature has been menacing me.

I unzip my sleeping bag and look around. The place we drove into last night in the dark, after bouncing up and down rocky dirt tracks, reaching a dead end at a microwave relay station, and teetering on hairpin turns above cliffs, is now suffused with hard, brilliant light. Agave, rice grass, piñon, juniper, and that stately symbol of the Mojave Desert—*Yucca brevifolia*, the Joshua tree—stand all about us.

"These are the pastures of heaven," Roger announces, picking a berry from a bush that looks like poison oak, splitting it with a fingernail and offering it to me for a taste. "The Paiutes made lemonade from this. They ate pine nuts from the piñons and pounded the grass into a kind of rice. They roasted the stalks of the blooming agave and ate the roots and flowers. You can even fry the blossom of the Joshua tree."

In ecological terms, these mountains jutting up from the eastern Mojave Desert are just what they appear to be: semi-arid islands rising from a parched, oceanic landscape. Moister and cooler than the surrounding *bajadas*—dry, fan-shaped slopes of alluvial debris—the

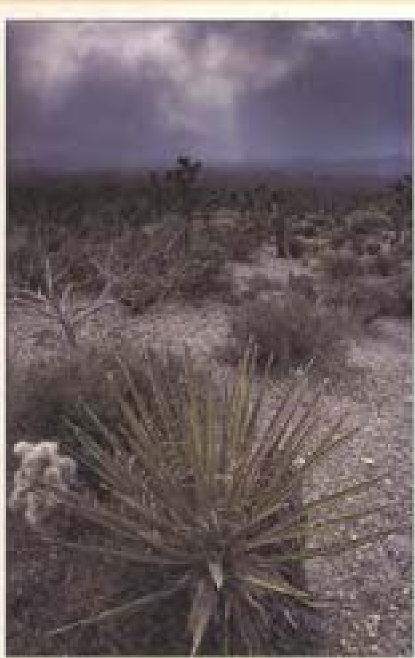
Joshua tree with Clark Mountain in background

Clark, Providence, New York, Granite, Piute, Marl, and Mesquite ranges are marvels of biological diversity. Given their transitional location between the warmer Sonoran desert to the south and the colder Great Basin to the north, they contain plant and animal communities unknown elsewhere in California. Clark Mountain, where we've just woken up, boasts more than 400 species of vascular plants, 100 species of birds, 27 species of reptiles, and 34 species of mammals, including mountain lion, bobcat, bat, fox, skunk, rabbit, ringtail, and kangaroo rat. Its upper slopes harbor a population of more than 100 bighorn sheep, and it is one of only three spots in California where the banded Gila monster has been documented. On the shady northern side of Clark Mountain's summit stands an utterly anomalous relict from the Pleistocene: a forest of Rocky Mountain white fir.

These ranges are all within the East Mojave National Scenic Area

(EMNSA), a region roughly defined by Interstates 15 and 40 and the California/Nevada border that's sometimes called the Lonesome Triangle because it is the permanent home of only about 500 human beings. The 1.5-million-acre scenic area was created in 1980 by the Bureau of Land Management's Desert Plan, a sweeping directive to "manage, use, develop, and protect" the 12.1 million acres of California desert under the agency's control. The plan carved the desert into a variety of zones: About two million acres were designated as wilderness study areas, while the remainder was recommended for "multiple use" and zoned for intensive, moderate, or limited development.

Conservationists' dissatisfaction with the plan inspired the California Desert Protection Act, a bill first introduced in the U.S. Senate by Alan Cranston (D-Calif.) in 1986. The Cranston bill calls for twice as much wilderness as the BLM Desert Plan does; it also proposes to convert Death Valley and Joshua Tree national monuments to national parks, and to mold an entirely new national park out of the EMNSA. Mining would be allowed to continue on



The dagger-leafed yucca plant is found throughout the gravelly terrain of the Mojave.

valid, active claims, and no existing roads would be closed. Nevertheless, the bill has been attacked by miners, ranchers, and off-road-vehicle users—all of whom, until recently, were accustomed to having their way with public lands under the aegis of the BLM.

Clark Mountain is the only part of the EMNSA that lies north of I-15, apparently included because it simply couldn't be left out. At 7,929 feet, Clark is the highest peak in the eastern Mojave, dominating the landscape for miles around; ecologically, it's one of the wealthiest places in the California desert. The problem—as far as conservationists are concerned—is that it's also one of the BLM's "recognized areas of high potential" for mining. Over the past 120 years, Clark Mountain has delivered silver, gold, copper, tungsten, fluorite, azurite, malachite, and (last but far from least) bastnasite, the ore from which "rare earth" minerals are derived. And every year the Barstow–Las Vegas motorcycle race roars along these old mining roads, traversing the northwestern edge of the mountain.

As a result, though the peak's upper 9,000 acres were initially identified as a wilderness study area, the BLM Desert Plan recommended against wilderness designation for Clark Mountain. The agency stated simply: "Competing resource uses, including mining and a wide variety of non-motorized and motorized recreational activities, were considered more valuable than the wilderness resource." Most of Clark Mountain is now designated Class "L," which allows "limited" multiple use—including mining, grazing, and off-road-vehicle activities. However, because of the potential conflicts over its various uses, the mountain was deemed an area of critical environmental concern—a place where "special management attention" is required to protect historic, cultural, or scenic values, fish and wildlife resources, or other natural systems. It is one of six such recognized areas in the EMNSA.

I've come here to find out what an area of critical environmental concern looks like; Roger Luckenbach wants to see if Clark Mountain matches his memory of it. Twenty years ago Roger lived in the eastern Mojave working on ranches, in gas stations, for the state parks. Eventually he wrote his Ph.D. thesis on the arid-lands ecology here, studying everything from desert tortoises and fringe-toed lizards to sand dunes, bird communities, and plant diversity. In the course of all this, Roger once climbed Clark Mountain, from whose summit he watched a storm stampede across the desert to pulverize the town of Searchlight, Nevada.

Part of our plan is to reclimb the peak. Today, however, we intend to make a reconnaissance of the region. We pack our gear into the car and retrace last night's route to the freeway, guessing our way through a maze of unmarked roads, past stands of red buckwheat and desert willow, darting side-blotch lizards and holes left by departed prospectors. As we head east on I-15, we watch etched brown mountains dive toward a gleaming white playa at the bottom of an enormous valley. The ranges of the Mojave appear to rise from the alluvial fans at their bases, but in fact they are burying themselves in their own debris, the erosional detritus of millennia. We leave the freeway and follow a dirt road across the *bajada*, where creosote bush has replaced the woodlands and grasslands of higher elevations. Getting out of the car, Roger crushes some leaves between his palms. "That's the smell of the Mojave," he muses, holding his hands to his nose. "Creosote bush is a good weather vane. If it's been dry, the bush drops its leaves. But this landscape is still quite green. It's been a good year.

"Creosote bush is one of the few plants that you find in both North and South America," he says, walking among the rings of shrubs, hunting for sun scorpions. "As it comes north, it picks up more chromosomes, which gives it extra genetic material to survive in a harsh environment. The Mojave is the harshest environment it knows. Carbon dating shows some creosote stumps here to be 14,000 years old. Some wood-rat nests have been here that long, and when you

Looking out on the desert from the 7,929-foot summit of Clark Mountain, the Mojave's highest peak.

examine them you find agave and oak leaves. It shows that the area was wetter back then. During the Pleistocene, the Mojave had the climate of present-day British Columbia; there was continuous vegetation from here to the Rockies. This valley probably had bison, camels, sloths, condors, mastodons—it was like the Serengeti."

From this vantage point down on the *bajada*, Clark Mountain is a monumental massif covering the western horizon. We start up its northeastern flank, where Mexican striped steers and formidable barrel cacti squat on the hillsides, the cacti's cuticlelike red spines encircling round, golden trunks. Partway up the alluvial slope we pass an adobe ruin—all that remains of Ivanpah, the eastern Mojave's first town. *Ivanpah* is a Paiute term meaning clear water; the town was founded in 1869 after silver was discovered and the Clarke Mining District established. (The mountain in front of us, named for a local saloonkeeper, later dropped the *e*.) By 1871 Ivanpah had 15 buildings, and by 1875 a population of 500.

The region's largest gold mine – aptly named Colosseum – has been gouged out of Clark Mountain.

A desert traveler of the time recorded this observation: "After leaving Owens River Valley no Indians were seen until Ivanpah was reached; here there are quite a number, who for the most part are employed by the miners to carry water to the mines." Now that job is performed by a pipeline following the wide, graded road upon which we travel. In the naked distance, it zigzags up the side of Colosseum Gorge. "This road is new," Roger says. We get a hint of why a new road was needed when a tractor-trailer rig passes us heading down the mountain. But the magnitude of the motivation isn't clear until we crest the ridge and behold the Colosseum Mine.

The Colosseum, like the mine at Ivanpah, was born in the 1860s. But the latter closed in 1885 after coughing up $4 million worth of silver; the Colosseum continued production until World War II, when the U.S. government shut down mining for nonstrategic minerals. In 1983 the skyrocketing

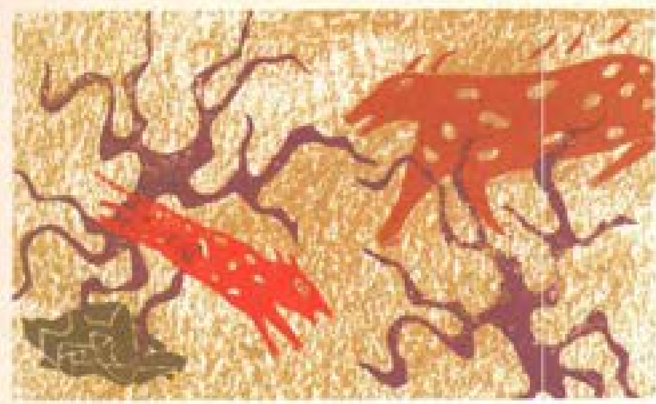
Continued on page 110

THE ETIQUETTE OF FREEDOM

BY GARY SNYDER

"WILD AND FREE." An American dream-phrase, loosing images: a long-maned stallion racing across the grasslands, a V of Canada geese high and honking, a squirrel chattering and leaping limb to limb overhead in an oak. Or an ad for a four-wheel-drive truck. Both words, profoundly political and sensitive as they are, have become consumer baubles. By investigating the meaning of the word *wild* and how that connects with *free*, I hope to arrive at what it might take to enact those meanings. ◆ To be truly free one must take on the basic conditions as they are: painful, impermanent, and imperfect; and then be grateful, for in a fixed universe there would be no freedom. With that freedom we improve the campsite, teach children, oust tyrants. The world is nature, and in the long run inevitably wild, because the wild, as the process and essence of nature, is also an ordering of impermanence. ◆ Although "nature" is a concept that is not of itself threatening, the idea of the "wild" in civilized societies—both European and Asian—is often associated with unruliness, disorder, and violence. The Chinese word for "nature," *zi-ran* (Japanese *shizen*), translates as "self-thus." It is a bland and general word. The word for "wild" in Chinese, *ye* (Japanese *ya*), which literally translates as "open country," has a wide set of meanings: In various combinations the term refers to an illicit connection, desert country, an illegitimate child ("open-country child"), prostitute ("open-country flower"), and such. *Ye-man zi-yu*, "open-country southern-tribal-person-freedom," means wild license. In another context "open-country story" becomes fiction and fictitious romance. Other associations are usually with the rustic and uncouth. In a way, *ye* is taken to mean nature at its worst. Although the Chinese and Japanese have long given lip service to nature, only the early Daoists might have thought that wisdom could come of wildness. ◆ But what do we (here, now) mean by "wild" and for that matter "nature"? Languages meander like great rivers, leaving oxbow traces over forgotten beds, to be seen only from the air or by scholars. Language is like

PAMELA PRICHETT



some kind of infinitely interfertile species spreading or mysteriously declining over time, shamelessly and endlessly hybridizing, changing its own rules as it goes. Words are usually used as signs, as stand-ins, arbitrary and temporary, even as language reflects (and informs) the shifting values of the peoples whose minds it inhabits and glides through. We have faith in "meaning" like we might believe in wolverines —putting trust in the occasional reports of others, or basing it on the authority of once seeing a pelt. But it is sometimes worth tracking this trickster back.

♦ THE WORDS *NATURE* AND *WILD*. Take *nature* first. The word is given two slightly different meanings. One is the outdoors—the physical world, including all living things. Nature by this definition is the world that is apart from the features or products of civilization and human intention. The other meaning, which is broader, is the material world, or its collective objects and phenomena, including the products of human action and intention. Science and some sorts of mysticism rightly propose that "everything is natural," all the universe and its phenomena. By these lights there is nothing unnatural about New York City, or toxic waste, or atomic energy, and nothing—by definition—that we do or experience in life is "unnatural." (The supernatural? One way to deal with that is to say that "the supernatural" is a name for phenomena that are reported by so few people as to leave their reality in doubt. Nonetheless, these events—ghosts, gods, magical transformations, and such—are reported often enough to make them continue to be intriguing.)

The word *nature*, from Latin *natura* (birth, constitution, character, course of things), ultimately comes from *nasci*, to be born. So we have *nation*, *natal*, *pregnant*. The probable Indo-European root (via Greek *gna*—hence *cognate*, *agnate*) is *gen* (Sanskrit *jan*), which provides *genus* and *generate* as well as *kin* and *kind*.

Nature is birth, or birth-and-death, or "always born again." The universe and all its properties: I like to use the word this way.

The word *wild* is like a gray fox trotting off through the forest, ducking behind bushes, going in and out of sight. Up close, at first glance, it is *wild*; farther into the woods it's *wyld*, and it recedes via Old Norse *villr* and Old Teutonic *wilthijaz* into a faint pre-Teutonic *ghweltijos*, which means, still, wild and maybe wooded (*wald*), lurking back there with possible connections to Latin *silva* (wood, forest) and to the Indo-European root *ghwer*, base of Latin *ferus* (feral, fierce), which swings us around to Thoreau's "awful ferity" shared by virtuous people and lovers. The Oxford English Dictionary has it:

Of animals—not tame, undomesticated, unruly.

Of land—uninhabited, uncultivated.

Of societies—uncivilized, rude, resisting constituted government.

Of individuals—unrestrained, insubordinate, licentious, dissolute, loose; "wild and wanton widowes" (1614).

Wild is largely defined in our dictionaries by what it is not. By this approach it cannot be seen for what it is. Try it the other way:

Of animals—free agents taking care of themselves.

Of land—a place where the original and potential vegetation and fauna are intact and in full interaction, and the landforms are entirely the result of nonhuman forces.

Of societies—societies whose order has grown from within and is maintained by the force of consensus and custom rather than by explicit legislation; societies that resist economic and political domination from outside; societies whose economic systems are in close reliance on the regional wild ecosystem.

Of individuals—following custom, style, and etiquette of their own, without concern for the standards of the metropolis or nearest trading post.

Most of the senses in this set of definitions come very close to being how the Chinese define the term *Dao*, the way of nature: eluding analysis, beyond categories, self-transforming, self-informing, playful, surprising, impermanent, insubstantial, independent, complete, orderly, mannerly, freely manifesting, self-authenticating, complex, quite simple. Both empty and "real" at the same time. In some cases we might call it sacred. It is not far from the Buddhist term *dharma*, with its original sense of forming and firming.

So we can say that New York City and Tokyo are natural but not wild. They do not deviate from the laws of nature, but they are habitat so exclusive in the matter of whom and what they give shelter to, and so intolerant of other creatures, as to be truly odd. Wilderness is a place where the wild potential is fully expressed, a diversity of living and nonliving entities flourishing according to their own sorts of order.

In ecology we speak of "wild systems." When an ecosystem is intact, all the members are present at the assembly. To speak of wilderness is to speak of wholeness. Human beings came out of that wholeness, and to consider the possibility of reactivating membership in the Assembly of All Beings is in no way regressive.

♦ BY THE 16TH CENTURY the lands of the Occident, the countries of Asia, and all the civilizations and cities from the Indian subcontinent to the coast of North Africa were becoming ecologically impoverished. The people were rapidly becoming nature-illiterate. Much of the original vegetation had been destroyed by the expansion of grazing or agriculture, and the remaining land—mountain regions and deserts—was of no great economic use. The lingering larger animals—big cats, desert sheep, serows, and such—managed

to survive by retreating to harsher habitats.

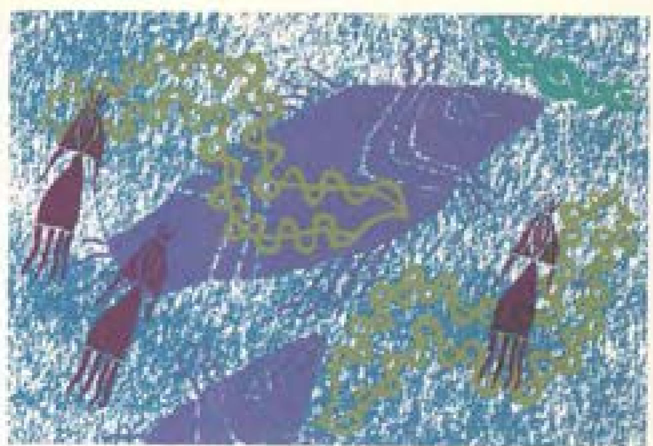
The leaders of these civilizations grew up with less and less personal knowledge of animal behavior and were no longer taught the intimate, wide-ranging plant knowledge that had once been universal. Only the most marginal of the *paysan*, people of the land, kept up practical plant and animal lore and memories of the old ways. People who grew up in towns or cities or on large estates no longer had a chance to learn how wild systems work. Then civilized mythology (medieval Christianity and the Rise of Science) denied first soul, then consciousness, and finally even sentiency to the natural world.

Another sort of nature-traveler came into existence: the trapper, explorer, or scientist penetrating the lightly populated lands of people who lived off the wilderness. Conquistadores and priests. The search for commodities ran over the edge of the horizon and into the New World. These overrefined and warlike men once more came up against wild nature and natural societies: people who lived without Church or State.

In return for fish, slaves, or raw sugar, the white men had to give up something of themselves; they had to look into their own sense of what it meant to be a human being, wonder about the nature of hierarchy, ask if life was worth the honor of a king, or worth gold. (A lost and starving man stands and examines the nicked edge of his sword and his frayed Spanish cape in a Florida swamp.) Some, like Nuno de Guzman, became crazed and sadistic. From *The Conquest of America* (by Tzvetan Todorov, Harper & Row, 1984): "When he began to govern this province, it contained 25,000 Indians, subjugated and peaceful. Of these he has sold 10,000 as slaves, and the others, fearing the same fate, have abandoned their villages." Cortés ended up a beaten, depressed beggar to the throne, something like Daniel Boone in his old age, wishing all the Scotch-Irish whiskey refugees who had followed him into Kentucky would go back home.

It is often said that the frontier gave a special turn to American history. A frontier is a burning edge, a frazzle, a strange market zone between two utterly different worlds. It is a strip where there are pelts and tongues and tits for the taking. There is an almost visible line that a person of the invading culture could walk across: out of history and into a perpetual present, a way of life attuned to the slower and steadier processes of nature. The possibility of passage into that larger world had all but been forgotten in Europe. Its rediscovery was the unsettling vision of another self that has haunted the Euro-American peoples as they uneasily settled —over the centuries—the many corners of the North American continent.

Wilderness is now, for much of North America, a place that is formally set aside within a Forest Service or Bureau of Land Management holding or a national park. Some tiny but critical tracts are held by private nonprofit groups like The Nature Conservancy or the Trust for Public Land. These are the pieces saved from all the land that was once known and lived on by the original people, the little bits left as they were, shrines to the watershed of Earth, the last places where intrinsic nature wails, blooms, nests, glints away. They make up only two percent of the land of the United States.



◆ BUT WILDNESS IS NOT LIMITED to that two percent; it is everywhere: ineradicable populations of fungi, moss, mold, yeasts, and such, that surround and inhabit us. Deer mice on the back porch, deer bounding across the freeway, pigeons in the park. Spiders in the corners. There were crickets in the paint locker of the oil tanker on which I worked as a seaman in the engine room out in mid-Pacific. Exquisite, complex beings in their energy webs, inhabiting the fertile corners of the urban world in accord with the rules of wild systems. The visible hardy stalks and stems of vacant lots and railroads, the persistent raccoon squads. Bacteria in the loam and in our yogurt. The term *culture*, by one definition "a deliberately maintained aesthetic and intellectual life" and by another "the totality of socially transmitted behavior patterns," is never far from a biological root-meaning, as in "yogurt-culture"—a nourishing habitat. Civilization is permeable, and could be inhabited as the wild is.

Wilderness may temporarily dwindle, but wildness won't go away. A ghost wilderness hovers around the entire planet, the millions of tiny seeds of the original vegetation are hiding in the mud on the foot of an arctic tern, in the dry desert sands, or in the wind. These seeds are each uniquely adapted to a specific soil or circumstance; each has its own little form and fluff, ready to float, freeze, or be swallowed, always preserving the germ. Wilderness will inevitably return, but it will not be as fine a world as the one that was glistening in the early morning of the Holocene. Much life will be lost in the wake of human agency on Earth, that of the 20th and 21st centuries. Much is already lost. The soils and the waters unravel:

"What's that dark thing in the water?
Is it not an oil-soaked otter?"

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◆ AN INTERESTING THOUGHT: Do you really believe you are an animal? We are now taught this in school. It is a wonderful piece of information. I have been enjoying it all my life, and I come back to it over and over again, as something to investigate and test. I grew up on a small farm with cows and chickens, and with a second-growth forest right at the back fence, so I had the good fortune of seeing the human and

Continued on page 113

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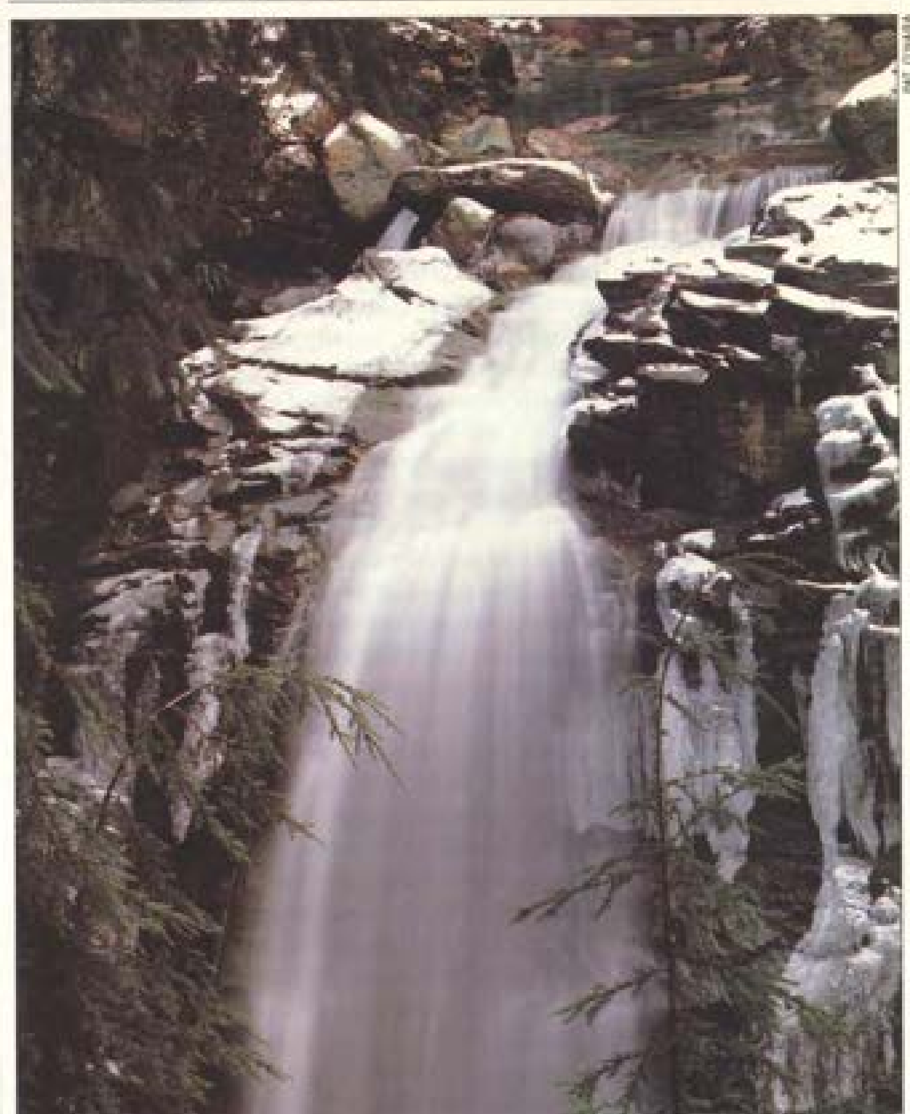


One of the many rivers that Evergreen State conservationists hope to protect, the Nooksack rushes through Washington's North Cascades near the Canadian border.

Rivers Flow Toward Showdown

WASHINGTON STATE

IT MAY HIT rough waters, but a campaign is on to protect many of Washington's wild rivers. Conservationists in the Evergreen State are working with congressional delegates and community groups to determine which of their waterways they will recommend as additions to the nation's wild-river preservation system.

During the next few months, the Forest Service and the Bureau of Land Management are expected to endorse more than 40 stretches of rivers as candidates for inclusion in the system. "We're using their recommendations as the basis for our proposal," says Sandie Nelson, director of the Northwest Rivers Council (NRC), an umbrella group organizing support for an omnibus river-preservation bill. But she adds that conservationists are looking at other possible nominees as well and don't yet know exactly how many river stretches they will ultimately recommend.

"The diversity of the rivers in Washington is astounding," says Barbara

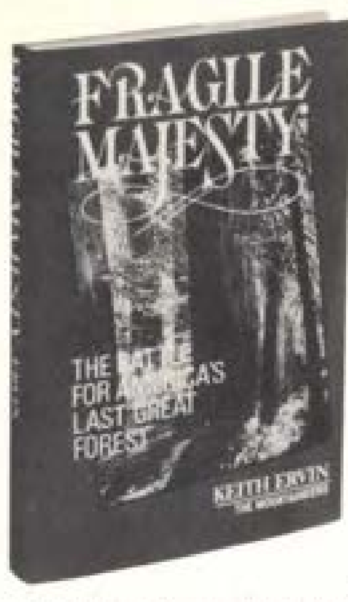
Boyle, associate Northwest regional representative of the Sierra Club, which is also working to protect the rivers. "You go from the rainforest rivers of the Olympic Peninsula, where whitewater cascades through dense, old-growth forests, to the rivers of the southeast, which are high and open and have very much a desert quality."

Nationwide, 119 rivers or river stretches, mostly in the western states and Alaska, are part of the National Wild and Scenic River System, established in 1968. They are divided into three categories: "wild" (essentially in natural condition); "scenic" (having few buildings or roads along them); and "recreational" (possibly lined with roads and developments or going through towns).

Once a river wins designation, dam construction is prohibited and management plans are drawn up to preserve the character of the river as well as up to a quarter mile of land on either side of it. Last year Oregon obtained protection for 40 of its rivers with a single bill, a move that helped inspire this year's drive in Washington, where only parts of three rivers have been included in the system to date.

Opponents of river protection in Washington have been active for years. In 1981 they defeated an attempt to add several Olympic Peninsula rivers to the national system, and a recent bill to expand the state's system died in committee. Chuck Cushman, president of the National Inholders Association, a California-based organization of private landowners on or adjacent to federal lands, has been particularly outspoken, raising fears of federal control with speeches that observers have likened to fire-and-brimstone sermons. He has also helped organize a coalition of some 40 river and community groups fighting to retain local control of the state's rivers.

But inclusion in the federal system is necessary, says the NRC's Nelson, to protect the rivers from more than 200 dam projects under consideration, from mining operations, and from clearcut logging along their banks. She claims that federal river protection would actually help some landowners: Proposed dams on the Cispus River south of Mt.



"The chainsaws are closing in... at the present rate, ancient stands... will be only a memory."
—Bruce Hamilton, Director Sierra Club Conservation Field Service

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—George T. Frampton, President Wilderness Society

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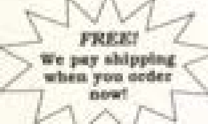

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Rainier, she points out, would submerge homes there.

Supporters are working to develop a proposal agreeable to Washington's congressional delegation. Already Senator Brock Adams (D) and Representative John Miller (R) have expressed interest in introducing a bill. In the meantime, the Sierra Club's Boyle says, "We're organizing conservationists, anglers, and river-recreation groups all over the state to broaden our base of support."

"Washington's rivers provide access to great steelheading, exciting whitewater, beautiful headwater meadows, deep forests, and spectacular gorges," says Sandie Nelson. "They make the Northwest special."—***Jim Stiak***

Watching Over the Ouachita

ARKANSAS/OKLAHOMA

IN SPRING THE Ouachita National Forest blooms: Dogwood, redbud, wild plum, and other hardwood trees flower exuberantly. In autumn the foliage is transformed into a hundred shades of red and gold—where the forest hasn't been clearcut or converted to a pine plantation.

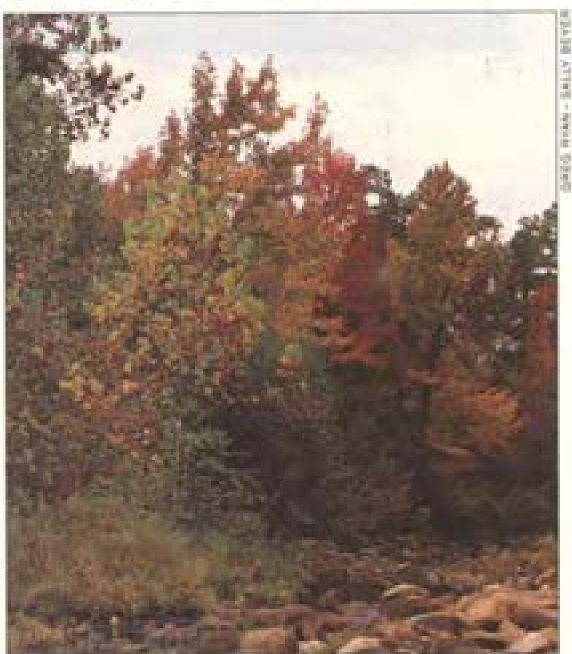
The South's oldest and largest national forest, covering 1.6 million acres, is in the Ouachita Mountains, an east-west range extending from central Arkansas into Oklahoma. Clearcutting has been going on there for more than 20 years, with the Forest Service now managing a third of the timberlands as "even-age" pine plantations. After an area is razed, shortleaf pine seedlings are planted and herbicides are used to prevent fast-growing hardwoods from competing with the pines. The trees, all the same age and size when mature, are easy to harvest.

"Pine is the money tree," explains Beth Johnson, the Sierra Club's Southern Plains regional representative. But the cumulative loss of some 320,000 acres of natural heritage angers her and many local residents, who say the region's scenery, economy, and wildlife have all been damaged.

When a 1986 Forest Service plan slated the Ouachita's entire 1.1 million acres of available timberland for even-age management, local citizen groups, including Sierra Club chapters, filed administrative appeals against it. They and other opponents, among them environmentalists, hunters, and sawmill operators, formed the Ouachita Watch League (OWL). Seeking "true multiple use" rather than a forest devoted to timber production, the group has submitted its own detailed management proposal to the Forest Service.

Instead of clearcutting, OWL advocates selection logging, the harvesting of naturally mixed forests of hardwood and pine by felling and removing only carefully selected trees from small areas. This type of logging can bring sufficient income, OWL members say, while maintaining a healthier canopy and ground cover and a greater diversity of native plant species.

Selection logging could also keep the area's small sawmills and logging crews going. Bill Baker, who runs a mill in



GREG RYAN - SALLY BEYER

A plan to clearcut most of the Ouachita National Forest would eliminate the region's colorful hardwoods.

Talihina, Oklahoma, says that large-scale clearcutting is squeezing small operators out of business. "The large company gets it all, and the small sawmillers are left out in the cold," he observes.

Baker, who belongs to a sportsmen's group that has joined with OWL, opposes clearcutting for more than economic reasons. "They destroy so much stuff. Fishing's not what it used to be, game's not what it used to be. The way it looks, in 10, 20 years the hunting won't be what I have known."

Reacting to public outcry, the Forest Service produced a revised draft plan in May but still scheduled 85 percent of Ouachita's timberland for even-age management. Members of OWL want that figure reduced to no more than 25 percent.

Last year Congress established two wilderness areas in Oklahoma's Ouachita. It also included provisions to limit even-age management and the conversion of mixed forests to monocultures in certain non-wilderness parts of the Oklahoma Ouachita. If the Forest Service continues to propose extensive clearcutting in Arkansas, activists may look to that legislation as a model for protection of the rest of the forest.

In the meantime the Forest Service is "trying to respond to change very progressively," says Ouachita National Forest spokesperson Hank Deutsch. Among other things, it is "going to try to eliminate clearcutting from areas that are particularly visible to people."

But "just because you hide something doesn't mean it's okay," counters the Sierra Club's Johnson. "Behind those little boundaries, they're clearcutting to beat the band." *—Susan McCarthy*

Idaho Wilderness: The Sequel

IDAHO

WHEN IS A WILDERNESS BILL not a wilderness bill?

When it establishes off-road-vehicle trails, permits excessive logging, removes wilderness water rights, mandates the killing of predators, and overrides existing environmental laws.

Such is the case with Idaho Senator James McClure's Idaho Forest Management Act, on which hearings began in July. The bill (S.371) is McClure's and Idaho Governor Cecil Andrus' attempt to resolve the issue of what to do with their state's 9 million acres of roadless Forest Service land. It is essentially the same legislation McClure introduced in 1987.

The bill, which proposes 17 new wilderness areas totaling some 1.4 million acres, is "an improvement" over the Republican senator's 526,000-acre wilderness legislation of 1984, according to Rick Johnson, the Sierra Club's associate Northwest regional representative. But it is also rife with non-wilderness provisions that conservationists regard as offensive. "Two thirds to three quarters of the bill's pages concern issues that have no basis for being in legislation like this," Johnson says.

Lacking a willing sponsor among the Idaho congressional delegates, some of whom have expressed open hostility toward protecting the state's wildlands, conservationists turned to Pennsylvania Representative

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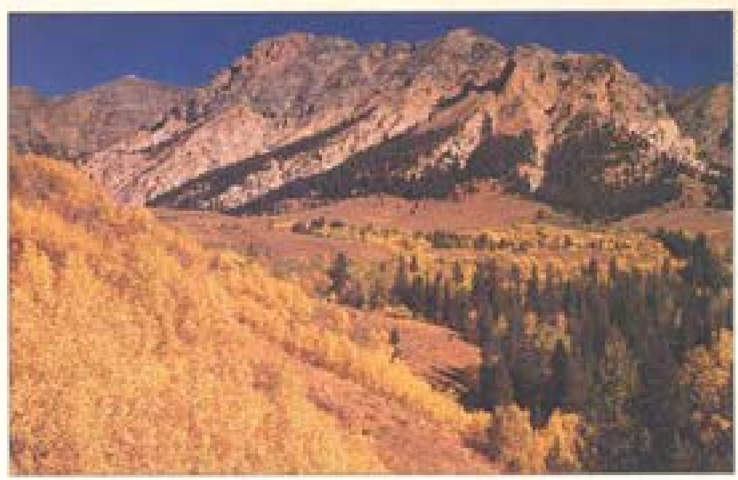
Peter Kostmayer (D) to carry their wilderness proposal. In May, Kostmayer introduced the Idaho Wilderness Act (H.R. 2213) for the fourth time since 1984. Wilderness proposals in his bill, originally drafted by Idaho conservationists in 1983, now total nearly 4 million acres.

Idaho's disenfranchised environmentalists asked Kostmayer to represent them while he was on a tour of their state's Forest Service wildlands in 1984. Impressed by what he had seen, Kostmayer agreed. In introducing his bill, he commented, "I have rarely had the opportunity to see anything quite so beautiful as the state of Idaho."



Idaho's Boulder Mountains remain wild and—so far—unprotected. Conservationists are working to have the area designated as wilderness.

McClure has labeled Kostmayer's bill "outside meddling," an accusation that rankles local conservationists. "This outsider was asked by Idahoans, and the bill was written by Idahoans," says the Club's Johnson. "It gives Congress an alternative to McClure's bill."

Conservationists are alarmed by that bill, says Johnson, "because of the precedent it sets for wilderness legislation nationally." Among other special provisions, it mandates a timber harvest in three forests in the Idaho Panhandle that would exceed the current level of permitted sales by 3.5 million board feet, disregarding any other existing law. This "not only sets high timber-harvest levels where you have woodland caribou, grizzly bear, and wolf," says Johnson, "it says to hell with the Endangered Species Act, the Clean Water Act, and the National Environmental Policy Act."

The McClure bill also designates certain trails in the Sawtooth National Forest for use solely by motorized vehicles; permits predator control even within wilderness areas; and states that no wilderness area in Idaho will have any water rights. The last provision is particularly disturbing, says Johnson, because it "denies one of the most important values of wilderness: water."

Edwina Allen, chair of the Northern Rockies Chapter of the Sierra Club, says her group is sponsoring field trips to the threatened wilderness study areas and presenting talks and slide shows—because "wilderness will be saved only if it has a local constituency."

—Glenn Oakley

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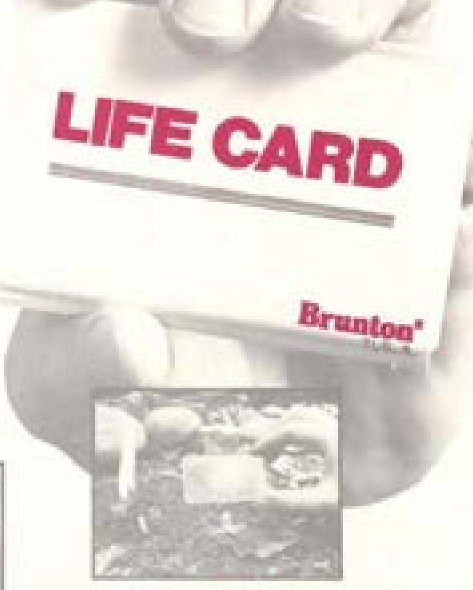

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SIERRA NOTES

The California Wilderness Coalition is sponsoring a conference in Visalia, California, October 19–22, to celebrate the 25th anniversary of the Wilderness Act. Co-sponsoring the event are the Sierra Club's Loma Prieta, Kern-Kaweah, Angeles, and San Francisco Bay chapters. Featured speakers include Sierra Club Conservation Director Doug Scott, Earth Island Institute Chairman David Brower, California Senator Alan Cranston and Representatives Mel Levine and Barbara Boxer, state Assemblyman Bob Campbell, Earth First! founder Dave Foreman, author Michael Frome, and forest economist Randal O'Toole. In-depth workshops will focus on population issues, California deserts, wild rivers, BLM lands, and wilderness management. Slide shows, music, theatrical productions, and social gatherings will round out the event. For more information contact Bob Barnes, P.O. Box 269, Porterville, CA 93258; phone (209) 784-4477.

Public-lands activists in New Mexico, including Sierra Club members, have established a Public Lands Action Network (PLAN) to advise land-management agencies and to publicize problems affecting the public domain, especially those associated with domestic livestock. The network encourages anyone who is "tired of seeing cows and sheep where there should be elk, deer, antelope, cougar, bear, wolves, quail, and turkey" to become active in the program. For information contact Jim Fish, PLAN, P.O. Box 712, Placitas, NM 87043; phone (505) 867-3062.

Sierra Club Books has produced a paperback edition of one of its most famous Exhibit Format Books. Soon after Eliot Porter's *In Wildness Is the Preservation of the World* appeared in 1962, it was hailed at the Leipzig Book Fair as one of the ten most beautiful books ever published. In this latest version ($24.95), 72 of Porter's renowned photographs are faithfully reproduced using new color separations. The images are once again complemented by the writings of Henry David Thoreau, painstakingly selected by Porter.

One of North America's finest nature photographers, Art Wolfe, captures the majesty of Alaska's landscapes and the diversity of its wildlife in *Alakshak: The Great Country* ($75). Nearly a hundred of Wolfe's photos are included in this volume, supplemented by a text written by naturalist and filmmaker Art Davidson. Galen Rowell provides the book's foreword.

Candace Savage's *Wolves* ($29.95) traces the natural history of an animal that for many symbolizes wilderness. A gallery of images by wildlife photographers Erwin and Peggy Bauer, Art Wolfe, Peter J. McLeod, Jim Brandenburg, Rolf O. Peterson, and Karen Hollett accompanies the text.

In a unique account of a forest's evolution, author Chris Maser has produced a "biography" of a stand of old-growth trees in the western Cascade Range of Oregon. *Forest Primeval: The Natural History of an Ancient Forest* ($25) treats the woodland as if it were the central character in a novel.

Climatologist Stephen H. Schneider provides an authoritative, informative description of the science, personalities, and politics behind one of the century's most pressing problems. *Global Warming* ($18.95) examines the way in which technology is gradually altering the world's climate, and the disastrous effects those changes might have on all plant and animal life.

The latest Sierra Club Adventure Travel Guide, *Adventuring in the Caribbean* ($12.95, paper), instructs readers on the best ways to enjoy outdoor recreation and backcountry hiking on some 40 frequently visited islands. Author Carroll Fleming, an editor for the University of the Virgin Islands, has lived in the region for 15 years.

Allen Steck and Steve Roper, past winners of the Sierra Club's Francis Farquhar Mountaineering Award, coedited the latest edition of *Ascent* ($19.95, paper), the Club's acclaimed climbing journal. This volume of new mountaineering literature includes science fiction, true-life climbing adven-

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We Are the Sierra Club is a 14-minute video of the Club's history, organization, activities, and purposes. The program features vintage photos of Club founder John Muir and the early High Trip outings into the Sierra Nevada. The show also presents a summary of the Club's major conservation accomplishments and future challenges. Copies of the video ($15) or the slide show from which it was adapted ($75) are available from Sierra Club Public Affairs, 730 Polk St., San Francisco, CA 94109; phone (415) 776-2211. Two-week rentals are also available.

For Earth's Sake: The Life and Times of David Brower, a documentary film by John de Graaf, will air nationally on public television stations this fall. The film begins with archival footage of Brower's childhood and his later rock-climbing pursuits. It then explores the remarkable career of the man who became the Sierra Club's first executive director and who, amid controversy, went on to found both Friends of the Earth and Earth Island Institute. Along the way he published books that championed the cause of conservation, campaigned to prevent the damming of the Grand Canyon, and convinced environmentalists around the world to concentrate their efforts on restoration projects.

Among those interviewed by de Graaf in the film are former Interior Secretary Stewart Udall, former Sierra Club President Edgar Wayburn, author Wallace Stegner, and Brower's arch foe in the 1963 fight over the Grand Canyon, former Bureau of Reclamation Commissioner Floyd Dominy. De Graaf's camera captures scenic shots of several areas Brower fought to protect, including North Cascades National Park, Point Reyes National Seashore, and Redwood National Park. Central to the film are interviews with Brower; still active at age 77, he resides with his wife, Anne, in Berkeley, California.

The premiere broadcast of *Earthbeat*, a weekly, half-hour television newsmagazine dedicated to improving the environment, will air September 10 on cable SuperStation TBS. Each installment in the series will feature videotaped reports and interviews from around the world, moderated by a team of on-camera studio hosts. The show's producers—executives of the nonprofit corporation Planet Live—plan to focus on action-oriented approaches to solving the world's most pressing social and environmental problems. Using special 800 and 900 telephone numbers, viewers will be able to call in votes on questions raised or hear supplementary recorded information. Modest rates will be charged for using the 900 numbers, and part of the proceeds will be credited to nonprofit organizations (such as the Sierra Club) that work in partnership with the program. For the specific time of *Earthbeat*'s broadcast, check your local television listing.

Sick of toxic chemicals in the air? The National Library of Medicine has established a computerized Toxic Release Inventory Database, accessible by modem, that provides users with specific information about pollution in their areas. Such knowledge can be useful when writing to legislators about strengthening the Clean Air Act, now pending before Congress. For details about the service, call the National Library of Medicine at (800) 638-8480; in Maryland and Washington, D.C., phone (301) 496-6193.

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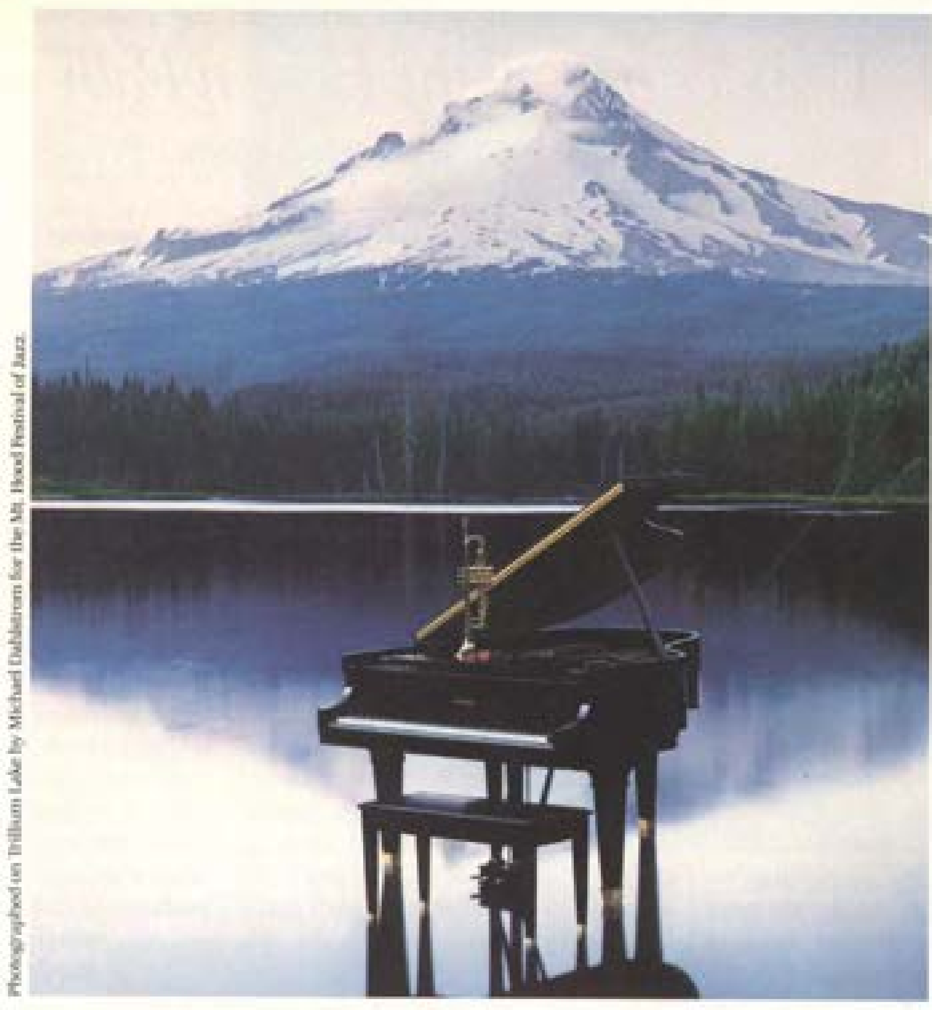

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Wandering Off the Beaten Path

When you master cross-country navigation, the true wilderness is yours to explore.

Glenn Randall

WE HAD LINGERED until long after sunset at the top of the Kelso Dunes, in the proposed East Mojave National Park, and my partner was worried. Our truck was more than a mile away. Finding it in daylight in this desert terrain wouldn't have frightened a mouse; we could see it from the summit. But at night? No trail existed to lead us to it. Visions of a cold, sleepless bivouac rushed through her head.

Her fears were groundless. As we'd walked through the dunes earlier that evening, I had looked over my shoulder and noted that a deep notch in the skyline lay to the right of the truck. An imaginary line connecting us and the notch intersected the access road we were trying to reach. As the last color vanished from the sky, we walked steadily toward the notch until we reached the road, then turned left, strolled another quarter-mile, and found the truck.

The technique we used is called aiming off. If we'd aimed straight for the truck, we would probably have missed it by several hundred yards, then not known which way to turn on the road. The same technique can help you relocate the fallen log you used to cross an unfordable stream or to return to a tent pitched alongside a large lake.

Aiming off is just part of the art of navigating cross-country. Mastering it has many rewards: unmatched solitude, a greater likelihood of seeing wildlife, and the chance of discovering hidden paradises in areas you thought you already knew because you'd walked all the trails. Learning to navigate cross-country opens up wilderness areas where there are few or no trails, like Denali and Wrangell–St. Elias national parks in Alaska, and Bureau of Land Management wildlands all over the West. Off-trail navigational skills are essential for backcountry skiers, whose tracks can vanish in minutes in a snowstorm or under clear skies in a stiff wind.

Basic routefinding consists of knowing how to read a map and understanding simple line-of-sight navigation techniques. Before you set out, orient your map (preferably a U.S. Geological Survey topo, which uses contour lines to represent the landscape's ups and downs) and find your position on it. Then study your surroundings, noting major landmarks and locating them on the map. Standing at least 30 feet from your vehicle so that its metal parts don't affect your compass needle, check the compass direction you'll be traveling and the distance to the landmarks you'll be passing. (Any good map has a scale diagram that shows what distance on the map equals one mile on the ground.)

The goal is to visualize clearly the region's mountains, valleys, and ridges by studying the map's serpentine contour lines. With experience, your mental image will include a perfected sense of scale and angle. Will that landmark you're looking for be a knoll, a hill, or a real mountain? Is that pass a potential avalanche slope? Counting contour lines and determining elevation gain per mile will give you the answers.

Periodically during your journey, stop, turn around, and note how the terrain will look when you retrace your steps. If you don't look back, later you'll probably find that the trail looks completely different. Don't be like the unhappy backpackers I met in The Maze in Canyonlands National Park, who had plunked down their packs and headed up a redrock canyon in search of a petroglyph. With darkness approaching, they were still searching for their gear. During their descent they had walked right past the faint trail they'd used to shortcut a bend on the way up—which was also the trail where they'd stashed their packs.

Although I hate clock-watching, I wear a watch in the wilderness as a navigational tool, using it to get a rough idea of how long it takes to cover a mile over different kinds of terrain. You can track your position better when you've already estimated where you should be at a given hour.

GLENN RANDALL

With the right skills, you can find yourself in the backcountry.

It's also a good idea to pause regularly during the day, find your position on the map, and make sure you're still heading in the right direction. That caveat may seem obvious, but it's also easy to ignore in foul weather, just when accuracy is most essential. Three Outward Bound instructors and I (a former McKinley guide) set out one day to traverse the Continental Divide in Colorado via a route we'd all taken before. We made a 180-degree about-face in a whiteout without realizing it, discovering our mistake much later when we finally pulled out a compass.

During these periodic stops, take the time to study the map thoughtfully. It's easy to make a map seem to fit the landmarks you're looking at. A friend and I once tried to hike up a tributary of the Sunwapta River in the Canadian Rockies. Low clouds obscured all landmarks, so we measured (crudely) the distance to a critical creek junction. After two hours of steep bushwhacking, the fog lifted and we realized we were in the wrong drainage. Upon closer inspection of the map we found that the creek we wanted clearly occupies a deep gorge; our little tributary cut only a shallow ravine. Hasty map reading cost us half a day of hard walking.

If you travel off-trail in wooded terrain, try to find a "handrail" to guide you. A handrail is simply a geographic feature, such as a stream or a pronounced ridge crest, leading in the direction you want to go. If no handrail exists, or if it is obscured by stormy weather, you need to know how to measure a course using map and compass, which will tell you the angle between true north and your chosen direction. You'll then be able to head out based on just one initial visual clue. The procedure is described fully in several currently available routefinding books.

The first step, however, is to get comfortable with maps and landmarks. Once you've learned the basics of off-trail navigation, you can enjoy all of the wilderness, not just the narrow ribbons of civilization we call trails. ■

GLENN RANDALL *is author of* The Outward Bound Map and Compass Handbook *(Lyons & Burford, 1989).*

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BOOKS

How to Save the Woods

The Forest and the Trees: A Guide to Excellent Forestry
by Gordon Robinson
Island Press
$34.95, cloth; $19.95, paper

Reforming the Forest Service
by Randal O'Toole
Island Press
$34.95, cloth; $16.95, paper

Bruce Hamilton

TIM-BER! While the trees in America's national forests are falling at a record rate, the (supposed) guardian of our public woods, the U.S. Forest Service, proposes to increase the cutting even more.

In putting together a defense, tree-huggers have found that it takes more than concern and conviction to protect their favorite parts of the forests. It also takes political skills and at least a cursory knowledge of forestry and Forest Service operations. For the former, citizens have long turned to the Sierra Club and other action-oriented conservation groups. For forestry expertise the conservation community has relied largely on two renegade foresters, Gordon Robinson and Randal O'Toole.

Last year both Robinson and O'Toole wrote books about the Forest Service and the games the agency plays. If you've had a sneaking suspicion for years that the Forest Service was pulling a fast one on you, but you weren't quite sure how, these are the books for you. Although neither one is light reading, they're both essential if you're a forest-planning junkie. Sure, it takes trees to produce books, but these two books will help save far more trees than were felled to produce them.

Robinson was a forester for Southern Pacific Land Company for 27 years before becoming, in 1966, the Sierra Club's first and only staff forester. In the late 1960s and throughout the '70s he preached the gospel of "excellent forestry" all over the United States. He played a pivotal role in the battles over the National Timber Supply Act and the National Forest Management Act. Now retired, Robinson still advises conservationists on forestry matters.

In *The Forest and the Trees*, Robinson passes along his lifetime of learning to a new generation of forest activists. He begins with a sketchy history of the Forest Service, showing its evolution from an agency that looked out for the health of the forest to one more concerned with the welfare of the logging industry. Modern-day forest activists who have known only the post–World War II Forest Service will be interested to read about a benevolent agency that once practiced "preservation through use." The early Forest Service instituted the practice of logging only undesirable and mature timber, thereby protecting remaining trees and the watershed, wildlife, soils, and beauty of the forest.

The second part of Robinson's book is an introduction to silviculture—the science of growing trees. Robinson believes in harvesting individual trees and maintaining a mixed-age forest. He gives no quarter to even-aged management or clearcutting, attributing to the latter the evils of soil erosion, landslides, and flooding, among many others.

Robinson believes fervently that "excellent forestry" is not only a science but an art. The forester should know all the trees as individuals, and no tree should be harvested before its time. Tree removal should benefit the remaining woodland, maintaining the forest's ecological balance and preserving its natural biota.

While Robinson's brand of forestry makes good environmental sense, it hardly makes for an immediately lucrative business. Because good-quality timber takes longer than a lifetime to grow, it's impossible for an entrepreneur to realize a return on investment. Present industry practices and Forest Service policies are therefore focused more on

short-term profits. In Robinson's ideal world, the conscientious forester would keep the profiteer at bay; the entrepreneur would not be setting production goals. But the early days of a Forest Service made up of foresters who attended to the welfare of the woods are long gone. Robinson's words are directed to a dying breed.

One of the driest but most useful sections of Robinson's book is entitled "Supporting Research and Informed Opinions"—nearly 400 annotated bibliographic entries based on materials collected during his 50 years of practicing forestry and reviewing relevant literature. The material is far from comprehensive or authoritative, but if the reader doesn't have access to a major research library and wants to get a sampling of expert opinions on a topic, here's a good place to start. Using the index, the reader can ferret out a scientific paper on herbicides, say, or the impacts of logging on elk. The research here may not be the most up-to-date; still, it's one of the best bibliographies around for the layperson.

In contrast to Robinson's cursory look at Forest Service history, Randal O'Toole's *Reforming the Forest Service* thoroughly examines the past decade of Forest Service follies.

O'Toole has become the nation's guru of forest planning. He has probably read and critiqued more forest plans than anyone inside or outside the Forest Service. Since 1980 he has published *Forest Watch* (formerly *Forest Planning*), a monthly journal dedicated to helping citizens understand public-forest management. In addition, he works as an economist with an Oregon-based forestry consulting group called Cascade Holistic Economic Consultants (CHEC). Conservationists across the country have hired O'Toole to help them review and discredit Forest Service plans affecting their regions. For these reasons, O'Toole is probably the biggest thorn in the agency's side. Spotlighting Forest Service waste, fraud, and abuse, he's the conservationist equivalent of the General Accounting Office.

Reforming the Forest Service is aimed at folks who get their kicks reading (or trashing) forest plans. O'Toole exposes every trick up the agency's sleeve. By the

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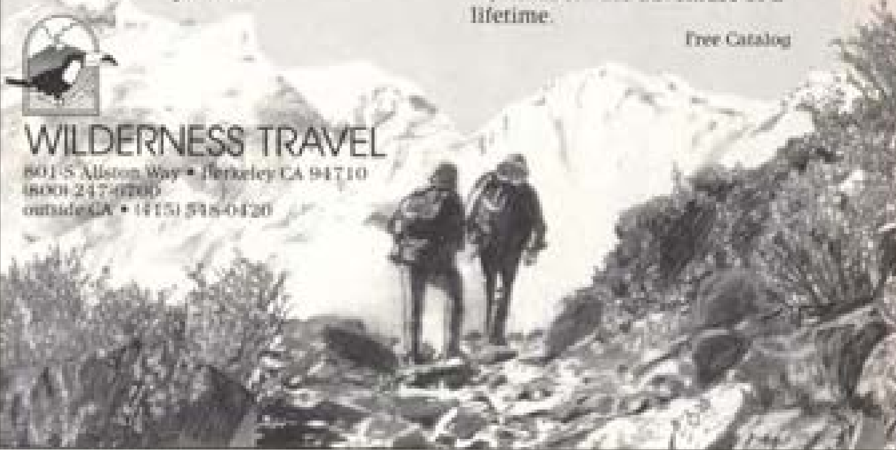

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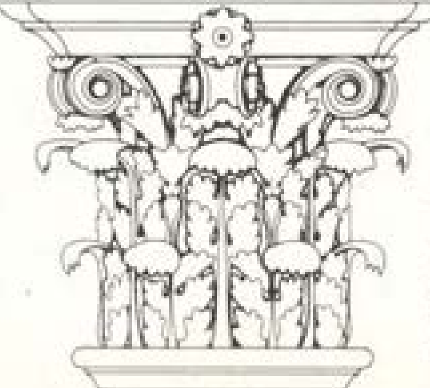

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time you finish the book, you'll wonder if the Forest Service of today is even worthy of reform.

Much of O'Toole's text involves detailed economic analysis, but he handles what could be a dry and complicated subject in a readable fashion. He shows how the agency, in preparing its budget, grossly inflates the value of timber, wildly underestimates the value of recreation and wildlife, uses unrealistic discount rates (meaning its timber investments produce poorer returns than private logging companies would find acceptable), and engages in other economic sleight of hand to justify huge tree-harvest programs from marginally productive lands.

O'Toole believes that the present bureaucratic system encourages foresters to make bad decisions. The agency, local governments, and other interests earn more money and can operate with bigger future budgets if they sell a lot of timber, even if the timber is sold below market value at a net loss to the taxpayers. The agency and the community reap relatively few economic rewards for managing national forests for wilderness or wildlife habitat.

O'Toole's recipe for reform is to change the basic economic signals so there is no longer a bias in favor of cutting trees—what he calls "marketizing the Forest Service." To do this he would

- eliminate congressional appropriations for Forest Service operations;
- allow Forest Service managers to charge fair-market prices for all use of resources (recreation, grazing, timber extraction, etc.);
- fund all activities out of a percentage share of the net return from user fees; and
- decentralize the Forest Service decision-making process (eliminating the federal bureaucracy and encouraging creativity and flexibility).

The specific proposals that O'Toole would implement to bring about this radical transition vary from repealing laws that encourage economic inefficiency, to compensating workers who are laid off because of reduced timber harvesting in some regions, to setting up a board of trustees for each wilderness.

O'Toole believes that if the nation could develop this new economic order

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for its forests, most of the environmental problems he discusses would be solved. There's reason to be skeptical, however. It's clear that in some marginal timber stands with very high recreation potential, the "O'Tooled" Forest Service would promote recreation instead of a below-cost timber sale. But what happens in the old-growth forests of the Pacific Northwest, where, from a strict economic standpoint, timber values might outweigh recreation values? Can the value of preserving threatened plant and animal habitats ever be adequately calculated?

This is not to say that reform isn't needed; it is. And most of O'Toole's proposals have merit. But conservationists should worry about Adam Smith's invisible hand deciding the future of the national forests. Managing forests, as Gordon Robinson says, is not just a science—it is also an art. Perhaps O'Toole's reformed Forest Service would benefit from a little less emphasis on number-crunching and a bit more accent on the artistry that makes for Robinson's brand of excellent forester.

BRUCE HAMILTON *is director of conservation field services for the Sierra Club.*

BRIEFLY NOTED

For close to seven decades, beginning in 1911, the Sierra Club worked to preserve the pristine beauty of Mineral King Valley in the Sierra Nevada. The Club's efforts finally paid off in 1978, when the valley became part of Sequoia National Park. Henry McLauren Brown relates this story, along with a general history of the valley, in ***Mineral King Country: Visalia to Mount Whitney*** (available from the author at 32894 Globe Dr., Springville, CA 93265; $18.50). . . . America's rural communities are losing prime farmland, clean water, scenic vistas, and recreation areas. To help counter the trend, the National Trust for Historic Preservation has produced ***Saving America's Countryside: A Guide to Rural Conservation*** (The Johns Hopkins University Press; $42.50, cloth; $16.95, paper). . . . Inspired by the spectacular landscapes preserved in America's national parks, many of the world's most distinguished writers have incorporated the national-

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Pacific Coast:
A Rugged Harmony
Photography by Tim Thompson
Introduction by Wesley Marx
Thomasson-Grant
$29.95, cloth

For centuries, wanderers along the Pacific coast between Vancouver and Baja California have been awed by its diversity. That stretch of the continent's edge boasts Monterey cypress, sandstone cliffs, black bear, redwoods, fallow deer, and countless other marvels. Those in the northern reaches who explore Olympic National Park's rainforested river valleys—the Quinault, the Queets, and (shown here) the Hoh—encounter astonishingly fecund environments.

park theme into their narratives. ***Mirror of America: Literary Encounters With the National Parks*** (Roberts Rinehart; $25) assembles just such writings, penned by the likes of Charles Dickens, Mark Twain, Rudyard Kipling, Abraham Lincoln, Carl Sandburg, and Thomas Wolfe. . . . Early in this century, a handful of prominent men in Idaho, Washington, and Oregon used their influence in those states' governments to protect unique wilderness areas from development and open them to recreationists. San Diego State University historian Thomas R. Cox tells the story of these individuals and their efforts in ***The Park Builders: A History of State Parks in the Pacific Northwest*** (University of Washington Press; $35, cloth; $14.95, paper). . . . As cofounder of the National Park Service along with Stephen T. Mather, Horace M. Albright profoundly influenced the destiny of America's public lands. ***Conservators of Hope: The Horace M. Albright Conservation Lectures*** (University of Idaho Press; $27.95) is a collection of 24 lectures delivered in his name by prominent conservationists, including Stewart Udall, Russell Train, Barry Commoner, Ansel Adams, and David Brower. . . . When Oxford University historical geographer Michael Williams first visited the United States more than ten years ago, the question that most intrigued him was, "What happened to the forests that once covered so much of the country?" In ***Americans and Their Forests*** (Cambridge University Press; $49.50) he fills 600 pages with an examination of the attitudes Americans have had toward their forests, and of the changes they have wrought by ceaselessly felling trees for farms and timber. . . . The essayists in ***Alaska: Reflections on Land and Spirit*** (University of Arizona Press; $24.95) represent the kind of adventurer who seeks knowledge and inspiration from the natural environment. In this volume, writings by Jack London, John Haines, John McPhee, Peter Matthiessen, Barry Lopez, John Muir, Margaret Murie, and others capture the allure of Alaska.—***Mark Mardon***

CAROL DIENGER

Espiritu Santo Island, Gulf of California, Mexico

FOREIGN TRIPS 1989-1990

The Soviet Union's central Asian highlands are yours to enjoy on a first-time Sierra Club Foreign Outing to this area. Or choose instead to go birdwatching in a Venezuelan rainforest or snorkeling in the waters of the magical Galápagos Islands. On all trips you'll be accompanied by experienced volunteer leaders and fellow Sierra Club members who share your outdoor interests. For more information on these and other trips, send in the coupon on page 100. Please refer to the 1989 Outings Catalog (*Sierra*, January/February) for our reservation and cancellation policy and an application form. Prices are subject to change and do not include airfare. Also, leader approval is required for all foreign trips.

AFRICA

[90530] Zanzibar to Ngorongoro Crater, Tanzania—February 14–March 1, 1990. *Leader, Kem Hildebrand, 49 Canyon Rd., Berkeley, CA 94704. Price: $3,460; Dep: $100.* We begin our Tanzanian experience with a tour of the broad beaches and narrow streets of the centuries-old city of Zanzibar. Traveling mostly by Land Rover and staying in hotels or tented camps, we then venture inland via Dar Es Salaam to the best wildlife areas in East Africa: Tarangire, Manyara, the Serengeti, and the unique Ngorongoro Crater, home to more than 30,000 animals.

[90600] Kenya Wildlife, Masai Mara to Lake Turkana—July 28–August 11, 1990. *Leader, Peter Nelson, 5906 Dirac St., San Diego, CA 92122. Price: $1,795; Dep: $100.* Our all-camping trip to Kenya begins with an exploration of the Masai Mara Game Reserve, where we will see various ungulate herds and their predators. Then we tour the remote northern frontier to Lake Turkana and return past Lake Nakuru, Maralal, and the Samburu Game Reserve. We will observe a rich diversity of birds and wildlife, visit plain, mountain, and desert habitats, and meet tribal peoples.

ASIA

[90580] The Highlands of Central Asia, Soviet Union—July 1–18, 1990. *Leader, Jerry Clegg, 9910 Mills College, Oakland, CA 94613. Price: $3,145; Dep: $100.* *Glasnost* has come to the heartland of Asia. The Soviet Union is allowing travelers in areas along its borders with China and Afghanistan that hold the greatest trove of alpine scenery and historical sites in central Asia. Our itinerary features hiking the Tien Shan, Alay, and Pamir massifs, with interludes in the cities of Osh, Alma-Ata, Dushanbe, and Samarkand.

[90590] Batura Glacier and Nanga Parbat Treks, Pakistan—July 10–August 4, 1990. *Leaders, Bob Madsen and Peter Owens, 3950 Fernwood Way, Pleasanton, CA 94566. Price: $2,240; Dep: $100.* Our first of two 7-day treks is to the 35-mile-long Batura Glacier in Upper Hunza, nestled below 25,000-foot Batura peaks. Our second trek starts in Gilgit and proceeds to Rupal Base Camp beneath Nanga Parbat, at 26,680 feet, the tenth-highest peak in the world. At the start of the trip we will drive from Islamabad up the fascinating Karakoram Highway; we'll spend layover days in Gulmit and Karimabad.

EUROPE

[90527] Cross-Country Skiing in the Austrian Tyrol, Austria—February

10–18, 1990. *Leader, Jeanne Blauner, 117 Colonial Ave., Haddonfield, NJ 08033. Price: $1,610; Dep: $100.* The beautiful Sun-Plateau just west of Innsbruck is the setting for our cross-country ski tour of four villages. Lessons and excursions into the countryside are scheduled for the first three days, in preparation for four days of skiing with our Austrian guide from inn to inn along trails connecting the villages. We will stay in comfortable hotels and pensions and enjoy traditional Austrian meals. Our luggage will be transported for us.

LATIN AMERICA

[90523] Another Mexico: Jungle, Beaches, and Lagoons—December 9–16, 1989. *Leader, Jenny Holliday, 1170 Cloud Ave., Menlo Park, CA 94025. Price: $1,310; Dep: $100.* Spend a week sea-kayaking, body surfing, or jungle-walking in a Mexico few tourists ever see. Evenings we'll camp on the beach in the quiet village of La Manzanilla (south of Puerto Vallarta); the days are yours to join in a group activity or simply relax. An overnight paddle trip is planned to the village of Barra de Navidad, where we'll camp at a remote beach. No prior kayaking experience is necessary.

[90526] Sea of Cortez Kayaking, Baja California, Mexico—December 18–24, 1989. *Leader, Gary Larsen, 13777 Lava Dome Way, Nevada City, CA 95959. Price: $1,050; Dep: $100.* This warm-water adventure beckons you to swim, snorkel, and fish as we explore the fascinating geology, hidden canyons, and desert vegetation of Espíritu Santo and Partida islands. We'll also visit Los Islotes, a sea lion rookery. This trip is designed for inexperienced to expert paddlers. Airline schedules require coming to La Paz a day ahead of the trip and leaving a day after.

[90528] Holidays in Belize: Reef and Ruins, Central America—December 23, 1989–January 1, 1990. *Leader, Sallee Lotz, 997 Lakeshire Ct., San Jose, CA 95126. Price: $1,490; Dep: $100.* A rustic ranch serves as our base while we explore Belize's lush interior and visit the magnificent Mayan ruins of Tikal in neighboring Guatemala. Then it's on to the Caribbean coast and a palm-fringed island adjacent to one of the longest coral reefs in the world. There we'll stay in a guest house on the beach, snorkel in crystal-clear water, and feast on fresh seafood.

[90542] A Lost Paradise, Venezuela—March 31–April 8, 1990. *Leader, Grace Hansen, 1114 Sutherland Ln., #3, Capitola, CA 95010. Price: $2,395; Dep: $100.* Home to unique and abundant wildlife, Venezuela offers us three contrasting habitats to explore: the vast grasslands of Llanos, the islands and coral reefs of Morrocoy National Park on the Caribbean coast, and Canaima National Park in the remote Guyana Highlands. We'll enjoy birding, snorkeling, and, as we fly into the highlands, views of ancient rainforests and enormous waterfalls, including Angel Falls, the world's highest.

RENEE LYNN

Grevy's zebra, Samburu Game Reserve, Kenya

CARLETON WHITEHEAD

Sea-Kayaking in Costa Rica.

[90546] Family Paradise in Belize, Central America—April 7–15, 1990. *Leaders, Karen Short and Stephen Pozsgai, 1160 St. Francis Dr., Petaluma, CA 94952. Price: adult $1,305, child $870; Dep: $100.* Relax on the beautiful beaches of the Caribbean coast and swim and snorkel in aquamarine waters. On this trip to the friendly country of Belize we'll visit the Creole fishing village of Placencia, dine with a Mayan family, explore a barrier reef, and much more! Feasts of fresh seafood and accommodations in beachfront cottages complete this pleasure trip.

[90547] River Rafting, Jungle, and Beach Adventure, Costa Rica—April 12–18, 1990. *Leader, J. Victor Monke, 5500 Wilshire Blvd., Suite 1950, Los Angeles, CA 90048. Price: $1,455; Dep: $100.* Whitewater rapids, deep river canyons, and clear, inviting pools are yours to enjoy on an exciting three-day raft trip on the Rio Pacuare. Then we fly to Manuel Antonio National Park for a hike in the rainforest to observe the colorful birds and take a swim in the blue Pacific. Returning to San José, we'll spend a full day touring this historic city.

[90548] Sea of Cortez Kayaking, Baja California, Mexico—April 16–22, 1990. *Leader, Tony Strano, Liberty Dock, Berth 3, Sausalito, CA 94965. Price: $1,050; Dep: $100.* See description for trip #90526.

[90585] Let's Do Peru!—July 7–21, 1990. *Leader, Carolyn Downey-Castleman, 1931 E. Duke Dr., Tempe, AZ 85283. Price: $2,325; Dep: $100.* Our Peruvian odyssey in the Andes Mountains includes a visit to

the colonial city of Arequipa, a whitewater rafting trip through the Sacred Valley of the Incas, a boat ride on Lake Titicaca to the floating island of the Uros Indians, and —best of all—an opportunity to spend two breathtaking days in Machu Picchu, the Lost City of the Incas.

[90595] The Magical Galápagos Islands, Ecuador—July 13–26, 1990. *Leader, Bud Bollock, 1906 Edgewood Dr., Palo Alto, CA 94303. Price: $2,650; Dep: $100.* This "showcase of evolution" offers the drama of volcanic landscapes and a rare display of fearless wildlife, including iguanas, tortoises, sea lions, and scores of colorful birds. Photographic opportunities are exceptional, and snorkeling is excellent. Motor launches will be our home for two weeks as we island-hop throughout the archipelago. On the mainland we'll tour Quito and have views of Cotopaxi, one of the world's highest active volcanoes.

PACIFIC BASIN

[90605] Australia's East Coast: Wilderness and Wildlife Camping—July 30–August 18, 1990. *Leader, Don McIver, 7028 W. Behrend Dr., Glendale, AZ 85308. Price: $2,935; Dep: $100.* Beginning in Sydney, this camping trip guided by an outstanding Australian conservationist focuses on the national parks of New South Wales and Queensland. Highlights include dayhikes, outback wildlife and birds, whale-watching, rainforests, glowworm caves, the beautiful beaches of Fraser Island, and Lady Elliot Island on the Great Barrier Reef.

FOREIGN OPEN-TRIP LIST 1990

In addition to the foreign trips described in the previous pages, the 1990 Foreign Outings listed below have openings available. To order supplemental information on any of these outings, send in the coupon at the bottom of the page.

Trip Number		Date	Trip Fee (including Deposit)	Per Person Deposit	Leader
AFRICA					
90575	The Many Faces of Kenya: A Leisure Safari	June 25–July 7, 1990	2360	100	Mary O'Connor
ASIA					
90535	Gorkha-Chitwan Trek, Nepal	Feb. 26–Mar. 17, 1990	1450	100	Peter Owens
90540	Rolwaling Trek, Nepal	Mar. 24–Apr. 13, 1990	1470	100	Peter Owens
90545	China Kaleidoscope II	Apr. 2–22, 1990	3380	100	Phil Gowing
90550	Annapurna Circle Trek, Nepal	May 5–June 1, 1990	1795	100	Peter Owens
90570	Tibet—The Forbidden Wilderness: From Kathmandu to Lhasa	June 11–July 2, 1990	3560	100	Patrick Colgan
EUROPE					
90555	Picturesque Portugal	May 6–19, 1990	2205	100	John Doering
90565	Walking in the Peak and Lake Districts, England	June 2–16, 1990	2440	100	Robin Brooks
LATIN AMERICA					
90529	Belize: Coral, Blue Water, and Kayaks	Feb. 11–18, 1990	1665	100	Margie Tomenko
90531	Tropical Wildlife—Sea-Kayaking in Costa Rica	Feb. 11–19, 1990	TBA	100	Carol Dienger
90532	Belize: Reef and Ruins, Central America	Feb. 17–26, 1990	1490	100	Lola Nelson-Mills
90533	Magdalena Bay Sea-Kayaking, Baja California, Mexico	Feb. 18–24, 1990	1075	100	John Garcia
90534	Bio Bio River Run, Chile	Feb. 23–Mar 7, 1990	2620	100	Blaine LeCheminant

For More Details on Outings

Outings are described more fully in trip supplements, which are available from the Outing Department. Trips vary in size, cost, and the physical stamina and experience required. New members may have difficulty judging which trip is best suited to their own abilities and interests. Don't sign up for the wrong one! Ask for the trip supplement before you make your reservations to save yourself the cost and inconvenience of changing or canceling a reservation. The first three supplements are free. Please enclose 50 cents apiece for extras. Write or phone the trip leader if any further questions remain.

Send supplements (order by trip number):

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Continued from page 69

dreams, and still try to live within them. No doubt a foolish enterprise.

THERE ARE TWO LANDSCAPES. The first is what surrounds, the air and dirt, rocks and water, where the animals live. The second is internal, the landscape held in mind. The difference seems clear. If I step out and get hit by a truck, that second landscape will be gone, no trace of it left in the world.

There are real lines on the land—where the ocean meets the continent, the San Andreas fault, the Book Cliffs, the Continental Divide. There are also the real lines we've drawn—the web of Anasazi roads converging on Pueblo Bonito, I-80, a barbed-wire fence, the cement arc of a dam—as well as the imaginary ones—meridians of longitude, the borders of states, wilderness boundaries. It's easy to confuse the real and the imaginary; in fact, we've become masters at it.

The imaginary lines are there—like fairies—only if you believe in them. At times our own government—which draws them—doesn't. The elk in Yellowstone don't believe, but know where the shooting starts. Air pollution doesn't believe, nor acid rain, nor radioactive fallout nor spilled crude, all of which follow higher laws. Our strategy of scribing a line around a nation or a wilderness and acting as if that protects it is a sentimental gesture. *No doubt a foolish enterprise.*

Unless we recognize imaginary lines for what they are, unless we learn to draw some real ones hard and fast across our habits, desires, and dreams, unless we do that not just soon but damned soon, believing won't matter anymore. We can't draw a magic circle or a line that death can't cross.

There's nothing left but *how we live* to protect our public land, or any land, or any one of us, at all. ◆

C. L. RAWLINS *is a writer, teacher, acid-rain researcher, and musician, and the poetry editor of* High Country News. *William Kittredge quotations are from* Owning It All *(Graywolf Press, 1987).*

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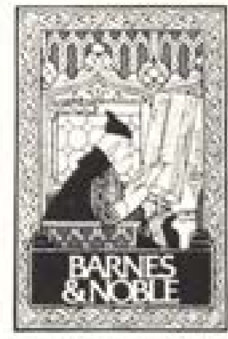

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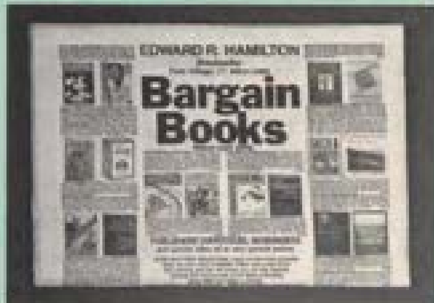

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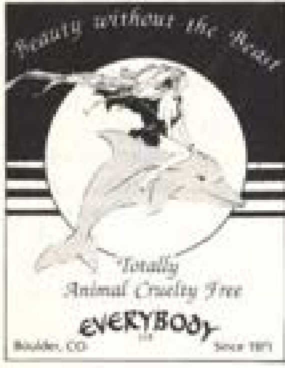

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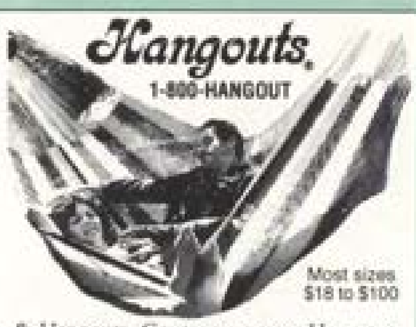

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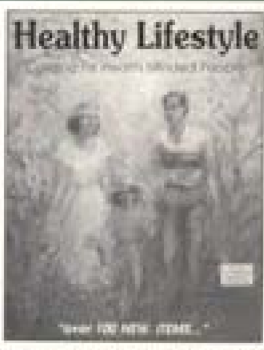

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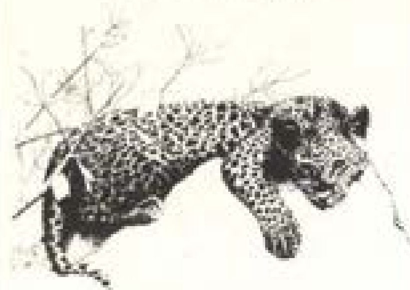

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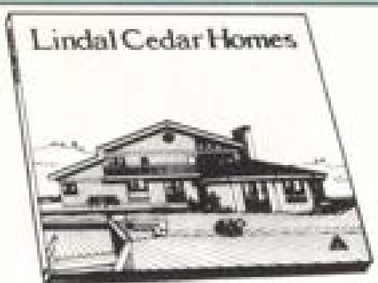

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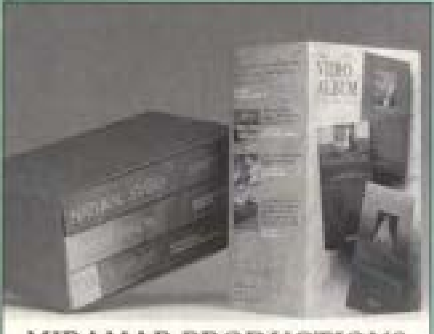

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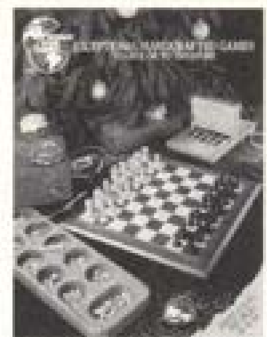

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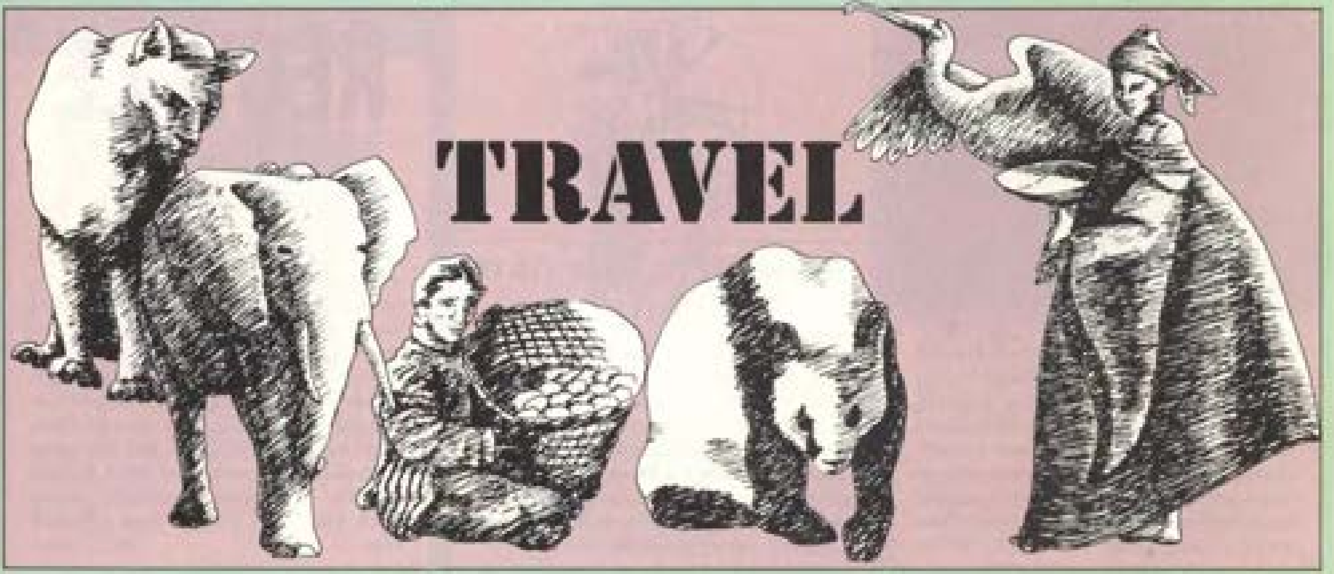

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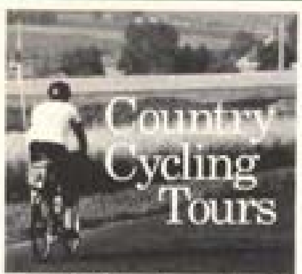

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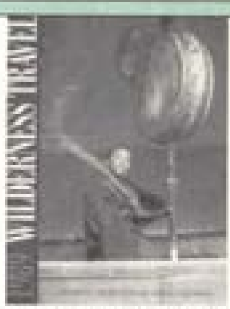

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Unfinished Business

Continued from page 51

Discouraging as this news may be, it does not mean that public-land reforms are impossible. Conservationists are working from the bottom up to help shape local plans—and from the top down (in Congress) to realign agency budgets, policies, and power structures. For activists, there's often a pattern: When public meetings, negotiations, appeals to higher officials, and even legal actions fail, Congress becomes the court of last resort.

The history of attempts to reform the Forest Service illustrates how difficult changing an entrenched bureaucracy can be. Over the years Congress has heard numerous complaints about abusive logging practices and the agency's timber bias. More than once it has adopted new legislation. But each time, at the urging of the Forest Service, Congress has left the agency wide discretion. As a result, there has been little real difference in the way the forests are managed.

The most recent attempt at national reform was the passage of the National Forest Management Act. At first reading, the act looked promising. But the Forest Service has systematically ignored sections of the law designed to protect biological diversity, restrict clearcutting, focus logging on the most productive sites, and avoid replacing native forests with single-species tree plantations.

Even as they work with the Forest Service, conservationists look to Congress for support. Wilderness bills backed by conservationists have been introduced or are expected soon for national-forest wildlands in Alaska, Arizona, Colorado, Idaho, Illinois, Montana, and Nevada.

Designations that go beyond wilderness and parks are being explored as well. The Sierra Club and other environmental groups are trying to develop new kinds of protection for some of the rapidly disappearing ancient forests in the Pacific Northwest and for timberlands in the Northeast that are now privately owned. Last year Congress adopted comprehensive legislation for the Ouachita National Forest in Oklahoma that established not only two new wildernesses, but also two botanical areas to protect unique plant species and communities, and a new national recreation area.

Biological diversity is on its way to becoming a central concern for conservationists, as it already is for biologists and ecologists. Recent scientific findings indicate that our present preserves and endangered-species programs do not adequately protect the biologically rich native plant and animal communities found in this country. While headlines record our heroic efforts to save a few endangered animals, we are daily driving a much longer list of species ever closer to extinction. An awareness of these problems has already inspired national legislation that would require federal agencies to work toward preserving biological diversity on all their lands and in all their projects. Long after the wilderness debates have died down, the effort to preserve native species on public lands will continue.

Forest activists consider Congress the most productive arena for wilderness and biodiversity disputes, and it is becoming increasingly important for conservationists at budget time, too. Local forest supervisors routinely tell their critics that they are only trying to meet the timber-harvest level set by Congress in the budget process. But the budget is heavily influenced by the presidential appointees who submit and vigorously defend each year's budget proposal. This year's lopsided proposal—$1.5 billion for grazing, minerals, and timber management and a mere $324 million for wildlife management, trail construction, recreation, and soil and water conservation—is typical of recent requests. Congress responded by providing a greater but still inadequate portion of the pie to environmental programs.

On BLM lands the most promising vehicle for change is a series of conservationist-backed wilderness and park proposals. The largest and most longstanding is the California Desert Protection Act, introduced by Representative Mel Levine (D-Calif.) and Senator Alan Cranston (D-Calif.). Representative Wayne Owens (D-Utah) has introduced

an equally sweeping proposal to designate millions of acres of Utah as wilderness. In Arizona, bills covering BLM and Fish and Wildlife Service wilderness have been introduced. As BLM wilderness studies are completed, bills in other western states will follow.

The Sierra Club has also been promoting a series of BLM reforms championed by Representative Bruce Vento (D-Minn.), chair of the House Subcommittee on National Parks and Public Lands. The reforms, which the House passed in July, would set a deadline for completion of the languishing land-use planning process, help protect more areas of critical environmental concern, encourage the defense of biological diversity, and prohibit the employment of political appointees in any position other than that of national director.

In the case of wildlife refuges and national parks, conservationists are examining the role of the Interior Department. Because the Fish and Wildlife Service and the Park Service are subsets of Interior, their decisions are often reversed by development-minded superiors in that department. The result in the Park Service, according to Vento, is "a rapidly escalating process whereby professional resource managers' decision-making has been supplanted by political decision-making."

To prevent further abuses and ensure that Congress can hear the uncensored Park Service viewpoint, Vento and Senator Bill Bradley (D-N.J.) have introduced bills that would make the Park Service a more autonomous agency, dependent on the Interior Department only for some routine administrative services. The House bill passed in July, and is now under consideration in the Senate. If this bid for Park Service independence succeeds, the Fish and Wildlife Service may be next in line.

Meanwhile, in both agencies conservationists continue to push for wilderness designation to shield the most pristine areas from Interior Department meddling and for land acquisition to round out and expand the refuge and park systems. Designating the Arctic National Wildlife Refuge as wilderness, a move that would preclude oil exploration and development, is among the most controversial and important proposals now before Congress. Legislators are also considering

- wilderness protection for the Kofa, Cabeza Prieta, Havasu, and Imperial national wildlife refuges in Arizona's Sonoran Desert;
- a new Mojave National Park and expansions and national-park status for Joshua Tree and Death Valley national monuments;
- a Tallgrass Prairie Preserve in Kansas or Oklahoma;
- expansion of Everglades National Park in Florida;
- designated wilderness in Great Smoky Mountains National Park in North Carolina and Tennessee; and
- a Petroglyphs National Monument in New Mexico.

Some changes that cross area and agency boundaries are also vital to the protection of the public domain. Last year the Reagan administration used the Mining Law of 1872 to transfer 82,000 acres of public land in Colorado to private energy interests. The price tag: a mere $2.50 an acre. This act so infuriated members of Congress that mining-

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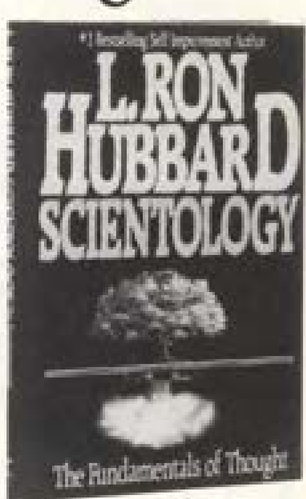

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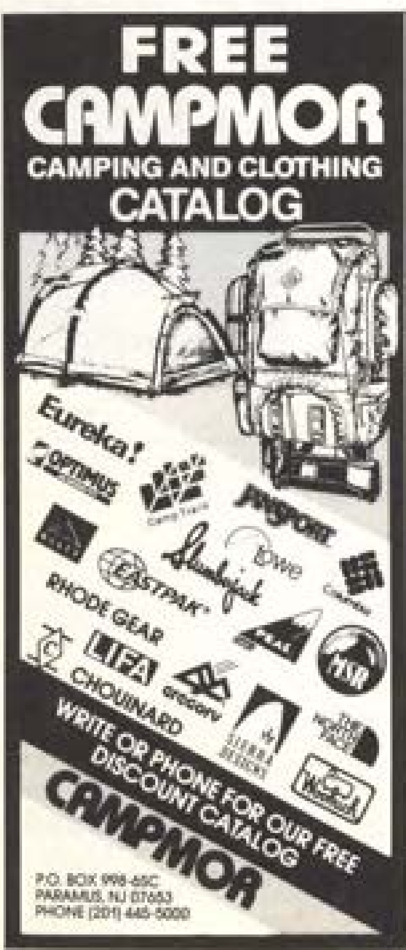

law reform is now a hot topic on Capitol Hill. (See "What's Mined Is Theirs," page 20.)

Another important resource issue involves water. Can ranchers or developers divert all the water that flows through a wilderness and dry up its streams? The courts have held that the federal government has an implied claim to water every time it sets aside a piece of public land for a specific purpose. Whenever Congress establishes a wilderness area or a national park, some water rights—if they are available—should come with the land. But Reagan's Attorney General, Edwin Meese, decided not to assert the federal rights recognized by the courts.

Pressing the issue even further, Senators James McClure (R-Idaho) and Malcolm Wallop (R-Wyo.) are trying to put language in all new wilderness bills stating that no water rights are implied by the designation. On the other side of the issue are Senators Harry Reid (D-Nev.), Richard Bryan (D-Nev.), and Tim Wirth (D-Colo.) and Representatives Morris Udall (D-Ariz.) and George Miller (D-Calif.), who are promoting language that recognizes and protects wilderness water rights. (See "Water Rights and Wrongs," page 35.)

New wilderness, new parks, strengthened agencies, new kinds of protection, overhauled laws—the conservation agenda for the public lands is ambitious, urgent, and up against tough odds. George Bush says he is an environmentalist, but his actions so far smack of the old Reagan antagonism. His appointees and policy positions and proposed budgets are less confrontational than Reagan's, but the clear intent is to stay the commodity-oriented course. Therefore it is up to the American people and Congress to lead George Bush and his appointees.

Our forebears in the conservation movement helped set up the public-lands agencies to protect the nation's natural heritage. Today, those of us who still care about these lands must complete this vital unfinished business. ♦

BRUCE HAMILTON, *a veteran of public-lands battles in Wyoming, Alaska, and Colorado, is the Sierra Club's director of conservation field services.*

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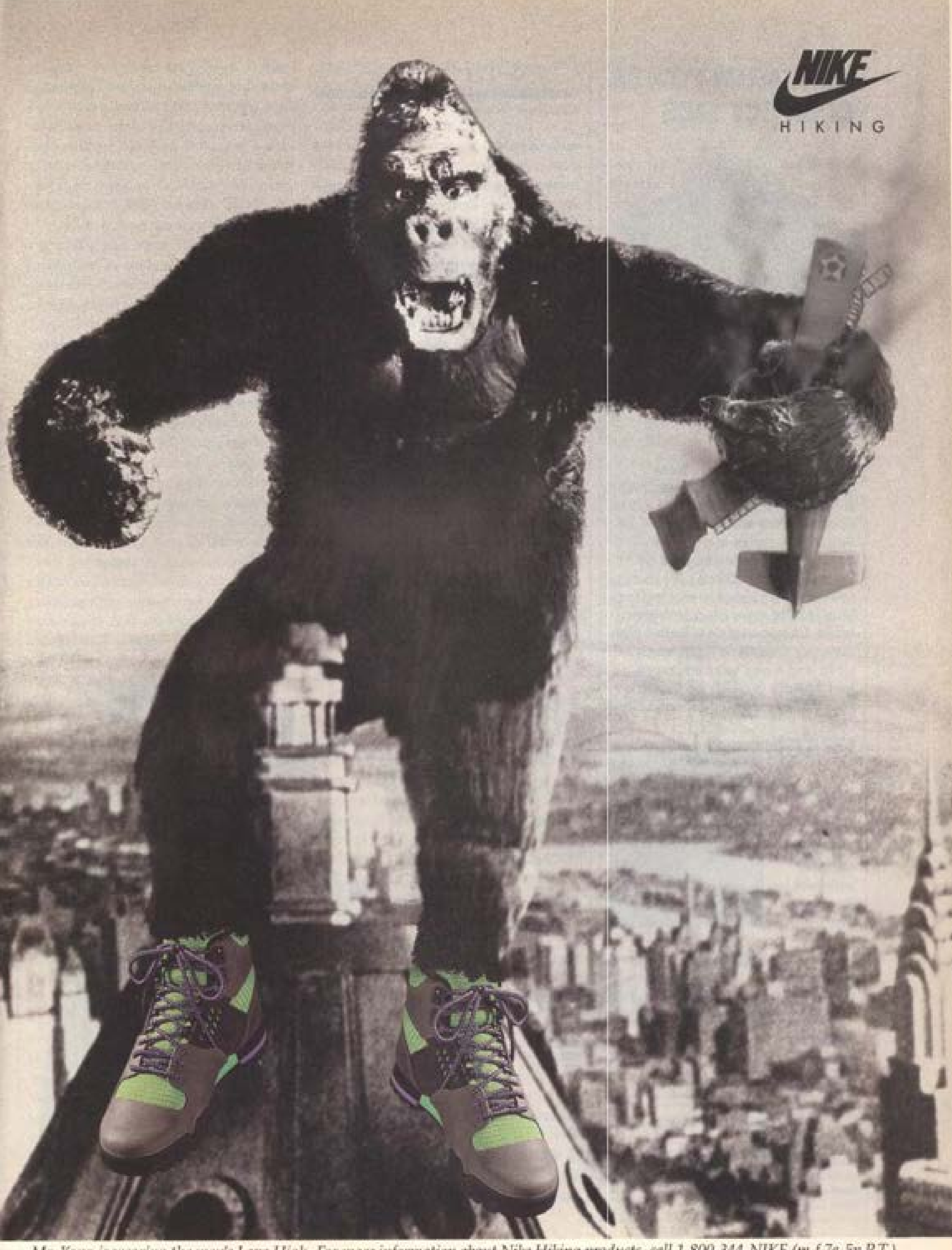

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Class-L Heaven

Continued from page 73

price of gold—along with that nefarious new technology, cyanide heap-leach mining—inspired Amselco (a subsidiary of British Petroleum) to reinvestigate the rhyolite plug on the northern side of Clark Mountain. On January 1, 1988, the Colosseum Mine reopened for business under new owners.

Before arriving at Clark Mountain, I'd heard various things about the Colosseum operation: that it's the biggest gold mine in the eastern Mojave, that it's creating two 600-foot-deep pits, that its cyanide facilities are housed inside a building to hide them from migrating birds. None of this was adequate preparation for what stands before me. The entire mountainside is terraced, excavated, and denuded of vegetation. Huge earth-moving machines and an ore crusher give rise to a steady rumble. An artificial earthen dam holds a pale-turquoise tailings lake at the valley bottom, white deposits around its edges. Remembering the region from two decades ago, Roger pronounces it "unrecognizable." I am thinking: *Limited use?*

Later I speak with John Bailey, the manager of the EMNSA, who admits that the agency "might have a marketing problem" as a result of activities like the Colosseum Mine. "It begs the question of what 'Class L' means," Bailey acknowledges. "In that type of area, we can deny any other kind of large-scale operation, like a factory, for example. But a gold mine can *only* be in *that* place; it's where nature put the minerals. The way the [1872 mining] law is written, we have to say yes unless we prove that there's undue or unnecessary degradation." [See "What's Mined Is Theirs," page 20.] In the meantime Bailey is charged with managing the area so that it can eventually be reclaimed—revegetated and cleared of all hazardous materials. As we stand looking at the mine, such ideas seem fantastic. "It's altered the landscape irrevocably," Roger says. "That's not going to be reclaimed—ever."

We take leave of the Colosseum travesty, following an old mining road up a canyon and re-entering the "pastures of heaven." We pass fences of yellow-blooming beavertail and red-blooming Mojave mound cactus; piñon and juniper reappear; silk tassels—a mid-elevation bush that looks like a cross between an aspen and a willow—glitter along the trail, surrounded by white "popcorn" flowers. The pungent fragrance of turpentine broom (odd how these aromatically appealing plants get saddled with the names of petroleum products) pervades the area. This spartan but verdant landscape hardly fits the common conception of a desert.

Farther up, pitted and layered limestone has arranged itself into weird mud towers; in them Roger sees evidence of the ancient tropical ocean bed: the skeletons of millions of tiny shellfish—clams and mollusks of all sorts. "They were buried, became a soft ooze, then were pressurized and elevated by the mountains," he says. "Here the pressure forced some silica out. See the marble and quartz?" Brown lichens cover the rocks like masses of sesame seeds.

After a lunch of sardine-avocado sandwiches, we resort to the de facto transportation system that crisscrosses the Mojave Desert—power-line maintenance roads. The one we're on belongs to the Los Angeles Department of Water and Power, the agency that made a saline bowl of Owens Valley and is now draining Mono Lake. We bounce along a white strip stretching straight to the horizon, accompanied by a high-voltage hum. Golden eagles have begun building nests in the towers of these power lines; 50 yards away, a brilliant black-and-yellow Scott's oriole flies from Joshua tree to Joshua tree, paralleling our path.

Correlating our odometer with the mileage indicators on an auto-club map of San Bernardino County, we turn off at a barely discernible dirt strip and start up Clark Mountain's western slope. We're heading for Pachalka Spring, a reputedly beautiful waterhole where bighorn sheep come to drink. As is often the case in the desert, we can see our destination from miles away: a spot of dark vegetation in an otherwise treeless landscape. We inch our way up the alluvial fan, intersecting a varied flora of creosote, bur sage, cactus, and yucca. On the rocky jeep track we travel

roughly three miles per hour. "They must have first come up here in Model T's," Roger comments. "Actually, that would have been a good desert vehicle—low gearing and high clearance."

After almost two hours we reach the spring—a grove of a dozen willows and cottonwoods. Roger says the area "captures birds. They see something green here and it pulls them out of the sky. I know fanatic birders who drive hundreds of miles to get here during peak migration periods." Nevertheless, I'm disappointed. Privately owned Pachalka Spring has been degraded by cattle, whose footprints have transformed the ground into a black bog. Tin cans, plastic wrappers, and cut wood are scattered about; a rubber hose leads from the spring to a bathtub, capturing the springwater, but it's hard to imagine a herd of bighorns challenging the cows for a drink.

"I'll show you one of the hazards of the desert," Roger says, tossing a rock toward a clump of bushes. Rather than making a heavy *thunk*, it clicks, echoes, and disappears. I peer over the top of the shrubs and discover an apparently bottomless pit. "More than a few motorcyclists have gone into old mine shafts," Roger says.

We leave the spring and hike up an adjacent, eroded canyon, pausing periodically when catclaw acacia—a.k.a. "Gotcha" or "Wait-a-Minute" bush—attaches itself to our sleeves. As we pick our way up the boulders and gravel, mudstone crumbling like rotten wood underneath our feet, I am put in mind of the Arctic: The desert's alluvial fans are like earthen glaciers, the levels of precipitation are comparable, and perhaps more similarly than anything else, the silence is profound and total, broken only by the wind.

"Take the cacti out of this desert and you've got Alaska," Roger says. "Both places are very raw. There's little soil and lots of erosion—not much protecting the rock." As if to certify the perception of purity, we stumble upon two curving white lines and a circle etched into a bare brown cliff—a Chemehuevi Indian petroglyph, distinct, unspoiled, and unvandalized, unlike a third of those known to exist in the California desert.

The sun is setting, sending shafts of golden light through distant diagonal thunderstorms. We descend the alluvial slope to complete our circuit of the mountain. As night falls, we confront a flashing red light at the Unocal 76 Molycorp gate guarding the mine at Mountain Pass. Klieg lights march up the mountain in the dark. This site, carefully excluded from the national scenic area, is one of only two rare-earth mines in the world. Rare-earth minerals include such oxides as lanthanum (used to increase yields of gasoline from crude oil), neodymium (used in magnets, and to improve the electrical properties of ceramic capacitors), and europium, cerium, and terbium (which reduce energy consumption in fluorescent lamps). All come from bastnasite ore, which 40 years ago in the vicinity of Clark Mountain was found to contain 7 percent rare-earth oxides—a content matched nowhere else on the planet. Within three years of the discovery, Molycorp had established a town of 250 people here, complete with post office, fire station, children's playground, swimming pool, *trout lake*, and recreation hall.

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titioned the Secretary of the Interior to delete all of Clark Mountain from the EMNSA. As it happened, industrial demand for the mine's major product—lanthanum hydrate—soon evaporated due to the declining market for leaded gasoline, and in April 1986 Molycorp served one-year eviction notices to the resident miners. Today the population of Mountain Pass is ten—the families of one state highway worker and three highway patrolmen.

A lingering token of the town is a picnic area at 6,500 feet. We roll in after dark and build a fire of downed juniper branches, noting that the mountain's most magnetic spots—this place and Pachalka Spring—are empty of visitors on Saturday night. After dinner, Roger finds a level spot; too tired to mount much of a search myself, I position my sleeping pad on a picnic table. We fall asleep to the sound of a poorwill warbling in the night.

In the morning the weather has cleared. We study our topo map while eating breakfast, then don our hiking boots and set out through the piñons for the peak. Each of us carries a half-gallon of water.

I'd forgotten how hard it is to climb a mountain. Roger and I are in decent shape, but in no time we've tied bandanas on our heads to keep sweat from inundating our eyes. The first part of the route climbs straight up a talus ridge, which gives way occasionally in miniature landslides, testing our thighs and calling for arm action. I pause repeatedly to get my breath and gaze off to the south, where I have a bird's-eye view of the rare-earth mine and the cloud-mottled laccolith of Cima Dome, an enormous rounded upwelling backed by the jagged Providence Mountains. Roger, steady as a mule, gradually outstrips my halting pace; by the time I reach the limestone cliff at the crest of the ridge, he's sitting on top of it, looking northwest into Mesquite Valley and the Kingston Mountains.

"You know what I never realized before?" he exclaims as I join him. "This is glaciated. It's a classic northeast-facing cirque, perfectly protected from the sun's rays. Probably four different times during the Pleistocene, there was a tiny glacier here." We peer down at a vestige of that age, the Rocky Mountain white-fir forest on Clark's northern slope. The fir needles are shorter than those of piñon and juniper; the trees are darker against the gray talus. They stand in the shade below the cliff that leads from our feet to the peak. For a hundred yards it's a sheer knife-edge; beyond that the route to the top is hidden—it may or may not be precipitous. I propose to retrace our steps, climb the cliff a bit closer to the peak, and investigate. Roger's content where he is, so I take off by myself.

As it turns out, the easiest part of the climb is just past the cliff—there's even a rough trail, complete with rock cairns. The air is chilly and invigorating, and on my own in this high, heady atmosphere, I become unexpectedly turbocharged. I practically run to the summit, agave stalks leading me along like signposts. In 20 minutes I'm standing on the peak. I let out a whoop, hear an echo, and yell again: "ROGER *Roger*—IT'S EASY *easy* —COME ON UP *on up*."

From a canister wedged into a pile of rocks near a lone beavertail cactus, I learn how good I've got it. On June 9, 1985, Kemp Anderson found this area "hot enuf to boil a monkey's bum." David Gaskin ran into "many pesky flies and false summits." One party discovered fog so thick they couldn't see the surrounding mountains. This is decidedly not my dilemma. From the orange and yellow lichens at my feet, the slopes of Clark Mountain radiate in all directions. The nearby ranges are brown with black tree spots; the far horizons are gray and ragged. In between lies the entire eastern Mojave: Cima Dome swelling up to the southwest; the ocher hump of the Kelso Dunes (third-tallest in North America) backed by the gray Granite Range; the flat, black mesa of Tabletop Mountain; pale white Soda Lake in the west, where the double strip of the interstate disappears in haze. To the northeast, Nevada's basins and ranges recede to infinity, flat playas glowing yellow in the sinks. Silver clouds and their shadows glide over the entire landscape, transforming it into a moving picture. I relax on top for about an hour, surveying the desert, eating lunch, taking the obligatory self-portrait. Roger never arrives. I start down, slowly this time, rambling along a

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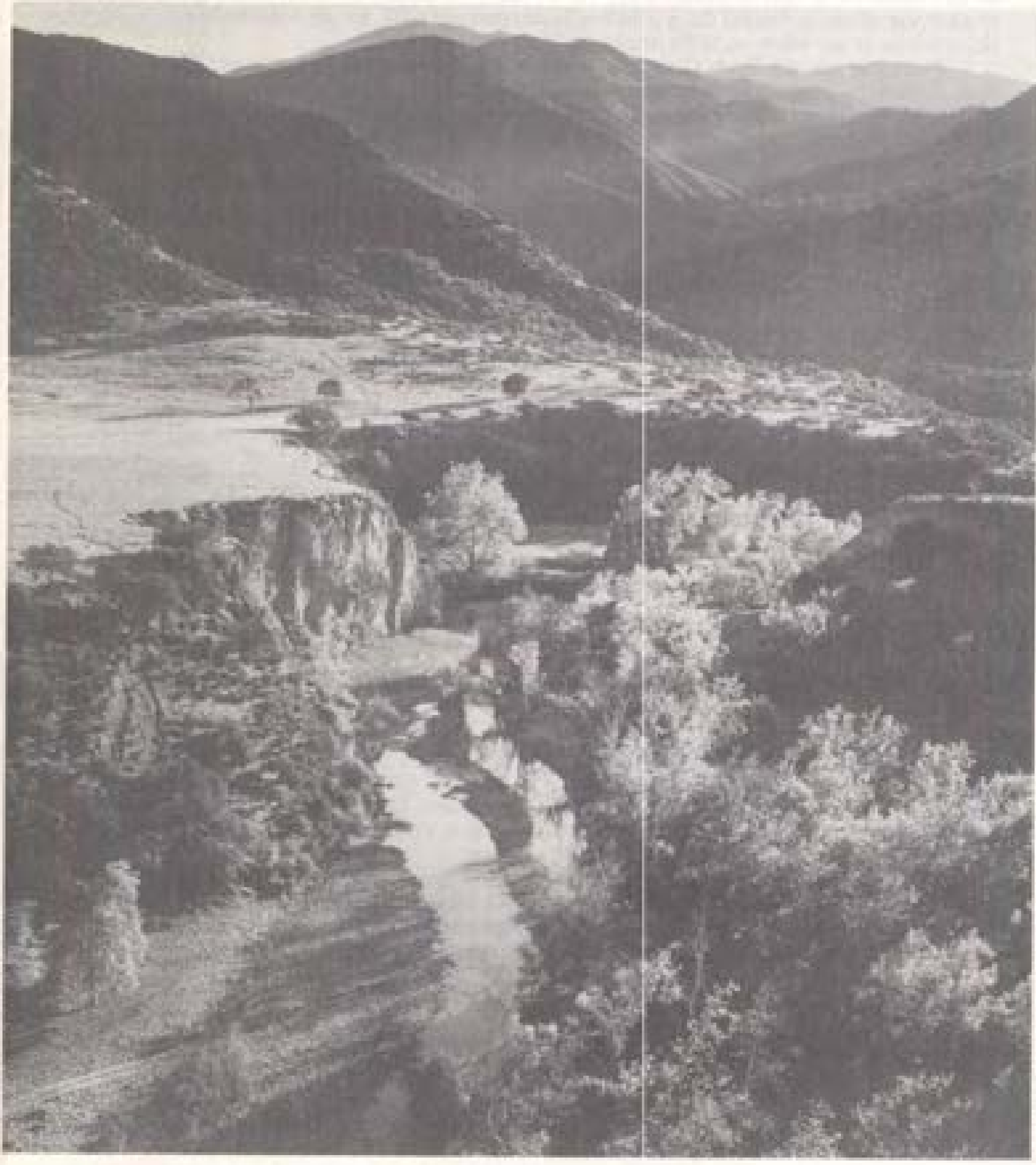

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rocky pathway above a shining brown-and-yellow planet. Figuratively and literally, I'm on top of the world.

At the base of the cliff Roger sits like a Buddha, hands in the pockets of his pile vest. He's made a small fire and hung his underclothes out on branches to dry. He reports that he's found another plant endemic to the Rocky Mountains: rock-spiraea, a matlike flower that grows on rocks. When I relate the ease of the ascent, he seems amused, not sorry to have missed it. He's been looking out over the place where he once lived, "thinking about what's happened in the last 20 years."

Under the California Desert Protection Act, that place would become part of Mojave National Park. The spot where we sit would be designated wilderness, though all the roads we've traveled to reach it would stay open. The Mountain Pass and Colosseum mines would continue, but no new prospecting would begin. The Barstow-Vegas motorcycle race would probably be rerouted out of the area, and cattle could be eliminated from Pachalka Spring, leaving it to the bighorn sheep (providing that crowds of humans aren't imported to replace the beef). Neither Roger nor I is a knee-jerk proponent of national-park designation—a paved road to Pachalka Spring and signs leading to the top of Clark Mountain would not constitute improvements, in my opinion—but I support anything dispelling delusion. As far as I'm concerned, a "limited use" policy that allows a mining company to raze a mountainside in an "area of critical environmental concern" is not only a delusion but a disgrace. As a notably frustrated ranger once told me: "We'd all be hypocrites if we condemned mining. But some things have to be sacred."

Roger douses and buries his campfire and puts on his dry clothes. We take one last look at the firs and begin descending a perfect example of American public land, inching down a primeval mountain toward the biggest rare-earth mine in the world. ♦

DAVID DARLINGTON *is author of* In Condor Country *(Houghton Mifflin, 1987) and* Angels' Visits *(forthcoming from Weidenfeld & Nicolson).*

FREEDOM

Continued from page 77

animal as in the same realm. But many people who have been hearing this since childhood have not absorbed the implications of it, perhaps feel remote from the nonhuman world, are not sure that they are animals. They would like to feel that they might be something other than animals. That's understandable; other animals might feel that they are something other than "just" animals too. But we must start with the shared ground of our common biological being before looking for the differences.

Our bodies are wild. The involuntary quick turn of the head at a shout, the vertigo at looking off a precipice, the heart-in-the-throat in a moment of danger, the catch of the breath, the quiet moments relaxing, staring, reflecting—these are universal responses of this mammal body. They can be seen throughout the class. The body does not require the intercession of some conscious intellect to make it breathe, to keep the heart beating. It is to a great extent self-regulating; it is a life of its own. Sensation and perception do not exactly come from outside, and the unremitting thought and image-flow are not exactly outside. The world is our consciousness, and it surrounds us. There are more things in mind, in imagination, than "you" can keep track of—thoughts, memories, images, angers, delights, rise unbidden. The depths of mind, the unconscious, are our inner wilderness areas, and that is where a bobcat is, right now. The conscious, agenda-planning ego occupies a very tiny territory, a little cubicle somewhere near the gate, keeping track of some of what goes in and out, and the rest takes care of itself. The body is, so to speak, in the mind. They are both wild.

Some will say, so far so good: "We are primates. But we have language, and the animals don't." By some definitions perhaps they don't. In any case they communicate extensively, and by call systems we are just beginning to grasp. But it would be a mistake to think that human beings got "smarter" at some point and invented first language and then society. Language and culture emerge from our biological-social natural existence, animals that we were/are. Language is a mind/body system that co-evolved with our needs and nerves. Like imagination and the body, language rises unbidden. It is of a complexity that eludes our rational intellectual capacities. All attempts at scientific description of natural languages have fallen short of completeness, as the descriptive linguists readily confess, yet the child learns the mother tongue early and has virtually mastered it by the age of six.

Language is learned in the house and in the fields, not at school. Without ever having been taught formal grammar we utter syntactically correct sentences, one after another, for all the waking hours of the years of our life. Without conscious device we constantly reach into the vast word-hoards in the depths of the wild unconscious. We cannot as individuals or even as a species take credit for this power; it came from someplace else, from the way clouds divide and mingle (and the arms of energy that coil first back and then forward), from the way the many flowerlets of a composite blossom divide and redivide, from the gleaming calligraphy of the ancient riverbeds under present riverbeds, from the wind in the pine needles, from the chuckles of grouse in the ceanothus bushes. Language-teaching in schools is a matter of corralling off a little of the language-behavior territory and cultivating a few favorite features, culturally defined forms that will help you apply for jobs, or give you social credibility at a party. One might even learn how to produce the byzantine artifact known as the professional paper. There are many excellent reasons to master these things, but the power, the *virtu*, remains on the side of the wild.

♦ THE WORLD is as sharp as the edge of a knife. A Northwest Coast saying. Now how does it look from the standpoint of peoples for whom there is no great dichotomy between their culture and nature, those who live in societies whose economies draw on uncultivated systems? The pathless world of wild nature is a surpassing school, and those who have lived through her can be tough and funny teachers. Out here one is in constant engagement with count-

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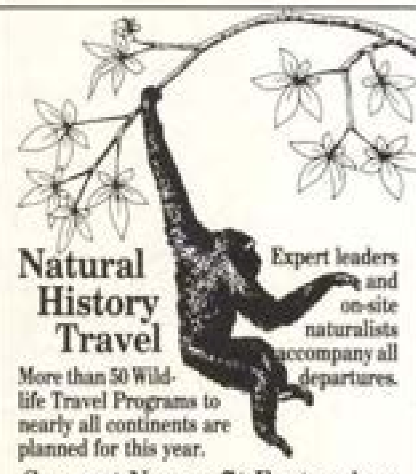

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The world is watching: One cannot walk through a meadow or forest without a ripple of report spreading out from one's passage. The thrush darts back, the jay squalls, a beetle scuttles under the grasses, and the signal is passed along. Every creature knows when a hawk is cruising or a human strolling. The information passed through the system is intelligence.

The world is not only watching, it is listening. A rude or thoughtless comment about a wolf or a raven or a porcupine will not go unnoticed. Other beings do not mind being killed and eaten as food, but they expect us to say please, and thank you, and they hate to see themselves wasted. The precept against needlessly taking life is inevitably the first and most difficult of commandments. In their practice of killing and eating with gentleness and thanks, the primary peoples are our teachers: The attitude toward animals, and their treatment, in 20th-century American industrial meat-production is literally sickening, unethical, and a source of boundless bad luck for this society.

An ethical life is one that is mindful, mannerly, and has style. Of all moral failings and flaws of character, the worst is stinginess, which includes meanness in all its forms. Rudeness in thought or deed toward others, toward nature, reduces the chances of conviviality and interspecies communication, which are essential to physical and spiritual survival. Richard Nelson has said that an Athabaskan mother might tell her little girl, "Don't point at the mountain! It's rude!" One must not boast, or show much pride in accomplishment, and one must not take one's skill for granted. (These rules are true for artists and gamblers as well as for foragers.)

The etiquette of the wild world requires not only generosity but a certain modesty. Good, quick blueberry picking, the knack of tracking, going where the fishing's good ("an angry man cannot catch a fish"), reading the surface of the sea or sky, are achievements not to be gained by mere effort. Mountaineering has the same quality. These moves take practice, which calls for a certain amount of self-abnegation, and intuition, which takes emptying yourself. Some great insights have come to some people only after they reached the point where they had nothing left. Alvar Nuñez Cabeza de Vaca became unaccountably deepened after losing his way and spending several winter nights sleeping naked in a pit in the Texas desert under a north wind. He truly had reached the point where he had nothing. ("To have nothing, you must have nothing!" Lord Buckley says of this moment.) After that, Cabeza de Vaca found himself able to heal sick native people he met on his way westward. His fame spread ahead of him. Once he had made his way back to Mexico and was again a civilized Spaniard, he found he had lost his power of healing—not just the ability to heal, but the will to heal, which is the will to be whole. For as he said, there were "real doctors" in the city, and he began to doubt his powers. To resolve the dichotomy of the civilized and the wild, we must first resolve to be whole.

One may reach such a place by literally losing everything. Painful and dangerous experiences have often transformed the people who survived them. Human beings are audacious; they set out to have adventures and try to do more than perhaps they should. So by practicing yogic austerities or monastic disciplines, some people make a structured attempt at having nothing. Some of us have learned much from traveling day after day on foot over snowfields, rockslides, passes, river torrents, and

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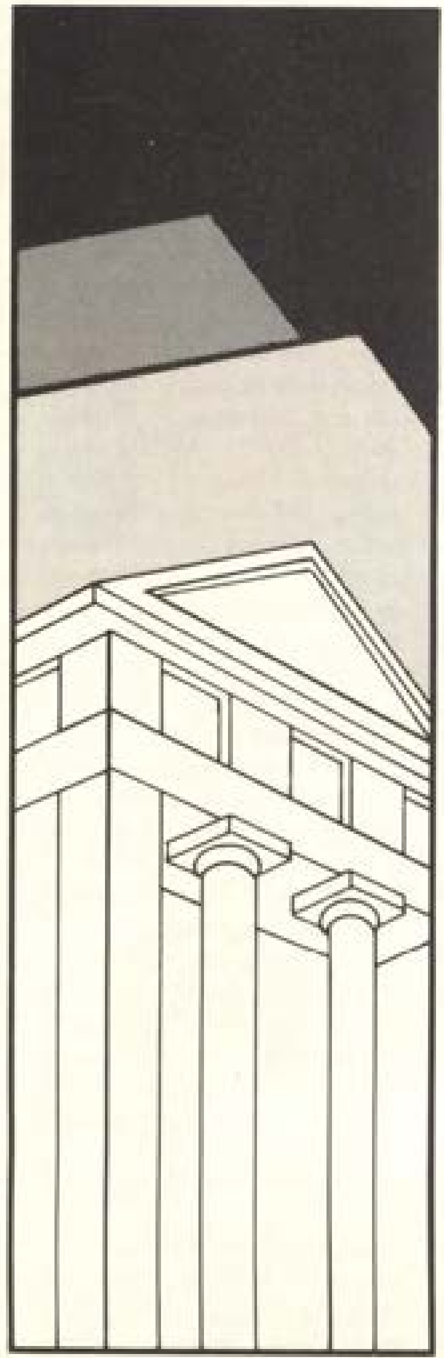

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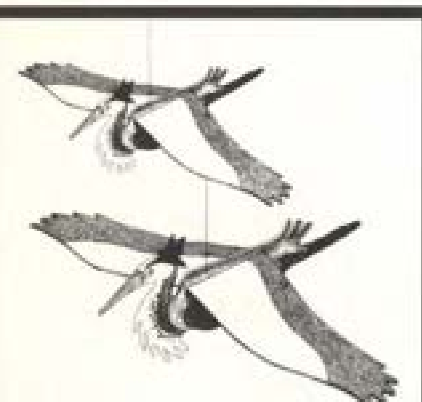

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valley-floor forests, by "putting ourselves out there." Another way is that of Vimalakirti, the legendary Buddhist layman, who taught that by directly intuiting our condition in the actually existing world we realize that we have had nothing from the beginning. A Tibetan saying: "The experience of emptiness engenders compassion."

Practically speaking, a life that is vowed to simplicity, appropriate boldness, good humor, gratitude, unstinting work and play, and lots of walking brings us close to the actually existing world and its wholeness.

For those who would seek directly, by entering the primary temple, the wilderness can be a ferocious teacher, rapidly stripping down the inexperienced or the careless. It is easy to make the mistakes that will bring one to an extremity.

People of wilderness cultures rarely seek adventures. If they deliberately risk themselves, it is for spiritual rather than economic reasons. Ultimately all such journeys are done for the sake of the whole, not as some private quest. The quiet dignity that characterizes so many so-called primitives is a reflection of that. Florence Edenshaw, a contemporary Haida elder who has lived a long life of work and family, was asked by the young woman anthropologist who interviewed her and was impressed by her coherence, presence, and dignity, "What can I do for self-respect?" Edenshaw said, "Dress up and stay home." The "home," of course, is as large as you make it.

Coyote and ground-squirrel do not break the compact they have with each other that one play predator and the other play game. In the wild a baby black-tailed hare gets maybe one free chance to run across a meadow without looking up. There won't be a second.

The sharper the knife, the cleaner the line of the carving. We can appreciate the elegance of the forces that shape life and the world, that have shaped every line of our bodies—teeth and nails, nipples and eyebrows. We also see that we must try to live without causing unnecessary harm, not just to fellow humans but to all beings. We must try not to be stingy, or to exploit others. There will be enough pain in the world as it is.

Such are the lessons of the wild. The school where these lessons can be truly learned, the realms of caribou and elk, elephant and rhinoceros, orca and walrus, are shrinking day by day. Creatures that have traveled with us through the ages are now apparently doomed, as their habitat—and the old habitat of humans—falls before the slow-motion explosion of expanding world economies. If the lad or lass is among us who knows where the secret heart of this monster is hidden, let them please tell us where to shoot the arrow that will slow it down. And if the secret heart stays secret and our work is made no easier, I for one will keep working for wilderness day by day, on every level, with every tool available, whether there is hope or not, and count it a great climb.

◆ The lessons we learn from the wild become the etiquette of freedom. We can enjoy our humanity with its flashy brains and sexual buzz, its social cravings and stubborn tantrums, and take ourselves as no more and no less than another being in the Big Watershed. We can accept each other all as barefoot equals sleeping on the same ground. We can give up hoping to be eternal, and quit fighting dirt. We can chase off mosquitoes and fence out varmints without hating them. No expectations, alert and sufficient, grateful and careful, generous and direct. A calm and clarity attends us in the moment that we are wiping the grease off our hands between tasks and glancing up at passing clouds. Another joy is finally sitting down to have coffee with a friend. The wild requires that we learn the terrain, nod to all the plants and birds and other animals, ford the streams and cross the ridges, and tell a good story when we get back home.

And when the children are safe in bed, at one of the great holidays like New Year's or Halloween, we can bring out some spirits and turn on the music, and the men and women who are still among the living can get loose and really wild. So that's the final meaning of "wild"—the esoteric meaning, the deepest and most scary. Please do not repeat this to the uninitiated. ◆

Gary Snyder *is a Pulitzer Prize–winning poet and writer living in the foothills of the Sierra Nevada.*

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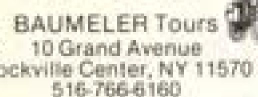

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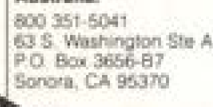

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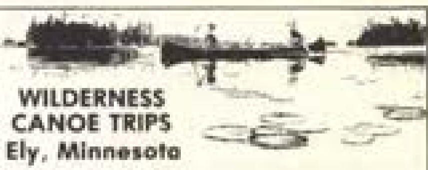

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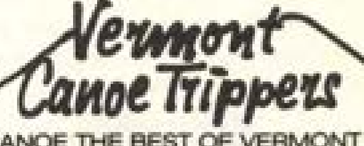

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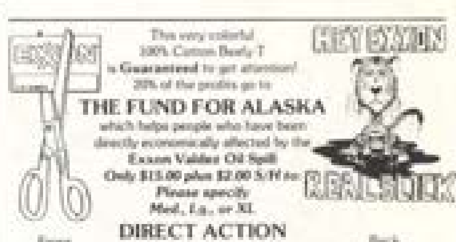

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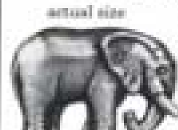

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