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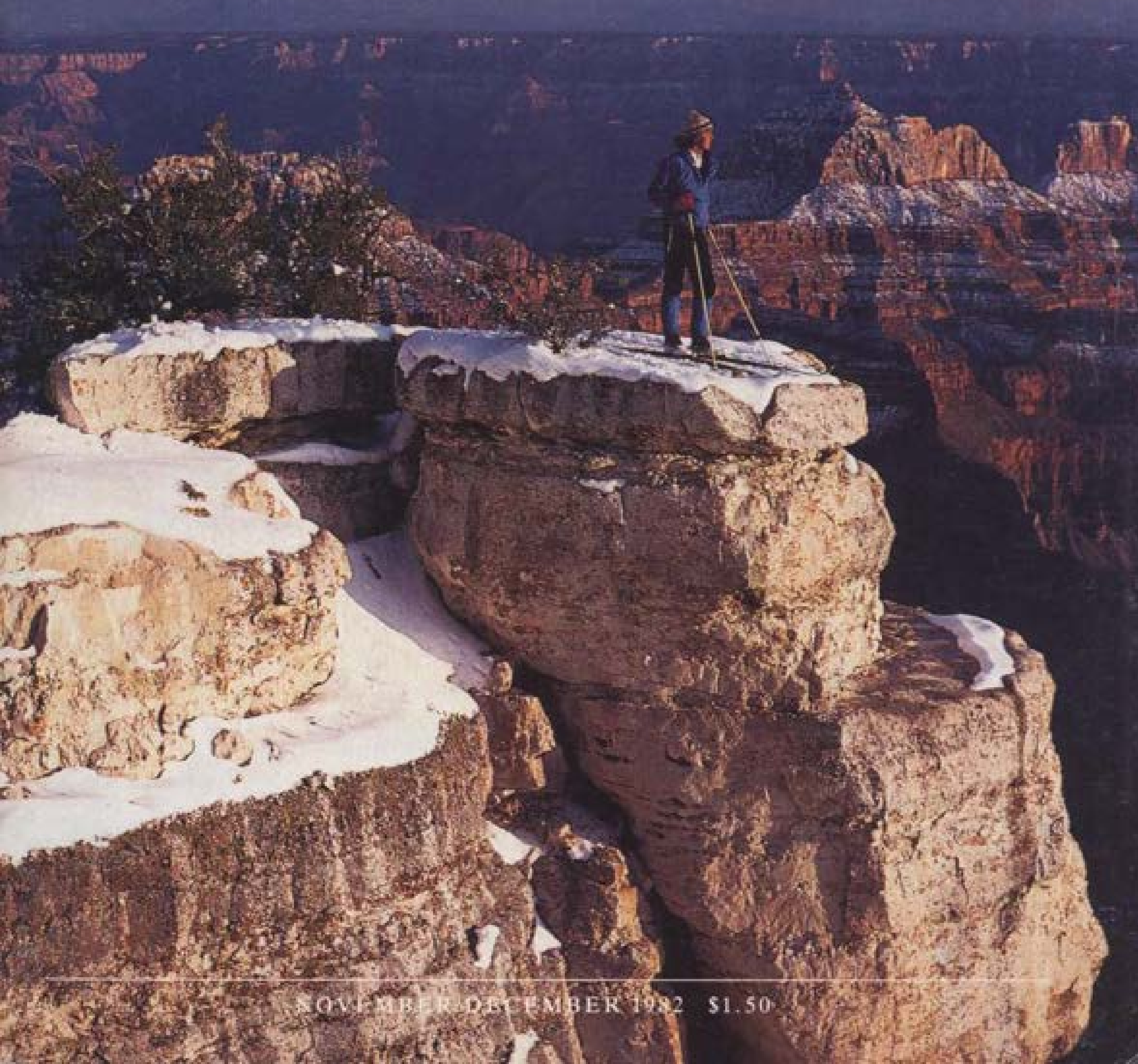

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THE SIERRA CLUB BULLETIN NOVEMBER/DECEMBER 1982 VOLUME 67/NUMBER 6

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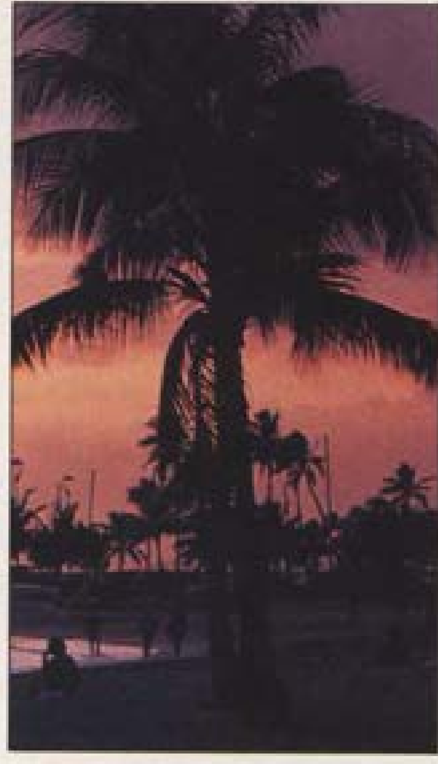

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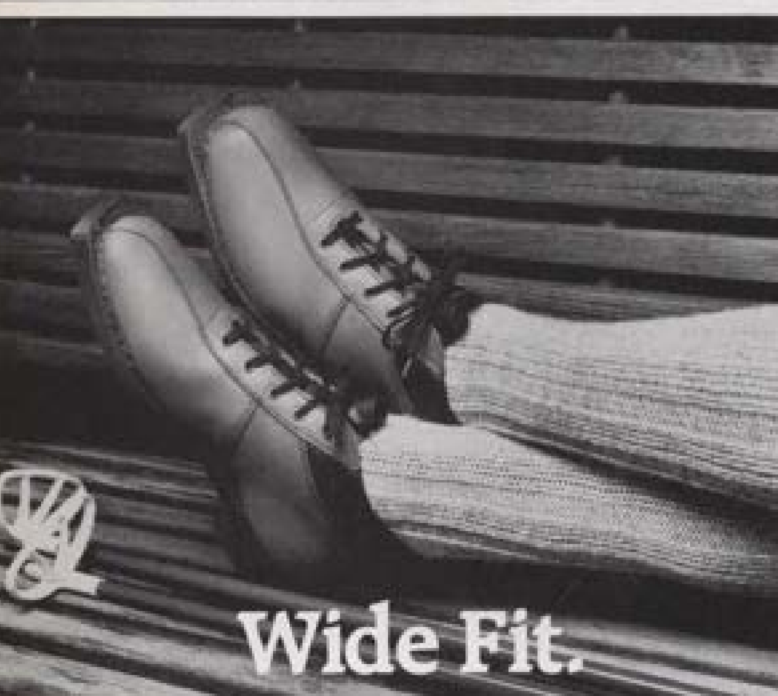

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MORE ON BIGHORNS

Your article "Bringing Back the Bighorns" by Eric Hoffman (July/August) focused attention on the difficulties of reintroducing California bighorn sheep into historic native ranges from which they were extirpated. Indeed the process of acclimation to new escape terrain, sources of food and migration corridors, and the habits of unfamiliar predators is a major challenge to relocated bighorn sheep. Moreover, the dangers of allowing domestic sheep-grazing in bighorn ranges, an option now being explored by federal agencies in several states, were pointed out. Unfortunately, the article contained distortions concerning management problems and options.

The history of the Warner Mountains release was badly confused. The ten bighorn transplanted from the Sierra Nevada joined the four bighorn from the Lava Beds National Monument already in the Warners, not the reverse. Although six died during capture attempts at the Lava Beds, the poaching incident occurred almost four years previously. More important, all of the 32 bighorn sheep remaining at the Lava Beds died of pneumonia, apparently contracted from domestic sheep in the summer of 1980.

No documented or rumored kill or harassment of a bighorn by a deer hunter has been reported in the Sierra and no real evidence exists to suggest bighorn are afraid to descend to feed.

There is also no evidence to indicate that colored collars attract mountain lions. Members of the family *Felidae* have very limited ability to distinguish color. Mountain lions have killed many reintroduced bighorn with or without collars. To date California has not engaged in mountain lion extermination in areas proposed for bighorn sheep relocation as has occurred in other states.

The Mount Langley transplant site was supplemented with fifteen bighorn, and four additional bighorn were released at Pine Creek in April 1982. Surely the author didn't mean to paint a darker picture than necessary in this otherwise fine and important article. At this time all three transplants of bighorn sheep from the Sierra Nevada to Mount Langley, Pine Creek and the Warner Mountains appear to have good prospects of success.

I do not dispute that capture and relocation of bighorn sheep is difficult and hazardous for man and animal. It is vitally important work that suffers from inadequate funding and lack of manpower. A bill currently being prepared by California Department of Fish and Game for consideration by the California legislature would provide funding for bighorn sheep research and inventory and transplants of bighorn within once native ranges.

David A. Jessup, DVM
Staff Wildlife Pathologist
California Department of Fish and Game

CARMEL OFFICE HOURS

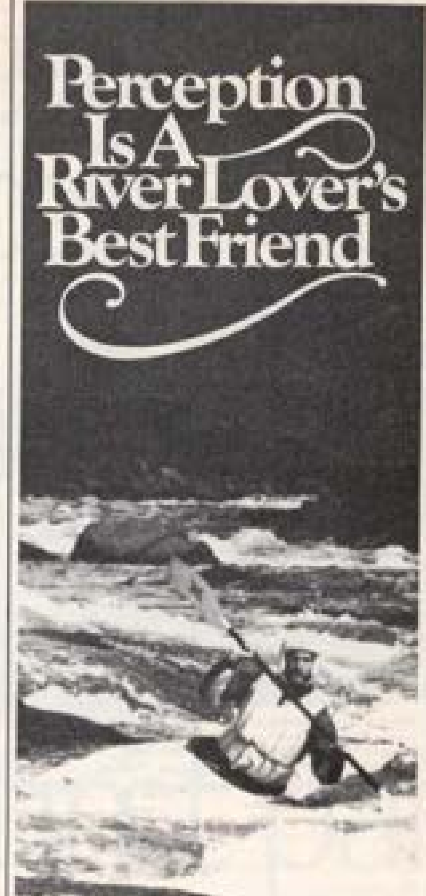
We appreciate the brief mention, in Robert Irwin's article on Club Phone Banks, of Ventana Chapter's office, the "Environmental Center," in Carmel. However, we are open afternoons Tuesday through Saturday, not Friday. In fact, Saturdays are our busiest days; many tourist visitors drop in to say hello. In a tourist-oriented town like Carmel, we feel one of our principal functions is to inform the public about the Sierra Club and to create interest and good will.

Hulda Bonestell
Coordinator of Volunteers
Ventana Chapter Environmental Center
Carmel, California

A QUESTION ON MARKETS

I was pleased to see "Mining the Urban Ore" in *Sierra*'s May/June issue. Author Knapp gives a good description of the present status of waste management and recycling. As he points out, recycling is still very much alive in many communities, though it has taken dfferent forms since its first boom in the early 1970s.

In a study of city-wide recycling programs in New York state, I found the biggest obstacle facing recycling programs is a lack of citizen involvement and interest. The major problem is finding companies to buy the recycled materials at a reasonable price. The difficulty of obtaining good, steady prices at the local level is a reflection of the status of recyclables in the national marketplace, where virgin materials are favored over secondary (recycled) materials in most U.S. industries. Local activists must not only persuade local officials to adopt recycling programs, but also convince state and federal legislators that new policies are needed



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VOLUNTEER TRAINING WORKSHOP

I attended the Washington workshop on lobbying for volunteers last spring and would like to tell all chapters and groups to make it a priority to send at least one member each session to this superior training in lobbying and legislative matters. We were busy every minute from Monday morning to Friday night visiting legislators' offices and agency staff. Legislators' aides constantly encouraged us and the environmental community generally to provide information to them and to write letters. Senator Hollings' aides told us, "We need you to feed information to us, for we cannot possibly know everything. It is your expertise we are asking for."

Most impressive of all was our Washington staff. They command respect on "the Hill," and it is amazing that such a small staff gets so much done in the name of the Sierra Club. A highlight was our talk by telephone hookup with then-president Joe Fontaine.

Thanks to the Rochester Group and the Atlantic Chapter for sponsoring my trip!

Beatrice Andersen
Rochester Regional Group
Sierra Club

ROBSON BIGHT

In my article on Robson Bight (September/October) an erroneous statement was made in regard to the comparative environmental conditions of the killer whale core areas in southern Haro Strait and at Robson Bight. The point is that conditions are far more pristine at Robson Bight than off southwest San Juan Island in Haro Strait, not the other way around as stated in the article.

George Wood
Victoria, B.C.

CORRECTION

BOWL OF NIGHT—
CATALOGUE CLERICAL ERROR

On page 9 of the Sierra Club catalogue, the copy incorrectly states that the Bowl of Night, #9460, was "created by Carl Sagan." We apologize for the error. The following three gentlemen were the creators: H. A. Rey conceived and designed the Bowl of Night. George Lovi plotted star positions and magnitudes; he also plotted the date and time rings. Norman Sperling coordinated the project, designed several of the bowl's features and wrote the usage manual.

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CONGRESS GOES HOME; LAME-DUCK SESSION SCHEDULED

On October 2nd at 2 a.m., Congress completed the last frantic days of its regular session, and its members went home to run for reelection, or to make other career plans. Retiring, reelected or defeated, they will all return for a month-long "lame-duck" session in late November.

In its final flurry of activity, Congress sent to the President for approval a number of environmental measures, including:

- A "Continuing Resolution" to fund federal government operations until December 17, necessary because Congress has only enacted one of the thirteen regular appropriations bills. Two important amendments were attached to the resolution. One, championed by Representative Sidney Yates (D-IL) and Senator Henry Jackson (D-WA), will keep Interior Secretary James Watt from moving ahead with oil and gas leases in wilderness areas or in certain categories of proposed wilderness. A second amendment, sponsored by senators Dale Bumpers (D-AR) and James McClure (R-ID), is designed to slow down the administration's plans to sell off federal lands (see page 32). Both provisions will expire with the continuing resolution in mid-December. They will have to be reenacted during the lame-duck session as part of the Interior Appropriations bill for 1983, in a new continuing resolution or in separate bills.
- A single appropriations bill for the Environmental Protection Agency. Unfortunately, it fails to increase the funding for EPA, a goal sought by environmental groups.
- Reauthorization of the Endangered Species Act in strong form for three years, a major victory for wildlife conservationists.
- Legislation curtailing federal subsidies for development of many unspoiled barrier islands along the Atlantic and Gulf coasts, a significant accomplishment for conservation of America's coasts.

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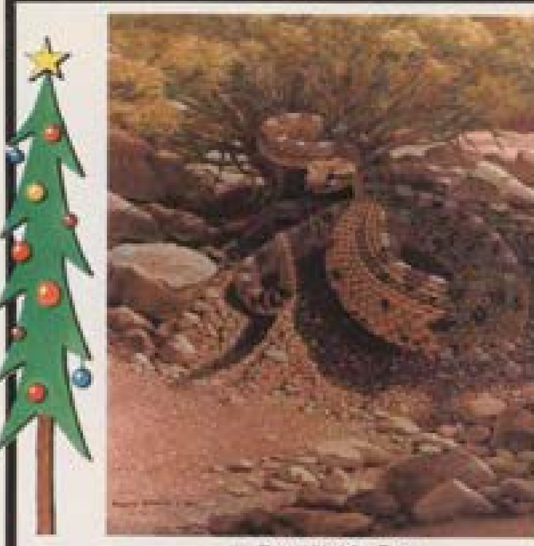
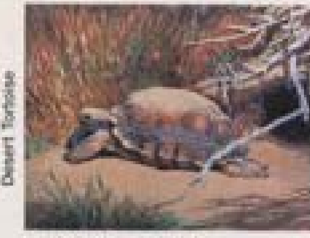
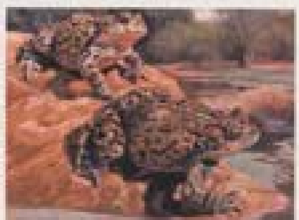


☐ Formidable Foe



☐ Basking Tortoise



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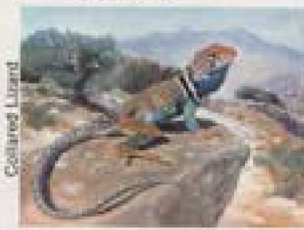

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PENDING CONGRESSIONAL LEGISLATION

Though some important environmental legislation was enacted, most issues of great concern to the Sierra Club were left unresolved. Many of these may be considerd during the lame-duck session; they include the following:

• The House passed the Wilderness Protecton Act, prohibiting oil and gas leasing in wilderness and proposed wilderness areas. It is similar to the Yates-Jackson amendment to the Continuing Resolution.

• The House passed a Parks Protection Act to help deal with the many threats to national parks posed by development outside their boundaries.

• The House passed bills designating new wilderness areas in national forests located in California, Florida, West Virginia and Alabama. The Senate has passed bills designating new wilderness areas in Missouri and Indiana.

• Neither the House nor the Senate has acted on amendments to the Clean Air Act, so the existing, strong Clean Air Act remains in force.

• The Senate has passed dangerous "regulatory reform" legislation that would hand still greater powers to the administration to weaken environmental regulations. It is an open question whether the House Democratic leadership will acquiesce to this legislation during the lame-duck session.

• The Senate passed legislation that would establish an overly speedy process for deciding where to dispose of nuclear wastes and would provide new federal subsidies to the nuclear industry. The House was in the process of considering a similar bill when it adjourned. Environmentalists hope the bill can be improved with floor amendments during the lame-duck session.

• Finally, environmentalists hope that both the House and the Senate will vote on continuing the two biggest pork-barrel projects in history—the Tennessee-Tombigbee Waterway and the Clinch River Breeder Reactor—when the Energy & Water Development Appropriations Bill is considered. The Senate recently rejected by a single vote a motion to terminate the Clinch River Breeder project.

What You Can Do

Sierra readers can help influence the outcome of important environmental issues during the lame-duck session. You can write

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or call your representative and your two senators concerning legislation. The addresses are: House Office Building, Washington, DC 20515; Senate Office Building, Washington, DC 20510. The phone (for both houses) is: (202) 224-3121.

Ask your representative to:

(1) Vote to improve the nuclear waste legislation by supporting amendments offered by representatives Udall, Swift and Lundine;
(2) Vote for the Senate-passed bills to establish wilderness areas in Missouri and Indiana;
(3) Vote to cut off funding for the Clinch River Breeder Reactor and the Tennessee-Tombigbee Waterway;
(4) Vote against "regulatory reform" legislation that will enable the administration to further weaken sound regulations;
(5) Vote for a strong Clean Air Act, following the example of Representative Henry Waxman.

Senators should be urged to:

(1) Vote for the Wilderness Protection Act (or similar provisions incorporated in the Interior Appropriations Bill);
(2) Vote for the Parks Protection Act;
(3) Vote against continued funding for the Tennessee-Tombigbee Waterway and the Clinch River Breeder Reactor;
(4) Vote for the various state wilderness packages passed by the House;
(5) Vote for the Senate Environment Committee's Clean Air Act bill without weakening amendments.

To keep abreast of current develoments, call the Sierra Club Washington office wrap-up hotline (202) 547-5550 for a recorded summary of recent congressional action.

RECENT CONTRIBUTIONS

The Sierra Club Foundation recently received a $25,000 contribution from the Beldon Fund and $5000 from the Harder Foundation to produce a series of Natural Heritage reports as part of an environmental policy analysis program conducted by the Sierra Club. The Atlantic Richfield Foundation has contributed $10,000 for the 1982 Service Trips program to restore park areas and trails after a season of public use.

NATURAL HERITAGE REPORTS

The Sierra Club has released five reports analyzing the impact of specific Reagan administration policies on the American environment. The studies, issued as a series of Natural Heritage Reports, each 15-25 pages long, are:

No. 1. *The Great Giveaway: Public Oil,*

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No. 4. *Poisons on the Job: The Reagan Administration and American Workers.* An analysis of Reagan administration actions—and inactions—affecting occupational health and safety; these will result in the continued exposure of millions of American workers to carcinogens and other dangerous substances. The report identifies the industries and parts of the country that will be affected most seriously.

No. 5. *Poisons in the Water: The Reagan Administration and Toxic Dump Cleanup.* A comparison of Congress's intentions when it enacted the Superfund bill in 1980 to cleanup abandoned hazardous waste dump sites, and actions taken by the Reagan administration. Many Americans risk exposure to toxic materials leaching out of dump sites into their drinking water because of the slow pace of the cleanup.

The reports are available for $3.00 each (handling and postage included, California orders add sales tax), from Information Services, Sierra Club, 530 Bush Street, San Francisco, CA 94108.

SETTLEMENT IN CAPITAN MOUNTAINS SUIT

A settlement has been announced in a Sierra Club lawsuit over the administration's issuance of oil and gas leases within New Mexico's Capitan Mountains Wilderness. The leases were issued by the Bureau of Land Management at the recommendation of the Forest Service, which manages the area, without public notice or environmental analysis.

Under the terms of the settlement, the two lease holders have agreed to relinquish the portions of their leases within the wilderness area, and the federal government has gone along with the arrangement. "We are delighted with the settlement," says Michael Sherwood, a staff attorney with the Sierra Club Legal Defense Fund. "I hope the suit has educated the southwestern regional offices of the Forest Service and the BLM, and that they will be more careful in the future." □

At Last– THE IWC BANS WHALING

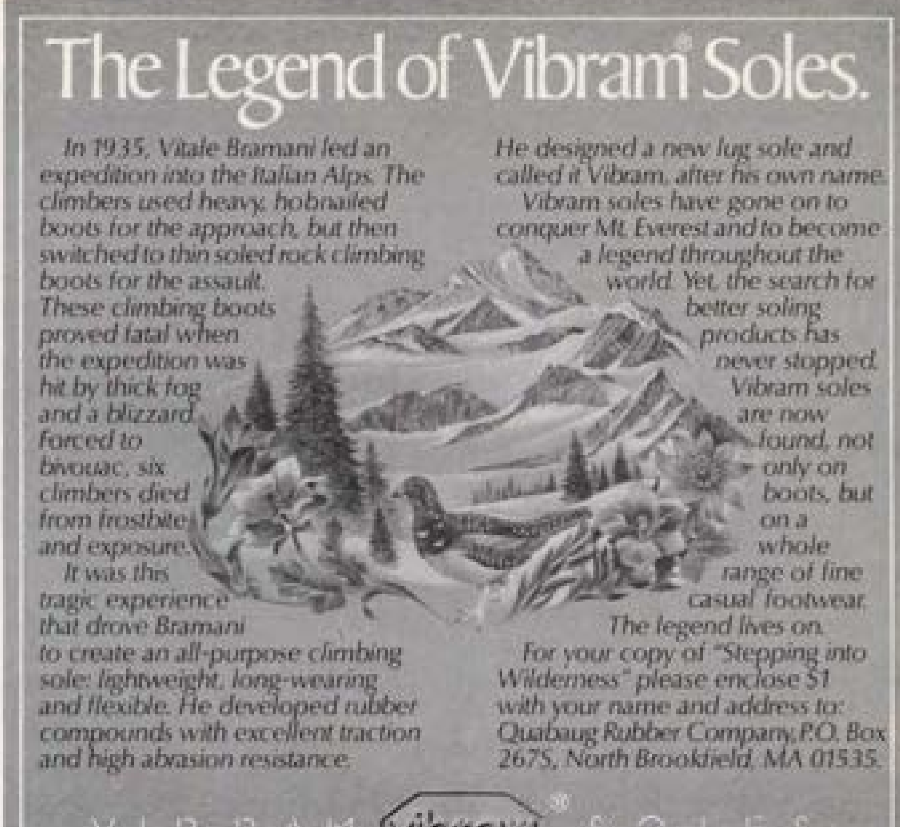
MAXINE McCLOSKEY

THE INTERNATIONAL CONSERVATION COMMUNITY has worked for decades to end commercial whaling. In 1972, the United Nations Conference on the Human Environment held in Stockholm called for a ten-year moratorium "as a matter of urgency," but to no avail. Whaling continued. It is ironic, therefore, that in the same year that the moratorium would have expired, the International Whaling Commission (IWC) voted to halt commercial whaling.

After ten years of unceasing energy expended by a diversity of wildlife and conservation organizations around the world, the goal was achieved last July in Brighton, England. Let's examine the ingredients that brought about success.

Under the rules of the IWC, passage of a measure in plenary session requires the approval of three fourths of the member nations voting. Until 1982, this majority couldn't be mustered. A steady increase in the membership of the IWC made the difference. In 1972, the IWC had 14 member nations, including 8 whaling nations. In 1982, the IWC had 38 members (though in the interim four nations stopped whaling and four new whaling nations joined).

Japan complained that opponents of whaling had packed the IWC, that many of the new members had no history of or interest in whaling. Moreover, some new member nations, such as Caribbean states, had tiny populations, yet their votes counted as much as those of the largest countries.



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Dr. Lyall Watson being congratulated by Maxine McCloskey for his introduction of the successful moratorium measure.

The commissioner from the Seychelles, Dr. J. D. M. Ferrari, and his advisers, Dr. Lyall Watson, Dr. Sidney Holt and Cornelia Durrant, prepared the historic resolution—a "Schedule Amendment"—with two thoughts in mind. First, some whaling nations would face economic problems if they ceased whaling abruptly. Second, whalers could respond negatively to a vote to halt whaling by filing objections or, even worse, by withdrawing from the IWC. In either case, they would not be required to stop whaling and the IWC (as well as many whales) might be destroyed in the process.

To minimize economic hardships, the proposal to halt whaling provided for a three-year phaseout; zero quotas would finally be in effect in 1986. The delay would allow the affected nations to dispose of equipment, reassign and retrain personnel.

The amendment also states, "This provision will be kept under review, based upon the best scientific advice, and by 1990, at the latest, the commission will undertake a comprehensive assessment of the effects of this decision on whale stocks and consider modification of this provision and the establishment of other catch limits." Thus, the zero quotas are subject to revision in the future, and the whalers are encouraged to remain members of the IWC in hopes, presumably, that commercial whaling might resume in 1991.

This package was adopted by a vote of 25 in favor, 7 against and 5 abstentions. One member, Jamaica, did not attend. Some of the delegates paid a sort of tribute to the unflagging efforts of conservationists by at-

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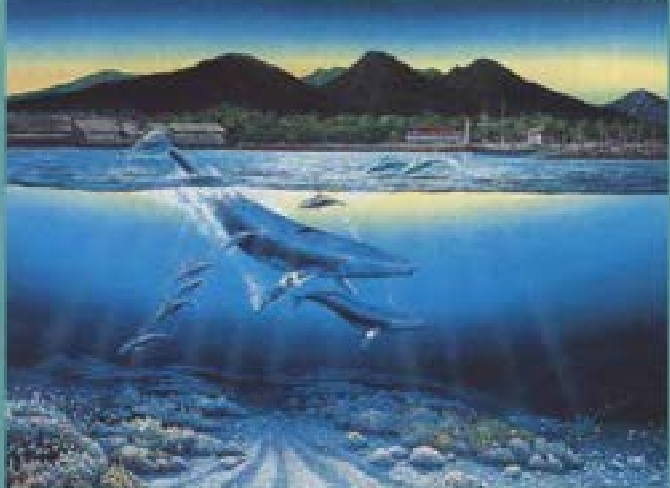

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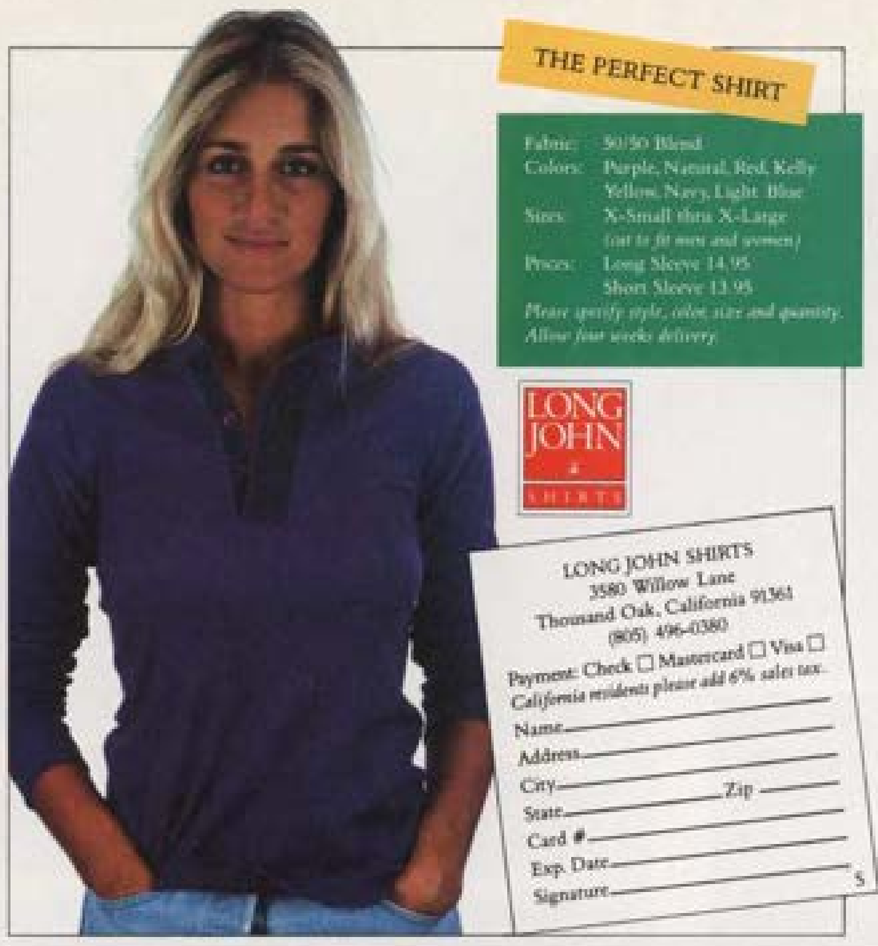

Trunks of maple and birch, New Hampshire, October 1956. Eliot Porter

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tributing their support of the measure to the overwhelming worldwide sentiment that whaling should stop.

The 90-day period during which objections could be filed ended November 4. Some whalers probably will object to the phasedown moratorium in order to keep their options open. These objections will not trigger imposition of US sanctions against countries that violate IWC rules unless they actually continue when the zero quotas are in effect. The sanctions are the Pelly Amendment, which allows the President to curtail imports of fishery products, and the Packwood-Magnuson Act, which cuts by 50% the fishery allocations within the U.S.'s 200-mile zone. The United States is pledged to use both sanctions; both could hurt Japan severely. The three-year interim period gives conservationists further opportunity to convince Japan, USSR, the Republic of Korea, Peru, Norway and Iceland that they should abide by this international agreement. Brazil has already announced its intention to eliminate commercial whaling and has allocated funds to seek alternatives. Spain astonished everyone by voting in favor of the phasedown moratorium.

Jubilation by conservationists after the moratorium passed was followed by grim reality the next and last day, when catch quotas for 1983 were decided. In all a 12% reduction in quotas was adopted, leaving a total of 12,566 whales that could be killed commercially or in subsistence whaling by aboriginals. Deep concern was expressed for the welfare of Peruvian Bryde's whales, Spanish fin whales and Japanese sperm whales. But the temporary end of whaling is in sight.

Maxine McCloskey, executive director of the Whale Center in Oakland, California, was a member of the U.S. delegation to the International Whaling Commission.

COMMUNITY ENERGY—A Tale of Four Cities

SKIP LAITNER

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to support these important projects. In fact, the Solar Lobby reported that the federal budget for fiscal 1982 provided more money for military bands than for all conservation and solar programs combined. If a solar economy is to emerge, it's clear that state and local programs will have to provide the necessary resources.

This point was demonstrated in a July 1982 analysis undertaken jointly by the Sierra Club and the Community Action Research Group (CARG), a nonprofit consulting firm based in Iowa. Surveying a five-county area served by the Mid-Iowa Community Action Agency (MICA), headquartered in Marshalltown, Iowa, the Sierra Club/CARG study found that without an aggressive energy-management effort, the annual energy bill for central Iowa residents would jump 60% by 1990, as measured in 1980 dollars. Because of the way energy prices affect the economy, the higher energy costs would lower local productivity by $215 million compared to the 1980 level, a per capita loss to residents of more than $1200.

According to Jim Lierow, MICA's energy information officer, "What this study shows is that many of the dollars now spent on community-based goods and services will be leaving the community to pay for energy. Like the nineteenth-century towns that died when the railroads passed them by, communities that let new energy opportunities pass will also die."

The Sierra Club/CARG analysis does not stand alone. A review completed for the District of Columbia by the Institute for Local Self Reliance estimated that for every $1 million in energy costs "conserved," $2.4 million is generated in local economic activity that, in turn, creates new jobs and tax revenues.

By 1990, the D.C. study determined, the city's energy consumption could be cut through conservation efforts to 66% of the 1977 level. Estimates for smaller communities fall in the same range: a Hampshire College report for Northampton, Massachusetts (population, 30,000), found that improved end-use efficiency could reduce demand by 30% from its 1977 level.

The potential for managing energy use doesn't end with conservation. The D.C. report also found that by 1990, one third to one half of the city's energy needs not met by conservation measures could be supplied from renewable-resource technologies, primarily direct solar-heating and resource-recovery systems. The Northampton study determined that the town, located in a largely rural setting, could, drawing on a diversity of renewable resources, meet all its energy needs.

There are a variety of strategies that local governments can use to promote develop-

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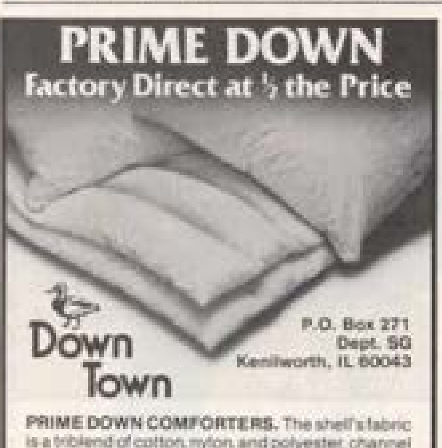

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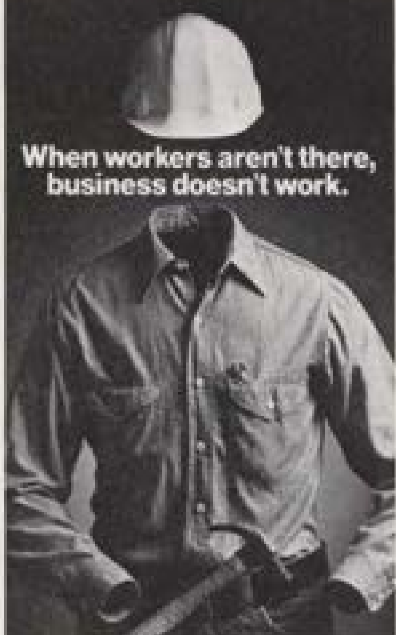

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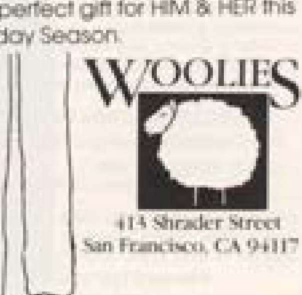

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ment of alternative energy: municipal financing of conservation measures, creation of energy cooperatives and improved building codes and land-use plans. The missing element is the willingness of citizens to support such strategies within their communities.

The Sierra Club Community Energy Project is designed to bring together diverse groups of citizens within individual communities to assess current and future energy needs, and to formulate plans that emphasize conservation and renewable-energy sources to meet those needs. The staff of the project has developed a decision-oriented forum called an "energy charette," a weekend-long meeting where community leaders, conservationists, energy-policy decision makers and others can work to reach a consensus on the most effective way to promote energy-management strategies. The charette enables the group to focus on the community's unique problems and local resources. (The term "charette" originated with French architects and refers to the compressed time period within which they devised their plans to complete a particular project.)

Initially funded through a grant from the Cudahy Foundation, the Community Energy Project recently selected four communities for energy charettes this autumn. They are: Claremore, Oklahoma; Missoula, Montana; Iowa City, Iowa; and Hanover, New Hampshire. These cities were chosen because they represent different kinds of energy problems and resources, are diverse in geography and local income, and have Club volunteers who are enthusiastic about the possibilities for successfully promoting local energy-saving strategies.

Each charette is organized along similar lines. Most need two to three months of early planning. The process begins with the establishment of a five- to eight-person volunteer steering committee consisting of several Sierra Club members and representatives from such entities as a labor group, local government, the chamber of commerce, other civic organizations and the local utility.

The first meeting of the steering committee outlines the main goal of the charette: to develop specific plans to reduce local energy costs. The various tasks of the committee are set out: promotion, selecting and inviting participants, preparing a budget, and so on.

The committee doesn't start from scratch; before each charette begins, the Community Energy Project's staff has prepared basic information on each community's energy consumption patterns and on feasible conservation strategies and methods for financing them.

The charette itself begins on a Friday

evening and ends on a Sunday night (so a maximum number of community leaders will be able to attend). The charette involves intensive discussion, a presentation by energy experts, audio-visual presentations on energy conservation techniques, and energy exhibits.

The initial series of charettes, each involving 35 to 40 community leaders, will be completed by late fall. If these pilot projects are as successful as Club leaders predict, the Community Energy Project hopes to expand the number of cities involved and the range of energy-planning services available.

Skip Laitner is the director of the Sierra Club's Community Energy Project.

Common Sense on OFFSHORE OIL

GENE COAN

IN JULY, Interior Secretary James Watt unveiled the Reagan administration's five-year offshore oil and gas leasing plan—and a massive plan it is, involving some one billion acres, or 200 million acres a year. This is in sharp contrast to the 20 million acres that have been leased since the program began in 1954.

Environmentalists and several coastal states as well maintain that the plan would lease too much land too fast, is irrational from several points of view, and is just plain illegal as well. The Sierra Club, seven other environmental groups and the states of California and Alaska have gone to court to stop this plan.

The Outer Continental Shelf Lands Act was amended in 1978, in part to promote the exploitation of offshore oil and gas resources

Offshore oil rigs in the distance at Huntington Beach, California.

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"in a manner which is consistent with the need to balance orderly development with protection of the human, marine, and coastal environments" and to "insure the public a fair and equitable return." The revised act set up a scheduling procedure to be followed by the Secretary of the Interior, and it outlined general principles, including the need to "obtain a proper balance between the potential for environmental damage, the potential for the discovery of oil and gas, and the potential for adverse impact on the coastal zone."

The leasing process is designed to extract from oil companies and government geologists an idea of where the richest, most promising deposits might be found. It would solicit from coastal states and local governments information about specific areas where the program should limit exploitation. It would seek comment from public-interest organizations and from the public at large. It would provide for adequate environmental studies. Finally, the process would culminate in sales of the most promising, least vulnerable areas first, and the leasing would take place at a pace that brings the maximum return to the federal treasury.

The Watt proposal, together with other changes the administration has made or proposes to make in the OCS program, would make a shambles of this deliberate process.

STEVE GREENBERG, DAILY NEWS, LOS ANGELES

Environmentalists maintain that not only is it illegal under the Outer Continental Shelf Lands Act, but it also doesn't make sense from any but a narrow ideological point of view.

It doesn't make economic sense. Offering too much too fast simply pushes down the bids, decreasing federal revenues. The Interior Department has had to lower the royalty rate from $16\frac{2}{3}\%$ to $12\frac{1}{2}\%$ in order to encourage bids, and the administration has scaled back its revenue expectations from offshore leasing, further increasing the federal deficit. Moreover, states in financial

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stress are pressing Congress to approve the sharing of federal OCS revenues.

It doesn't make energy sense. There are long lead times before oil begins to flow from new offshore leases. Quick independence from Middle Eastern oil sources isn't possible, and of course in the long run a faster program means using up domestic resources more quickly, speeding the day of still greater dependence on foreign sources.

It doesn't make environmental sense. A rapid leasing program precludes proper environmental studies. Balancing areas with high oil potential against areas of greatest environmental risk cannot be done.

Perhaps most puzzling of all, it doesn't make political sense. Politically important coastal states are angry about the accelerated program, arguing that it makes a mockery of the Reagan administration's early and fervent promises to increase the states' role in decisions about federal-resource exploitation that affect them. Alaska, California and Massachusetts have already objected to the plan, and leading members of Congress have introduced measures to stop it. Some oil companies have worried out loud that the program will stretch their financial and material resources beyond any reasonable limit. Yet contributions from the oil industry's political action committees continue to flow into political campaigns, despite the greatly accelerated federal OCS leasing program.

Why then is Mr. Watt pursuing this course? Only ideology untarnished by common sense can explain such a policy. In a letter to several protesting members of Congress, Watt wrote, "It is much easier to explain to the American people why we have oil rigs off our coast than it would be to explain to the mothers and fathers of this land why their sons are fighting in the sands of the Middle East as might be required if the policies of our critics were to be pursued." The Interior Secretary, as part of his controversial foreign policy, appears to have contingency plans for his department that go beyond anything even his staunchest critics have imagined.

Environmental groups maintain that the nation needs a deliberately paced program for exploitation of offshore resources. They were convinced that the 1978 OCS Lands Act amendments could have put such a program in place. The present administration seems determined to break every truce, and now in the case of offshore oil, the program is once again in the hands of the federal courts. If the environmentalists prevail, which is likely to happen, the five-year lease program will go back to the drawing board, condemned by the zeal of the Interior Secretary. No one will be richer. Perhaps the next Interior Secretary will be wiser.

COMPOUND 1080—Poison Returns to the Range

MARK PALMER

THINGS WERE HAPPENING in California's Hammil Valley that were deeply troubling. In December 1981, a commercial trapper noted several dead coyotes near his trapline. That's not normal, he told a state game warden. Ranchers began reporting missing dogs. One rancher reported puzzlement—his dogs were dying, showing "symptoms of chewed tongue, and bloody muzzle and nostrils." A woman released her dog for a run. When it returned within the hour, it "was in a condition that required it to be destroyed." Her neighbor shot it for her.

Authorities soon discovered a sheep carcass in the vicinity. Lab analysis detected the

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predator poison 1080 in the tissues of the sheep's leg; injecting sheep carcasses is a favorite technique used to poison coyotes. In all, within an eleven-day period, a total of twelve dogs, six coyotes, three sheep and seven ravens were found dead, victims of 1080 used illegally. "No evidence was discovered which would indicate the identity of the person(s) who used the material," states the report by the California Department of Food and Agriculture. Most of the dead animals were buried or burned to prevent further poisonings.

The nightmare in the Hammil Valley may soon be widely repeated. President Ronald Reagan has begun the process of making Compound 1080 (sodium monofluoroacetate) legal once again in the perpetual range war against the coyote. The President's unperturbed support for poisoning predators flies in the face of the carefully debated 1080 ban adopted during the 1970s.

Compound 1080 was developed during World War II to combat rodents. White and odorless, used as a fine powder or dissolved in water, 1080 came to be preferred as a killer of coyotes because of its peculiar toxicity to canids—coyotes, wolves, foxes and dogs. Considered safer than such virulent poisons as thallium or strychnine, Compound 1080 was soon being injected into sheep carcasses throughout western states. Allied with other "tools" of coyote control—traps, guns, airplanes, cyanide-loaded "coyote getters"—this poison had a reputation among sheep ranchers for effectiveness.

During the 1960s and early 1970s, several landmark reports criticized the use of poisons. Finally, an advisory committee headed by Dr. Stanley Cain of the University of Michigan issued a report that recommended removing "all existing chemicals from registration and use for operational predator control."

Some environmentalists were surprised when President Nixon acted boldly to implement the new recommendations. The President issued Executive Order 11643 banning the use of all toxicants for predator control on federal lands or by federal agencies. Previously, ranchers with grazing leases on Bureau of Land Management or Forest Service lands could call in federal poisoners (sometimes at the encouragement of the poisoners themselves) to "protect" livestock from losses. Subsequently, Nixon's Environmental Protection Agency (EPA), acting on a legal petition brought by the Natural Resources Defense Council, the Sierra Club and other conservation organizations, suspended the registration of 1080 and other poisons under the authority of the federal Insecticide, Fungicide and Rodenticide Act. The howls of the sheep industry can still be heard today. But conservationists

breathed a sigh of relief. The ban on 1080 poison use was upheld by the Ford and Carter administrations.

Ronald Reagan wants to change all this.

On January 27, 1982, the President rescinded Nixon's executive order banning predacide use on public lands and by federal agents "in order to permit effective predator control with environmental safeguards under federal statutory programs." There was no scientific advisory committee, no detailed report or study—and no environmental impact statement.

There was, however, a letter signed by seven conservative western senators (Simpson, Wallop, Baucus, DeConcini, Laxalt, Melcher and Abdnor). It was sent to presidential advisor Edwin Meese on January 4, 1982, urging Reagan to rescind the Nixon ban, suggesting that "the Environmental Protection Agency will not complete the reregistration proceedings on Compound 1080 for a number of months and it would appear that this would be an excellent time to make decisions which could give rise to more criticisms if done at a later date." Reagan's surprise announcement, 23 days later, indeed caught conservation groups off guard.

Environmental Protection Agency Administrator Anne Gorsuch had already instituted procedures, including formal hearings, to reregister 1080 in order to kill coyotes. "There is evidence suggesting the EPA overestimated the environmental hazards of 1080 in 1972," Gorsuch wrote in her arguments justifying the new EPA hearings. Gorsuch continued, "Research suggests that 1080 may metabolize rapidly to a less harmful substance, casting doubt on the conclusion in the 1972 order that the chemical is a primary and secondary poisoning hazard to nontarget species." EPA nonetheless announced that it viewed its own role as that of a "neutral" party, considering arguments from conservation and humane groups that oppose reregistration of 1080, as well as no less an agency than the U.S. Fish and Wildlife Service, which favors a return of 1080.

As chairman of President Nixon's Council on Environmental Quality, Russell E. Train received the recommendations of the Cain Committee. He is now president of the World Wildlife Fund's United States appeal, and his letter to Anne Gorsuch, from one Republican to another, makes interesting reading.

"To my dismay," Train wrote, "I have learned that the EPA is embarking on a plan to consider registration of Compound 1080 for predator control. Compound 1080 is a deadly, nonselective and, thus, ecologically unsound threat to wildlife. . . . I see no benefit to the American people in reopening this costly process in an attempt to reverse a

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decade of evolving public land policy and progress in the field of wildlife management."

The 1080 issue has become more complicated by the techniques advocated by the federal government (dubbed "safe" by proponents) to deliver 1080 directly to predators. One such technique is to attach special collars, filled with a 1080 solution, to a sheep's neck—an attacking coyote will puncture the collar and wind up with a mouthful of poison.

But Carol Cochran is dubious. As wildlife chair for the Sierra Club's Rio Grande Chapter, Cochran has closely followed the experimental use of 1080 collars by 21 ranchers in New Mexico. She notes that only three ranchers have reported punctured collars; no coyotes have been found dead. One rancher was caught removing the 1080 from his collars, presumably for illegal use in bait. The ranchers, Cochran feels, don't particularly like the collars anyway because they are expensive and difficult to use.

"I'm concerned that sheep collars are just a way of getting 1080 in through the back door," she states.

Dr. A. Starker Leopold is uneasy about a U.S. Fish and Wildlife Service proposal to use "single lethal baits." This scheme involves placing tallow balls implanted with coyote-killing 1080 capsules around sheep carcasses. The balls would be placed during the winter, when predators are presumably less particular about their meals. In spring, field agents would return to remove any remaining bait. The single lethal dose balls would be concealed from such predatory birds as eagles and hawks and would be relatively safe for nontarget species of mammals more tolerant to 1080.

Dr. Leopold has doubts that the service can keep track of the baits through winter. What if, for example, a bear emerging from its winter sleep beats the field agents to a poisoned bait? Bruce Hamilton, the Sierra Club's Northern Plains representative, also points out that many endangered and rare species including foxes and wolves are also canids particularly susceptible, like the coyote, to 1080.

"This notice that 1080 only kills coyotes is just not true," Mark Gordon insists. Gordon, chair of the Sierra Club's Wyoming Chapter, is a rancher himself. "People aren't as careful as they should be."

Oddly enough, there is little evidence that 1080 is needed to control predators. Leopold cites studies done by the U.S. Fish and Wildlife Service at special stations scented to attract coyotes. These stations, located throughout western states, provide an index to the density of coyote populations nationwide. From 1972, when the ban on 1080 and other poisons came into effect, until 1982,

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coyote population densities remained remarkably stable—presumably coyotes have not increased in numbers. The sheep industry insists that damage to livestock may have increased, but no solid figures are available to prove this.

"I think 1080, if you could figure out how to deliver it to the coyotes doing the damage alone, and not kill other coyotes or other nontarget species, could be a good tool for predator control," Dr. Leopold concludes. "But that doesn't mean I'm in favor of 1080. I'm not enthusiastic about its use because of the experience that we've had in the past."

Mark Gordon voices the widely held opinion that "eradicating the coyote isn't going to solve the sheep industry's problems anyway." Russell Train, too, cites a 1981 report by the Senate Committee on Agriculture, Nutrition and Forestry documenting the sheep industry's vulnerability to rising costs of feed, fuel and power, veterinarians, medicines, trucking, shearing and marketing; losses of sheep to predators weren't even mentioned. Train concludes, "The major economic problems are not solvable through predator control."

According to Brant Calkin, the Sierra Club's Southwest representative, many government subsidies already aid the sheep industry—range improvement operations, leasing of public lands at rates below market value, construction of such structures as cattle guards, import quotas and price supports, etc.

Proper use of such a dangerous poison as 1080 may not be possible in an imperfect world. Publicly debated procedures led one administration to ban this predacide—a ban upheld ever since. Adequate assessments of the damage 1080 can do to the ecosystem simply do not exist. But President Reagan is ignoring these concerns and, in so doing, is ignoring the past mistakes and reversing the progress of his predecessors in dealing with the use of poisons for predator control. The legacy of President Ronald Reagan may well be biologically irreversible.

What You Can Do: Please communicate to your representative and senators in Washington your strong objection to the re-registration of Compound 1080 for predator control, and urge them to relay this message to President Reagan and EPA Administrator Anne Gorsuch. Remind them that effective and safer alternatives exist.

Please send copies of your letters and any replies you receive to: Wildlife Campaign Desk, Sierra Club, 530 Bush St., San Francisco, CA 94108. ☐

Mark Palmer is on the executive committee of the Sierra Club's Northern California Regional Conservation Committee. He has worked on wilderness and wildlife issues for the Club since 1975.

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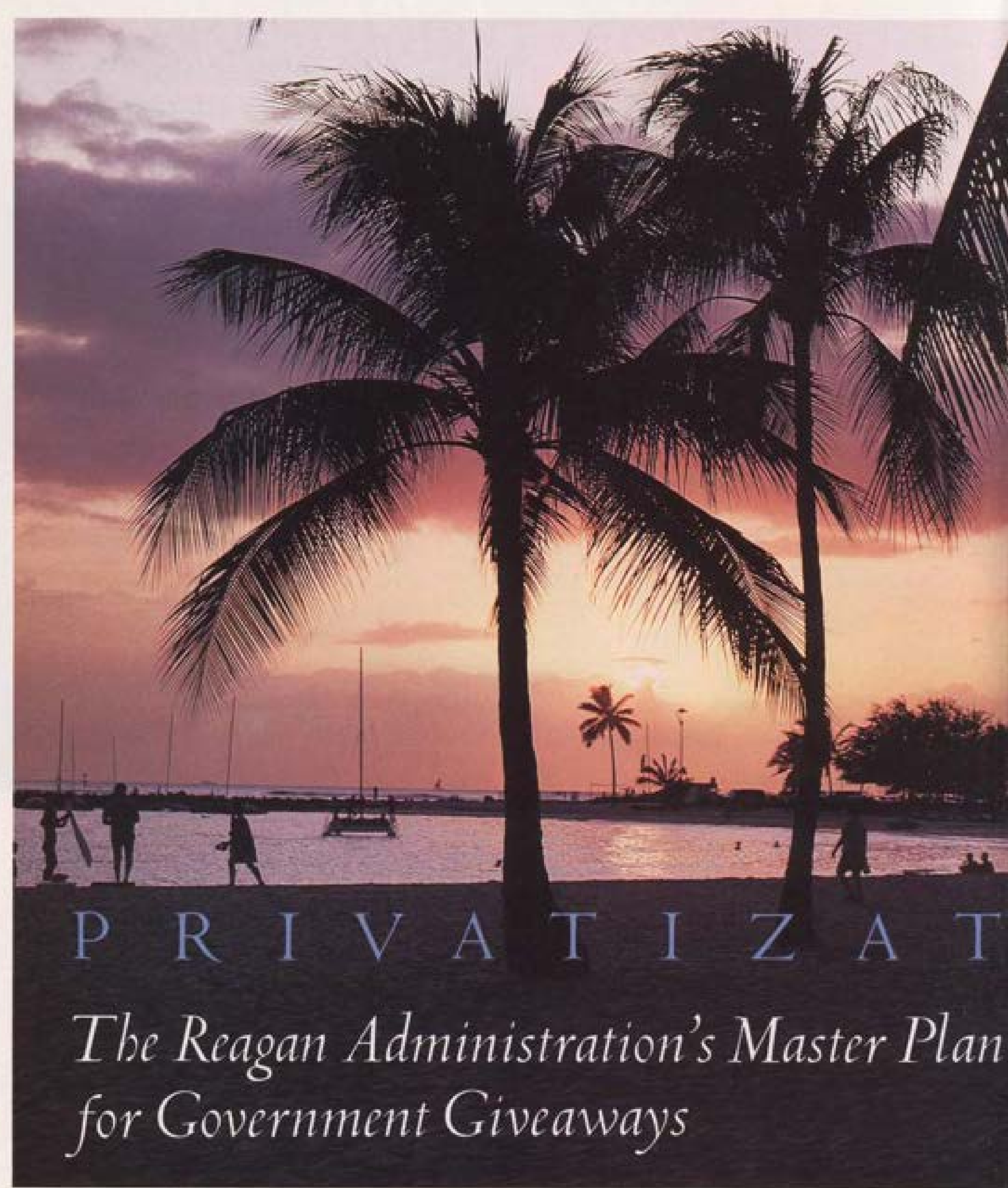

PRIVATIZAT

The Reagan Administration's Master Plan for Government Giveaways

CARMONA PHOTOGRAPHY

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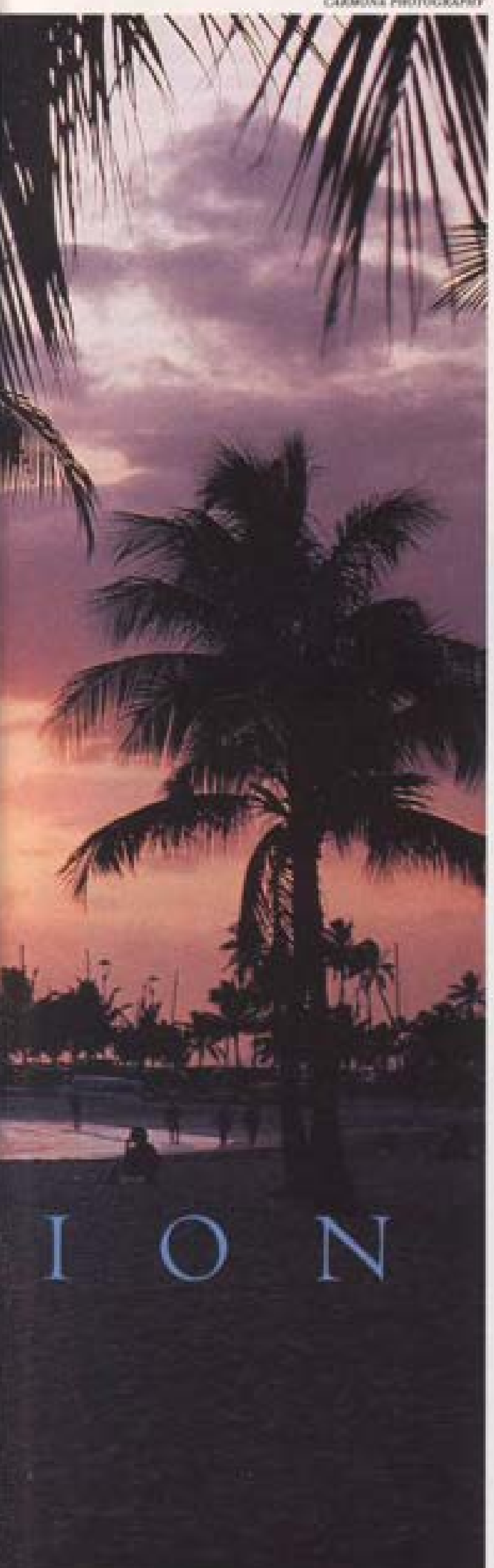

JOHN HOOPER

SINCE THE BEGINNING of the Reagan administration, environmentalists have objected to appointment after appointment, and policy after policy. In recent months, however, many of the specific proposals and attitudes environmentalists protested have coalesced into one general and pervasive threat. It's called "privatization" and it sounds innocent and simple: the government sells off "excess" federal property and uses the proceeds to balance the budget. An important variation on the theme calls for long-term leasing of energy and mineral resources to private corporations at minute fractions of their true value. Environmental economists have estimated that the Reagan administration's proposed oil and gas leasing policy will end up costing the taxpayers $97 billion, an amount equivalent to virtually the entire budget deficit for fiscal 1983. Both privatization and giveaway leases transfer publicly owned wealth to a few large companies.

Two of the most controversial candidates for privatization. Left: Fort DeRussy, the last open space on Honolulu's Waikiki. Above: California's Point Sur Light Station perches on the massive rock in the foreground.

"Privatization" takes the Sagebrush Rebellion banner under which Ronald Reagan rode into office, and carries it one step further. Rather than simply transferring the management of federally administered lands to the western states in which they are located, as the Sagebrush Rebels had originally advocated, privatization would skip that intermediate step and sell public lands outright to private interests or give away natural resources through long-term leases.

The ostensible purpose of the program is to reduce the national debt; as James Watt says, "What better way to raise some of the revenues that we so badly need than by selling some of the land and buildings that we don't need?" Another administration spokesman told *Time*, "It is the best way we can think of to relieve the debt because it doesn't hurt anyone. It doesn't raise taxes. It doesn't cut anyone's budget. It just raises money."

The five-year program would involve the sale of roughly 5% of all federally owned lands, a total of some 35 million acres, an area the size of Iowa. These sales would bring in a total of $17 billion over five years. In terms of the national debt, this is an insignificant figure. Year by year, the revenues would reduce the debt by about .003%.

The administration also believes that "surplus" federal land could become more economically productive—more profitable

—in private hands. In announcing the land-sale program, Watt explained, "A sheep pasture will become an industrial site, desert lands will be used for hotels and resorts."

The actual workings of the program seem a bit unclear as yet. A newly established Property Review Board will provide policy direction for the disposal of properties. So far, the Reagan administration has identified some 307 parcels totalling 60,000 acres for sale in the near future. Some of these lands are not controversial; even environmentalists agree that they can be sold to private interests with little danger to the public interest. Others, however, are items of contention; a light station at Big Sur, for example, is reportedly up for sale, as is the last remaining open space on Honolulu's Waikiki Beach.

At present, about one third of the land in this country is owned by its citizens. A common misperception is that these lands belong to some distant landlord called the "federal government." While it is true that federal agencies *administer* this land on behalf of the citizens of the United States, *we*, in fact, are the true owners. There are nearly three acres of federally administered public land for each citizen of the United States. The total 740 million acres of public lands are more than just national parks, wildlife refuges, wilderness areas, forests and deserts. A nation remains great only as long as it protects its natural resources, and public lands hold some of the most tangible elements of the American dream. On or in them are half the standing timber, untold minerals and most of the energy resources known in the United States. At present, federal lands are protected from overexploitation and abuse by a great number of regulations and a set of key land-use policies, such as multiple-use and sustained yield management. Privatization would remove such restrictions—and would make lands vulnerable to the sort of short-term profit taking that many corporations practice in time of economic stress.

The concept of the "public domain" is as old as our country. The issue of how the newly established United States would handle its western lands and future territorial additions was one of the most discussed at the Second Continental Congress. Several of the original states held claims to large areas of western "reserves," which each

In August 1982, the Forest Service approved oil and gas leases for all available acreage in the Hoosier National Forest (below).

© RAY HILLSTROM/CLICK

perceived to be under its exclusive jurisdiction. But in 1779 the Continental Congress resolved that lands ceded to the United States would be used for the benefit of *all* citizens. As new states entered the Union, Congress granted each substantial amounts of public land in return for which they relinquished claims to other lands within their borders. Today, state and local governments own about 6% of the total U.S. land.

The question of how best to manage public lands has been a topic of intense debate ever since. Until the late 1800s, Congress was very generous and made major land grants, not only to the states for schools, roads and other purposes, but also to the railroads, to miners, to timber producers and, through the Homestead Act, to individuals. Of the U.S.'s total land area of some 2.2 billion acres, the federal government once owned about 85%, some 1860 million acres. It has since disposed of about 62% of its peak holdings; today, the federal lands constitute about 34% of the total.

Congress gradually came to realize that the federal land base was being dismantled, mismanaged and even destroyed, and that there was a pressing need to protect it.

In 1976, Congress passed the Federal Land Policy and Management Act, establishing firm, updated objectives for the administration by the Bureau of Land Management of the remaining public lands. In adopting the law, Congress said: "It is the policy of the United States that the public lands be retained in federal ownership, unless as a result of the land-use planning procedure provided for in this act, it is determined that disposal of a particular parcel will serve the national interest." This legislation was pushed through Congress by some of the same legislators who are now bent on dismantling the public domain.

The philosophical premise on which privatization is justified was summed up quite simply by Steven Hanke, who was until recently the senior economist on the President's Council of Economic Advisors and the man most directly responsible for putting privatization on the President's agenda. Pointing to a myriad of examples of how public lands are mismanaged and how terribly inefficient government ownership can be, Hanke stated: "Land, like all other resources, is most productive when in private hands." The implication is that everyone would benefit if the public lands were owned and managed by the private sector and managed exclusively for their highest economic return. But the record indicates otherwise. The proponents of privatization ignore entirely the environmental abuses—the "cut and run" tactics—that private management has allowed in this country and that government has repeatedly attempted to control.

Measuring Benefits

Economic return cannot be used as the sole measure of public benefit from federally owned property. The economic return is most likely to benefit the private owners of land that undergoes privatization—or else, why would they want it? Furthermore, public benefit must be assessed using a more complicated formula, one that considers other values; what serves the public interest does not always provide the highest economic return. The public interest may at times be best served by using a particular parcel for a park, a hospital or other use that may not be as economically attractive as private development.

The question of private and public ownership of natural resources involves many environmental issues, some of which are not usually considered part of the ongoing debate over privatization and energy resources. Forest management and grazing policy are two issues that exemplify the conflicting goals and management objectives of private and public-land management. During the 19th century, vast forested areas of the Midwest and West were cleared for farmland and timber production. But careless techniques and severe overcutting produced tremendous problems, including ruined watersheds, unsuccessful forest regeneration, severe loss of wildlife habitat and overgrazing. Eventually, public concern over the deteriorating condition of the nation's forests led to the creation, in the 1890s, of forest "reserves," which evolved into the national forest system.

There followed a long period during which the national forests were managed on a custodial basis; relatively little timber harvesting took place. However, since World War II, the timber industry has been vastly overcutting its own private inventory, particularly in California, Oregon and Washington. This rapid overcutting has resulted, over the past 25 years, in a 50% reduction in the timber industry's private inventory of uncut timber. Now, after decades of cutting far beyond a sustained-yield level, the timber industry is pressing the federal government to increase the level of allowable timber harvests from national forests. In particular, the timber industry is pushing for permission to cut the last remaining stands of valuable virgin timber.

The national forests have acted as a kind of "buffer" that has limited the extent of private-sector mismanagement. Federal forestlands have not been as severely overcut because they are managed according to the "multiple use" principles; that is, the forests are managed not simply for the highest dollar return that can be achieved by cutting timber but also for fish and wildlife habitat, preservation of water quality, recreation, forage and wilderness. Multiple-use management reflects the diversity of the users (and inhabitants) of the forests, rather than the private economic interests of one powerful industry.

Increasing the cut on the national forests doesn't make ecological or economic sense; overexploitation cannot be sustained. Nevertheless, the pressure to do so is intense and originates at a high level.

President Reagan's Assistant Secretary of Agriculture, John Crowell (formerly general counsel for Louisiana-Pacific Corporation, one of the largest buyers of federal timber), believes the annual potential yield from the national forests to be an astounding 35 billion board feet, more than triple the existing 11 billion board foot level. Increasing the allowable cut on national forestlands is not a giveaway of the land itself, but of irreplaceable natural resources. Such harvest levels jeopardize future timber supplies as well as endangering the ecological viability of forests for years if not centuries to come. Soil erosion would increase, and water quality would be harmed. Wildlife habitat would suffer; recreation and aesthetic values would be damaged. Finally, there is no need to increase the timber cut during a period of deep recession. Housing starts are at an all-time low, and the backlog of timber that has been sold but not cut in the national forests is approaching 40 billion board feet. In fact, the timber industry is trying to convince Congress to pass legislation allowing companies to terminate or extend existing contracts.

Only about 20% of our timber supply comes from national forests. The vast majority of our most productive timberlands is already privately owned. What we need is not privatization but improved management techniques on private timberlands.

Grazing livestock on public lands provides another example of how advice from the private sector is exacerbating poor management. More than one third of the Bureau of Land Management's 170 million acres of grazing lands are in poor condition as a result of overgrazing. The numbers of grazing animals must be reduced if the range is to be restored, but the Reagan administration has

taken the opposite course by circumventing a court order to perform environmental studies of federal grazing lands by continuing to allow overgrazing.

There is plenty of opportunity to increase livestock production of private lands. More than 400 million acres of rangeland are privately owned, and 86% of livestock is produced on these lands.

These situations illustrate the differences between public-lands and private-sector management. Managers of privately owned lands are in business to make money; they must pay close heed to the stockholders and the annual report. But public-land managers are required by law to regard the consequences of their policies and actions from a broader perspective. How will a proposed timber sale affect wildlife, water quality, fisheries and recreation? Public-land managers must also weigh values that are not easily quantifiable, such as wilderness, wildlife and aesthetics, against commodity values. They are required to sanction only activities that can be sustained over time. These are constraints that private managers often need not consider.

This is not to say that public-land managers do not have a lot to learn from the private sector. However, the fact that government management is sometimes inefficient does not necessarily mean that the private sector should take over ownership of the public lands or of key resources.

Increasing Revenue

The government already supports private industry by subsidizing the production of virtually all commodities taken from public lands: timber, forage, oil and gas, water and minerals. But to generate $17 billion in revenue over the next five years, as the Reagan administration anticipates, further giveaways have been deemed necessary. For the land sales will inevitably include Forest

Privatization Close Up

DEBBIE SEASE

Proponents of privatization sometimes try to play down the potential impact of selling off public lands by depicting the areas proposed for sale as little more than vacant lots, deserted buildings and small parcels of useless wasteland. Were this true, the program could never generate the revenues projected for it. Moreover, even a cursory examination of even the limited list of areas already identified for disposal will quickly correct this misrepresentation.

Privatization promoters cite Fort DeRussy in Hawaii as a prime example of the kind of land that should be sold; they decry the existing military resort hotel as a boondoggle and a waste of taxpayers' money. But Fort DeRussy is a 117-acre remnant of open space within highly urbanized Honolulu; it includes one of the few beaches in the city not owned by private interests. Though it may be inappropriate for the Defense Department to retain the property, the citizens of Hawaii have made it clear that they care deeply about this small patch of green space in Honolulu and that they will vehemently oppose its sale to the developers.

Far to the east, the citizens of Boston are similarly concerned about the proposal to sell a 756-acre federal tract in Hingham. State officials have sought to acquire this area of dense woods and open fields as an addition to Wompatuck State Park. The state of Massachusetts wants to use the area for hiking and riding trails and for picnic and playgrounds for the Boston area, which has very little recreational land available.

A small but scenic and historically significant parcel, Point Sur Lighthouse on California's Big Sur coast is another of the areas on the administration's "for sale" list.

These are but a few examples of the "useless" lands that may soon be put on the auction block. In years past and under previous administrations, such "surplus" lands would have first been offered to other federal, state or local agencies for parks, recreation areas, wildlife refuges or other public uses. In fact, it was through this policy that such popular urban parks as California's Golden Gate National Recreation Area, Seattle's Discovery Park and New York's Gateway National Recreation Area were established. But important additions to these parks are now threatened by the Reagan administration's policy of selling surplus property to the highest bidder without first considering whether a transfer to another government agency, at rates lower than commercial market values, would serve important public purposes—and make more sense in the long run.

Most of the 35 million acres Reagan proposes to sell over the next five years are lands managed by the Forest Service and the Bureau of Land Management. The administration describes such lands as unimportant—small, scattered and isolated tracts that are hard to manage and of little public value. Unquestionably, some federal lands meet this description and might be sold. But "small" and "isolated" does not necessarily connote "valueless." Many of the lands are scattered parcels located in valleys that have been largely cultivated and irrigated for agriculture. These small, isolated tracts are sometimes all that remain of unplowed, natural landscapes.

For example, the Forest Service manages 797 acres in California's San Joaquin Valley—a small remnant of the original San Joaquin desert grassland ecosystem. It is the habitat of many rare endemic plant and animal species; in fact, it is designated critical habitat for the San Joaquin blunt-nosed leopard lizard, a reptile listed by both the state and federal governments as rare and endangered. The rare and endangered San Joaquin kit fox has been sighted in the area, which is also, coincidentally, a favorite bird-watching spot for local residents, and is only two miles from a national wildlife refuge. But in August the Forest Service announced that this parcel was part of the acreage that had been designated for immediate sale.

This is only one example of the sort of lands selected for privatization whose value and uniqueness might not be immediately apparent. How many more such areas are also rich in wildlife and other values? It's impossible to know at this time; the administration won't disclose details. It confines its information to generalizations, acreage summaries and vague categories. □

Debbie Sease works on public lands issues in the Sierra Club's Washington D.C. office.

Service and Bureau of Land Management lands that could generate profits but do not because they are currently not being fiscally well managed. In fact, Agriculture Secretary Block has stated that he will send legislation to Congress to give him authority to sell off Forest Service lands, and that he may eventually identify some 15 million acres for sale.

It isn't necessary or desirable to sell "unprofitable" Forest Service and Bureau of Land Management lands, however; revenues could be increased substantially by charging fair market prices for resources on public lands: forage, timber, minerals and oil and gas. Since the common justification for privatization (and long-term leases) is to increase the revenues to the federal government, it is important to note that these proposed policies will end up costing the American public an immense amount of money. Leases such as those planned by Secretary Watt are contracts that shift the ownership of natural resources from the public to corporations. Some leases last 50 years or more and cannot be cancelled without due process and just compensation to the corporations involved. The leases or sale arrangements guarantee little environmental protection and ensure only minimum payments to the owners of the land—the American people. The leases do assure, however, maximum profits and corporate control over public land. Bern Shanks, assistant resources secretary of the state of California, was one of the early analysts of the consequences of privatization. His findings were seminal and cogent, and his conclusions were startling. The public will end up losing the future market value of Watt's leases; at today's prices, the losses may exceed $1 trillion—enough to liquidate the national debt. In contrast, the five-year Reagan privatization program would raise a total of $17 billion, an amount equivalent to a little more than 1% of the national debt.

What is needed is *not* a "fire sale" of large amounts of publicly owned acreage and not long-term leases of energy resources—proposals that will enrich only a few large corporations.

If "free market" bidding for the privilege of using resources from public lands were practiced, revenues could be increased by many billions of dollars. Removing existing subsidies, which represent a significant drain on the treasury, and replacing them with lease arrangements that would guarantee a fair return would have much greater value to the public than a one-time sale of our heritage.

One of the largest sources of fossil-fuel energy in the nation is the estimated 400 billion tons of coal underlying western public lands. Watt has opened these lands to coal leasing as part of his plan to "restore" America's greatness. He has repeatedly complained of "radical environmentalists" who blocked new coal leases for a decade. The fact is this: There was a ten-year moratorium on leasing imposed in 1971 by Richard Nixon. The reason was simple. At that time, more than 16.5 billion tons of coal had been transferred to corporate ownership by more than 500 coal leases on nearly a million acres of public lands. But each year an average of only .004% of this leased coal was actually produced. At that rate, federal coal already leased would take about 200 years to be exploited. Why lease more? Flooding the market with coal from public lands has one simple economic result: it lowers prices for the corporations buying the coal and consequently reduces income for the federal government. A similar situation is now occurring with oil and gas. About 75% of the oil and gas leases now issued on federal lands expire without any work whatsoever being done on them; selling still more leases won't lower energy prices for consumers or guarantee that federal revenues will increase significantly. Yet Secretary Watt is persisting in this uneconomical process, flooding the energy market with public energy and transferring wealth and control to corporations.

Secretary Watt recently authorized the Powder River coal lease in Montana, the largest coal lease in history, 2.4 billion tons. Another billion tons in the Fort Union area is scheduled for sale in 1983. A 1.5-billion-ton sale is planned for Utah's Book Cliffs in 1983, and a 3.3-billion-ton lease in southwestern Utah is expected. In all, Watt has scheduled coal sales that will last 50 years or more on top of the old leases. At the same time, he has proposed regulations that slow the production of coal from federal lands. Why? Again, the reason involves the tremendous value of the leases themselves. Existing leases on unmined land are worth approximately $550 billion; Watt's planned leases are worth about $750 million—at today's prices. If we project even conservative increases in energy prices, these sales of public resources will be worth approximately $4.5 trillion to energy corporations by the end of the century, when the mines eventually reach maximum production. Yet Watt's leasing terms assure that the American people will receive only pennies on the dollar for their own resources.

The Reagan administration is dismantling decades of slow progress that has been made in public-lands management. The wealth of the nation—our very strength and heritage—is being turned over to private interests. □

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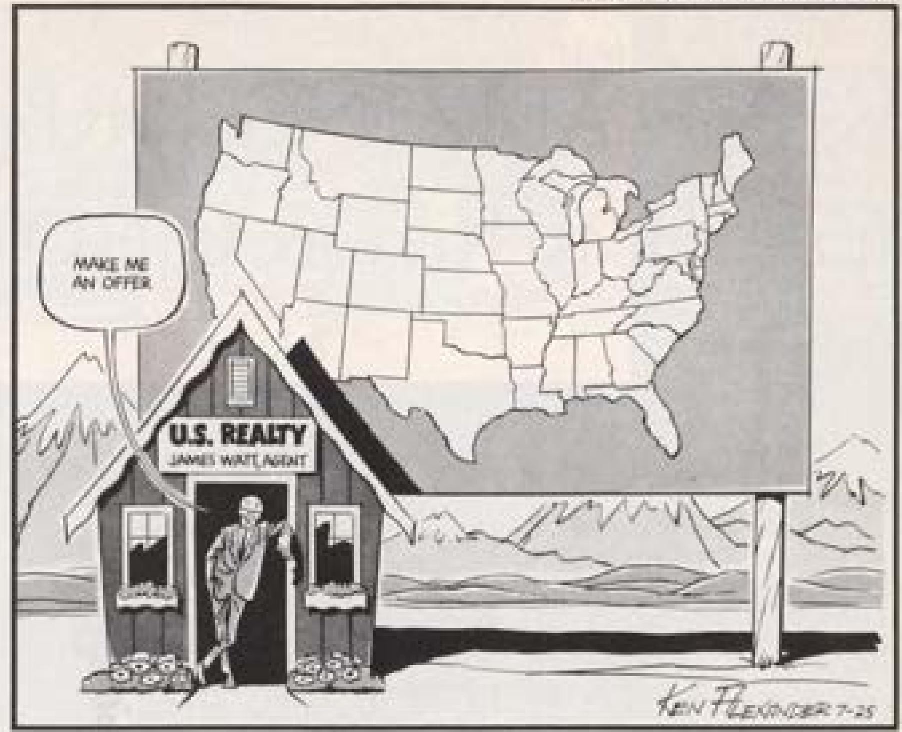


John Hooper is the public lands specialist in the Sierra Club's San Francisco office.

Revitalizing Urban Parks

It's Time to Restore Our Older City Parks

AMY MEYER

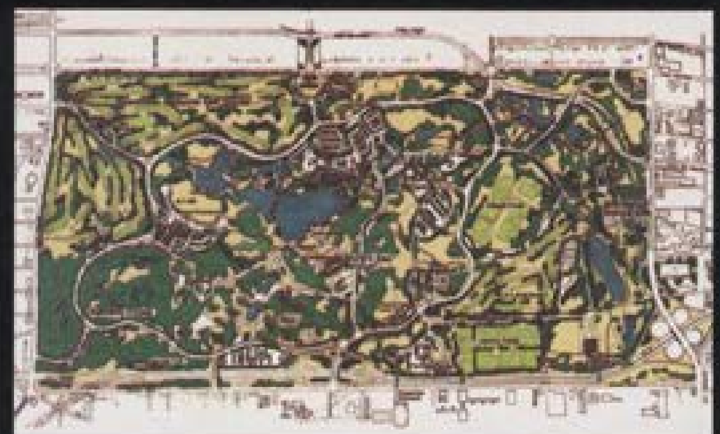
WASHINGTON PARK, CHICAGO
Olmsted, Vaux & Co. designed Washington Park as part of Chicago's South Park system. The plan overcame the disadvantages of a flat prairie site and created a unified pastoral landscape that provided for recreation ranging from archery to boating and exemplified Olmsted's broadly democratic social vision.
(Ira Berke)

During the late nineteenth century and the early years of the twentieth, many growing American cities set aside large areas of land for grand parks. South Park (Chicago), Belle Isle (Detroit), Central Park (New York) and Balboa Park (San Diego) are some of the best-known names that come to mind. These parks preserved natural areas that are now surrounded for the most part by urban development. The preeminent designer of these great areas was Frederic Law Olmsted (1822-1903), with a host of partners, students, and natural and spiritual descendants.

The ornamental horticulture of these parks sometimes developed gracefully from the natural attributes of beloved wild scenes, or was painstakingly designed and cultivated under inhospitable circumstances. (Much of San Francisco's Golden Gate Park, for example, was formerly bleak sand dunes.) However different the parks, they shared a social intent: to preserve in the cities a sense of nature, with their ponds and meadows to be available for the picnics of those who toiled in factories and offices as well as for the carriage races of the wealthy.

The use and abuse by several generations have taken their toll on these parks. Though endangered because of age and inadequate maintenance, they continue to meet some of the needs of their communities for open space and recreation. They are also regional assets and tourist attractions.

The Olmsted-era parks may well be the crowning achievement of the recreation and park movement at the municipal level. All of these parks would benefit from improved irrigation, reforestation, restoration of historic buildings, reduction of automobile traffic, protective lighting and elimination of nonconforming uses. But for these things to happen, long-range policies for the management and preservation of the parks must be developed. □



FOREST PARK, ST. LOUIS

The 1200 acres of Forest Park were first planned in 1874. In 1980, a plan was begun to update the park to accommodate changes both in its physical environment and in the ways it is used. The draft plan incorporates improvements that will enhance visitors' enjoyment of the park. (Team Four)

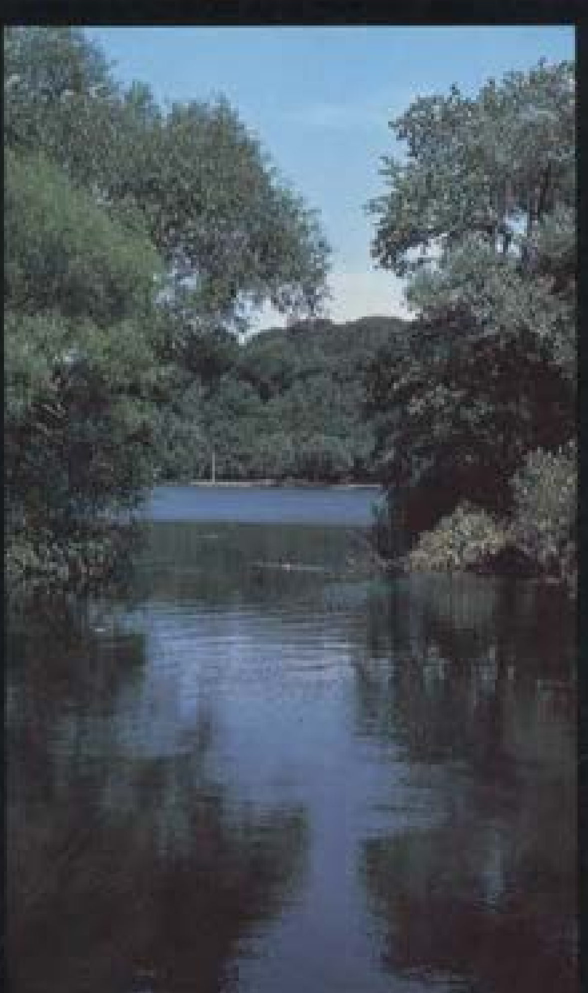
FOREST PARK, ST. LOUIS

Many of Forest Park's lagoons, ponds and pools are affected by eutrophication, which occurs when a body of water becomes overly rich in dissolved nutrients and uncontrolled (and ugly) growth of aquatic plants results. (James Pona)

OVERTON PARK, MEMPHIS

Attempts to build Interstate I-40 through Overton Park in Memphis have been thwarted by the determined efforts of conservationists. Landscaping has done little to alter the natural topography, drainage patterns and ecological balance of the park, which ranks as one of the world's great urban forests. (Arlo I. Smith)

GOLDEN GATE PARK, SAN FRANCISCO
San Francisco's Golden Gate Park was developed on sand dunes during the late nineteenth century. Today, however, many trees are long past maturity. This over-aged Monterey Pine fell into Lloyd Lake during a storm. A program of tree replacement was begun recently, but federal funding for the project has dried up. (Robin Lew)



PROSPECT PARK, BROOKLYN
The Lake, Prospect Park. Olmsted envisioned a staff of 600 gardeners tending the park's sylvan scene. Today there are 30 year-round gardeners. Litter and vandalism are the most visible problems. (Paul C. Berizzi)

PROSPECT PARK, BROOKLYN
What's wrong with this scene? This photograph shows a common problem. In many forested areas, groundcover and understory have been removed—sometimes deliberately, for security reasons, but more often by heavy foot traffic. The loss of vegetation causes erosion, which exposes the root systems of larger trees. Such areas often lack young trees, and the natural-looking but artificially maintained landscape will eventually deteriorate without a reforestation program. (Paul C. Berizzi)

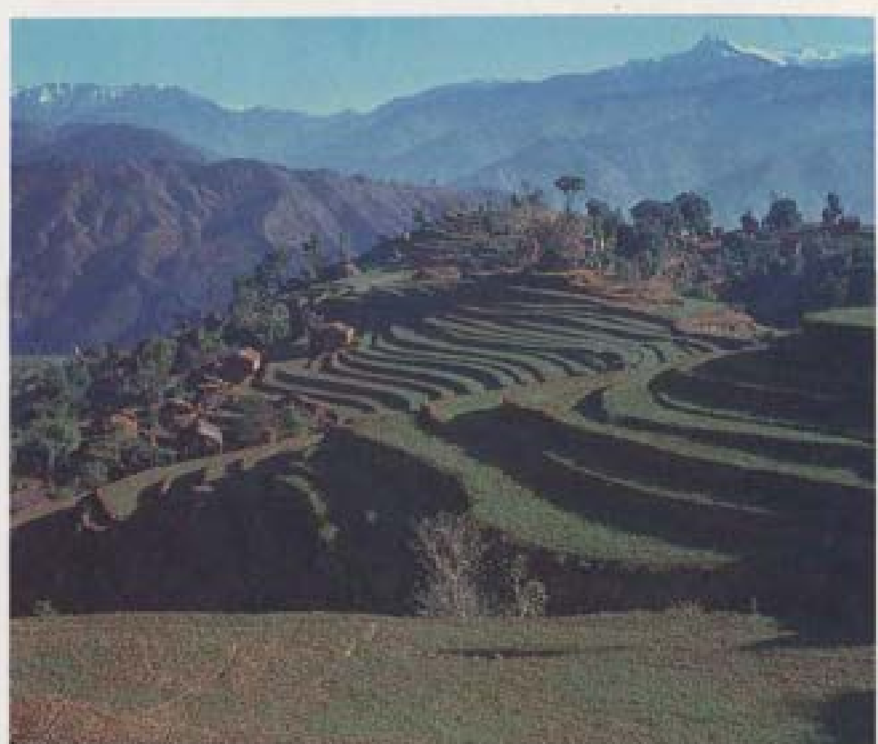
GOLDEN GATE PARK, SAN FRANCISCO
Arbor Day, 1982, in Golden Gate Park. These young people are helping a reforestation crew in a tree-planting workshop. The goal of the program is to attain a continuing mix of young, medium and old growth in the park's forests. (Joel Robinson)

BALBOA PARK, SAN DIEGO
San Diego's Balboa Park has 10 million visitors annually. The California Building, a city landmark, was erected for the 1915-1916 Exposition, and is in relatively good condition after a recent facelift. However, nearly every other park structure awaits renovation and reconstruction. (Phillip Binks/City of San Diego)

CITY PARK, DENVER
A jogger in Denver's City Park enjoys his inheritance of open space. Given enlightened park management—and adequate funding—so will his descendants. (Stewart M. Green/Tom Stack & Associates)

Amy Meyer is vice-president of San Francisco's Recreation and Park Commission.

Trekking with Kids Through Nepal



TED MOORE

GINNY MOORE

October 26. We climbed up and up and up—4000 feet today. People kept saying little kids couldn't do it but we did! (HEATHER)

GINNY MOORE

WHO SAYS small children can't be included in challenging backpacking adventures? Not I! Our one 4-year-old and two 6-year-olds hiked 500 miles across the hills of western Nepal, even carrying their own backpacks. With one other family and two porters we spent 55 days trekking through territory far from the standard tourist trails. It was an unforgettable experience for us all.

The journey began with a modern airplane flight, but our plane was merely a time machine that took us back into centuries past. It was after we debarked from the plane that the adventure began.

It was to be an expedition of two families with small children. Ian and Shanti were six, Heather was four. For the men it would be a return to the village of their Peace Corps days ten years before. For all of us it was a three-month sojourn in a country and a way of life vastly different from our own.

October 7. Kathmandu, Nepal. I am in Nepal now. There are cows and water buffalo walking down the street. We even saw an elephant in the street. We rode around Kathmandu in a rickshaw. We went to the monkey temple and saw monkeys swinging on trees and one was trying to slide down the railing. We go to the bazaar every day to get fruits and eggs and bread. (Ian)

Kathmandu is a city in transition, not yet sure which of its qualities to emphasize, which to ignore. Here Buddhist prayer flags share the skyline with overhead electric wires. The narrow, winding streets are teeming with cars, taxis, bicycles, rickshaws, pedestrians (some pushing carts) and the occasional cow. Fashions range from bare feet and wraparound cloth to the latest Western styles. The smells of incense and urine mingle with hamburger and apple pie; in the marketplace, electronic calculators vie with raw meat chopped up on the sidewalk, as a city makes its own leap into the twentieth century.

We rode on the bus to Pokhara. It took a long time to start the bus up. (Heather)

Top: The terraced fields of Margu make the most of tillable land in hilly country. Bottom: Ted and Heather on the trail.

Despite the fascination of an Asian capital city, we were eager to get out into the roadless mountain countryside. All Nepal is divided into three parts. Along its southern border with India is the flat, monsoon-drenched jungle, little inhabited until recently when insecticides began to curtail malaria. To the north the Himalayas, the world's highest snowclad peaks, form the border with Tibet. Sandwiched between are the foothills, ranging in elevation from 1500 to 17,000 feet. These hills are the historical heartland of Nepal, from whence sprang its royal family. Our plan was to hike across the hills of western Nepal to Dandeldhura, the village where Ted and George had lived while in the Peace Corps.

Besides the traditional Nepalese staples of rice and lentils, we purchased a small stock of peanut butter, raisins and other luxuries we wouldn't find outside Kathmandu. We then boarded a decrepit "express" bus for the 100-mile, day-long trip to Pokhara, along a road built with foreign aid from China and India. In Pokhara we found two young Magar (pronounced "mugger") tribesmen whom we hired to carry part of our load. The next day we were off on a 55-day trek, 500 miles of walking, to the western border of Nepal.

October 18. We started trekking today. After a while we came to a suspension bridge. It wasn't as wobbly as I thought. Now we are camped on a ridge and I am writing by candlelight. (Ian)

We'd backpacked with our children since they were born. Now they were capable of hiking ten miles in a day, but we'd never taken them on trips longer than a weekend. Although we had an ultimate destination in mind we knew there would be a few villages along the way from which we could fly back to Kathmandu if the distance proved too great, either for the kids or for us.

Both Ian and Shanti would be missing two thirds of the first grade, but we were certain that this trek would be a much more valuable experience. For academic purposes all three children kept daily journals of their activities and enjoyed reading aloud from past entries. They did math computations to find the total altitude gained or lost in a day.

October 23. We haven't even had breakfast yet. We watched people pounding rice and throwing it up in the air to get the shells out. I went so high in a swing that I couldn't talk and it almost made my tummy hurt. Then a lady carried my pack and gave me peanuts and lemons. I gave her some maple sugar. (Heather)

We gradually developed a routine, rising at daybreak to hike a few hours before the heat of the day. Our morning meal—rice and curried lentils with a vegetable side dish—usually gave us a stop of several hours, whether we cooked ourselves or had it cooked by villagers. This break provided a good change of pace for the children. We had expected that this would give them a chance to rest, but as soon as they were released from their packs they were off exploring their surroundings while *we* took the rest. We used this time when not involved in the work of cooking to wash ourselves and our clothes and dry out our tents from the morning dew. After the meal we walked on until almost sundown when we stopped again to set up tents and cook our evening meal—rice and lentils. We occasionally found eggs, squash, and other vegetables to supplement the meals. We were all amazed by how well we adjusted to this seemingly monotonous diet. We had developed such large appetites that we even came to look forward to it!

November 19. We declared this to be our Thanksgiving. George killed the chickens and they still flapped their wings and made noises. I helped pluck them. We had mashed potatoes, applesauce, mustard greens, pumpkin and gravy. What a feast! (Ian)

When Thanksgiving time drew near we were determined to create a traditional American meal from the food we could gather. We splurged and bought two live chickens, which spent their last night in the more commodious tent of our friends. We cut the meat into distinguishable pieces instead of chopping everything, bones and all, into amorphous chunks, in the typical Nepalese fashion. The porters were dismayed, but we accommodated them by putting the heads and the feet into the pot. *They*

December 2. It was raining when we woke up this morning . . . . Mommy is sick even though it is her birthday. (IAN)

ate them! When we mashed the potatoes the porters were eager to try them, but after several spoonfuls they scorned them, saying that was the kind of thing they fed their animals. We thoroughly enjoyed the meal!

November 13. After 25 days of trekking we have come to a town named Jumla. Still there are no cars and no electricity or running water. When I was eating in a restaurant a chicken flew off a shelf and over my head and almost hit the manager's head. In the shops there is not much food because everything has to be carried so far. But we did get some good apples. (Ian)

Hiking in Nepal is not a total wilderness experience. Although we were always in the midst of high, snow-capped peaks or lush green valleys, we were seldom more than a few hours' walk from some village. For almost two months we hiked through lands where the wheel has yet to be invented. Anything transported through the country was carried on the same trails we walked. Long pack trains of yaks or ponies carried salt and rice, but an amazing array of items—from corrugated roofing for a new school to baskets of oranges for a sick, elderly woman seven days from the nearest hospital—were carried on the backs of strong barefoot porters. Here human labor is more economical than animal transport. Water buffalo pulling wooden plows are used to till tiny terraced fields. When we finally came to a jeep road under construction, everything, including making the wire mesh for retaining walls, was done by hand. When we were back home in the United States, Ian often watched the many supermachines used to build a road and wondered how the Nepalese people would react if they could see our world. He is also learning why the supply of oil can amount to such a crisis in our country, but would mean little in most of Nepal.

There is a crowd of kids watching me write this. There is always a crowd around us. I get tired of it. (Ian)

Western children are rarely seen in Nepal, and thus ours often found themselves the central attraction of throngs of curious children and adults. Whenever we entered a village they were surrounded and followed, watched and mimicked. In a country where literacy is rare, everyone was especially interested to see our young ones reading and writing. We were all more uncomfortable when we were being looked at than when we were doing the looking. Our tents gave us a chance to retreat from the prying eyes and curious fingers. Occasionally the boldest would even invite themselves into the tents.

As we ascended through small villages on the way to our first 11,000-foot pass, several village women stopped us and warned us not to take the children farther up—"It's too cold . . . they might die . . ." They even offered to keep the children until we returned. We knew their fears came largely from ignorance, because Nepalese people, other than porters, rarely travel and are especially frightened of uninhabited places. Our porters were more afraid of ghosts and robbers than our children were! We were also told stories of a flower that blooms at high elevations and whose fragrance makes people sicken and die. One day on the trail we encountered less than an inch of fresh snow near an 8000-foot pass. The porters, who had never been in snow, insisted they would die if we made them walk through it. While the children gleefully built a snowman, the porters muttered and trudged on, refusing to stop until they were beyond danger. This trek was broadening their awareness also!

We became aware of other, more subtle cultural differences. As we hiked along the trails we shared with Nepalese from all walks of life, as well as with yaks, goats, ponies and mules, the children noticed that our footprints were different from others we saw. If the Nepalese wore shoes at all they were either rubber thongs or canvas sneakers. Most of us wore lightweight hiking boots with Vibram soles. The members of our party who were ahead on the trail could be "tracked." Several times we used this method to decide which fork in the trail to follow, for there were no trail signs or accurate maps to guide us.

One incident that made a significant impression on us all occurred when we emptied a glass coffee jar we had brought from the States. Not wishing to carry an unnecessary item, we offered the jar to a Nepalese woman with whom we were staying. It was as if we'd given her a precious gem. She set it on a shelf and proudly stepped back to admire it, picked it up and unscrewed and rescrewed the lid with awe, and placed it on the shelf again. Such a treasure we hadn't even appreciated.

November 5. We saw people pounding rice with a big piece of wood that was lifted and dropped by a foot pedal. They shake the rice up and down on a woven board to separate the husks from the grain. (Ian)

Never could there be a more impressive social-studies lesson for children whose knowledge of food is based almost solely on visits to supermarkets. Our trail, which sometimes doubled as an irrigation channel, often led us through terraced rice fields. When we began trekking in October, the straw-colored heads of rice were just starting to bend over. As we progressed through the harvest season we saw workers cutting the stalks with sickles, threshing them to separate the grains from the stalks, and then pounding the grain to remove the hulls. Water-powered mills, the sole evidence of mechanical technology in the hills, ground millet, wheat and corn grain into flour. And we, like Henny Penny's friends, were always willing to eat the final product. It was also valuable for the children not only to see bananas, papayas and oranges growing on trees, but to find out what fruits and vegetables were available as we changed elevations or geographic areas.

Because we were always travelling, our children didn't have to rely on learning the Nepali language to make friendships. They did experiment with the porters, but it wasn't until the end of the trek that they made any attempt to communicate in Nepali on their own. Then they would enter a shop and ask the shopkeeper if he had a particular item. They'd gleefully run back and report the results to us, and return to the shop to ask about another item. The jovial shopkeeper enjoyed the game as much as they did.

December 2. It was raining when we woke up this morning . . . . Mommy is sick even though it is her birthday. (Ian)

Good health is a serious concern for all people trekking in Nepal, but with small children it was important to be especially careful. Perhaps the most difficult part of the entire trip for the children was the restrictions we had to make about what they could pick up, play with and put in their

October 22. We crossed a tippy bridge and Mommy was scared I'd fall in but I wasn't. (HEATHER)

mouths. For kids used to exploring and examining everything in sight it was frustrating to be handicapped in such an unnatural way. As for food, we held with the Peace Corps motto: boil it, peel it, or forget it. Still, as is almost inevitable in any undeveloped country, we each at one time or another suffered from a bout of diarrhea. No one became seriously ill, and the minor stomach problems were usually the result of a change in diet when we would arrive in a bazaar town and gorge on sweets and fried foods or meat after days of rice and lentils.

There were times when we wondered what we were doing to our children—when Heather had diarrhea and couldn't get out of her sleeping bag fast enough; when one of them would be tired and crotchety at the end of a long day and we still had another mile to go in the dark before we could make camp. Witness some of Heather's accounts of typical days:

October 22. We crossed a tippy bridge and Mommy was scared I'd fall in but I wasn't.
October 25. I got a leech on me and then some sisnu (nettles) stung me.
November 3. I got charged by a water buffalo. Daddy picked me up in time.
November 22. It got very cold and rainy. There was a thunderstorm. We crossed the Karnali in a dugout log boat. It felt like the boat was going to tip over.

But on the other hand, we didn't go all the way to Nepal for a Disneyland experience. When we saw how creative small children can be without TV and toys, how well they adapted to a different lifestyle, and how much they enjoyed our experience, we knew why we had brought them.

How much can children of this age remember of such a trip? Ian can remember place names and events in the greatest detail. Because of constant reexposure to their journals and our many slides, Heather doesn't know how much she remembers on her own and how much she just isn't allowed to forget.

We'll travel more through the years, as our children get older, but there will always be something special about our journey through Nepal with our four- and six-year-olds. □

Ginny Moore is a freelance writer based in Anchorage, Alaska.

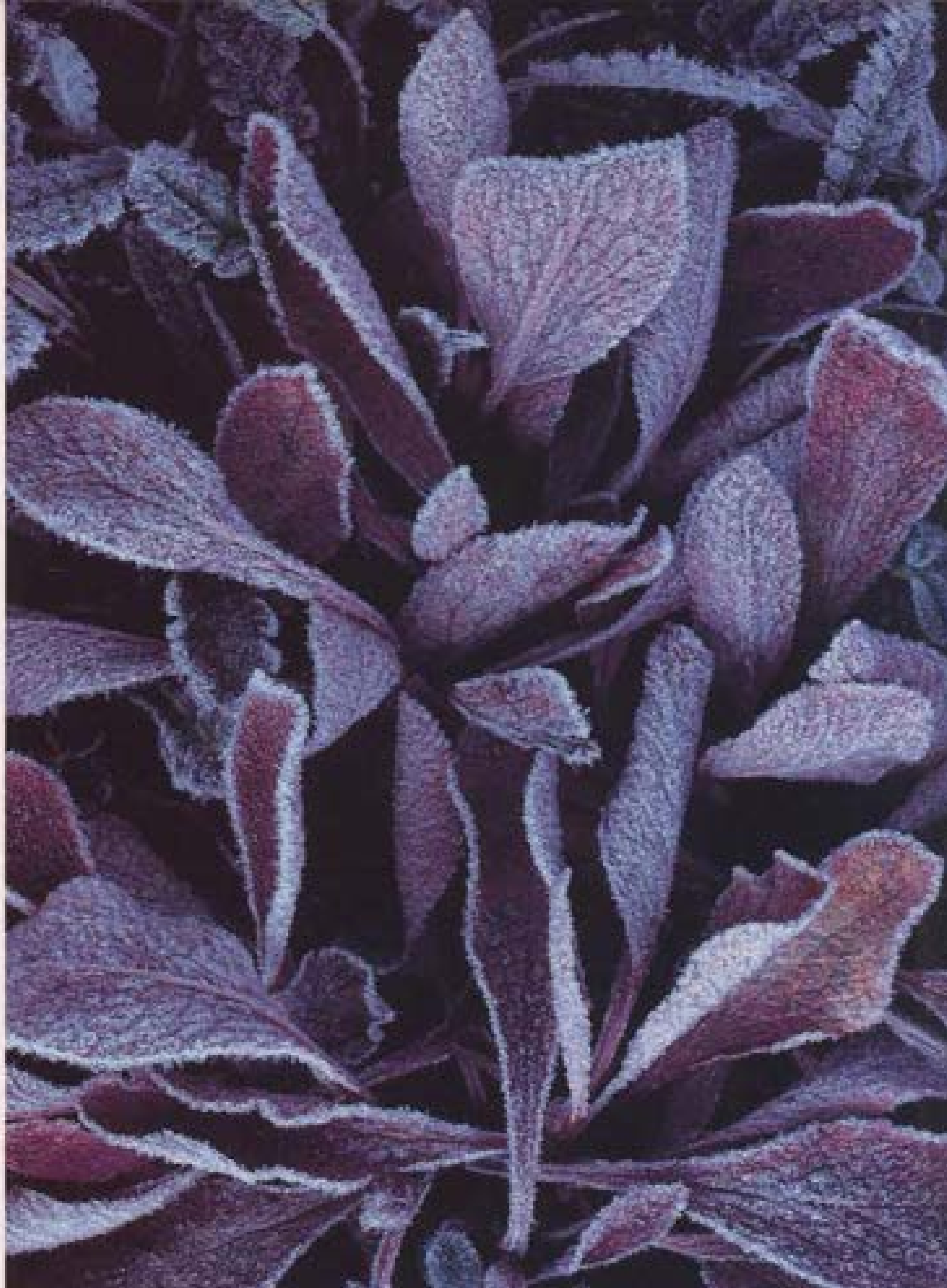
TED MOORE

TED MOORE

Left: Crossing the Uttar Gunga River near its source on a single-log bridge. Above: Ian intently at work preparing a rare treat. The native diet is largely vegetarian, but two chickens were purchased for an unusual Thanksgiving dinner. Here, Ian is plucking one.

THE LOW-DOWN ON CLOSEUPS

JON R. NICKLES



Bearberry leaves with frost. Pentax MX with 50mm macro lens.

TAKING DRAMATIC NATURE photographs close-up is not really as tricky as you might think. The equipment is more sophisticated and the techniques more demanding than for the basic sun-over-the-right-shoulder shapshot of your hiking partner. But an artistic eye, an interest in the subject and the patience to wait for the right moment to release the shutter are as important as the right equipment. My interests in photography and the outdoors challenge me to capture intimately on film the matchless beauty of nature. Professional training and work as a biologist help me to know and understand what I am photographing, yet the possibilities for new discoveries seem endless.

The 35mm single-lens reflex camera is my choice for close-ups. Through-the-lens viewing and metering and a wide variety of lenses and accessories make it a versatile system. Using accessories with a normal 50 or 55mm lens, the focusing range for close-ups extends from about one-tenth life size to full life size on the film. My techniques for low magnification photomacrography, up to about 3-times life size, are the same as for close-ups. Because standard lenses will not focus near enough for close-ups, special equipment is necessary. There are many ways to get similar results, including the use of supplementary close-up lenses, extension tubes or bellows, and macro lenses.

In my early ventures with close-up photography, I used extension tubes with both a 55mm and a 135mm lens. Extension tubes are still an essential item in my camera pack. They usually come in sets of three of varying lengths to be used singly or in combination. They extend the lens by fitting between the lens and the camera body. Image magnification is directly in proportion to the length of the tube. If a lens is extended the distance of its focal length, the image will be life size. For example, if a 50mm lens is extended by 50mm, the image size on the film will be 50/50, or 1:1, often an impressive close-up. If the same lens is extended by 25mm, the image size will be 25/50, or half life size. The advantages of tubes are durability and relatively low cost. Image quality depends on the quality of the prime lens, since tubes are hollow and have no glass elements. Some people prefer supplementary close-up lenses because they are inexpensive and easier to use. They come in various magnifications and screw into the prime lens like filters. Because of their relatively poor optical quality, the results are not as good as with tubes.

The extension bellows is another useful close-up accessory. It serves the same function as extension tubes but allows greater flexibility. The bellows operates on a track, accordion-fashion, allowing any number of magnifications between its collapsed and fully extended positions. The bellows is larger and heavier than tubes and is not as durable. While I usually find a place for it in my pack, if I am really limited on space or weight I will take extension tubes and leave the bellows at home.

Macro lenses are misnamed. When used alone, most will produce only a half-life-size image, which is not in the photomacrography range. This technicality aside, the lenses are especially designed for close focusing and edge-to-edge sharpness. Most come in focal lengths between 50mm and 100mm. My 50mm macro doubles as a normal lens. The value of lenses with longer focal lengths for close-up work is that they permit a greater lens-to-subject working distance, a real

Turk's cap lily. Pentax Spotmatic with 135mm lens, bellows, electronic flash.

help when photographing insects and other animals that might be frightened by a close approach. I also find the extra working distance with my 100mm macro lens convenient when I'm using electronic flash or reflectors.

Because so many accessories are available, my advice to anyone wanting to explore the fascinating world of close-up photography is to start slowly and become adept with each piece of equipment before buying something new. A lot can be done by using extension tubes with a normal or a short telephoto lens. Close-up accessories can be combined in many ways to yield the desired result. As an extreme example, supplementary close-up lenses can be used with a macro lens mounted on one or more sets of extension tubes, which are in turn mounted on a bellows attached to the camera. While this setup is guaranteed to impress your friends, it might not produce the image you want. The idea is to be familiar with your equipment and you will get better results and lose fewer shots.

Working close-up requires several special considerations. The larger the image magnification, the shallower the depth of field, or the zone of image sharpness. To obtain maximum depth, I often use the smallest aperture I can, often f/22 or f/32. Also, the farther a lens is extended, the less light reaches the film. The light lost from a combination of small aperture and extended lens sometimes requires exposures of several seconds when using natural light. I now use Kodachrome 64 in all my work and find its moderate film speed and fine grain offer a good compromise. With long exposures the rule, firm camera support is essential, and though a heavy tripod gets heavier the farther it is carried, there is no substitute. My tripod is as important as any of my other close-up equipment. The payoff in having a firmly supported camera is in image sharpness, depth of field and good composition. Since low-angle work is often required, the tripod should have either a reversible center column or legs that can be spread completely. An alternative I find useful is a clamp with a camera mount that can be attached to a tripod leg or other firm support.

Several ingredients combine to make an eye-catching close-up. Failure to pay attention to any one of them can result in so-so photos that will eventually be filed in the wastebasket. An interesting subject must be combined with a nondistracting background, good composition and lighting, sharp focus and precise exposure. A tripod is a big help in bringing these ingredients together successfully. It allows me to set up the camera and then study all aspects of the image in the viewfinder. I try to visualize the end result before I take the picture.

Excellent subjects for nature close-ups are as nearby as your back door. Plants are good to start with and the results can be impressive. When composing a shot, your first choice is whether to take a vertical or a horizontal picture. This is an important decision and depends on the lines of the subject and the mood or feeling you want to convey. I try to avoid placing the center of interest dead-center in the viewfinder, the "bulls-eye" effect. Off-center placement is usually more interesting visually and esthetically. I try to let natural lines or lighting draw the eye to the subject when possible.

I firmly believe that close-ups should get you down. That is, down to the level of the plant or animal or whatever your subject is. Part of the drama of good close-ups is often the angle at which the photo is taken—an angle people are not used to seeing. Although I sometimes draw strange looks, I am not bashful about getting down on hands and knees or even lying on my stomach to get the best angle of view. In this position, you often discover things that would have gone entirely unnoticed from normal eye level.

Backgrounds are easy to overlook, but don't. The background should receive as much attention as the subject itself—from the photographer before the shutter is tripped, not from the viewer of the finished photograph. The background should set off the subject without distracting from it. Separation between subject and background can be achieved in several ways: by contrast in light, color and texture, and by selective focusing.

Someone has said, "There is no such thing as bad weather, only different kinds of good

weather." This has almost become my motto for outdoor photography. Beautiful close-ups can be taken under all kinds of weather and light conditions. On cloudy days and even during or right after a rain, color saturation is often deep and vibrant. Heavily overcast skies give a moody feeling, and clinging raindrops can add immediacy to close-up subjects. Bright overcast days are excellent for close-ups because the diffuse light provides good color saturation, there are no harsh shadows, and plants or other subjects can be shown in exquisite detail. Bright, direct sunlight offers several possibilities, depending on the light angle. Direct front-lighting is sometimes flat, there may be undesirable highlights and shadows, and color saturation may be lacking. In these conditions I look for side- or backlighting opportunities. Sidelighting is effective to emphasize texture and surface features. Backlighting emphasizes internal detail such as leaf veins and it will sometimes edge the subject with a halo effect. Translucent subjects will appear to glow from within when backlit. Both side- and backlighting can produce strong, dramatic images. As with any outdoor photography, early morning and late afternoon light are often the most pleasing. These are my favorite times to be afield. With or without a camera, I enjoy watching the play of light transform both large- and small-scale scenes, depending on weather conditions, time of day and angle of incidence.

Above, horsetails with water drops. Pentax MX with 50mm macro lens. Right, spiderwort. Pentax Spotmatic with 55mm lens, extension tubes.

Since only a small area has to be properly illuminated for close-up work, reflectors are sometimes helpful to direct light where you need it. Small white cards, mirrors and pieces of aluminum foil can be used to direct fill-in light into shadow areas. Sometimes it is helpful to shade the entire subject to eliminate harsh light and shadows. There are usually ways to use available light creatively and to your advantage.

Sharp focus and precise exposure quickly become habitual through practice. With the narrow depth of field at close range, focus is critical. Since the zone of image sharpness extends farther behind than in front of the point of focus, I sometimes focus just beyond this point to extend the apparent depth of field. When focusing on a small animal, its eye nearest the camera should usually be the point of focus. With flowers this will be the pistils and stamens, if they are in view. If exposure readings are not through-the-lens, you will need to compensate for lens extension. With all equipment, exposure tests are helpful and can save film in the long run. It takes time to set up for close-up photos and I don't like to lose shots. When correct exposure is difficult to determine, I often bracket an exposure by one-half f/stops to guarantee satisfactory results.

While I prefer natural light and find it usually produces the most beautiful and dramatic lighting effects, I am not a purist. There are times when there is not enough

light or it is in the wrong place. Electronic flash is then indispensable. At close range the flash will override natural light, even in bright sun. It allows you to use small apertures, and the short flash duration, usually 1/1000 second or less, will stop any slight motion, as from wind. The short exposure also permits hand-held shots, making flash useful when photographing insects or other moving subjects. The light from electronic flash units is consistent, and with practice the results become predictable. Exposure tests with various lenses and lens extensions are an essential step toward consistent results. When you get only one shot at an erratic butterfly, you want to make it good.

I usually prefer to photograph subjects where they are found. Sometimes a little "gardening" may be helpful to clear an area around the subject or to remove distracting objects from the background. To retain a natural look and avoid disturbing my subjects, I keep this to a minimum. Occasionally I bring plants and animals inside when I need more control over lighting or movement. Natural scenes and backgrounds can be created with only a few leaves and twigs from outside, when shooting insects, spiders and other small creatures. Of course, when the photo session is over, they should be returned unharmed to their natural habitats. When plants are brought inside they should be photographed immediately while still fresh looking. It goes without saying that rare or unusual plants or animals should be photographed only where they are found.

The pleasure of dramatic nature close-ups can be yours. It takes lots of practice and experimentation, but when you get the right results, the effort is rewarded. A few close-ups of flowers, insects or other subjects will increase the diversity and interest of your travel or nature slide-show. More important, searching for close-up subjects opens up new perspectives of the natural world and a greater desire for understanding it. □

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How to Buy Backcountry Ski Gear

Preparing for a Classic Winter Wilderness Adventure

CASEY SHEAHAN

YOU NEED SPECIAL GEAR for skiing off the beaten path. Not the superthin skis, featherlight poles and running-style boots the racers use, but wider skis, sturdier boots and durable poles for skiing rough terrain and difficult snow. The question is, faced with such a dazzling array of brands and categories of cross-country ski equipment, how can you make an intelligent buying decision? Here are a few pointers:

First, learn how to test skis in a ski shop so you can predict how they'll perform on snow. With backcountry skis, learn to recognize design features that make a ski perform well in powder snow but do not necessarily mean the ski will do well in icy conditions—and vice versa. Knowing how to choose boots is even more important than choosing the right skis; poor-quality boots will prevent you from having good control no matter what skis you wear.

TEST THE FLEX

In the ski shop, take a pair of mountain skis off the rack and press the bases together with your hands. Can you squeeze the bases together easily, or is there a gap you can't quite close? This is called "camber." (If you place the skis right-side-up on the floor, the midsection of each ski will arch upward.) To get a feel of how camber stiffness varies, press the bases together on two or three sets of different kinds of skis—metal-edged, touring, even racing models.

Metal-edged backcountry skis have either a touring camber—not so stiff that you can't push the ski down for grip, but not so soft that they won't glide well—or a slightly softer "alpine flex"—that is, the ski bases can be easily squeezed together with your hands. In turning, an alpine-flex ski can be easily pressed onto its edges by the skier; the middle portion of the ski bends smoothly into a "reverse camber" when a skier pushes down on it in a turn. When hand-squeezing skis for camber, be aware that excessively soft skis will turn easily but glide poorly. A too-stiff ski will slip backward on hills and be difficult to turn. Look for skis with a moderate amount of camber. Don't hesitate to ask a salesperson to help you find a ski closely matched to your weight and skiing ability.

You should also test the ski's forebody torque. Grab the ski with one hand in the midsection, and with the other hand twist the ski tip—actually try to rotate it as though you were unscrewing a jar—to see how stiff it is torsionally. If it is stiff, the ski will hold an edge well in icy or crusty conditions. If soft, it is better suited for powder snow and crud.

Next, pull the ski tip straight back toward you and push the midsection away as though flexing a bow. (The ski's tail should be resting on the floor with the running surface facing away from you.) Does the front half of the ski, including the tip and forebody, hinge easily? If you compare several pairs of skis this way, you'll get an idea how their performances would differ when riding over bumps and depressions in the snow. Generally, a ski with a stiff forebody is more stable and straight-running than a ski with a softer tip. A soft-tipped ski will ride over bumps and dips smoothly and float well in powder.

What about "sidecut" or, as some call it, "side camber,"—the narrower width at the waist compared to the tip and the tail? Most veteran backcountry skiers choose skis with sidecut because it seems to make a ski easier to turn. Some skiers don't think sidecut makes any difference in a ski's turning ability. Since most backcountry skis have some sidecut anyway, the only decision you'll have

A ski that resists twist will hold well on ice, yet torsional stiffness is often overlooked. A softer ski is more controllable in softer snow. (Note: For greater emphasis, these illustrations exaggerate various features of the skis.)

The tails of a ski are usually noticeably stiffer than the tips. However, skis with flexible tips tend to have more flexible tails.

Forebody flex determines running characteristics: A softer forebody handles bumps well and floats in powder. A ski with a stiff forebody tracks straighter and manages ice better.

ILLUSTRATIONS: COLLEEN QUINN/PHOTO: BOB WOODWARD

to make is how much or how little you want.

If you often ski with a pack or do a lot of powder skiing, look for a backcountry ski with a waist width of between 50 to 58 millimeters. If you do a lot of trail skiing and like skiing fast on lighter, thinner skis, select a ski in a touring width, 48mm to 56mm. Go to a wider ski for backpacking (50mm to 64mm); you'll need a stable platform underfoot to help you balance the load you're carrying.

Buy skis in the normal floor-to-wrist length unless you do a lot of cross-country downhill skiing. Then you can consider a ski 5 centimeters shorter than normal; it will allow you to swivel the skis downhill a little more easily. But realize that in deep-powder Telemarking—remember those delightful knee-deep days we had last winter?—you sacrifice flotation with shorter skis. When the snow is deep, some western ski-tourers use skis 215 or 220 centimeters long—almost as long as the big staves Snowshoe Thompson wore to carry mail across the Sierra in the 1850s!

WAXABLE VS. WAXLESS

When you press down on the midsection of a cross-country ski, the camber flattens out and the ski base comes into contact with the snow. Here, under the foot, a ski either has a waxless pattern (they come in various designs: steps, scales, mica flakes, diamond or brushed-up polyethylene hairs) or is smooth ("waxable").

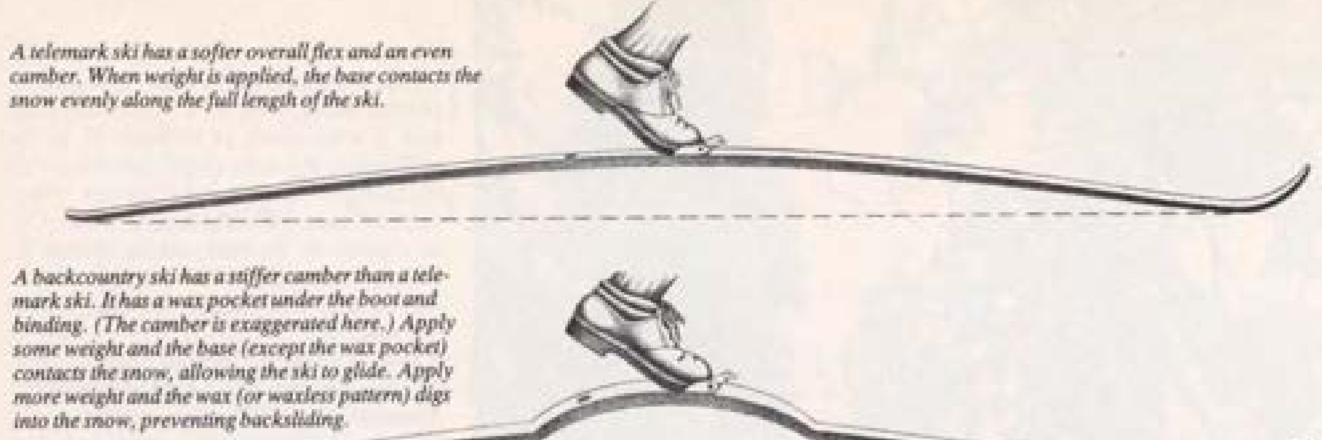
To get good grip with a ski, you either apply wax to the ski base underfoot (the "kick zone" or "wax pocket") or the skis' waxless pattern works like wax to hold the ski momentarily when you push down on it. Both the wax and waxless patterns release their grips on the snow after you have pushed off and propelled yourself forward in the glide.

If you're new to cross-country skiing or ski in an area where temperatures and snow conditions change a great deal, you'll like the convenience of waxless skis. They work well in such areas as California, the Pacific Northwest and southern New England. In the Rockies and the upper Midwest, where winter temperatures are relatively constant, waxable skis are preferred.

TOURING SKIS

Touring skis are wide and stable, a good choice for first-time skiers and those who ski off-trail most of the time. They don't have metal edges, but if you don't ski steep mountain slopes very often, you probably don't need edges. Touring skis are lighter and less expensive than metal-edged skis.

In the outdoor shop, look for durable touring skis that can withstand the rigors of off-trail skiing. The following skis are



A telemark ski has a softer overall flex and an even camber. When weight is applied, the base contacts the snow evenly along the full length of the ski.

A backcountry ski has a stiffer camber than a telemark ski. It has a wax pocket under the boot and binding. (The camber is exaggerated here.) Apply some weight and the base (except the wax pocket) contacts the snow, allowing the ski to glide. Apply more weight and the wax (or waxless pattern) digs into the snow, preventing backsliding.

proven performers: Trak Mariah, a lightweight, wood-core ski with Omnitrak waxless base designed for western backcountry conditions; Epoke 1000, a sturdy, wood-torsion box, fiberglass ski built a little wider than the Epoke 900 light touring ski used by Ned Gillette, Galen Rowell and friends in their 1978 ski-encirclement of Mount McKinley; Fischer Touring, a wood-core ski available with step-type waxless Crown base; Karhu Kodiak, a new wide, form-core ski designed specifically for off-trail snow conditions in the Pacific Northwest, available with step-type Bear Claw base or wax-retaining Easy Wax base. These skis range in price from $90 to $120.

BACKPACKING SKIS

Like touring skis, the strong, metal-edged skis described here have a definite wax pocket. The metal edges on these skis facilitate downhill turning on steep slopes and provide extra security on icy trails.

The Fischer Europa 99ST is a lightweight mountain ski with a medium amount of camber and a continuous metal edge. It's the kind of ski that slides easily when you're carrying a heavy pack, but performs like a touring ski when you've reached camp, dropped your heavy load and decided to go exploring. The Epoke Alpine Edge also has a moderate wax pocket and offset steel edges that can be sharpened when dull. Another classic example of this hybrid touring/heavy-duty mountaineering ski is the Normark Hi-Tur. It features a partial metal edge over the middle third of the ski. Prices on these skis range from $140 to $180.

TELEMARKING SKIS

In the ski shop, the skis that have bases you can easily squeeze together as well as offset steel edges are the ones designed primarily for downhill performance. Dubbed "norpine skis," "thin alpine skis" and "down skis" by free-heel nordic downhillers, they look like a cross between nordic and alpine skis. That's also how they perform. They don't have much camber so they turn easily, they're great for mountain skiing and backpacking, and you can tour on them as long as you don't expect to win any races.

There are so many Telemark skis on the market now that it's impossible to recommend one brand over another. A couple of years ago, a group of Sierra backcountry ski guides asked each of the ski companies to ship a representative pair of Telemark skis to Mammoth Mountain Ski Area so the guides could do an on-snow comparison test. Almost every ski tested between 12 noon and 2 p.m. received an "A" rating. It wasn't until the testing was completed that the guides realized they had given highest marks to skis that were judged when the spring snow conditions were best for skiing—in the perfect corn snow of midday.

In my own testing of Telemark skis I've had the same difficulty. They *all* seem to ski very well. Here are the names to look for: Karhu XCD, Kazama's Telemark Comp and Mountain High, Rossignol Randonnee and Descente, Phoenix's Mountain Edge Racing and Wilderness series, Fischer's America 109ST and Expedition, Edsbyn T-Mark, Elan RE 332, Asnes Honeyedge 62, Jarvinen Advent, Kneissl XC-AF, Normark Telex, Trak TRS and Bonna MNT. These skis range in price from $140 to $175.

WIDE POWDER SKIS

A few years ago I skied through Yellowstone National Park in early March. A couple of feet of snow fell during the course of the trip so our group did a lot of trail-breaking in deep snow. Some of us had wide skis that floated on the surface of the snow, a blessing since we were lugging 50-pound packs. The skis we used—Scandinavian army skis—are no longer available in this country, but you can still get two very wide skis that are just as good. One, the Kuusisto Snow 650, is imported from Finland; the other, the Skilom 130, is a new ski from Norway. I recommend both for deep-powder Telemarkers and for skiers who

A skier surveys a group of bull elk in Yellowstone National Park. © FRANK BALTHIS

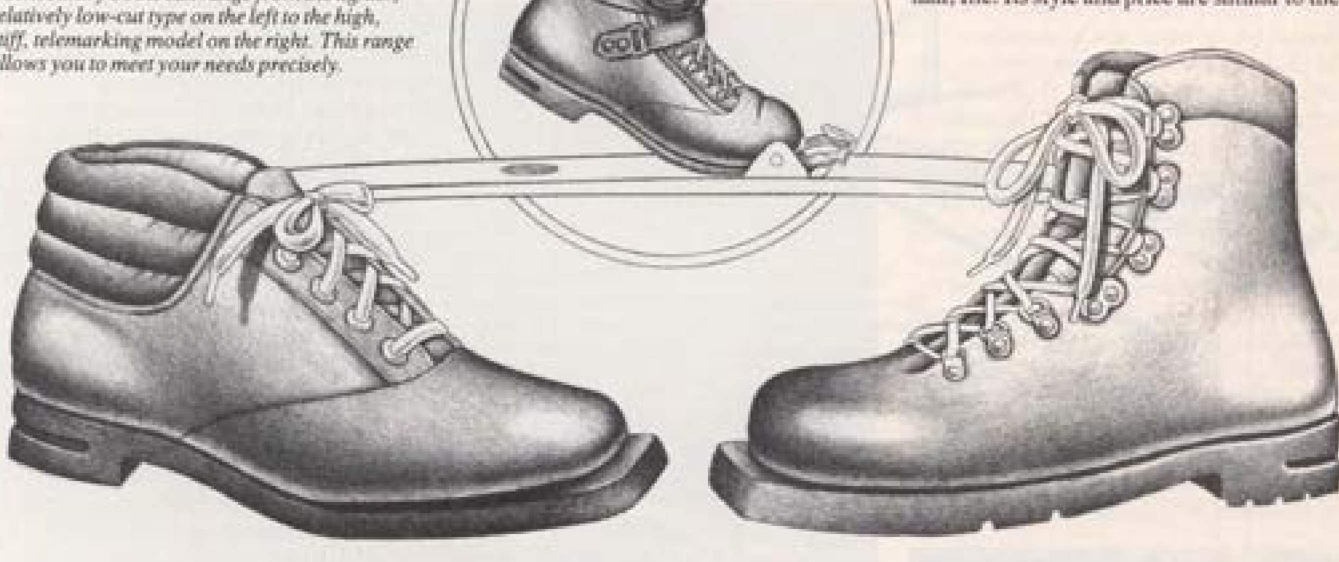
have balance problems or who ski off-trail in deep snow.

The Kuusisto Snow 650, distributed by Exel-Silenta, is a straight-sided ski (no sidecut) that is 68mm wide underfoot. The Skilom 130 has a 68-60-64 (tip-waist-tail) sidecut that provides excellent stability. Neither ski has edges, and both retail for $110 to $120.

THE RIGHT BOOT

Good boots are critical to your enjoyment of wilderness skiing. Don't make the mistake of spending a bundle on skis and leaving yourself short when it comes to boots. You'd be better off buying expensive boots first. You won't be able to turn those skis if you buy the kind of cheap, torsionally soft boot you can twist in your hands like a towel.

Backcountry boots can range from the lighter, relatively low-cut type on the left to the high, stiff, telemarking model on the right. This range allows you to meet your needs precisely.



When you turn a cross-country ski, you transmit the force from your feet to your skis at a point a couple of inches behind the binding. Since your heel is not locked down in the binding, there is a tendency for the boot to slide laterally off the heel plate. Soft boots slide off the heel plate easily; stiff boots transmit turning power directly to the ski.

How can you tell which boots are torsionally rigid? Look for good-quality leather boots with metal or wood shanks, stitched Norwegian welt construction and a sturdy lug sole that doesn't twist in your hands.

HIGH OR LOW CUT?

Whatever you may have heard, high-cut boots don't make it much easier for you to control your skis. Building up your ankle strength in the off-season and developing good ski technique are far more important factors. But high-cut boots do keep the snow out of your socks. So if you already own a pair of stiff, low- or medium-cut boots, simply add an overboot or gaiters on your off-trail treks.

75MM OR 50MM BOOTS?

The figures "75" and "50" refer to the millimeter width of the boot-toe projection at the point where it is attached to the binding with a bail or some other kind of lockdown device. Which boot width is better for the backcountry?

In the spring of 1981, former U.S. Ski Team member Kevin Swigert skied to 18,000 feet on Mt. McKinley using Adidas 50/7mm (50mm wide at the toe, 7mm sole thickness) racing boots. Noted climber and ski mountaineer Doug Robinson has used torsionally rigid 50/12mm touring boots on some impressive nordic ski descents, including a recent ski down Mt. Rainier.

Certainly the 50mm boots are light, and they provide excellent lateral control over your skis. But most backcountry skiers prefer the heavier 75mm boots because they have a rubber lug sole that gives good traction when you have to take your skis off and scramble over rocky terrain on high mountain tours. The slick plastic soles of 50mm boots are a little too slippery for hiking.

BACKCOUNTRY BOOTS

If you know any skiers whose old 75mm boot-toe projections got so badly chewed by the three pins on the binding that the toes eventually ripped out, you'll welcome the shift being made by manufacturers of rubber lug soles to more heavily reinforced pinholes. Vibram will introduce a new lug sole on this season's backcountry boots by Asolo and Merrell that features a wider metal plate underneath the pinholes. The changed lug pattern and metal plate will aid in flexibility, and prevent damage to the toe of the boot.

Until now, Norrona and Normark boots have carried the only rubber hiking-type sole with a reputation for longevity. The Norrona sole will be available on a new high-top, full-grain leather boot for off-trail skiing in the Normark line, the 356.

One of the new boots that will carry the improved Vibram sole is a handmade, medium-cut leather boot called the Merrell Wasatch XCD. The boot is designed by custom bootmaker Randy Merrell of Denali, Inc. Its style and price are similar to the popular Asolo Snowfield ($135). The Merrell has two types of closure systems to choose from: a regular lacing system, or four multicolored Velcro straps on the front of the boot to give skiers infinite adjustment possibilities. The back of the Merrell boot is curved to follow the foot's natural curve and, hopefully, reduce the number of blisters skiers get on long tours.

The Alfa Off-Trail also employs a Velcro closure system. But the Alfa boot uses Velcro above the ankle on a wide ankle-support strap that doubles as a snow cuff. This leather boot is a good choice for all-around touring; it is lightweight, warm, stiff enough for downhill turning and has a molded rubber sole with ridges for traction. Other boots to consider in the $75 to $100 price range are models by Haugen, Galibier, Heierling and Alpina.

TELEMARK BOOTS

If you often tour in extremely cold temperatures, consider the Asolo Extreme and Kastinger Hi-Tour Comp leather backcountry boots. These high-top boots are as close as you can get to downhill boots in looks, warmth and performance; they have mini-

mal forward flex and are much more expensive than most backcountry boots. The Asolo is a single-unit boot and costs $165. The Kastinger has a removable felt inner boot, an ankle-support strap and costs $240.

As supplies of high-quality boot leather continue to dwindle, it may shock traditionalists to see more and more plastic cross-country boots on the shelves. It will come as no surprise to most racers and track skiers who've noticed that manufacturers have been using plastic and other synthetic materials in lighter cross-country footwear for several years. Now there's even a plastic backcountry/Telemarking boot, the Dolomite Tele PU ($175). This sturdy high-top boot has a red or green shell and a leather inner boot. If plastic boots offend your aesthetic sensibilities, remember that many of us felt the same way when fiberglass skis were first introduced only eight years ago!

BEEFIER BINDINGS

There's also a new generation of 75mm backcountry bindings. They look like conventional bindings except that they have a much thicker metal plate and sidewalls to accommodate the new thick-soled boots and to stand up to the forces exerted in turning. In the past, many skiers popped the bails on their bindings because the twisting force applied in turning and herringboning tended to push the binding's sidewalls out. This would free the bail from its socket mooring and send it flying, generally into a trailside snowdrift.

Then Normark introduced a heavy-plated binding called the Elite ($14) for thick-soled boots. This season, Dovre has an even thicker binding, the Telemark 215; it has a wide, flat bail riveted to the binding sidewall so it can't pop loose. The same binding will be sold by Edsbyn (1602) and Asolo (XC-T) for about $30. Troll bindings will also be thicker this year and will have higher sidewalls like the Normark and Dovre bindings to fit the thick-soled mountain boots.

NEED HEEL LOCATORS?

Heel locators are the plastic spur devices that screw onto the heels of your boots and fit into a V-wedge behind the heel plates to keep your boots centered on the skis. Heel locators add torsional rigidity to soft boots and reduce the stress on your boot toes' pin holes by lessening lateral pressure on the boot toe.

If you've got a stiff and secure boot/binding link with no side play, you don't need a heel locator. (They may in fact be dangerous, especially in slow, twisting falls.) The Wasatch Mountaineering Voile plate ($35) is a new concept in heel-centering devices that allows your foot to hinge forward for striding, but still keeps your boot centered over the ski through a whole range of motion. The flexible plastic Voile plate attaches under the binding and extends under the boot sole to the heel where it fastens with an aluminum clip. Said to increase torsional rigidity, improve turning power and reduce boot wear, the Voile plate was used successfully by a Utah skier named Rick Wyatt, who made a solo nordic-ski descent of Wyoming's Grand Teton peak last June.

Climbing skins can make an otherwise grueling climb enjoyable. They allow an easy forward slide but tenaciously resist backsliding. Skins cover the entire base and can be applied or removed as needed. Western mountain skiers swear by them.

POLE CONSIDERATIONS

Backcountry poles should be stronger and have wider baskets than the poles you'd use for trail skiing. Fiberglass, tonkin cane and aluminum are good choices. Make sure you buy a pole with an adjustable grip you can tighten on your wrist so you don't have to hammerlock the grips in the poling follow-through.

I like aluminum poles because you can bend them back to their original shape (and at least ski home) if you fall on them. I also look for leather grips because they feel warmer to the touch than plastic. But plastic can be good because it doesn't soak up as much water as leather during a long tour.

Wide, round baskets are excellent for off-trail skiing because they support a pole planted in deep snow. Exel makes a fiberglass pole, the Arctic ($27.50), that not only features a wide "snowshoe" basket, but has a light plastic sleeve reinforcing the bottom third of the pole shaft to protect the pole from being dinged or cut by sharp metal edges. In extreme cold, however, some fiberglass tends to become brittle.

Many skiers use poles that are five to ten centimeters shorter than the normal floor-to-armpit length to get better pole-plants in downhill turning and because skiing with a backpack restricts your reach. Instead of buying shorter poles or choking up on them when skiing downhill, consider getting variable length aluminum poles such as those made by Ramer that can be telescoped from nordic to alpine length in a couple of seconds. They cost $63.

Another aluminum pole that makes a lot of sense for backcountry use is the Life-Link avalanche-probe pole. Life-Link poles can be joined together and, in the event that a companion is buried in an avalanche, the double-length pole can be used to probe the snow to locate the victim. Available with baskets of varying widths for touring or deep-snow backcountry skiing, Life-Link poles can also be used with alpine or nordic grips, and convert with an adaptor to a camera monopod ($60).

CLIMBING SKINS

Imported from Europe where alpinists used them in long Haute Route crossings, mohair and polypropylene climbing skins have become essential to American backcountry skiers for climbing mountain passes and long slopes. Now available from Ramer/Alpine Research and Liberty, climbing skins are made in a slim 30mm width for nordic skins. The best skins attach to your ski tips with a metal ring and cling to the bottom of your skis by means of a tacky adhesive called Coll-Tex. They range in price from $42 to $50.

When you're climbing two or three high mountain passes a day with a heavy pack, it takes a lot less energy to stop once, put on climbing skins and step smartly to the top, than to stop and re-wax five times as you gain elevation, as the temperature continues to drop and as snow conditions change. Besides, you'll have a lot more time to enjoy the beautiful scenery around you. □

Casey Sheahan is the general editor of Cross Country Ski Magazine *and the author of* Sports Illustrated Cross Country Skiing, *to be released in the fall of 1983.*

Cobalt on Gasquet Mountain

JOHN BERTHELSEN

JEFF GNASS

If all goes as developers plan, in 1983 construction will begin on the largest strategic-metals mine in the United States. It will take place ten miles northeast of Crescent City, California, in the middle of the drainage of the Smith River, considered by many to be the state's most precious wild and scenic river, and just six miles from the northern boundary of Redwood National Park.

The proposed mine—on a wooded 2620-foot-high red laterite ridge in the coast range called Gasquet (pronounced Gaskay) Mountain—is being touted by its developers, California Nickel Corporation (Cal Nickel), as a partial answer to the nation's defense needs for cobalt, nickel and chromium for the next 18 years. According to *Business Week*, however, CNC plans to pro-

CH2M HILL

Left: The Middle Fork of the Smith River, in the Siskiyou Mountains. The steep terrain makes erosion problems especially serious. Above: Crescent City, California. Will it become a port for exporting strategic minerals?

SUSIE VAN KIRK

Top: Mining hasn't started yet, but roads are already showing wear. Above: Untreated tailings from mining. These were returned to Gasquet Mountain from a pilot plant in Colorado.

duce the following percentages of 1981 imports for the three metals: cobalt, 14%; nickel, 6%; and chromium, 6%.

Claims of strategic necessity for the mine have set off a struggle far from the slopes of Gasquet Mountain itself. Since international tensions set off a panic three years ago that sent the price of cobalt and other strategic metals soaring, the price has dropped calamitously, causing mining entrepreneurs in other parts of the country to abandon the search for such metals.

Cal Nickel, however, is gambling on H.R. 5540, now before Congress, which would amend the Defense Production Act of 1950. The measure would provide a $5-billion fund to allow price supports for strategic minerals. The U.S. Senate version of the bill has deleted the subsidy. It is expected to be hammered out in conference, however.

The Sierra Club and a host of other environmental organizations, including the Smith River Alliance, a local group active in the controversy, all oppose federal price supports for strategic minerals. But in the past, Cal Nickel has shown an adroit political sense and an ability to get what it wants by hiring such luminaries as Democratic National Chairman Charles T. Manatt to lobby for the firm's interests.

"We believe the Cal Nickel Smith River Project would be economically feasible only with federal price guarantees," said Sierra Club public-lands specialist John Hooper. Other analysts agree with Hooper. But Cal Nickel officials say there is no problem, that they can go ahead with construction even without federal subsidies.

If construction does indeed go forward, the company says it will mine about 3.3 million tons of dirt annually, yielding about 50 pounds of strategic metals from each ton. These are used as alloys to harden superlight metals for aircraft parts, aerospace vehicles, power plants and a variety of tools and drills. Another by-product, magnesium oxide, is to be produced at a rate of 1000 pounds a day and sent to Japan, where it is used to make firebrick for industrial kilns.

To Crescent City, with its economy in a shambles because of the recession in lumber prices, the jobs to be created by the mine sound like an unalloyed blessing. Cal Nickel, in a July newsletter, estimated at least 446 summer jobs would be created once the plant begins production, and 422 winter jobs. The construction labor force, sixteen months into construction of the plant, will swell to 1000 then die down to 150 eight months later.

Crescent City is not in a recession. It is in a depression. The town and surrounding Del Norte County are among the most economically depressed areas in California. Currently, 25% of the job force collects unemployment insurance. F. W. Godfrey of the Tri-Agency Economic Development Authority in Crescent said earlier this year that as many as 40% actually are out of work, but the benefits of some 15% have run out. Almost a fifth of the households in the county, he said, are at least a month behind on their electric bills.

The developers say the 440-odd permanent jobs will have a multiplier effect of 74 new support jobs for every 100 industry jobs, creating at least a measure of prosperity in the area.

But the environmentalists in Del Norte County and across the state are skeptical. Cal Nickel says 400 of the jobs can be filled by people with little or no mining or metals-processing experience, but the environmentalists say there is no guarantee they must be hired locally. The mine, they say, is liable to set off a boom-bust cycle that ultimately will be more damaging to the area than its current problems are.

Then there are the environmental problems, many of them described in the company's own draft environmental impact report issued last spring and later withdrawn when the firm developed a new sulfuric-acid leach process to extract metals from the ore.

Air pollution will be serious. A March 1982 "Operational Mine Plan" estimated that the mine's three plants would emit a total of about 3.5 tons per day of sulfur oxides and 6 tons a day of nitrogen oxides. These emissions would be carried by prevailing winds across proposed wilderness areas in Siskiyou County as well as into Josephine County, Oregon, just over the border. Both sulfur and nitrogen oxides are causes of acid rain.

The National Park Service Western Region has pointed out that "redwoods are known to be sensitive to sulfur dioxide and ozone," both of which would be produced by the processing plant. The Park Service is also concerned about significant increases expected in truck traffic on U.S. Highway 199, which runs along the northern border.

Water pollution is another key concern. The Smith River is not only an important recreational area, it is a critically important

producer of anadromous fish—salmon and steelhead—vital to the economy of the North Coast. Siltation, toxic substances and heavy metals in the Smith River would be disastrous to the fisheries.

The river is so special that when the State Wild and Scenic Rivers Act was passed in 1972, it designated the Smith and "all its tributaries" as part of the wild and scenic rivers system. The North Fork Smith, which flows along the eastern boundary of the Cal Nickel project, is designated as "wild" because there is no vehicular access to it. It is an area of geological instabilities; even Cal Nickel refers to the "landslide-dominated inner gorge" of the North Fork. Mining on the North Fork is planned.

As serious as these basic environmental problems are, Ernest W. Perry, Del Norte County planner, says they pale beside the question of revegetating the slopes where Cal Nickel will mine 3000 acres of its 8000-acre claim on Gasquet Mountain. (The land is not owned by Cal Nickel; it is part of the Six Rivers National Forest.)

Seventy-five-ton trucks will haul ore to the chemical processing plant. After the strategic metals are leached out, the pulverized soil will be returned to the 40-foot-deep pits where it has been dug. These pits, the environmentalists say, are the source of the biggest threat to the Smith's drainage itself. It is absolutely essential that the soil be revegetated within a year. Because of its unique climatological conditions, Gasquet Mountain receives about 140 inches of rain a year, with an average of three storms a year dropping as much rain in a single day as the storm that devastated the San Francisco Bay Area early in 1982. A phenomenal 240 inches of rain hit Gasquet Mountain during the past rainy season.

Cal Nickel officials claim to have a "fail safe" plan to capture runoff by using the natural contours of the mountain, supplemented with interceptor ditches, berms and terraces. The tailings, they say, will be mulched and fertilized and revegetated, and tree seedlings will be planted.

Environmentalists point out, however, that revegetation will prove very expensive and difficult. If revegetation is not attempted, or if it doesn't work, the results will be disastrous. If unstable soils are not revegetated quickly, Perry says, they could wash down into the Smith River, which now runs so clear it glints blue in the sun. The tailings will contain, among other things, the remains of the sulfuric acid used to leach out the cobalt and other metals.

Then there is the dam. In 1981, on the last night of the Carter administration, when then-Interior Secretary Cecil Andrus gave California's wild and scenic rivers federal protection, one small creek was written out of the designation by name. That was Hardscrabble Creek, a tributary described by a federal environmental impact statement as having "outstandingly remarkable fishery values." It was excluded from protection in order to accommodate Cal Nickel's mining plans. Cal Nickel hopes to build an earth-fill dam 230 feet high—as tall as a 15-story building—on Hardscrabble Creek to impound 21 acres of water for use at the dam.

Hardscrabble was left out of the federal designation but was protected by California's Wild and Scenic Rivers Act of 1972. Although the Smith is the only major river system in California without a single dam anywhere on any of its tributaries, a state Assembly bill removing Hardscrabble Creek from the act's protection was introduced by Assemblyman Douglas H. Bosco, who represents the area. It zipped through the legislature with only one dissenting vote, very little discussion and the blessing of the Brown administration. It had been opposed by the Sierra Club and several other environmental groups in four committees and both houses of the legislature.

State Resources Secretary Huey Johnson said the Brown administration still has its guard up, although Johnson was neutral on the bill. The Smith, he said, is fully covered by laws protecting water and air quality. Cal Nickel must obtain 17 permits from a combination of 58 state, local and federal agencies before construction is officially begun. (More than 300 test pits have already been dug and miles of road built as part of the preliminary stages.)

Cal Nickel seems very optimistic about solving the many environmental problems associated with the mine. But its first environmental impact report was found to be extremely unsatisfactory by a variety of agencies including the State Department of Fish and Game, which said it was "inadequate in its assessments of potential [harmful] impacts to fish and game." The State Air Resources Board, in a 10-page comment, found the EIR "full of numerous errors, omissions and questionable assumptions used to show the project will have substantially less impact on air quality than in actuality it will have."

By the company's own reckoning, the mine probably will be played out in 18 years at best, although the processing plant is expected to purchase laterite ore from other small deposits. (Cal Nickel has claim to another 17,000 acres in the area.) That will leave Del Norte County with another 400 to 500 workers who are out of work.

"There is the hazard, at least, that the word will get out that we have lots of jobs here and we may become a mini-Alaska," said John Diehl, one of the environmentalists worried about the impact of the mine.

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Diehl is also worried about the effect of the influx of new workers on schools, housing and a wide array of other social issues. For instance, 20-ton trucks will haul coal from a railhead in Coos Bay, Oregon, down US 101 to Smith River before turning up a dirt road to the mine site. About 54 loaded trucks a day will share a two-lane road with empty trucks, Winnebagoes and Airstream trailers if the company sticks to its original plan.

No one knows, at this point, if any of this will happen. Clearly, Cal Nickel is betting on an economic long-shot. The firm's annual report shows only $16.9 million in assets; in fact Cal Nickel is being threatened with a suit by Del Norte County Assessor Jerry Cochran because its records concerning possible delinquent back taxes are incomplete. Construction is expected to require nearly $260 million and probably a good deal more after inflation. The price of cobalt, $40 a pound during tension in Zimbabwe-Rhodesia and other South African nations where most of the world's supply originates, has sagged to about $14 today. Without price supports, Cal Nickel could be in trouble. A Cal Nickel manager says it isn't economically feasible to haul ore any farther than six miles for processing, which seems to suggest narrow margins of profit.

"Without cobalt," Cal Nickel said in its July newsletter, "nearly all U.S. industry would come to a halt within a year or two." The firm says any cutbacks in American imports would have far-reaching effects on the national economy and national defense.

That assessment has led others to question the wisdom of taking one of the nation's largest domestic supplies of cobalt out of the ground now. For one thing, as the firm's counsel, Richard A. Haft, said in an interview, there is no real guarantee that the strategic metals from Gasquet Mountain are going to end up in a national stockpile. Asked if the metals would indeed be reserved for American stockpiles, Haft acknowledged that Cal Nickel would sell to whomever wants to buy it. There is plenty of nickel and chromium in a new Datsun or Toyota, and Japanese industry is just as starved for cobalt as is the United States.

In a letter to Sierra Club activist Susie Van Kirk, Cal Nickel president William Hosken wrote: "The primary objective of California Nickel is to provide a reasonable return on the investment of its shareholders while doing business in a socially responsible manner. Naturally, we would sell our products where the return is best and there is no guarantee that that would always be within the United States." ☐

John Berthelsen, a general assignment reporter for the Sacramento Bee, *has covered politics and government in Sacramento for eleven years.*

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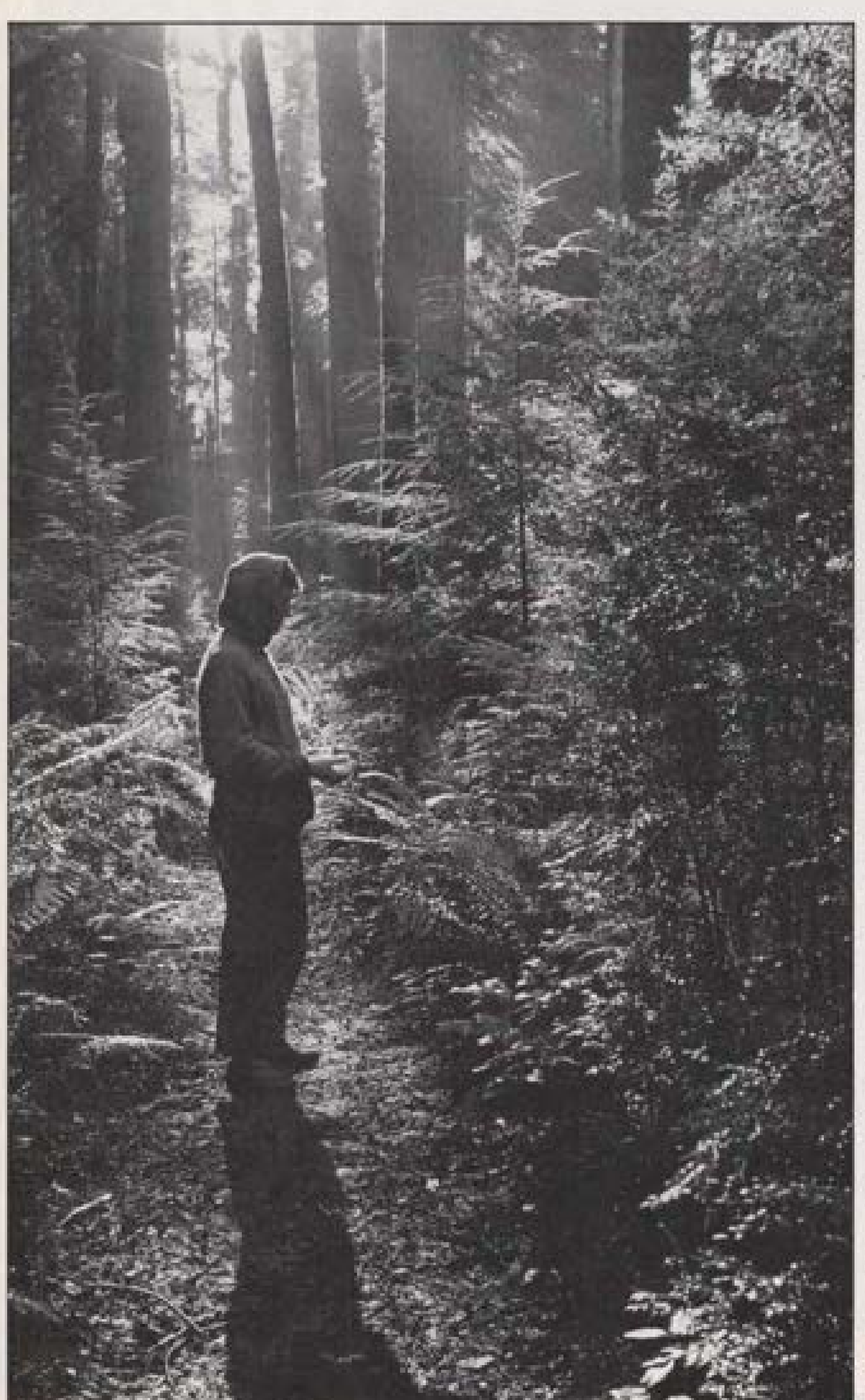
1983 Spring Outings



Jedediah Smith Redwood State Park PHILIP HYDE

There is something here for almost everybody—trips so varied they range from leisurely to strenuous, from desert to snow areas. Look carefully. You'll find backpacking, junior backpacking, water trips with rafts, boats, or canoes, skiing, service trips, highlight and base camps, a trip to Hawaii and, something new this year, a bus trip.

Sierra Club trips are generally organized on a cooperative basis—trip members help with camp chores, including food preparation and cleanup, under the direction of a staff member. First-timers are often surprised at the satisfaction derived from this participation. To determine which outing best fits your ideas of vacation and adventure, read the following trip descriptions carefully and see "For More Details on Spring Outings." Reservation requests are being accepted now for all spring trips. See "Reservation Cancellation Policy for Sierra Club Trips" (page 71) and trip application form. Watch for your January/February issue of SIERRA for the complete listing of 1983 Outings.

(292) Adirondack Ski Touring, New York—January 16-21. Leader, Walter Blank, Omi Rd., West Ghent, NY 12075. Cost: $330.
On this trip we ski to different inns or wilderness log cabins each day. Your baggage is carried for you by vehicle. The trip includes lodging, meals and assistance in transferring your luggage. It features continuous wilderness skiing in the southern Adirondacks. Leader approval required.

(224) High Desert Special Highlight Trip, Mojave Desert, California—January 30-February 5. Leader, Dolph Amster, P.O. Box 1106, Ridgecrest, CA 93555. Cost: $250.
Best visited in late winter when temperatures are moderate, illumination low and soft, and shadows transparent, the Mojave desert gives us a feast of the senses. We will car camp among sites in or near Death Valley, with ample time for leisurely exploration of colorful canyons, voluptuous dunes and formations unique to the Mojave. Members and their families, of all ages, are welcome—especially the artist or photogra-

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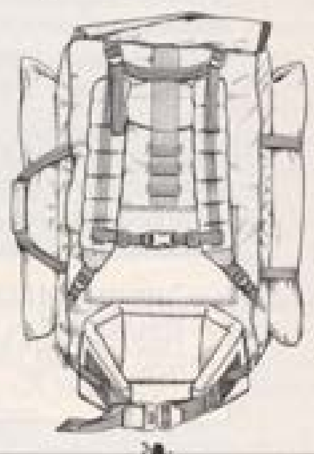

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in the *Journal of the American Chemical Society*, Oct. 10, 1979

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in *Annals of Allergy*, August 1979

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in *Veterinary and Human Toxicology*, June 1979

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R.E. Banks, in *Chemistry in Britain* (London), September 1979

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pher around whose deliberate ways this trip will be planned.

(26) Quetico-Superior Ski and Snowshoe Trip, Boundary Waters Wilderness, Superior Forest, Minnesota—March 6-13. Leaders, Mary and John Wheeler, 2690 Huron St., Roseville, MN 55113. Cost: $325.
From our lodge accommodations on a lake at the edge of the Boundary Waters Canoe Area, we will ski and snowshoe on day trips over 55 kilometers of groomed ski trails adjacent to the lodge, and on portage trails and frozen lakes along the Minnesota-Ontario border. Trails are available for novice to expert skiers. March weather in northern Minnesota is ideal for outdoor activity, and there will be adequate time for wildlife and bird watching, photography, and enjoying the winter scenery. No experience necessary. Leader approval required.

(27) Spring on the Island of Hawaii—March 25-April 2. Leaders, Lynne and Ray Simpson, 1300 Carter Rd., Sacramento, CA 95825. Cost: $390.
A week-long adventure preceding Easter will feature hikes among the volcanic craters, visits to the beautiful beaches and historic monuments (Heiaus, petroglyphs) of the 'big island.' Campsites are located in beach parks and private lands as varied as this lovely island. Rental cars provide a variety of options each day for trip participants; there will be at least one overnight backpack trip offered.

(28) Springtime in the Anza-Borrego Desert, California—March 26-April 2. Leader, c/o Ray Des Camp, 510 Tyndall St., Los Altos, CA 94022. Cost: $215.
Springtime in the desert should be experienced by everyone. So again Base Camps return to California's largest state park, about 90 miles northeast of San Diego to enjoy the flora and fauna of the living desert during Easter week.

(29) Mammoth-Mt. Lewis Alpine Ski Tour, Inyo Forest, Sierra—March 27-April 2. Leader, Bob Paul, 13017 Caminito Mar Villa, Del Mar, CA 92014. Cost: $200.
To experience the grandeur of the High Sierra in winter, we will ski at elevations of 10-12,000 feet. We will head north along San Joaquin Ridge and into the Thousand Islands Lake basin, camping in the shadows of majestic Mt. Ritter and Banner Peak. Climbing Donohue Peak and Mt. Lewis, we will overlook the spectacular Yosemite and Minarets Wilderness high country. All supplies will be carried except for a mid-trip food cache. One layover day will allow exploratory skiing without packs. This 31-mile tour is rated moderate-strenuous, and is for strong intermediate skiers with snow camping experience. Leader approval required.

ERIC FREDRICKSEN

(30) Red Rock Trail Maintenance Service Trip, Coconino Forest, Arizona—March 27-April 2. Leader: Jim Ricker, 525 S. Elden, Flagstaff, AZ 86001. Cost: $75.
The Red Rock area of central Arizona, geologically the eroding edge of the Colorado Plateau, contains several RARE II areas and one wilderness. The Forest Service is trying to upgrade their trail system here as most of the trails were developed through use by ranchers and settlers. Steep grades, rocky terrain, erosion and heavy brush plague these trails. We will probably work the Loy Canyon Trail (5 miles, 4720-6400). There will be time to explore the canyons or photograph views from Secret Mountain. Expect warm days in the lower elevations and a chance of snow in the higher elevations. Leader approval required.

(31) Mazatzal Wilderness Service Trip, Tonto Forest, Arizona—April 3-9. Leader, Rodney Ricker, P.O. Box 807, Cottonwood, AZ 86326. Cost: $75.
Especially beautiful in the spring, the little-used Mazatzal Wilderness is part of one of the largest roadless wilderness areas in the state. This backpack trail maintenance trip is in rugged and picturesque mountain country, cut by steep-sided canyons. Pine and Douglas fir in the higher elevations yield to the upper Sonoran Desert. Leader approval required.

(32) Crater Lake Cross-Country Ski Tour, Oregon—April 10-16. Leader, Marriner Orum, 2389 Floral Hill Dr., Eugene, OR 97403. Cost: $180.
Crater Lake, a superior area for ski touring, is spectacular with surrounding cliffs and mountains in their mantle of snow. The first three days will be day touring from a base camp; after that we will carry all of our gear on a four-day, 38-mile tour around the lake. There will be time to make interesting side trips as we proceed around the lake. The weather is unpredictable; a moderately strenuous trip, you'll need to have the stamina to ski tour with a full pack. Leader approval required.

(33) Spring in Canada's Coast Mountains, Tweedsmuir Park, British Columbia—May 9-15. Leaders, Katie Hayhurst and Dennis Kuch, Box 108, Hagensborg, BC, Canada V0T 1H0. Cost: $480.
Spend a week with us in a log home in the mountains of British Columbia. While the peaks are still blanketed with snow, orchids bloom and bald eagles reclaim their nests in the glacier-carved valley of the Atnarko River. Daily forays seeking out pockets of new life are followed by home-cooked meals, fresh baked bread and quiet evenings in front of the fireplace. Celebrate the rebirth of spring in Tweedsmuir Wilderness Center, formally Talchako Lodge. This is a unique opportunity to explore a remote and rarely visited Canadian wilderness.

(34) Redwood Parklands Family Basecamp, Redwood Park, California—May 23-31. Leader, Mia Monroe, 428 10th Ave., San Francisco, CA 94117. Cost: $215; children under 12, $190.
Along the Avenue of the Giants we journey to our first camp along the rugged northern California coast. Nearby are tidepools, lush fern-lined canyons, and herds of roosevelt

elk. We next hike a short distance to our river camp for a visit to the world's tallest trees. Our redwood country exploration continues north for fishing, naturalist-led hikes and nature study from our last camp among the towering trees and spectacular rivers. Special visits to critical areas in Redwood National Park, a lighthouse and a fish hatchery can be other high points. Our varied activities and leisurely pace make this a perfect family camping experience.

(35) Rogue River Trail Wilderness Lodges, Oregon—May 15-20. Leader, Mark Minnis, 14900 Galice Rd., Merlin, OR 97532. Cost: $455.
Hike the historic Rogue River Trail through the Wild Rogue Wilderness, carrying only a day pack. Other gear will be carried by raft which will follow the trail along the river. We will stay in rustic wilderness lodges each night with clean beds, hot showers and fabulous home-cooked meals. Two layover days will be spent at Half Moon Bar, where we can enjoy the beauties of spring and the abundant wildlife of the Rogue River canyon. Bring your cameras; spring birds and flowers will highlight this trip.

(36) Navajo Mountain-Rainbow Bridge Highlight Trip, Arizona/Utah—June 5-11. Leader, John Ricker, 2610 N. 3rd St., Phoenix, AZ 85004. Cost: $305.
Rainbow Bridge, a 300-foot natural arch, deep sandstone canyons, domes and slickrock as well as a 10,000-foot granite mountain are the main features of this modified highlight trip. The Navajo Indian reservation in northern Arizona and southern Utah is the location of this moderate trip. Members will carry personal gear; food, water and commissary equipment will be carried by packstock. We will travel about 60 miles in six days.

Backpack Trips

Backpack trips offer the greatest freedom for exploring the wilderness because everything you need is on your back. Young and old are today showing an eagerness for the adventure, solitude and personal challenge of backpacking. Sierra Club trips provide all these rewards as well as the example of how to backpack knowledgeably and comfortably. Backpacking is a strenuous activity, however. For a trip of a week, the starting load may weigh from 35 to 40 pounds, but the exhilaration and extra physical effort make you feel more a part of the wilderness. With today's new designs in backpacking equipment, almost anyone in good health and physical condition can enjoy backpacking. The possibilities are endless.

All trips require members to help with the cooking and camp chores, although the leaders provide commissary equipment and food. Trip members bring their own packs, sleeping bags, shelter and clothing.

Trips are rated as leisurely (L), moderate (M), or strenuous (S), or levels in between, by the individual leader. The ratings are made as accurately as possible on the basis of total trip miles, cross-country miles, the aggregate climb, the difficulty of the terrain and its elevation.

Strenuousness is measured also in less obvious ways. On desert trips members are often required to carry liquids that significantly increase their pack loads. Canyon trips entail steep descents and climbs, and temperatures may vary considerably from top to bottom.

The demands of backpacking require that the leader approve each trip member based on responses to questions about previous backpacking experience and equipment. If you lack experience or have never backpacked at high elevations for any lenth of time, you may qualify for one of the less strenuous trips by going on weekend backpack outings prior to the trip. Unless otherwise stated, minimum age on backpack trips is 16, although qualified youngsters of 15 are welcome if accompanied by a parent.

(37) Superstition Wilderness, Tonto Forest, Arizona-March 13-19. Leader, Bob Flores, 2112 W. Portobello, Mesa, AZ 85202. Cost: $155.
This 124,140-acre wilderness area has everything from pine forests to desert flora, and a rich historical and legendary past. We will cover a variety of terrain at an enjoyable pace of up to eight miles per day. Elevations range from 6266 feet at Mound Mountain to 2163 feet at Canyon Lake. Easy access by air brings you to nearby Phoenix. (Rated M)

(38) Galiuro Wilderness, Coronado Forest, Arizona—March 20-26. Leader, Sid Hirsh, 4322 E. 7th St., Tucson, AZ 85711. Cost: $150.

Grand Gulch, Utah DONALD GIBBON

From a distance, this seldom visited southeastern Arizona mountain range appears as a long, brushy, rocky ridge with a few high knobs. There is no hint that inside is a series of beautiful canyons. We will travel both on ridges with their magnificent vistas and in the densely vegetated canyons dropping down through steep rugged slopes of brightly colored soils and rocks. A layover day will give us an opportunity to visit an old gold mine where, in 1918, one of Arizona's most famous shootouts took place. (Rated M-S)

(39) Ventana-Desert to Redwood Forest, Coast Range, California—March 26-April 2. Leader, Bob Berges, 974 Post St., Alameda, CA 94501. Cost: $140.
Spring is the time to get your boots moving on the pleasant trails of the upper Big Sur drainage. Camps will be on 1000 meter ridges and in river canyons. Our layover day will be spent at Redwood Creek. A short walk from there will let us enjoy a soak in a hot spring. On a short side trip, we will walk to the top of South Ventana Cone (4965), the highest summit in the wilderness. Wildflowers will be blooming and all required hiking is on trails. (Rated L-M)

(40) Canyons of Death Valley, Panamint Range, California—April 3-9. Leader, Geoffrey Faraghan, 9 Bell Waver Way, Oakland, CA 94619. Cost: $160.
Starting below sea level at Stovepipe Wells, we will be driven across the floor of Death Valley and up alluvial fans to the Cottonwood Mountains. Hiking up through the canyons we will see complex geology, Indian petroglyphs, wildflowers, cactus, wild burros, and possibly bighorn sheep. We will then hike along high valleys (4000-6000) where we will find yucca trees and our two water caches. At 7000 feet on old sheep trails, there will be great views of Death Valley before we descend to its floor. (Rated M-S)

(41) Pyramid Lake, Nevada—April 16-22. Leader, Serge Puchert, 1020 Koontz Ln., Carson City, NV 89701. Cost: $170.
Following the historical route of John Fremont, we will explore (through short cross-country moves) the high desert in the wildest region of Paiute Indian Reservation. Desert sights will include spring flowers, pelicans, wild mustangs and fantastic views of Pyramid Lake which should satisfy the most avid camera buff. (Rated M)

(42) Pines to Palms Skyline, San Jacinto Mountains, California—April 24-29. Leader, Louise French, 1690 N. 2nd Ave., Upland, CA 91786. Cost: $120.
Springtime in southern California is warm and smog-free—the best time to visit. Ride

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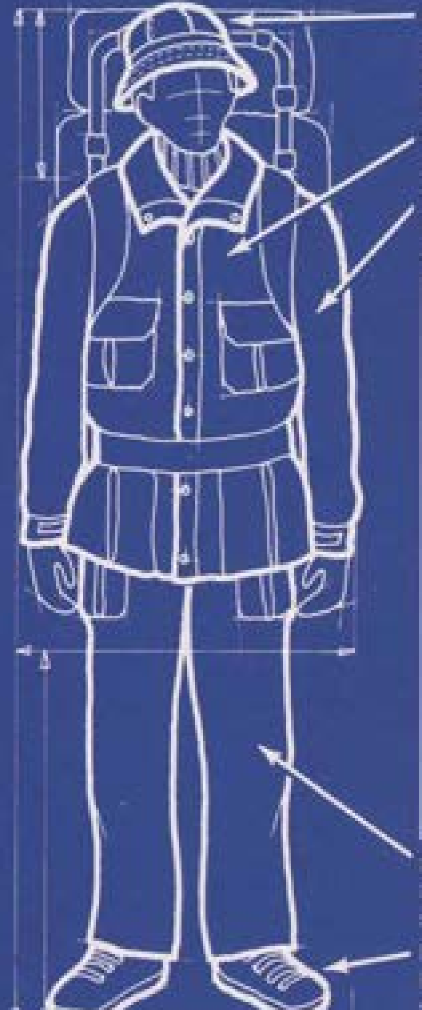

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the Palm Springs tram and hike to the top of Mt. San Jacinto. From timberline pines into oak woodlands to Sonoran desert we will progress from winter to summer through a varied display of spring flowers. A nice conditioning hike for experienced backpackers, this moderate outing is also well-suited for beginners. (Rated M)

(43) Sycamore-Secret Canyons, Sycamore Wilderness and Red Rock-Secret Mountains, Coconino Forest, Arizona—April 24-30. Leader: Jim Ricker, 525 S. Elden, Flagstaff, AZ 86001. Cost: $165.
The southern edge of the Colorado Plateau rises sharply above the valley. Sycamore and Secret are just two of the many beautiful canyons in this 2000-foot sandstone escarpment. Hiking on rough trails and in rocky creek bottoms, we will average eight miles per day. There will be one layover day and one 1600-foot climb. Views from the top of Secret Mountain (6600) are spectacular and the seldom visited side canyons offer excellent opportunities for exploration. Warm days in the lower elevations and a chance of snow in the higher elevations can be expected. (M)

(44) Kanab Canyon/Thunder River, Grand Canyon, Arizona—April 30-May 7. Leader, Peter Curia, 1334 W. Willetta, Phoenix, AZ 85007. Cost: $185.
The area covered by this trip is probably the most interesting in all of the Grand Canyon. Some of the marvels that we will encounter are the redwall narrows of Jumpup, Scotty's Hollow, Whispering Falls, Deer Creek Falls, and the explosive headwaters of Thunder River. We will have seven days of hiking over difficult terrain; and, even though there are no layovers, the sights we see will be memories forever. (Rated S).

(46) Snowbird Wild Area, Nantahala Forest, North Carolina—May 21-28. Leader, Dave Bennie, 2405 Churchill Dr., Wilmington, NC 28403. Cost: $220.
Leisurely hiking 25 miles during late spring, we will explore the Snowbird Creek ecosystem, a RARE II study area located just south of the Smokies near Robbinsville. In 1836, a remnant band of Cherokees utilized the ruggedness of this area as a refuge, avoiding forced relocation to Oklahoma over the now infamous "Trail of Tears." There will be time for sidetrips, swimming, and a day and a half layover. Mostly trail hiking; suitable for novices with elementary skills. (Rated L)

(47) Kilmer-Slickrock Wilderness, Nantahala and Cherokee Forests, North Carolina/Tennessee—May 21-28. Leader, Ray Abercrombie, 5409 Crossrail Dr., Burke, VA 22015. Cost: $220.
Located just south of Great Smoky Mountains National Park, this area contains one of the largest virgin forests in the east. With two layover days, participants will have opportunities to swim in Slickrock Creek and photograph spring wildflowers. We will hike a total of 27 miles with packs, but a mid-week cache will lighten our load. (Rated M)

(48) Paria Canyon, Utah—May 22-28. Leader, Nancy Wahl, 325 Oro Valley Dr., Tucson, AZ 85704. Cost: $175.
Paria River has carved a deep twisting canyon through red sandstone with alcoves, grotto, natural arch and immense amphitheaters. Shallow river wading follows the route, outstanding in color and form, of Indians and early settlers as the Paria flows to empty into the Colorado River. There will be ample time to explore all the side canyons and sights in one of the superb areas of the northern Arizona/Grand Canyon regions. (Rated L)

Junior Backpack

(49) Ventana Spring Spectacular Junior Backpack, California—March 26-April 2. Leader, Patrick Colgan, P.O. Box 325, La Honda, CA 94020. Cost: $145.
The Ventana is a vast, dramatic and totally enchanting wilderness area in California's Los Padres National Forest. In winter there are fierce storms roaring in off the Pacific. In spring, when we will be there, the streams are filled with run-off and the high green meadows are an excruciating delight of riotous wildflowers. This moderate (occasionally strenuous) trip with at least one layover day is mainly for experienced backpackers. But strong beginners are welcome. Parents help with providing transportation.

Bus Trips

Bus outings have been a very successful enterprise in several Sierra Club chapters for many years. We think they're a trend of the future, particularly as fuel becomes scarcer and more expensive. Aside from the obvious advantages of saving fuel and decreasing smog and traffic congestion, they allow us to visit a number of areas beginning from a single location, skipping the time and trouble of searching for a ride or driving yourself to a remote trailhead. There is no need to waste time setting up sometimes lengthy car shuttles. You travel in relaxed air conditioned comfort, with plenty of opportunity

For More Details On Outings

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

- -

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to get acquainted with your fellow trip members.

(50) Land of the Sleeping Rainbow Bus Trip, Arizona/Utah—May 15-29. Leader, Margaret Malm, 1716 Maple, Santa Monica, CA 90405. Cost: $670.

Using our chartered Greyhound bus to transport us comfortably from place to place, we will explore by leisurely to moderate day hikes (plus boat and jeep) such places as Grand Canyon, Arches, Capital Reef, Bryce, Zion, Canyon de Chelly, Rainbow Bridge, Natural Bridges (National Parks and National Monuments), and the Escalante area. This is a good way to get acquainted with some of the land Ed Abbey has made famous.

WATER TRIPS

(45) Whale Watch, Magdelena Bay, Baja, Mexico—February 19-26. Coordinator, Ruth Dyche, 2747 Kring Dr., San Jose, CA 95125. Cost: $975.

Magdelena Bay, one of the largest Grey Whale mating grounds in Baja, covers 80 square miles of quiet, deep water and a network of canals, inlets and islands. We will have the privilege of observing at close quarters the activity of these magnificent animals. There are mangrove swamps which support a variety of sea and shore birds, giant rolling sand dunes and shell-filled stretches of beach along the Pacific. Our home will be the 'Don Jose,' a comfortable 80-foot boat with room for group and individual relaxation. Meeting place is San Diego.

(51) Scenic Suwannee River Canoe Trip, Georgia/Florida—March 13-19. Leader, Rick Egedi, 117 Hawkins Ave., Somerset, KY 42501. Cost: $285.

Enjoy warm sunny days, cool nights, spectacular scenery and good companions while canoeing on the Suwannee River. Paddle through the headwaters of the Suwannee River to White Springs, Florida. This river system is fed by more first-magnitude springs than any other in the world. We will paddle ten to fifteen miles a day through Class I rapids and slow currents with a stop-over day for relaxing. The scenery on the upper stretches alone makes the trip worthwhile. Suitable for beginners through advanced. Leader approval required.

(52) Dismal Swamp Canoe and Base Camp, Virginia/North Carolina—April 3-9. Leader, Connie Thomas, 128 Muriel St., Ithaca, NY 14850. Cost: $165.

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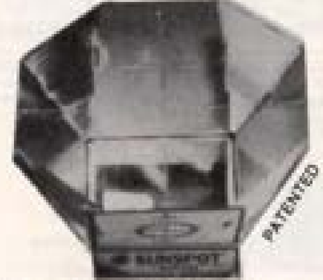

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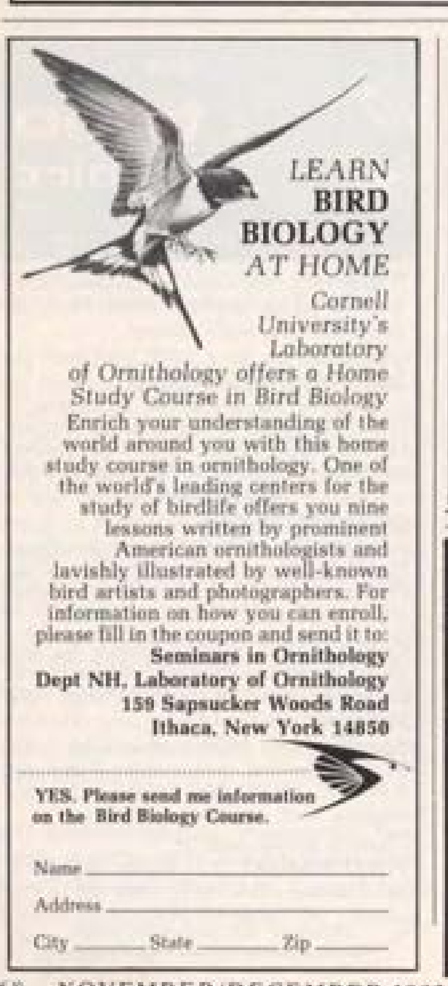

Carolina, the Dismal Swamp comprises an area of lowlands, lakes, and the Northwest River. Our early spring trip should allow observation of birds, frogs, snakes, and budding flora while avoiding mosquito season. We will enjoy a base camp on the Northwest River where exploratory day hikes and trips on tributaries and backwaters are possible. An overnight to Merchants Millpond State Park, with stands of cypress and tupelo, is planned. While canoeing will be mostly easy, it is recommended that participants have some prior canoe and camping experience. Leader approval required.

(53) Okefenokee Swamp Canoe Trip, Wildlife Refuge, Georgia—April 17-22. Leaders, Mary and John Burton, 80 Appollo Rd., Whitman, MA 02382. Cost: $260.
Canoeing 43 miles of flat water on the prairie swamplands and cypress forests of one of the east's last remaining wildlands, we will see reptiles, amphibians, birdlife, small mammals and plantlife. Each night we will camp on a different island or hammock, providing an overview to the swamp. There will be no layover days. Fishing is very good; at this time of year the water is high, bugs are few by day and temperatures are in the 80's. A shuttle will be necessary. Previous canoeing experience is required; minimum age is 16 solo, 14 with parent or guardian. Leader approval required.

(54) Grand Canyon Oar Trip, Arizona—April 29-May 12. Leader, Bob Hansen, 5436 Hewlett Dr., San Diego, CA 92115. Cost: $1220.

(55) Grand Canyon Oar Trip, Arizona—May 26-June 6. Leader, Harry Neal, 25015 Mt. Charlie Rd., Los Gatos, CA 95030. Cost $1180.
The Colorado River, one of the greatest whitewater rivers in the world, provides an unforgettable experience for those who travel its 225 miles by oar-power. Each of our rafts will carry four to five passengers and a professional oarsman. The quietness and natural flow of the rafts will allow us to fully appreciate the character of this river and the solitude of the canyons. We will stop frequently to study and explore things and places often missed on commercial trips. Minimum age 15 (18 solo). Cost includes roundtrip transportation from Flagstaff, Arizona.

(56) Pine Barrens Canoe and Backpack, Pinelands Reserve, New Jersey—May 8-14. Leader, Herb Schwartz; 2203 St. James Pl., Philadelphia, PA 19103. Cost: $215.
Located surprisingly near New York and Philadelphia, this 2000-square-mile wilderness remains a sand-bedded forest with

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CITY	STATE ZIP	YOUR HOME PHONE:	
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PLEASE PRINT YOUR NAME AND THE NAMES OF OTHER FAMILY MEMBERS GOING ON THE TRIP	AGE	RELATIONSHIP	MEMBERSHIP NO.	HOW MANY OUTINGS HAVE YOU BEEN ON? Chapter	National
		SELF			

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		DEPARTURE DATE:	
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IMPORTANT INFORMATION

1. Refer to the Reservation/Cancellation policy page for important payment and instructions for filling out this application.
2. Deposits are nonrefundable, from a confirmed trip space.
3. All participants age 12 and over must be Sierra Club members to attend an outing.
4. Your address may be released to other trip participants for purposes of ride-sharing or other trip-related purposes.
5. Not all trips can accommodate special dietary needs or preferences. Contact the leader for this information before applying.
6. Applications for trip space will be accepted in the order that they are received at the following address:

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cedar swamps and canoeable rivers. Once a colonial industrial area, its bog-iron furnaces supplied Washington with cannonballs. This vanished society is recreated in the restored town on Batsto, where our trip begins. We'll circle the heart of the Pine Barrens, hiking through ghost towns, cedar swamps and cranberry bogs, then canoeing on winding dark cedar water rivers. Leader approval required.

(57) Owyhee River "Row-It-Yourself" Raft Trip, Oregon—May 15-19. Leader, Jim Gifford, 1806 SE 37th St., Portland, OR 97214. Cost: $370.
Flowing through a series of dramatic high desert canyons in southeast Oregon, the Owyhee offers superb whitewater and a continually changing geography, reminiscent of the Grand Canyon. This is perhaps the most remote river trip in Oregon and true wilderness. The river is on the Pacific flyway and is a birdwatcher's paradise. No rafting experience is necessary; this trip is ideal for the beginner or intermediate rafter. Instruction in rowing and all river gear is provided. A geologist who has spent time studying the area will accompany us.

(58) Rogue River Raft and Lodges, Oregon—May 23-27. Leader, Mark Minnis, 14900 Galice Rd., Merlin, OR 97532. Cost: $570.
Raft the wild and scenic Rogue River while staying in wilderness lodges with all the comforts of home. We will spend five days on the Rogue in our boats led by experienced river guides. Each night we will be staying in a wilderness lodge with home-cooked family style meals, clean beds and hot showers. We will layover at Half Moon Bar and enjoy the awakening of spring. A naturalist will lead field trips to discuss the flora and fauna of the canyon. We hope to have a chance to hear the drumming of the ruffed grouse in the splendor of the Wild Rogue Wilderness.

Foreign Trips

For descriptions of all 1983 Foreign Trips, please see the July/August issue of SIERRA.

(620B) Annapurna Christmas Trek, Nepal—December 23-January 11. Leader, Bill Bricca, P.O. Box 159, Ross, CA 94957. Cost: TBA.
Spend your Christmas holidays in Nepal amidst some of the Himalaya's most spectacular peaks. Days are almost always sunny and the skies clear at this time of year. Highest camp at the Annapurna Sanctuary is about 13,000 feet.

(630) Galapagos Islands—February 17-March 10. Leader, Betty Osborn, 515 Shasta Way, Mill Valley, CA 94941. Cost: $2185.
Explore with us Darwin's legendary islands of discovery. Unmolested by predators, Galapagos wildlife accepts humans as equals and are not afraid as we walk slowly among them. As we sail among the starkly beautiful islands, we visit bird colonies unique to each

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island, see giant tortoises and marine iguanas and swim among playful sea lions and penguins. Optional trip to Machu Picchu.

(635) Tanzania Wildlife Safari—January 30-Feburary 14. Leader, Emily Benner, 155 Tamalpais Rd., Berkeley, CA 94708. Cost: $1765.

February is summertime in Tanzania and the wildebeest calving season. We will travel across the Great Rift Valley to Lake Natron, breeding ground for thousands of pink flamingos; into the Ngorongoro Crater, with a high density of lion and hyena; and out onto the Serengeti plain. This trip will be an adventure in the heart of East Africa's game country. Optional climb of Mt. Kilimanjaro follows.

(640) Chilean Andes—February 1-26. Leader, H. Stewart Kimball, 19 Owl Hill Rd., Orinda, CA 94563. Cost: $1865.

Participants on this trip to the central Andes of Chile will be guests of the Rancagua Mountain Club. We will be taken to three different areas for camping, each for approximately four days—the "Altos de Vichas," province of Talca; the "Rio Cipreses," province of Cachapoal; and the "Valle del Rio Ronadero," province of Colchagua. Elevations are around 1700 meters. Before the mountain experience, three days will be spent in and around Santiago.

(645) Jamaica's Mountains and Coast—March 20-April 2. Leader, Ron Skelton, 1220 Winding Branch Cir., Atlanta, GA 30338. Cost $840.

Experience the variety of friendly Jamaica: hike in the Blue Mountains, explore unspoiled beaches and enjoy the profusion of semi-tropical flowers, birds and mild temperatures. The hikes will be moderate to rigorous, interspersed with several "as you like it" days. Accommodations will be in tents, cabins, hostels and old plantation houses.

(650) Hut to Hut Backpack in Corsica—May 30-June 10. Leaders, Michele Ferrand and Jim W. Watters, 600 Caldwell Rd., Oakland, CA 94611. Cost: TBA.

Snowcapped mountains surrounded by the azure Mediterranean—this is Corsica, a sparsely populated island 100 miles south of the Riviera. Along with the fragrance of the flowering *maquis* we will find a richness of scenery, culture and history nicely isolated from mainland Europe. We plan a moderately paced hut to hut backpack in the mountains, along with visits to the coast and small villages. We will carry light loads and supplement our diet with local delicacies from *bergeries* along the way.

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Reservation/Cancellation Policy

NOTE: Our transfer policy has changed. Please review before transferring.

Eligibility: Our trips are open to Sierra Club members, applicants for membership and members of organizations granting reciprocal privileges. You may include your membership application and fee with your reservation request.

Children 12 and over must have their own memberships.

Unless otherwise specified, a person under 18 years of age may join an outing only if accompanied by a parent or responsible adult or with the consent of the leader.

Applications: One reservation form should be filled out for each trip by each person; spouses and families (parents and children under 21) may use a single form. Mail your reservation together with the required deposit to the address below. No reservations will be accepted by telephone.

Reservations are confirmed on a first-come, first-served basis. However, when acceptance by the leader is required (based on applicant's experience, physical condition, etc.), reservations will be confirmed upon acceptance; such conditions will be noted. When a trip is full, later applicants are put on a waiting list.

Give some thought to your real preferences. Some trips are moderate, some strenuous; a few are only for highly qualified participants. Be realistic about your physical condition and the degree of challenge you enjoy.

The Sierra Club reserves the right to conduct a lottery to determine priority for acceptance in the event that a trip is substantially oversubscribed shortly after publication.

Reservations are accepted subject to these general rules and to any specific conditions announced in the individual trip supplements.

Deposits: The deposit is applied to the total trip price and is NONREFUNDABLE unless (1) You cancel from a waiting list or are still on the waiting list after the trip departs, (2) You are not accepted by the leader, (3) the Sierra Club must cancel the trip.

Trips priced to $499 per person: $35 per individual or family application.

Trips priced over $500 per person (except trips listed as "FOREIGN"): $70 per person.

Trips listed in "FOREIGN" section: $100 per person.

Payments: Generally, adults and children pay the same price; some exceptions for family outings are noted. You will be billed upon receipt of your application. Full payment of trip fees is due 90 days prior to trip departure. Trips listed under "FOREIGN" section require payment of $200 per person six months before departure. Payments for trips requiring the leader's acceptance are also due at the above times, regardless of your status. If payment is not received on time, the reservation may be cancelled and the deposit forfeited.

No payment (other than the required deposit) is necessary for those waitlisted. The applicant will be billed when placed on the trip.

The trip price does not include travel to and from the roadhead nor specialized transportation on some trips. Hawaii, Alaska, Foreign and Sailing trip prices are all exclusive of air fare.

Transportation: Travel to and from the roadhead is your responsibility. To conserve resources, trip members are urged to form car pools on a shared-expense basis or to use public transportation. On North American trips the leader will try to match riders and drivers. On some overseas trips, you may be asked to make your travel arrangements through a particular agency.

Cancellations: Notify the Outing Department by letter or by phone if you must cancel from a trip. Any refund will be based on date this notice is received. Refunds *less the nonrefundable deposit* will be made as follows:

No. of days prior to trip	Amount of remaining balance refunded
60	100% refunded
14-59	90% refunded
4-13	90% (if replacement is available from a waiting list)
	75% (if no replacement is available from a waiting list)
0-3	No refund
"No-show" at roadhead, or if you leave during trip	No refund

NOTE: River, sailing and whalewatching trips have a different cancellation policy. In order to prevent loss to the Club of concessionaire cancellation fees, refunds on these trips might not be made until after the departure. On these trips, refunds will be made as follows:

No. of days prior to trip	Amount of trip cost refunded
45	90% refunded
30-44	75% refunded*
14-29	50% refunded*
0-13	No refund*

*If the trip place can be filled, then the cancellation policy penalty shall amount to the nonrefundable deposit or 10% of the total trip cost, whichever is greater.

The Outing Program regrets that it cannot make exceptions to the cancellation policy for any reason, including personal emergencies. Cancellation for medical reasons is often covered by traveler's insurance, and trip applicants will receive a brochure describing this coverage. You can also obtain information from your local travel and/or insurance agent.

Transfers: A $35 fee is charged for transfer of any confirmed reservation on a trip priced up to $499. Transfer of a confirmed reservation from a trip priced $500 and more per person or a transfer 0-13 days prior to trip departure is treated as a cancellation. No transfer fee is charged if your application is pending the leader's acceptance, or if you transfer from a waiting list.

Medical Precautions: On a few trips, a physician's statement of your physical fitness may be needed, and special inoculations may be required for foreign travel. Check with a physician regarding immunization against tetanus.

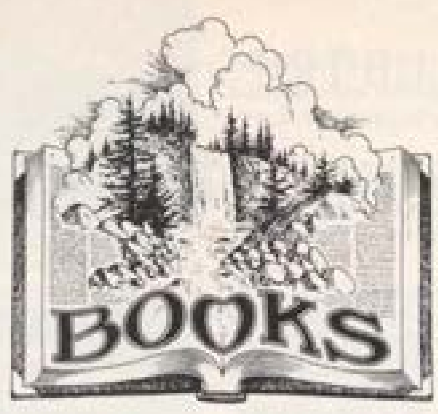
Emergency Care: In case of accident, illness or a missing trip member, the Sierra Club, through its leaders, will attempt to provide aid and arrange search and evacuation assistance when the leader determines it is necessary or desirable. Cost of specialized means of evacuation or search (helicopter, etc.) and of medical care beyond first aid are the financial responsibility of the ill or injured person. Medical and evacuation insurance is advised, as the Club does not provide this coverage. Professional medical assistance is not ordinarily available on trips.

The Leader Is In Charge: At the leader's discretion, a member may be asked to leave the trip if the leader feels the person's further participation may be detrimental to the trip or to the individual.

Please Don't Bring These: Radios, sound equipment, firearms and pets are not allowed on trips.

Mail Checks and Applications to: Sierra Club Outing Department, P.O. Box 7959, Rincon Annex, San Francisco, CA 94120

Mail All Other Correspondence to: Sierra Club Outing Department, 530 Bush Street, San Francisco, CA 94108 (415) 981-8634



Anti-environmentalism Revisited

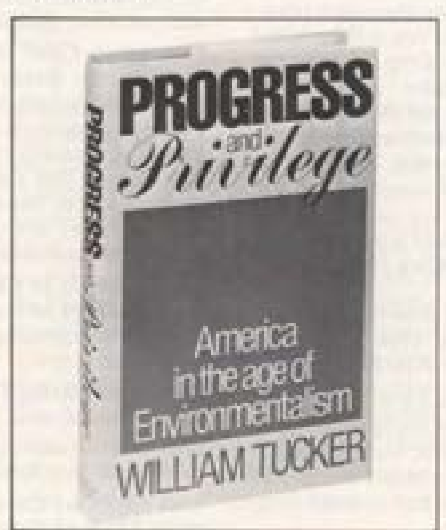
ELLEN WINCHESTER

Progress and Privilege, America in the Age of Environmentalism, by William Tucker. Anchor Press/Doubleday, New York, 1982. Cloth, $17.95.

Here is a book written by a man obsessed with the conviction that environmentalism stands in the way of improving the human condition. Presented as a fair-minded, extended essay analyzing "the broad social, economic, and intellectual themes raised by the environmental movement," it is really a polemic whose aim is to return the country to the unregulated industrial anarchy of the nineteenth century. Supported by selective reading in environmental literature, the author's themes develop every case, despite some backhanded occasional praise, as variants of the conclusion that the only thing holding back a brave new world is environmentalists' opposition to economic growth and technological innovation. If, as the jacket states, the author has found a middle ground "between the old, unheeding technological progress, and the counter extreme of no-growth and technological regression that has become the norm of the environmental era," he has failed to map it in this book.

The driving assumption of the author, that we have been living in an Age of Environmentalism, may strike some environmentalist readers with agreeable surprise. "Today, environmentalism comes close to being a national religion," says Tucker. To those of us lobbying, building coalitions, writing letters and making phone calls on behalf of resource protection on the Outer Continental Shelf or in the Overthrust Belt, for clean air and water, for the safe disposition of nuclear wastes, for the protection of the nation's remaining wetlands, and so on, it is news that we are living in such an age. But any glow that we might feel on being told about the ascendancy of our cause is quickly dimmed by the realization that we have been raised up only to be cast down, blamed for overpopulation and poverty in the developing world as well as for the economic slowdown and fear of the future in the industrialized West.

The mainspring of the whole book seems to be the author's idea that environmentalists are the allies and spiritual heirs of what remains of an old landed aristocracy. The aristocratic connection dates back to an article he wrote for *Harper's Magazine* in 1977 claiming that the people who opposed a pumped-storage generating plant on the Hudson River were in fact wealthy local land-owners posing as environmentalists. In a prodigious feat of extrapolation, in his own mind Tucker has extended this one case of ascribed identity to apply to the whole universe of environmental action. "Why," he asks, "has there evolved a social group that opposes *every form* of economic growth and progress as a *general* policy? Why is it that environmentalists are able to roam the country elevating local and personal oppositions to a matter of universal principle? How is it that they are able to act as free-lance opponents of industrial activity? What motivates them?"



The premise of this astonishing question is mistaken. Environmentalists have worked hard for years *for* renewable energy, *for* sustainable agriculture and silviculture, *for* a kind of progress that endures longer than a single resource.

The author's answer to his loaded questions is that the historical resistance of elites to change initiated the environmental movement and informs its every action. To a "very happy and comfortable confluence of interests" the rich "contributed those ineffable qualities of class, knowledge, and dignity necessary to such undertakings," and the upper-middle class brought its legal and bureaucratic expertise. As a result, "at heart environmentalism favors the affluent over the poor, the haves over the have-nots" and "In the end, it has become an extremely conservative doctrine, fearful of the future, despairing of human effort, worried about change and wed to the status quo."

Part of the reason Tucker is able to make such outrageous generalizations hinges on the way he uses such words as "progress," "forward," "growth," and the phrase "environmental movement." He explicitly defines progress as material progress and as "the process whereby each generation tries to make life better for itself and for the next." He even concedes that environmentalist efforts to preserve the earth's natural beauty, prevent the destruction of the environment, conserve resources, save endangered species and pass along a cleaner, healthier world show a concern for the future. "But progress cannot simply be a matter of trying to preserve what we already have. We must move forward as well." It is an idiosyncratic conception of "forward" that considers passing along a cleaner, healthier world as moving backward. For that matter, trying to preserve what we have left, to spare the future the mistakes of the past, could only be a form of forward motion.

"Growth" in Tucker's lexicon means expanding the production of goods, achieved by expanding the use of resources, expanding employment opportunities, and expanding the economy. He uses growth as a synonym for progress. He seems not to have heard of robotics or technological unemployment. He certainly does not mean growth in social and technological strategies that would permit a steady-state society. That is clear when he discusses alleged mistakes in the Club of Rome report, *The Limits to Growth*. He remarks in passing, "It is also questionable whether we should spend too much time trying to plan for contingencies that may be a century or two away, or may never come at all."

Tucker likes much better the second Club of Rome report, *Mankind at the Turning*

Point, which found that Southeast Asian countries would have to build industrial export capacity in order to pay for imported food. Crows Tucker, "... it is the exact same principle discovered by the eighteenth and nineteenth century economists like Adam Smith, David Hume, David Ricardo, and John Stuart Mill. They called it 'comparative advantage' or, more simply, trade." Environmentalists, he says, have overlooked this simple solution to poverty in developing countries because "... few things get environmentalists more riled up than the idea of a world of growing interdependence." Like other, similar statements that riddle the book, this is egregiously wrongheaded. It has been the environmentalists who have had to point out, time after time, the interconnectedness of nature with the human community. The Stockholm UN Conference on the Environment was a living monument to the realization, as has been the ongoing work of hundreds of environmental groups worldwide.

Tucker goes on to describe approvingly how, without any help from the United States or planning at all, "South Korea, Taiwan, Malaysia and Thailand are already turning themselves into the 'sweatshops of Asia' using the resources they have—people—to trade for the resources they lack—large amounts of food." Could there be anything dangerous to an interdependent world in these impacted populations reenacting all the waste of human and natural resources of the 19th-century Industrial Revolution, especially as the sophisticated levels of automation become cheaper than armies of sweatshop labor? Apparently only an environmentalist would ask.

Because of resource "substitutability," Tucker disdains worry about resource scarcity (and disdains environmentalists who worry about it). He says, "When one resource begins to grow relatively scarce, the price goes up. This cues us to start looking for other ways of doing the same thing with cheaper (meaning more abundant) resources." Furthermore, resources never really disappear: When the price is right they can be dug up and recycled. Better yet, "even with a finite amount of resources, as long as we keep slicing the portions thinner and thinner, we end up with what is essentially an infinite amount of resources." Better technology makes it possible to perform the same function or produce the same goods with continually thinner slices. Maybe so with platinum or cobalt—it won't work with sliced ham. Tucker comes down to earth enough to admit that burning fossil fuels for energy irretrievably destroys them as an energy source. The sunny side of that admission is a high regard for solar—and nuclear—energy. (For more on the Tucker view of energy we will have to wait for a later book.)

Environmentalists might well give way to despair if they accepted Tucker's analysis of the consequences of their activities. He claims that to the degree they have been able to bring about the regulation of industry, particularly polluting industries (which Tucker believes can be better controlled by giving polluters price incentives to clean up), environmentalists have *helped* big business by excluding competition. Big business can afford pollution-abatement equipment that small business cannot. Tucker does not explain why the chemical industry, the coal industry, the petroleum industry, the hard-rock mining industry and the nuclear industry spend so much muscle and money to defeat efforts to regulate what they do with their wastes and how they reorder the landscape. Perhaps it is not merely that environmentalists have been unwittingly on the side of big business, but that big business has been blind to its friends.

Tucker, on the other hand, believes himself to be a friend of small business. Indeed, his habit of considering (even mistakenly) any action remotely tinged with an ecological purpose as being a part of the "environmental movement" comes dangerously close to agreement with the *Small is Beautiful* crowd. They, too, believe in the value of backyard inventiveness, no matter what Galbraith has written. "The environmental movement *cannot* be the enemy of small business and free enterprise," writes Tucker.

Another area where environmentalists have backed the wrong horse, in Tucker's view, concerns overpopulation in the developing countries. Shepherded by such writers as Paul Ehrlich, Barry Commoner, Garrett Hardin and Frances Moore Lappé (quarreling as they go), environmentalists have opposed the transfer of modern industrial technology and thus delayed the reduction in population experienced as economies improve. In spite of us, he argues, because of the success of the Green Revolution and the aforementioned sweatshops, population growth rates are slowing all over the world. Presumably, with more technology transfer, growth rates would slow even more. But Americans, not just environmentalists this time, stubbornly refuse to recognize improved conditions because, "Underneath, we unconsciously recognize that a rapidly developing Third World does constitute an implicit challenge to our own privileges." Tucker doesn't specify the kind of technology we continue to withhold, leaving the reader to wonder what he is driving at.

Environmentalists have opposed the transfer of certain types of technology to developing countries. For the most part,

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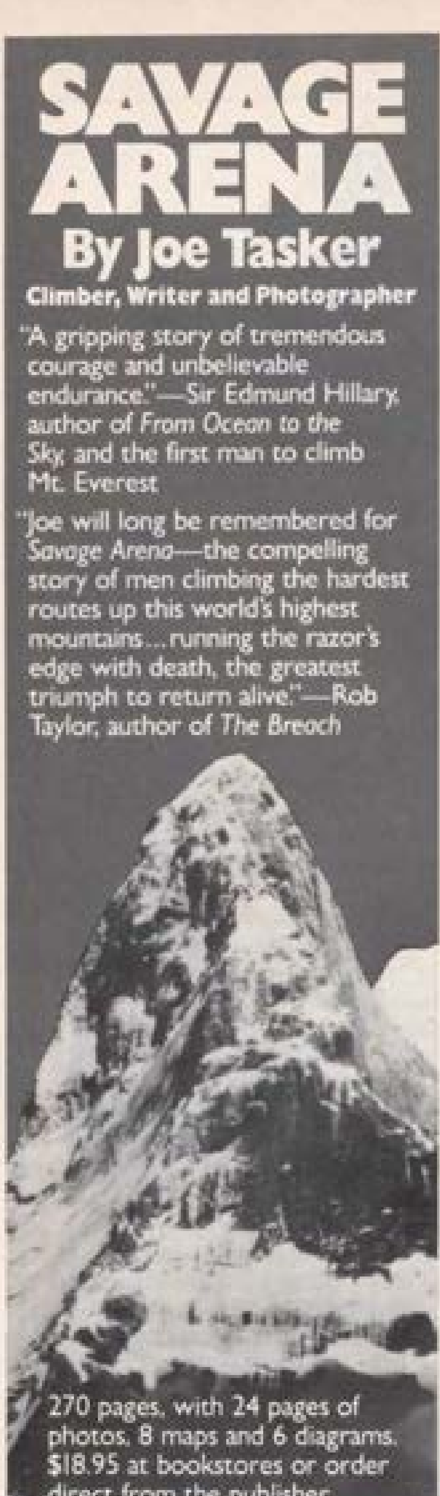

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these are the same technologies opposed in developed countries—nuclear power development, wholesale resource depletion, advanced weapon systems and highly processed, nutritionally inadequate foodstuffs.

None of the charges made against environmentalists is more baffling than the charge that they are opposed to science. After drawing an analogy between nineteenth-century opposition to railroads and electricity and alleged contemporary fear of new technology, using the dispute over genetic engineering as Exhibit A, Tucker zeroes in on the environmental impact statement as the bitter fruit of environmentalist opposition to science. "The effort to write down ahead of time every conceivable result that might occur from trying to use a new technology," he warns, trades the risk-taking necessary to science for bureaucratic certainties.

It does not seem to have come to Tucker's attention that scientists are conspicuous by their presence among environmentalists; that it is they, from their university or government laboratories, who view with alarm the consequences of air pollution from tall stacks or the danger of poorly designed nuclear power plants. Without their testimony, freely given, and without the life- and earth-science departments in the universities, environmental gains would not be a target worth writing a book about.

"We must once again muster the courage to continue the scientific adventure," Tucker dares to say, in an age of space shuttles, MIRVed missiles and electronic chips. He seems not to understand that there is adventure in discovering the processes by which sulfur oxides are changed into sulfuric acid droplets in the atmosphere just as there was in discovering—nuclear fission, for example. Or that failing to improve technology available to us now through computer modelling and risk analysis (new technologies themselves) before embarking on new ventures would be equal in folly to an ancient mariner failing to raise his eyes to the horizon before sailing out of port.

Finally, the author equates environmentalism with elitism, with all the latter's connotation of special privilege and opposition to change. The habit of dragging this equation into every discussion leads in one chapter to a leap from two people involved in a controversy over *in vitro* fertilization to an association between environmentalism and the right-to-life movement and right-wing fundamentalism. "Both share a distrust of human effort and a superstitious awe for nature and its arrangements, and both have no faith that human life can be made better and believe that we probably deserve worse." This statement is simply nonsense, as is the elitist argument. Seeing Tucker use

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the phrase "environmental movement" like a snowball, picking up every kind of debris as he rolls it along, I am almost afraid to use it myself; but to the degree that there is such a tide in human affairs, and I believe there is, it surely involves far more people than the membership of the major environmental organizations and the prominent writers in the field. It includes people who keep telling the poll takers they do not want air quality lowered, the millions who haul their campers to forests and parklands, the millions who fish and the millions who hunt, and the millions who take buses to the beach or walk to a nearby park for relief from stifling apartments. The membership of the environmental organizations is small compared to these millions, and they would not be of much influence if their concerns did not find an echo among large segments of the general population. Making fine distinctions of class among them is itself an elite preoccupation.

The real elite we all have to worry about during the age of Reagan, Gorsuch and Watt is the interlocking directorate of top corporate management currently running the country and repealing the hard-won environmental gains of the last decade.

Ellen Winchester is a former member of the Sierra Club's Board of Directors. She is currently SCCOPE Coordinator for the Florida Chapter.

THE FAILURE OF NOSTALGIA

DAVID SUMNER

The Angry West: A Vulnerable Land and Its Future, Governor Richard D. Lamm and Michael McCarthy, Houghton Mifflin, 1982. $13.95.

COLORADO'S RICHARD D. LAMM, a Democrat, has a long-time reputation as an environmentalist. As a state legislator he led the campaign against holding the Olympic Games in Denver; the event, he argued, would have caused an economic boom that couldn't be sustained. The philosophy he then espoused was one of slow and cautious economic growth. He rode an environmentalist tide into the governor's office in 1974. There, dealing with a consistently hostile legislature, his environmental record, after eight years of political buffeting, has been spotty.

With the help of Michael McCarthy, a talented and knowledgeable journalist, Lamm offers a politician's view not only of Colorado, but of the West. His geographic

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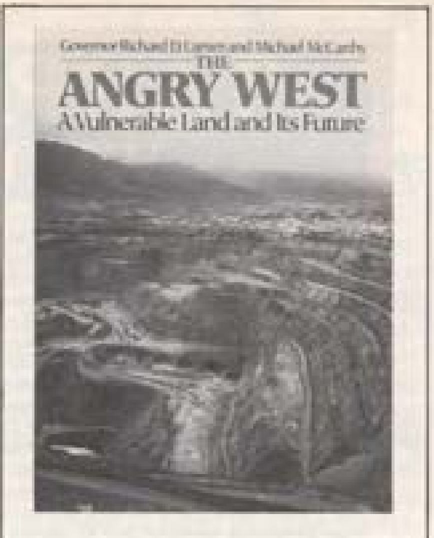
focus is the area between the 100th meridian and the Nevada-California line. There he explores a peculiar social fact. As has been evident in the region's history—starting before the fury of the nineteenth-century mining camps and continuing beyond the Sagebrush Rebellion of the late 1970s—westerners attack their problems with bursts of anger. The source of that anger, to the authors, seems to be resentment over exploitation: "For a hundred years," they write, "the West's mineral guts have been tapped, its human resources exhausted, always for the national welfare, always for others."

Today that anger runs strong, while its targets, both real and bogus, are various. Key chapters explore the particular terms of that exploitation: oil shale, coal, the MX, water projects and boom towns. Eastern power, corporate power, coyotes, bureaucratic insensitivity, the "feds" in general, Washington in general, federal landholdings in particular, higher grazing fees, tighter mining regulations, wilderness, wild rivers, environmentalists ("en-*varmint*-alists") and so forth.

No doubt the West (like the Northeast, like the South) has what might be called "a regional psychology," to which Governor Lamm is attuned. Those angry folks out there are votes. And they make a lot of noise that draws more votes.



But Lamm's book *The Angry West* (the title comes from a 1979 cover feature in *Newsweek*) does not make great sense. The underlying causes and conditions of western anger are cited but not analyzed, nor are its various sources—the people voicing the anger—sorted out. The result is an inconsistent and disconnected book.

This is unfortunate. Most of the West's most persistent environmental problems have significant social dimensions. For example, no amount of environmental or economic or scientific sense will resolve the predator-control issue. But some insight into the attitudes of "varmint hatin'" might. Only on the Sagebrush Rebellion does Lamm offer potentially fresh insight.

Lamm's gallery of western anger is interesting, but also haphazard and warmed over. In one early chapter, "the angry West" is anyone in Colorado or Utah threatened by oil-shale development—especially the people of the old, stable towns that have boomed. In another, it is those living in communities overwhelmed by coal development, which allows Lamm to extend his scope to Wyoming and Montana. Then it's the inhabitants, old or new, of any energy boom town where life has lapsed into a "semipermanent state of tension." Then it's those living in prospective MX country, especially Utah and Nevada.

In a later chapter, "the angry West" becomes the supporters and would-be beneficiaries of federal water projects—frustrated because these have been stalled first by the Carter "hit list" and now by the Reagan budget. Then there are the folks angry at federal law enforcement (especially EPA's), federal land management (especially BLM's) and federal landholdings (any agency's). By the time a reader finishes this book, he could well imagine the entire

Continued on page 86

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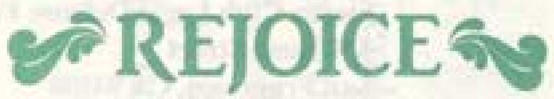

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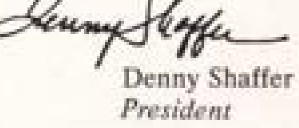
MESSAGE FROM THE PRESIDENT

Since becoming President of the Sierra Club in May, I have found this office to be everything I thought it would be and more: more meetings and press conferences; more letters to answer, problems to solve, and issues to address; more interaction with business and political leaders; more effort, time, and energy spent; and especially, more personal satisfaction. Being President of our pre-eminent and active Club is a great honor and challenge for which I am most grateful.

I am also thanking more people like you for your gifts to the Sierra Club family. Your participation as financial activists allows us to maintain our position of leadership and make sound environmental progress. Gifts to the Sierra Club, The Sierra Club Foundation, Sierra Club Committee on Political Education (SCCOPE), and Sierra Club Legal Defense Fund are growing in size, number, and importance. I cannot overstate the strength they give to our conservation programs and goals.

Because of our international network of volunteer activists, and the depth of commitment on the part of Club members, your gifts are effective here as nowhere else in the world. Our conversations with you as well as your continued support show you know about and believe in the Sierra Club's priorities. Last fiscal year, we received gifts in addition to membership dues from over 45,000 donors. I wish to take this opportunity to personally thank each of you.

As the holiday season approaches, I hope you will use the card and envelope facing this page and make a gift to the Sierra Club family. Join in this spirit of giving, a spirit which transcends the pocketbook and carries directly into action to protect our natural resources. Ours is a spirit of care for future generations of Americans, with the gift of a priceless national heritage. Thank you for your generosity and concern.



Denny Shaffer
President

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The Associates program of the Sierra Club was created to give special recognition to our friends whose annual (September 30-October 1) contributions to the Club, Foundation, Legal Defense Fund, and SCCOPE total $500 or more. Associates are given opportunities to participate in special events and small gatherings, and meet Club volunteer and staff leaders as well as other contributors. They are kept informed about Club successes, strategies, and plans. To show our appreciation of their support, we offer a Sierra Club book, list their names in our Annual Report, and are thanking them here in *Sierra*.

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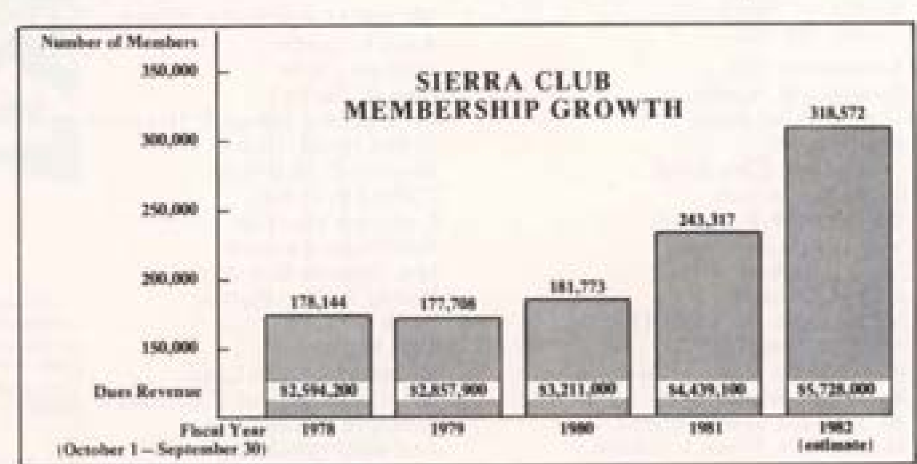

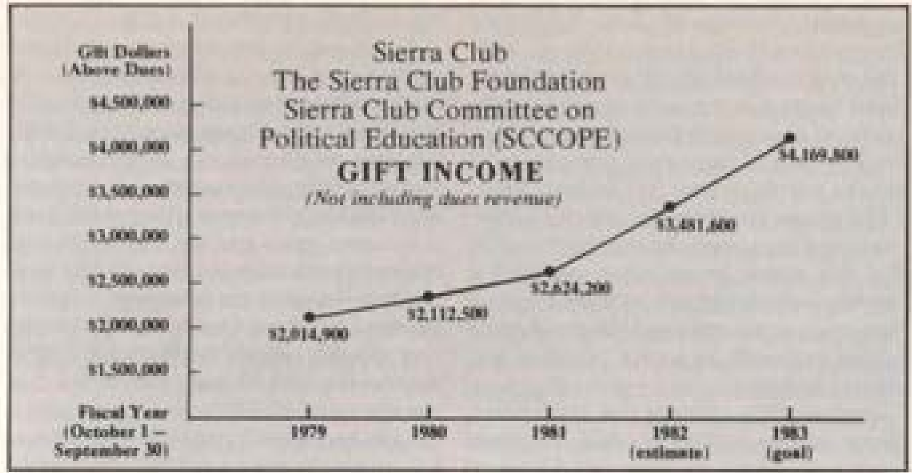

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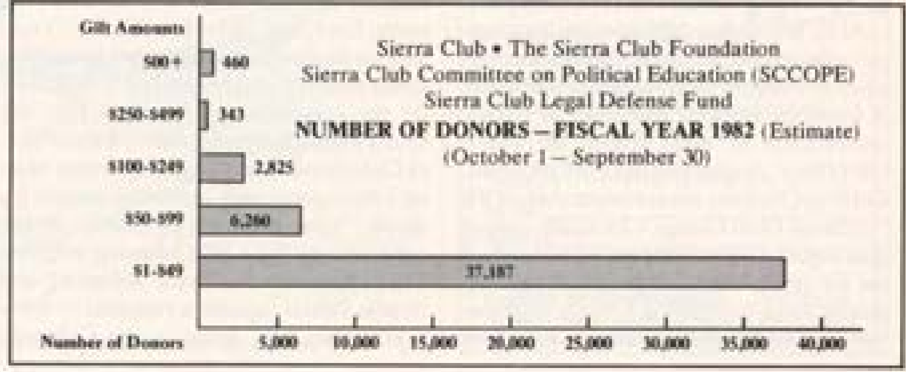

Ohio Chapter Shows How to Raise Funds

ROBERT IRWIN

After the 3500th ticket had been collected and the receipts and expenses tallied, the Ohio Chapter found that Galen Rowell's 1982 "Spring Tour" had netted more than $11,000. The 3500 ticket-buyers had attended Sierra Club photographer/writer Rowell's spectacular dual-screen slide show, "In the High Peaks of China and Tibet," during that mountaineer's four-day tour of four Ohio cities. Their $11,000, plus the $10,000 raised in the chapter's annual direct-mail appeal to its 8000 members, would give solid assurance that its new, full-time state lobbying effort could be continued.

The chapter took its first cautious step in 1977 when it retained a lobbyist in the state capital on a two-month trial basis for $1000. The direct fund appeal launched in 1978 raised nearly $10,000—a total the chapter has been unable to better since. Until late 1981, due in part to this poverty-level funding, no lobbyist had stayed on the job longer than nine months. Nevertheless, lobbying proved too valuable to abandon, and the Sierra Club had the only full-time environmental lobby in Columbus, the state capital.

At its September 1980 meeting the chapter's executive committee (excom) appointed a committee of two to look into the matter of funds for lobbying and make its recommendations. In mid-October the two—David Rice, chapter vice chair of Cincinnati, and Pete Clapham, conservation chair of the Northeast Ohio Group, Cleveland—issued their report. It went to the excom and each of the six group chairs. It proposed that the groups make fundraising a major responsibility and find ways to tap sources outside as well as within the Club. Each group was expected to commit a fair share of the funds it raised to lobbying, and to keep the rest. The chapter's fund appeal would continue. Most Sierrans in the eight-or-more widely scattered major metropolitan areas of Ohio tend to think of themselves as members of groups, not of a chapter. As Clapham puts it: "The groups are the major action centers, they have the troops; the chapter doesn't." For that reason he and Rice suggested a steering committee made up of one member from each group and one from the chapter excom to decide legislative priorities and direct a lobbyist.

Early in 1981, after the new chapter and group excoms had taken office, the basic recommendations of Rice and Clapham were adopted and the decision was made to hire a lobbyist. But the question remained: could the groups raise enough money for the chapter to meet a lobbying budget of around $25,000? No hiring would be done until a substantial sum ($15,000 or so) was in hand.

One person who received that October report of Rice and Clapham believed the funds could be raised, and he set about doing just that. Alan Kuper, newly elected chair of the Northeast Ohio Group, had no professional or other significant experience in fundraising. But before he was through with the 1982 "Spring Tour," this retired engineering professor proved himself a virtual impresario of the lecture circuit. An activist member of the group since 1973, Kuper saw the potential of its annual banquet as a fundraiser. Over the years it had developed into a social event with a celebrity speaker and special exhibits, but little profit. He had noted the success of the San Francisco Bay Chapter's "Events" program (see September/October 1980 "Observer") and contacted Ed Bennett, who has been directing that lecture-series fundraiser since the early 1970s. The Bay Chapter has been netting about $8000 a year from its series of four lectures, each with two performances. "Events" avoids the food hassle and attracts outside support and money. The NEO Group bought the idea. Its annual banquet became its annual show.

Kuper heeded Bennett's first rule for success: start publicity three months before the event. But Kuper had to bend Bennett's rule a bit for the first annual show in March 1981. It was January, and he still had no speaker. At the suggestion of Jonathan Ela, the Club's Midwest representative, former Sierra Club director and rugged riverman Martin Litton generously agreed to narrate his movie, "Grand Canyon by Dory." At the same time he did a little lobbying with two Ohio representatives John Seiberling and Dennis Eckart, against a proposal to allow radical rises and drops in the Colorado River's flow through the canyon, and an all-out publicity drive began.

Kuper and the group also observed Bennett's second rule: get the tickets sold. A double sellout of more than 1500 netted the Northeast Ohio Group more than $6500, "proving to them that a succesful lobby program can be sustained in good part by the show approach. Kuper said the publicity and enthusiasm generated by the event had spurred membership and enhanced the Sierra Club's image in the community. (Membership Chair Fred Oswald led the Northeast Group's efforts in the Club's 1982 membership contest and came within two memberships of taking first place.) In a coordinated effort, Litton had also successfully shown his film for the Miami Group in Cincinnati the day before.

By the summer of 1981 there was no doubt that the chapter's groups indeed could raise substantial funds. In September, the chapter excom hired a full-time lobbyist. In November two lobbyists—the man-and-wife team of Janet Gentzler and lawyer Ron Good—reported for duty. According to Kuper, they have both had experience dealing with lawmakers as employees of the Legislative Service Commission, have become respected in Columbus as tireless, effective environmental advocates, and have worked smoothly under the direction of the chapter's lobbying steering committee, chaired by Tom Jenkins.

Also in September, the excom accepted Kuper's offer to coordinate the annual show statewide. Since both the Miami and NEO groups had already signed up Galen Rowell for March 1982, there was no problem in extending his tour to two more cities, Akron and Columbus, for the Portage Trail and Central groups. By October everything was ready to roll in what became known as Rowell's Ohio Tour, headed by four show committees each with approximately four core members.

Early in October Kuper sent out the first four circulars to the committees to report progress, set priorities and deadlines and give detailed instructions for carrying out all the steps necessary to the succes of the show. Publicity; ticket sales and distribution; flyers and posters; extra donations from an ad-book and from sponsors, patrons or donors; travel arrangements; technical equipment details—all were masterfully orchestrated by Angie Tornes (Central), Curt Downing (Portage Trail), Sharon Stolzenberger (Miami) and, of course, chapter coordinator Kuper (Northeast Ohio).

At the Sierra Club's annual meeting last May, the Council honored Kuper, who ends his term in January, with its Service Award for his outstanding work in fundraising for the Ohio Chapter and the Northeast Ohio

Group. He intends to still be active in the spring annual show and has already lined up Dewitt Jones, author/naturalist/photographer, to narrate his film "John Muir's High Sierra" on the Ohio Tour in March.

For more information on the perils and rewards of running a multigroup fundraiser, contact Alan Kuper at 2265 Delaware Drive, Cleveland Heights, Ohio 44106; telephone (216) 229-2413.

FRIENDS OF THE LIBRARY

Two years ago the shocking discovery was made in the William E. Colby Memorial Library at Club headquarters that many volumes of rare mountaineering books had been stolen. Coming close on the heels of the theft in 1979 of three original oils by William Keith, the disappearance of the books jolted Club leaders into giving serious attention to security systems in general, and to the Colby Library in particular. The remaining rare books and works of art were whisked away to safe storage off premises while thought could be given to their future. Among the options: tighten security, store the material elsewhere or sell the treasures to someone who could adequately preserve them.

In March 1981, finding the Club in a budget crunch, the executive committee of the board of directors instructed the staff to investigate the sell option and report back to the full board at the May meeting. Meanwhile, a task force led by the history committee co-chair, Ann Lage, sent a news release to all California chapter newsletters.

It urged the board not to "sell off this embodiment of the Sierra Club heritage" but to provide funding for improved library staffing and operations. In addition, Club members were asked to express their views to the task force, to pledge funds for purchasing library security systems, and to join a proposed Friends of the Colby Library group. (Other newsletters across the country reprinted the article.) Responses showed enthusiastic support for the retention of the books and art. Some $1200 poured in, most of it in donations, not pledges. At its May meeting the board scotched the sell option, adopting the task force's recommendations virtually intact, and the results have been impressive.

By late last summer 120 persons had joined the Friends of the Colby Library and donations had topped $3600. A fireproof safe and a locking steel cabinet were installed and the rare books returned to the Club. Ten original Ansel Adams photographs were restored, signed and reframed under plexiglass. These, along with four magnificent oil paintings, have been securely bolted to the walls.

A standing library committee was appointed. The members immediately set to work on a comprehensive acquisitions and services policy, which the board approved in May of this year. The Friends have held three well-attended slide-lecture programs in the library on geologist Josiah Whitney, John Muir and naturalist James Graham Cooper, and have plans for many more.

Perhaps the most important consequence

BRUCE COCHRAN

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—New Scientist, August 12, 1982

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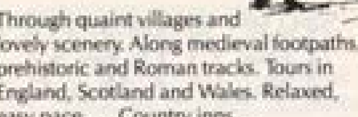

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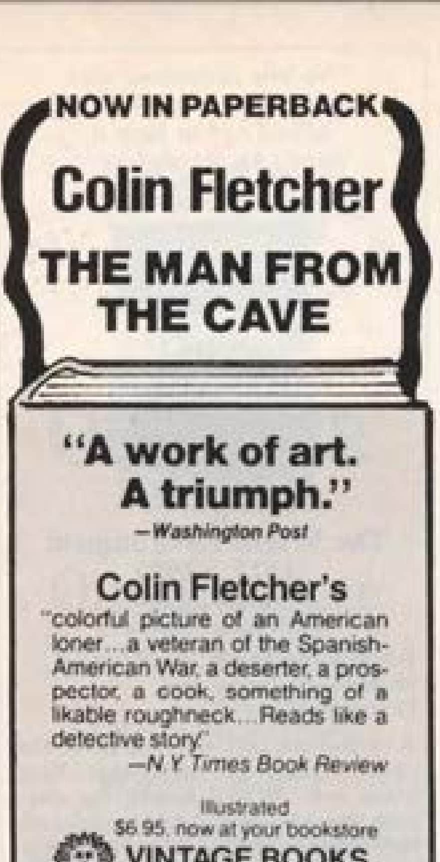

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CROWN

of the whole "Shall we sell the crown jewels?" episode, Lage believes, was that it caused people to become aware of the library and recognize it as a vital arm of the Club—not only in its role of preserving and protecting irreplaceable legacies of the Club's past, but in serving as a working resource-center today and in the future.

There are a number of ways you as an individual member can help the library:

• Join the Friends of the Colby Library, with a tax-deductible donation of $20 or more. Contributions should be made to Sierra Club Foundation, 530 Bush Street, San Francisco, CA 94108.

• Serve on the library committee, which advises and assists the librarian, recommends library policy and procedures, guides and supports the Friends program, and helps to raise funds. It especially needs individuals knowledgeable in the preservation of historical photographs and art work.

• If you live in the San Francisco Bay Area volunteer for tasks in the library itself.

• Donate books, journals, documents, photographs and art that may be of either historical or contemporary value to the Club. Librarian Barbara Lekisch wants to build up a file of photographs and slides of wild and scenic areas (particularly places that the Sierra Club has fought to protect) and of the animal and plant life indigenous to those areas. Older issues of particular periodicals are also needed to complete the collections. Lekisch can furnish interested donors with a list of these.

Historian Lage is interested in preserving chapter records and photos, particularly of their beginnings and major conservation campaigns. Some chapters have already arranged to place historical materials in libraries and universities. The history committee is continuing its oral history project, taping the recollections of Club leaders, and it invites more Club-wide participation.

For more information on any of the above projects or the ways you might help, contact the appropriate persons listed below:

• Barbara Lekisch (librarian), Sierra Club, 530 Bush Street, San Francisco, CA 94108. Telephone (415) 981-8634.

• Tim Treacy (library committee chair), 452 Dewey Blvd., San Francisco, CA 94116 Telephone (415) 557-0661.

• Ann Lage (history committee co-chair), 5768 Mendocino Ave., Oakland, CA 94618. Telephone (415) 655-3462.

HOW ABOUT GIVING THE CLUB A BUILDING?

In November 1985 (just three years away!) the Sierra Club lease expires on its San Francisco headquarters. The Club already has outgrown all space at 530 Bush Street, forcing the Books Department to resettle a mile or so away. Now the search is on for new quarters for all departments. They will probably remain in the San Francisco Bay Area, but as yet no final decision has been made by the board of directors. The foreseeable need is for about 40,000 square feet, according to Audrey Berkovitz, director of development, and she dares to hope there is someone among our readers willing to give the Club an office building or some other similarly capacious structure. Someone just might have *the* building for the Club. Or it might be a building the Club could swap or sell, and thus make it possible for the Club to acquire one that it needs where it needs it. No matter how the gift is made, Berkovitz points out, a donor of real estate enjoys some big tax and income advantages. A life-income trust can be set up with the donor receiving all net rental income until death, when ownership of the property is assumed by the Club. Or a donor might decide to give a certain percentage of the property each year to the club, collecting an ever-smaller share of the rent until the Club takes full ownership.

If you have any ideas, leads, tips or, better yet, an actual building to give away, write or call Audrey Berkovitz, Director of Development, Sierra Club, 530 Bush Street, San Francisco, CA 94108, or telephone (415) 981-8634.

HIGH TRIP '83

Start planning now for a great weekend in the Colorado Rockies next summer. The Sierra Club's assembly will be held June 30 to July 4 in Snowmass, Colorado. Titled "High Trip '83," the gathering will have as its theme "The Politics of Conservation." The emphasis will be on having a good time, as Club members enjoy workshops and seminars, hikes, river trips, panel discussions and get-togethers.

The registration fee is a modest $35 for adults and $10 for children under 12. Lodging choices range from sharing condominiums at $18 a night per person to hotel accommodations at $22. Camping facilities, unfortunately, are very limited and located several miles from the conference.

The seminars and discussions will focus on such issues as wilderness protection, national park management, forest policies, pollution control, and urban problems; sessions will also explore Club activities, outings as a tool for activists, SCCOPE, membership development, the international program, photography, lobbying and the Club's upcoming centenary. There will be

many other topics on the agenda; the goal is to meet members' needs.

High Trip '83 will be limited to 1500 participants, and the organizers think it will sell out rapidly. You may register now—the early applicants will have the best chance. Send your name, address and membership number along with your registration fee to High Trip '83, Sierra Club, P.O. Box 7959, San Francisco, CA 94120. Make checks payable to Sierra Club.

SIERRA CLUB PERIODICALS

VICTORIA WAKE

Sierra Club periodicals are as diverse as the Club's campaigns. Members are well acquainted with *Sierra* and their own chapter and group newsletters. They may not be aware, however, of the range of information available in the many special-interest periodicals published by other Club entities. Addressing subjects from nuclear waste to population to electoral politics, these weeklies, monthlies and occasionals give environmentalists the action-oriented news they need to be effective in the Club's grassroots efforts.

Broadest in scope is the *National News Report (NNR)*. Published about 35 times a year by the Club's Conservation Depart-

Sierra Club
National News Report

Senators Sign On for Wilderness

ment, the *NNR* follows environmental developments in Congress, the administration and the courts. This six- to twelve-page news summary unravels the often mysterious workings of government and pinpoints the public officials who should be hearing from environmentalists on the issues. Highly recommended for the armchair conservationist and essential for the activist, the *NNR* is a

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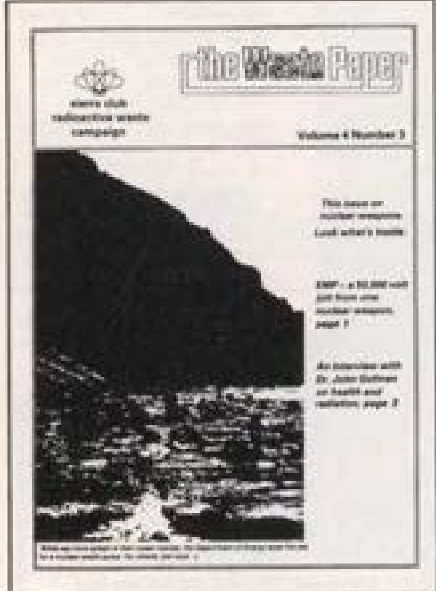
real bargain at only $12 a year. The *NNR* (as well as the *International Report* described below) can be ordered by sending a check payable to Sierra Club to P.O. Box 7959, Rincon Annex, San Francisco, CA 94108.

The Club's International Earthcare Center publishes the *International Report*, a monthly four-page update on the global environmental scene. The report gives special attention to activities of the United Nations and to international conferences and treaties, and it highlights major conservation problems in other countries. Each issue also includes reviews of important new publications on the global environment. Subscription price is $7 for members, $10 for nonmembers. (Follow the ordering instructions for the *NNR* above.)



The Waste Paper is the quarterly publication of the Sierra Club Radioactive Waste Campaign. The eight-page periodical in newspaper format covers the full spectrum of nuclear-waste issues, with articles on waste-disposal technology and transport, worker safety, legislative and court activity, and nuclear weapons. Reports on citizen efforts around the country, along with tips on organizing, make *The Waste Paper* an outstanding, comprehensive source of information on the controversial menace of nuclear waste. The newspaper is available for $8 a year from Sierra Club Radioactive Waste Campaign, 78 Elmwood Avenue, Buffalo, NY 14201.

For wildlife activists the Club publishes the monthly *Wildlife Involvement News (WIN)*. In a twelve-page compendium of wildlife news, it features both the political and the scientific aspects of wildlife management and of preserving endangered species. More than 30 articles, news briefs, action alerts and book reviews appear in each issue,

on subjects ranging from insects to whales, from threatened African primates to cactus thievery in the American Southwest. Readers receive a good overview of wildlife problems around the world and, more important, are told what part they can play in preserving the health and diversity of wildlife. Subscriptions to *WIN* are $8 a year. Make checks payable to Sierra Club *WIN* and forward to *WIN*, % S.A. Wald, 39 Essex Street, Jersey City, NJ 07302.

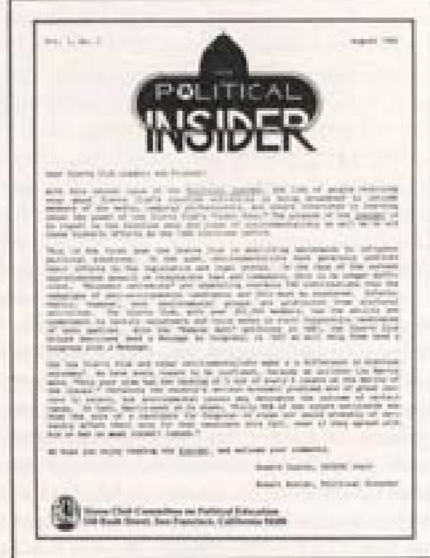
The four publications that follow are not distributed on a paid-subscription basis. They are sent to a relatively small number of activists and Club leaders, those with special, active concerns for the issues covered. Members should ask to receive these newsletters only if they are especially interested in one or more of the particular subjects and would like to become involved. As the budgets for the periodicals are small, contributions toward production costs would be appreciated.

Citizens' Update on Shoreline Policy (CUSP) is the quarterly publication of the Club's National Coastal Committee. This eight-page newsletter focuses on the problems of pollution and development along our coasts and wetlands. Off-shore drilling, marine sanctuaries, marshlands and urban waterfronts are among the topics addressed. Articles also alert readers when letters or other actions are needed. Members who are actively interested in coastal issues and would like to receive the newsletter should write to CUSP, P.O. Box 201, Blacksburg, VA 24060.

The Club's Population and Growth Policy Program details the latest news on population issues through its *Population Report*. This two-page newsletter is published six times a year. It highlights legislative efforts to endorse a national population policy, examines uses and abuses of population projections and discusses developments in housing and land use as they relate to growth. Members who want to receive the newsletter should write to *Population Report*, Sierra Club, 530 Bush Street, San Francisco, CA 94108.

The *Energy Report* is a 20-page occasional published about twice a year by the Club's National Energy Committee. This newsletter for energy activists tackles the major energy issues of the day, describing the technical and political angles on solar energy, synfuels, coal conversion, stripmining and nuclear power. The *Energy Report* is also a forum for presenting activities and ideas generated by the Club's new Community Energy Campaign, a network of local programs to help citizens take part in deciding their energy future. Members who wish to get involved in energy issues and receive this newsletter should write to *Energy Report* at Sierra Club headquarters (Bush Street address shown above).

The newest member of the Club's periodi-



cal family is the *Political Insider*, published by our political action committee, SCCOPE (Sierra Club Committee On Political Education). Through SCCOPE, the Club participated in the 1982 elections to an unprecedented degree, endorsing candidates at all levels of government throughout the country. The *Political Insider* provides the communication link among the Club's political activists, a means of sharing ideas on campaign materials and strategy, and keeping abreast of SCCOPE procedures. Members may be placed on the mailing list to receive the *Political Insider* by writing to SCCOPE at Sierra Club headquarters.

Five periodicals of varying length and frequency of publication are produced by the Club's Legislative Office in Sacramento, California. These report legislative and agency actions and are written for members who are actively following events in Sacramento and working on issues at the local level. The titles suggest the subject matter: *Energy Clearinghouse*, *Coastal Clearinghouse*, and *Air Quality Notes*. *Legislative Agenda*, published weekly during legislative sessions, is a bill-by-bill rundown on environmental measures before the legislature, while *Perspective*, published occasionally, directs its in-depth background articles on important state environmental issues to a broader audience. Members wishing more information on any of these publications should contact the Legislative Office at Sierra Club, 1228 N Street, #31, Sacramento, CA 95814. □

Victoria Wake is the Sierra Club's information services coordinator.

Statement required by the Act of Congress of August 24, 1912, amended by the Acts of March 3, 1933, July 2, 1946, June 11, 1960 (74 STAT. 208), and October 23, 1962, showing the OWNERSHIP, MANAGEMENT AND CIRCULATION of *Sierra, The Sierra Club Bulletin*, published six times yearly at San Francisco, California—for September/October, 1982.

1. The names and addresses of the publisher, editor and executive director are: Publisher: Sierra Club, 530 Bush Street, San Francisco, California; Editor: Frances Gendlin; Executive Director: Michael McCloskey.

2. The owner is the Sierra Club, an incorporated nonprofit membership organization, not issuing stock; Denny Shaffer, President, 2910 Skye Drive, Fayetteville, North Carolina 28303; Peg Tileston, 4780 Cambridge Way, Anchorage, Alaska 99503.

3. The known bondholders, mortgagees and other security holders owning or holding one percent or more of total amounts of bonds, mortgages or other securities are: NONE.

The average number of copies of each issue of the publication sold or distributed, through the mails or otherwise, to paid subscribers during the twelve months preceding the date shown was 255,050.

(signed) Frances Gendlin

SIGHTINGS

MICHAEL McCLOSKEY

From left: Michael McCloskey, executive director; Denny Shaffer, president; and Alan Weeden, Foundation president. They were photographed at the Grand Canyon for a feature on the Sierra Club published in the October issue of the magazine Town & Country.

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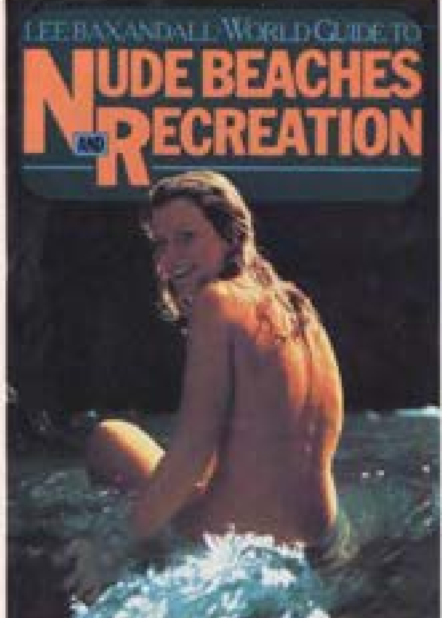

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BOOKS, *continued from page 76*

region bristling with rage, with the ghost of John Wayne leading the charge.

In his sections (at the very end of the book) on the Sagebrush Rebellion, Lamm does begin to sort out this fury. Here he develops the most useful insights of the book. The rebellion, Lamm suggests, began as a protest by the land's little people—small ranchers, farmers, lumbermen and miners—against a sense of being uprooted and dispossessed. The fundamental issue was their sense of primal connection with the land, often generations deep. Now this is being challenged, often severed. The enemy can be big coal companies seeking leases on grazing land, or conservationists seeking to protect the same land as wilderness, the result is the same.

However, Lamm's reasoning continues, the small people's protest has been taken from them. Large-scale operators, energy corporations, land speculators, real-estate developers and politicians all quickly moved in—adopting the rhetoric and posturing of protest, turning it to their own ends. To Lamm, the Sagebrush Rebellion was "a murky fusion of idealism and greed that may not be heroic, nor righteous, nor even intelligent. . . . Part hypocrisy, part demagoguery, partly the honest anger of honest people, it is a movement of confusion and hysteria and terrifyingly destructive potential."

Today, Lamm concludes, the Sagebrush Rebellion has lost its grassroots connection. The little guy is a pawn once more. His crusade has been preempted by a cynical, selfish move by powerful special interests to loot the public lands.

To begin to make sense of this anger, one needs to look deeper than its noise and rhetoric. Ironically, Lamm touches on this early in his book—in a brief, plaintive prologue titled "Good Bye to the West." It's a nostalgic paean to the good old days when one could track mountain lions, raft "lonesome" rivers and "be free." This is Lamm himself speaking—the emigrant mountaineer and bicyclist from Wisconsin—recalling Colorado as the "spiritual refuge" he found when he arrived there in 1960. Ironically, the same emotional tone is often heard from ranchers reminiscing about bygone times, before grazing allotments and fees and reductions.

As a political base, nostalgia is ineffective over the long term. It also muddles environmentalism badly. The West seems infected by a persistent nostalgia that is the root of the anger about which Lamm writes. The region has long attracted people who overinvested in those old myths of freedom and independence and unlimited opportunity. All that open space, especially the mountains, has

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mirrored the myth, giving it apparent life. Coming to Colorado, Montana or Wyoming, newcomers actually began to think their fantasies, their dreams, were real. And for a time it seemed they were.

But times change, even in the West, and with them come more people, more development, new rules. Nostalgia is an unwillingness or an inability to face and accept the present. For the most part, the little people of today's West are angry because they don't like changes forced on them. They want to run their cows on BLM land and cut timber in the national forests, and have their pork-barrel water projects, just like they did in the good old days.

In short, to the extent the West continues to respond to its problems with such angry outbursts as the Sagebrush Rebellion, to that extent it will not succeed in its rational political aims. Nostalgia, and anger springing from it, are powerless.

Far too briefly, Lamm says as much near the close of his book. He does note how hypocrisy, possessiveness and petulant radicalism have hurt the West. But too much of the rest of *The Angry West* is vitiated by a political tentativeness—as the authors waver this way and that, attempting to honor and placate the frustration and anger of the ordinary folks of the West.

David Sumner is a freelance writer and photographer based in Crested Butte, Colorado.

Shadows of the West

BRUCE COLMAN

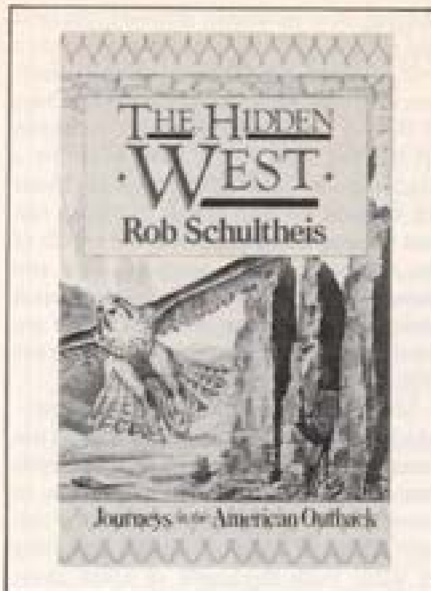
The Hidden West: Journeys in the American Outback, by Rob Schultheis. Random House, 1982, $11.50.

"There is not an inch of earth without its compulsive magic."

—Lao Tze

Rob Schultheis calls himself "some sort of backcountry bohemian mountaineer." An anthropologist and a student of Buddhism, he is also a fresh voice on the American West. He's a writer who throws language down hard on the page, watching for the bounce, the resonance, the connections of his treks through wild landscapes.

The Hidden West is a record of ten years' travel in the American outback, west of the 100th meridian, from the high plains to the Gulf of California. The book reads somewhat like a journal, somewhat like a memoir



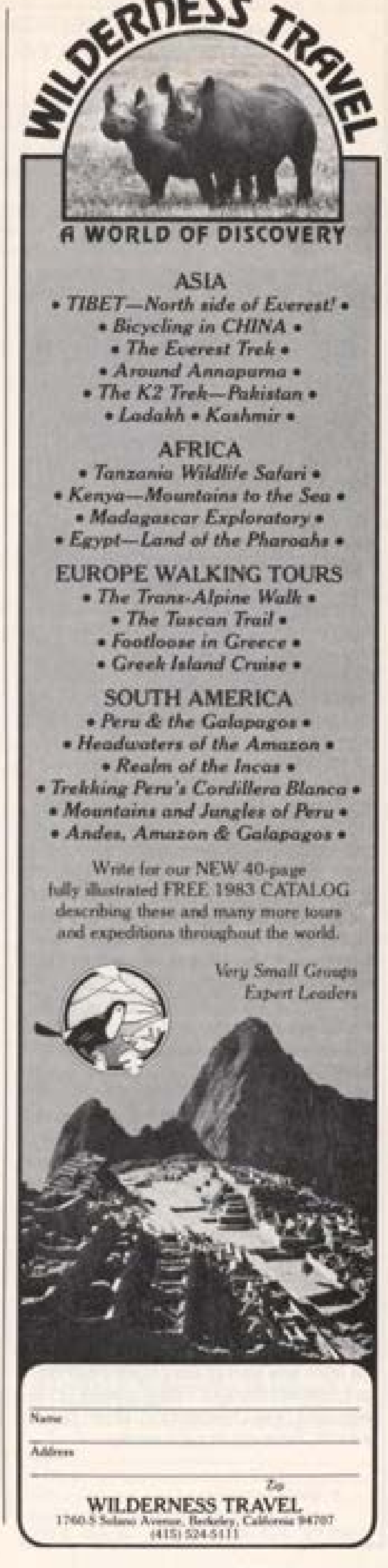
or travelogue or *Baedeker*. Schultheis records visits to medicine men in South Dakota; Anasazi ruins near the San Juan River; Navajo Mountain and Rainbow Bridge; the terminal delta of the Colorado River; the Tarahumara Indian country of Mexico; a Piute hand-game tournament near Bishop, California; and Mono and Pyramid lakes. This is geographical and spiritual travel, to the oldest, preindustrial America.

Schultheis is writing of ground already familiar from the writings of Ed Abbey and Barry Lopez and Carlos Castenada, the primitive landscapes where "the rainfall withers away to less than twenty inches a year": deserts and mountains and boom towns, dry country, Indian country, country where such writers can make pilgrimages into the midst of the earth, in search of the things that have endured the harshest tests —time, erosion, usefulness—and places where human needs are for the most basic things: water, beauty, protein, visions.

One visit is to a Zuni *Shalako*, a night of sacred dancing that even the Indians cannot explain, or won't: "It was a powerful night. . . . Like any very old ritual—a High Latin Mass, a Tibetan Buddhist *puja*, a Greek play —it needed no reason. It was a slow, majestic unveiling of ancient potencies, and it stirred me in ways I can't explain."

Such epiphanies arise on page after page of *Hidden West*, similarly empowered, similarly gnomic. At one point, Schultheis even complains: "The problem was, visions were all too easy to find out there [on the Colorado Plateau]: They were everywhere. . . . Visions rolled down the night highways; they reared in the timber at night on Cottonwood Pass; they rippled on the still waters in the chasms. . . . Every pebble in the trail [was] a Rosetta stone."

And sometimes *The Hidden West* itself is



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like this. It is terrifically detailed, the land and animals and hiking companions shown with precision. But as Schultheis visits medicine men and "bucket of blood" Indian bars in Denver and Gallup; hikes a lost canyon off the San Juan River; splits wood by a shack outside Telluride or complains about the wind on the high plains; paddles a raft past housing developments at the mouth of the Colorado River; mentions Zen and Navajo words and obscure books of French philosophy, the question comes: there are clues aplenty, but what do they add up to? What *is* inside the hidden West?

Schultheis himself doesn't quite know—which is fine with this reviewer—but he has some firm guesses. We live in an apocalyptic time. Los Angeles, the city that seems to summarize and disseminate our own culture, sits in the midst of a desert, importing its water from thousands of miles away, parching Ice Age lakes and lit up like "a skeleton of fires." Petroleum, our main fuel, has become a "thin smoke." Coyotes are returning to the suburbs, and Los Angeles houses 50,000 Indians, "Ishmaels, saying, by their very presence, 'As you are, I was; as I am, you shall be,'" while Anasazi ruins, deserted for half a millenium, seem more and more ingenious to the visitor.

"Perhaps they are right, Lao Tze and Mao Tse-tung and Crazy Horse and all the rest. Perhaps less *is* more. Perhaps all that matters, all that lasts, is life close to the ground, down to the bedrock: village, pueblo, *ejidos*, sun-dance encampment; and all of our cities, our grand operas and coups, our fads and inventions, are just chaff in the wind."

Bruce Colman, former books manager for Friends of the Earth, has written for American Alpine Journal, Mountain Gazette *and* Sierra.

A Field Guide—and More

BRANT CALKIN

A Field Guide to the Grand Canyon, by Stephen Whitney. William Morrow and Co., New York, 1982. $22.50, cloth; $12.50, paper.

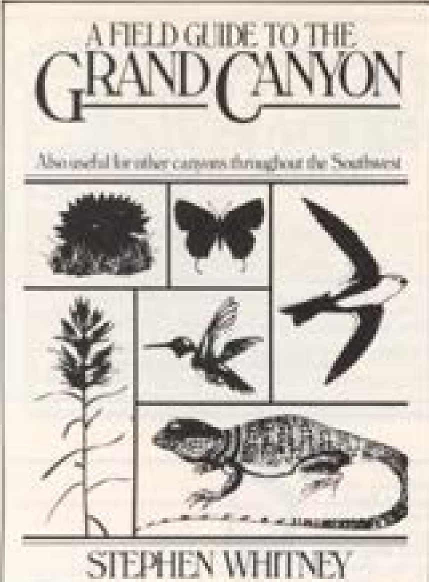
It has been almost 115 years since Major John Wesley Powell led the first scientific expedition through the length of the Grand Canyon. Powell began the systematic review of its geology, plants and animals. Study of the canyon has not stopped since then but, until now, no single document has captured and distilled the findings as does *A Field Guide to the Grand Canyon*.

To call this book a "field guide" is too modest. What Stephen Whitney has produced is much more than a guide but something less than a textbook. For many readers, the additional material is welcome, even if some of it may seem unnecessary. For others, the book may seem excessive both in content and size.

The temptation to attempt the definitive work on the Grand Canyon, so far as its natural history and hiking opportunities are concerned, can be compelling. The Grand Canyon is a piece of real estate of worldwide renown and interest, yet its studies are all partial. This could be because of the Grand Canyon's size and complexity, factors that in themselves can push its students and devotees to subdivide its wonders into more manageable pieces. The result is that the teasing challenge remains to produce the single, comprehensive, useful document. Stephen Whitney's work, *A Field Guide to the Grand Canyon*, comes at least close to the mark, and it sets a very high standard for future writers.

The book is logically organized, with the most general information coming first. Here one gets a broad discussion of the canyon, the region, the river, the climate, plant and animal distribution, prehistoric peoples and the historical record, as well as information about visiting the canyon itself, whether by car, by mule, on a river or on foot. More specific and detailed information comes in the subsequent parts of the book. For example, the geology and formation of the Grand Canyon are covered in a portion titled "Time, Rocks and the River," while both plants and animals have major sections of their own. Some readers may wonder at the inclusion of certain material. Going no further than the introduction, one might reasonably ask whether it is necessary to comment on the virtue of using Latin names as well as common names, and whether it is necessary to then explain that scientific names have two parts, why a species is a species, and so on. The author himself claims that "this volume is first and foremost a field guide, a handy *compact* reference for the person who wants to identify and learn something about the . . . Grand Canyon" (emphasis added). Compactness is not enhanced by the discussion just mentioned; nor, for example, by extended descriptions of what constitutes a life zone, an ecosystem; nor by most of a page given to the generalized life cycle of ferns.

If some readers feel oversupplied with scientific generalities, others may feel deprived of specifics. Though some promotional material describes the book with claims that it contains "detailed descriptions of all the trails in the Canyon," the author himself is more modest—and more accu-



rate. He cautions that his guide "is not intended as a trail guide. Its purpose is merely to inform readers of the hiking opportunities available in the Park." And, sure enough, some twenty trails are described in slightly more than four pages.

These criticisms, however, do not detract from the book's overwhelming virtues. Here in a single volume is most of what most observers will need. Extensive use of supplemental references allows one to augment what is already in hand; references are collected sensibly at the end of the discussion of each subject, so that one does not have to rummage through a lengthy comprehensive list stuck somewhere near the back cover, as is too often the case with field guides.

The reader is unlikely to go further, however, for drawings of plants and animals. The more than 60 illustrations by the author are magnificent, carefully done in color, and they cover the most common varieties with fine attention to detail. The color plates and drawings probably will be the most used portion of the entire work. The reader will be pleased that they are numerous and carefully printed. Whitney's unmistakable expertise reflects his long experience as an environmentalist and naturalist. Readers may recall Stephen Whitney as the managing editor of *Sierra* (then the *Sierra Club Bulletin*) during the mid-1970s. He is also the author of *A Sierra Club Naturalist's Guide: The Sierra Nevada* (Sierra Club Books, San Francisco, 1979).

No serious student of the Grand Canyon should be without the work, and it will surely enhance the experiences of those whose visits to the magnificent canyon are less frequent. □

Brant Calkin is the Sierra Club's Southwest Representative.

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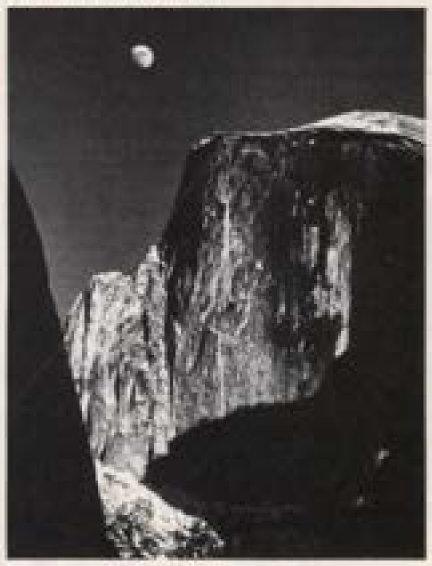

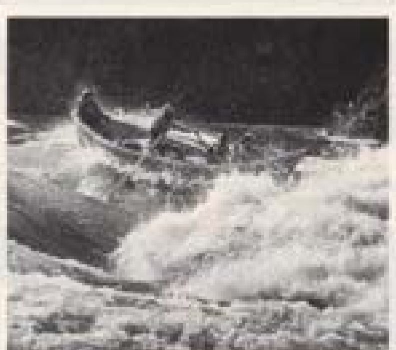

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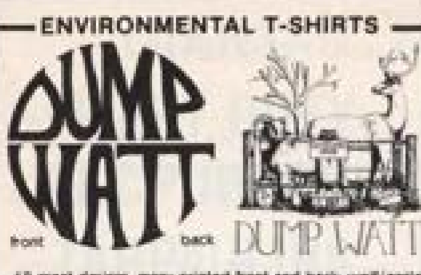

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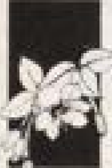

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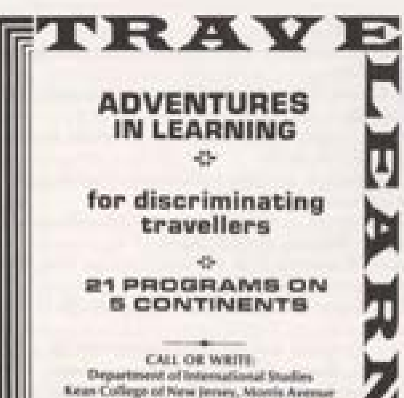

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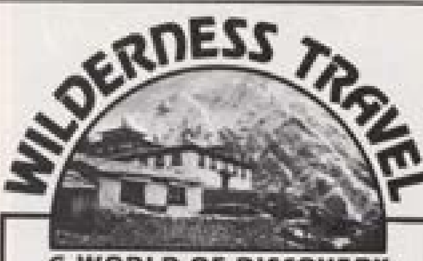

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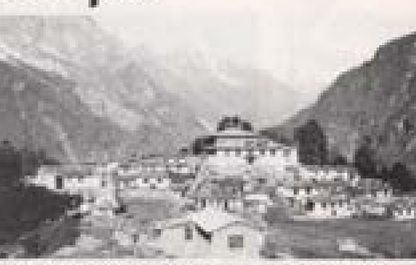

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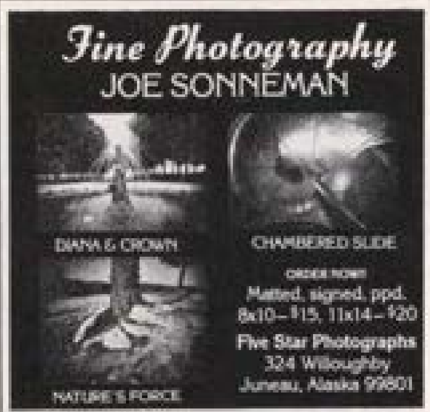

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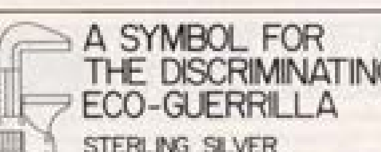

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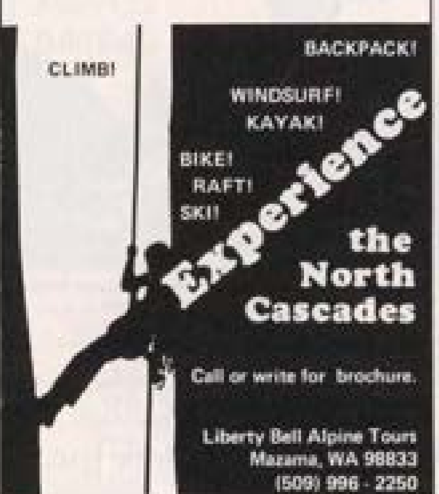

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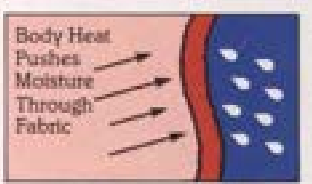

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