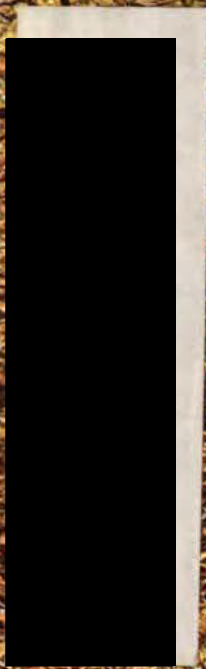


# Sierra Club Bulletin



October 1973

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The Public Domain

# HARD-ROCK CONSERVATION

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# Sierra Club Bulletin

OCTOBER 1973 / VOLUME 58 / NUMBER 9

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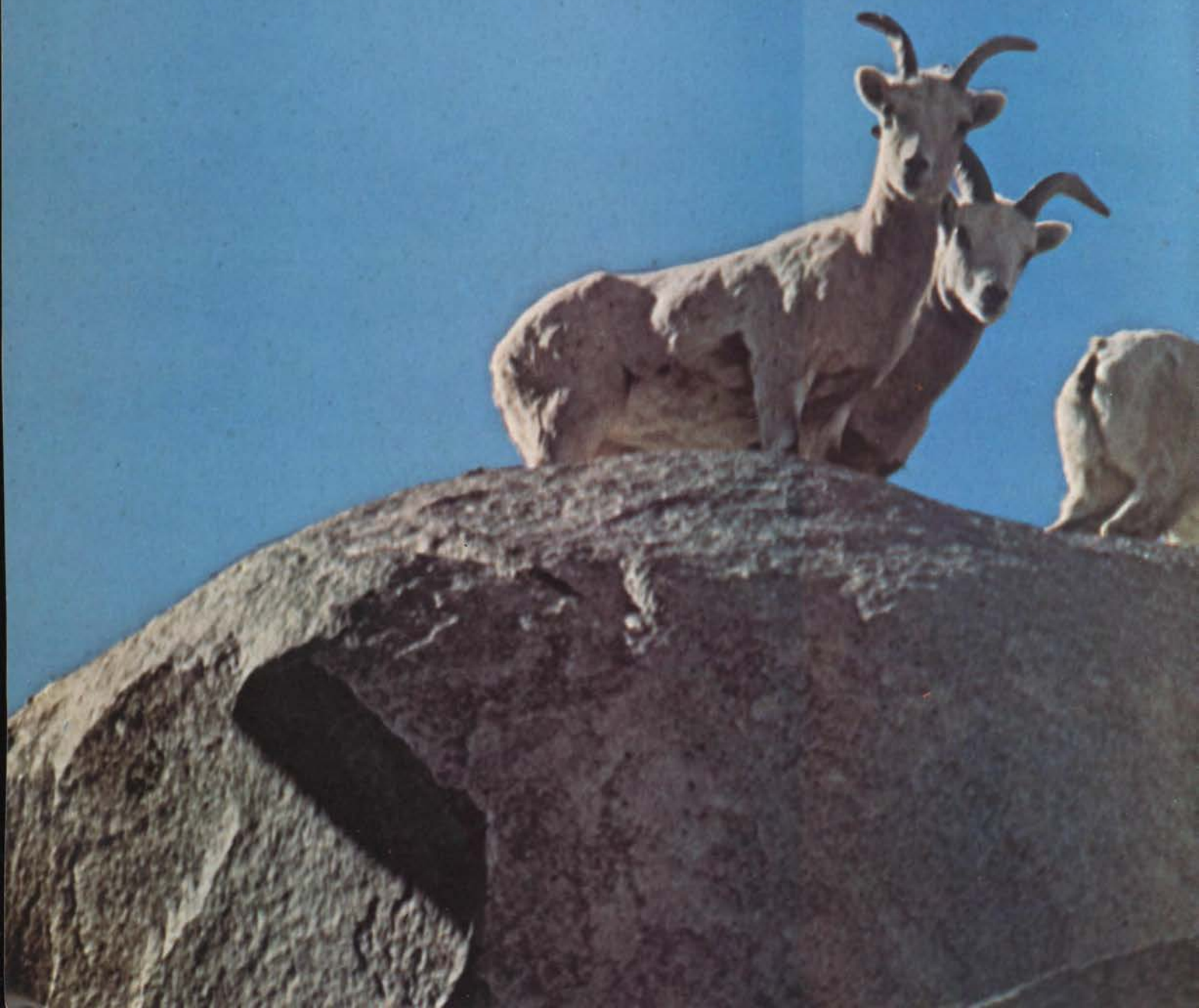
Cover: Marvin Mort's autumn scene was photographed, not in some remote wilderness, but in the Wissabickon Valley within the city limits of Philadelphia. Mort's photography appears in a new Sierra Club Landform Book, which he co-authored with Charles E. Little: A town is saved, not more by the righteous men in it than by the woods and swamps that surround it.

Founded in 1892, the Sierra Club works in the United States and other countries to restore the quality of the natural environment and to maintain the integrity of ecosystems. Educating the public to understand and support these objectives is a basic part of the club's program. All are invited to participate in its activities, which include programs to "...study, explore, and enjoy wildlands."

The Sierra Club Bulletin, published monthly, with combined issues for July-August and November-December, is the official magazine of the Sierra Club, 1050 Mills Tower, San Francisco, California 94104. Annual dues are \$15 (first year \$20) of which \$3 is for subscription to the Bulletin. (Non-member subscriptions: one year \$5; three years \$12; single copies 50c.) Second class postage paid at San Francisco, California and additional mailing offices. Copyright © 1972 by the Sierra Club. No part of the contents of this magazine may be reproduced by any means without the written consent of Sierra Club Bulletin. Other Sierra Club offices: Alaska: 2400 Barrow, #204, Anchorage, Alaska 99503 / Atlantic: 373 5th Avenue, New York, N.Y. 10016 / International: 777 United Nations Plaza, New York, N.Y. 10017 / Legal Defense Fund: 311 California Street, San Francisco, California 94104 / Midwest: 444 West Main, Madison, Wisconsin 53703 / Northwest: 4534 University Way NE, Seattle, Washington 98105 / Sierra Club Books: 597 Fifth Avenue, New York, N.Y. 10017 / Southern California: 2410 Beverly Boulevard, Los Angeles, California 90057 / Southwest: 2041 E. Broadway, Tucson, Arizona 85719 / Washington, D.C.: 324 C Street, SE, Washington, D.C. 20003 / Wyoming and Northern Great Plains: P.O. Box 721, Dubois, Wyoming 82513. Advertising representative/Robert Burger, 722 Montgomery Street, San Francisco, California 94111, (415) 434-2348; New York: Dorie Kaplan (212) 254-2902.

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**A GLIMPSE OF  
JOHN MUIR'S  
“BRAVEST  
MOUNTAINEERS”**





One by one the entire band  
moved onto the ledge,  
never exposing more than  
a single animal to danger.

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Locust & Oak Streets

GALEN ROWELL

**H**ALF AWAKE AND HALF ASLEEP at five-thirty on a January morning, I was about to doze off again when I became aware of motion less than 30 feet away. Through the pre-dawn murk I saw a bighorn ewe feeding quietly. This was the moment I had been waiting for. At my side was a camera with a telephoto lens mounted on a tripod. All I would have to do was move my upper body about two feet, focus on the bighorn and push the shutter.

My position was camouflaged to the point where only my head was visible to the animal. I had hiked into the area in the middle of the night and put down my sleeping bag. I had visited the area during the day dozens of times, never finding more than tracks and droppings.

The ewe continued feeding in the same spot, but I failed to get a single photograph. As I slowly reached to focus the camera, the ewe raised her head and focused on me. I had been downwind, absolutely quiet, and out of her range of vision when she was feeding. The closer I moved my hand and eye to the camera the more she prepared for flight. I was surprised that she was able to sense my slightest motion or anticipation of motion, but later I read of a naturalist who claimed the Sierra sheep could detect his smallest motions from a mile away when he was in the shade and wearing clothing that blended with the background. After observing the ewe for five minutes I realized that my only hope was for a single "grab shot." I made a deliberate but slow movement of my head and hand toward the camera, but when I looked through the viewfinder she was gone. She ran like a deer in a blur of legs, but her head seemed to float through the air, softly tilting in the same direction as her animated body. She stopped a few hundred feet away to watch me again; when I moved for the camera she disappeared for good. I had never seen an animal so curious and yet so wary.

The California bighorn are a subspecies of Rocky Mountain sheep. During John Muir's time tens of thousands of them roamed the mountains of California. The bighorn population in the Sierra is currently estimated at 200 to 225 animals living in separated groups in the rugged southeastern part of the range. They are now on the Rare and Endangered Species List.

It is easy for modern man to understand the disappearance of the buffalo. But what forces would cause the dramatic decrease of the Sierra bighorn—living in high, uninhabited mountains, protected from hunting by law since 1883, and unapproachable by most moun-



*The guardian ram.*

tain predators? There is no simple answer. Scientists still disagree over the elements of a complex answer.

John Muir is known for his foresight. Not only were his theories of mountain geology more nearly correct than those of other Sierra observers of his time, but also, as founder of the Sierra Club, his insights regarding human interaction with the natural scene were shrewd and accurate. In *The Mountains of California*, published in 1894, he ended a chapter on the wild sheep with these words: "Man is the most dangerous enemy of all, but even from him our brave mountain-dweller has little to fear in the remote solitudes of the High Sierra. The golden plains of the Sacramento and San Joaquin were lately thronged with bands of elk and antelope, but, being fertile and accessible, they were required for human pastures. So, also, are many of the feeding-grounds of the deer—hill, valley, forest, and meadow—but it will be long before man will care to take the highland castles of the sheep . . . all lovers of wilderness will rejoice with me in the rocky security . . . of the bravest of all the Sierra mountaineers."

Time and human invasion of the High Sierra have accelerated beyond John Muir's wildest dreams. He was wrong in his premature celebration of the bighorn's rocky security, but deadly accurate that man is the most dangerous enemy of all. Even those who admire and wish to save the bighorn—myself included—may be harming them by their very presence. This is a strong statement and one that is hard to support with first-hand evidence. But the conclusion is inescapable when the circumstances are viewed in the proper perspective. The world of science asks for positive

proofs and logical sequences of evidence. Some of these exist, showing specific effects of specific types of human impact on the bighorn. The overall mechanism has not been defined and may never be if the bighorn population continues to dwindle. But intuitively—not scientifically—we can understand it. It is similar to a meteorologist discussing the weather with an old Indian. Both "understand" the weather, but the scientist cannot feel in his bones when it is going to rain and the Indian could care less about a description of moist air masses moving across the oceans of the world.

The most concrete evidence of human impact is that a map of the heaviest backpacking usage in the southern Sierra would interlock like pieces of a puzzle if superimposed over the present habitats of the bighorn. It has been suggested that when heavy human usage began, "the bighorn just moved back into the mountains." But this does not appear to be the case. The present ranges have been occupied for a long, long time. Bands that once occupied the regions near Mount Whitney, Kearsarge Pass, Bishop Pass, and the Ritter Range have vanished into thin air. There is no evidence that bands have moved in anything but a normal shift from summer to winter ranges. Some naturalists have speculated that the sheep used to cross the Owens Valley to the dry Inyo and White Mountains. In 1938 a bighorn ram was found alive in the Los Angeles Aqueduct, which traverses the Sierra side of the valley for many miles, serving the same dysfunction for California wildlife as the oil industry's proposed gift to Alaska.

Predators have never been a major limiting factor with the Sierra bighorn. With the exception of the coyote, large Sierra predators are declining almost to the point of becoming rare species themselves. The first predators to disappear completely from the high fell-fields of the bighorn were the Paiute Indians. Their actions were much closer to those of the mountain lion, the wolf, and the eagle than to modern humans who threaten the existence of the bighorn. They should not be included in the category of "human impact."

Some Sierra historians have stated it is extremely unlikely that Indians ever visited the high peaks, yet early Sierra mountaineers have reported the actions of Indians hunting bighorn

from the mouths of canyons on the Owens Valley floor to the summits of high peaks. Since the Paiutes did not leave summit registers, write climber's guides, or drop foil and plastic to mark their route, we have no direct evidence of times, dates, numbers, and places. But enough circumstantial evidence exists to cast a large shadow of doubt on white men's "first ascents" of major Sierra peaks. The ancient, unfolding drama casts the bighorn in a major role. In *The Mountains of California*, Muir gives the following description: "A few of the more energetic of the Pah Ute Indians hunt the wild sheep every season among . . . the High Sierra. . . . I have seen large numbers of heads and horns . . . in the cañons of the Sierra opposite Owen's Valley; while the heavy obsidian arrow-heads found on some of the highest peaks show that this warfare has long been going on. . . . On the tops of nearly every one of the Nevada mountains that I have visited, I found small, nest-like inclosures built of stones, in which, as I afterward learned, one or more Indians would lie in wait while their companions scoured the ridges below, knowing that the alarmed sheep would surely run to the summit. . . ." John Muir was not specific. He did not indicate which mountains and which canyons were used by the Paiutes and the bighorn. His suggestion of Nevada mountains does not mean that the same thing occurred on the 14,000-foot peaks of the Sierra. Other reports have been more specific. Clarence King, writing in his famous book, *Mountaineering in the Sierra Nevada*, describes the following event: "I dared not think it the summit till we stood there, and Mount Whitney was under our feet. Close beside us a small mound of rock was piled upon the peak, and solidly built into it an Indian arrow-shaft. . . ." King, however, had climbed the wrong mountain. In the light of his continuing failure to reach the summit of Mt. Whitney, in which he was "beaten" by three fishermen from the Owens Valley, it has been suggested that someone left the Indian arrow on the summit as a joke. The event took place on Mt. Langley, popularly known at that time as "Sheep Mountain" because of the large number of bighorn seen on its flanks. King's findings fit perfectly into the hunting patterns suggested by Muir.

There is also evidence that the big-

horn ranged to the very summits of the highest peaks during the summer. Norman Clyde, who died just last December, 1972, after spending 60 years climbing and exploring in the High Sierra, wrote "I once saw the footprints of a wild sheep within a few feet of the top of Mt. Russell, an elevation of 14,190 feet. The only vegetation surviving were several flowering polemonium plants. Perhaps the wild sheep, like featherless biped mountaineers, had ascended the peak to enjoy the view." Sheep beds and fresh tracks were seen on the summit plateau of Mt. Williamson, the second highest Sierra peak, as recently as 1957. The summit register of Mt. Barnard contains many references to sightings near the summit, but none among the most recent entries.

In 1878 the Wheeler Survey reported the sighting of wild sheep near the top of Mount Whitney, but only one other sighting has been reported on the mountain in the past century. In the 1930's Tom Jukes was wandering across the stadium-sized summit plateau of Whitney when he saw something shining in the granite sand: a flake of obsidian showing telltale marks of chipping. The mountain had been climbed from several sides, but this location was far from any logical line of ascent. It was not a probable location for a prankster to plant something; the mountain was climbed so infrequently at that time that it might never have been discovered. There may never be conclusive evidence, but it certainly appears that Mount Whitney, the highest summit in the contiguous United States, was ascended by Indians hunting bighorn long before white men fought bitterly to make its "first ascent."

Only after I began to write this article did I recall an event that took place when I was ten years old. I was attending a Sierra Club Base Camp with my family when around the evening campfire a man announced that he had discovered some arrowheads at an Indian stone hunting blind above a nearby alpine lake. The next day a swarm of Sierra Club men, women, and children combed the area surrounding the blind. I proudly brought back a pocketful of obsidian chips, showing markings of Indian tool-making, which I displayed in the fall to my grammar school classmates. A similar fate may have occurred to other Indian sites on the High Sierra peaks.



My own interest in the Sierra bighorn came from spending much time in their habitat. For years I spent every weekend rock climbing in Yosemite, but when the valley walls became overrun with mountaineers I sought out unclimbed faces in the most remote parts of the High Sierra, usually on unnamed mountains. My experience was quite different from that of a backpacker, even disregarding the climbing. I found myself in places far more wild than I had imagined existed in California. Often I would travel miles without seeing a person or sign of past human presence, only to step onto a trail and see a hundred people and a hundred campsites in my last hours to the road. In several areas I began to notice past and present evidence of bighorn. At over 13,500 feet on a peak south of Mount Whitney I found a weathered ram's horn in a place I could only reach with ropes. I found their beds and droppings at nearly 14,000 feet on other mountains. At first I wasn't really looking for bighorn, but gradually they became a secondary interest. If I was traveling into a region where bighorn had been reported I became more inclined to add a long telephoto lens to my already burgeoning rucksack. I never saw a bighorn on one of these trips, although I'm quite sure they must have seen me at times.

During the winter bighorn cannot stay at high elevations because snow covers their food supply. On the west-

ern slope of the Sierra snowfall is heavy, but the eastern slope—in the rain shadow of Pacific storms—blends quickly into a desert. It is on this margin between snow and desert that the bighorn spend much of their winter.

Once I was lucky enough to photograph them. At daybreak it was snowing and I chose not to go climbing or skiing. Instead, I visited a cliffy area known to be part of the bighorn's winter range. Even though many earlier trips had been failures, I packed a rucksack full of cameras and began to walk. I probably would not have seen them at all if they hadn't been profiled on top of a ridge against distant snow. My first pictures with a 500mm (10X) lens show mere dots against the snow. As I moved closer I could see that the main band took refuge behind a cliff while a young ram stood guard from the top of the rocks. I spent half an hour showing the young ram that I really wasn't that interested in him. Focusing my camera in the opposite direction, I killed time until the ram finally relaxed. Leaving my rucksack, I walked at random around the base of the cliff until I was convinced that the ram seemed unconcerned when I disappeared from view. Grabbing one camera, I slowly climbed the broken cliff, stepping only on solid rock so as to make no noise. From my previous experience with the ewe, my highest expectation was to get a couple of sneak shots before I was discovered. Ten feet below a rock promontory I was forced into a decision. There was no position for a sneak shot, and I wasn't sure when I would come in view of the ram. The only thing to do was sit, fully exposed, on top of the rock and hope to be close enough for a picture.

A moment later I was looking at

*Then she dashed with tremendous speed down the steep and rocky hillside.*



22 curious and surprised bighorn standing in the sagebrush only 50 yards away. I expected them to run, but it was soon clear that I was where they wanted to be. They were prepared to move onto the cliff in case of danger, but I was between them and their guardian ram. Then the unexpected happened. A ewe walked slowly toward me, quivering with anticipation, while the rest of the band stood fast. She stopped when she was 50 feet away. My rock promontory was too steep for even the bighorn to climb. She gazed downward to a ledge about a hundred feet below on the same rock band. Then she dashed with tremendous speed down the steep and rocky hillside until she reached the ledge system. I was lucky to catch a picture of her in mid air, and was sure that the entire band would now make a dash for it. Instead, another ewe followed the ritual and walked single file to the embankment, where she dashed for the ledge to join the first ewe. One by one the entire band moved onto the ledge, never exposing more than a single animal at a time to danger.

I spent half a day on the rock band, finding that I could approach as close as 100 feet so long as I was on difficult-appearing rock, but that 300 feet was too close if I stepped onto walking terrain. After an hour or so the sheep appointed another guardian (the young ram had disappeared), and the remainder of the band went back to grazing. When shadows crept down the snow-covered slopes I got up to leave. The guardian followed me a considerable distance until I was in open view heading for the road.

At home I read the report of a ranger who had seen the same behavior: "Only one . . . crossed at a time, while the others stood by . . . and the ones that crossed over waited until all the others had joined them before proceeding up the rocks." I heard another account which indicated that once the path has been chosen, the animals are fixed in their intent to follow it precisely. A photographer who stepped into the path to get an action shot would be run down because the animal would not veer from the chosen path. Whatever instinct prompts this action, it sounds suspiciously like stories of domestic sheep following each other over cliffs to their deaths.

If man is the bighorn's most dangerous enemy, then the domestic sheep is his harbinger. These "hoofed locusts,"

as John Muir called them, were herded in summer to the highest meadows of the Sierra during the late 19th and early 20th centuries. They were even driven over 12,000-foot passes on occasion. When a group of expectant botanists from the Wheeler Survey visited the Mount Whitney region in 1878 they found that "immense bands of [domestic] sheep had denuded every living thing, save sage brush, and had actually trampled the soil into dust," threatening "the possible disappearance of some of the local species. . . ."

Large numbers of Sierra bighorn perished because of competition for forage as well as from diseases and parasites carried by the domestic sheep. But it has been a long time since the huge herds grazed the high country. Even though alpine terrain is slow in recovering from overgrazing, lack of forage on the summer range has not been a problem for many decades. Recent tests show the Sierra bighorn to be relatively free from parasites and disease. Domestic sheep appear to have been a dark chapter in the history of the bighorn—a time when a foreign infantry occupied their lands—but a time long gone.

John Muir was in the unique position of being both a shepherd and a naturalist. He wrote the following comparison: "The domestic sheep is expressionless, like a round bundle of something only half alive; the wild is elegant as a deer and every muscle glows with life. The tame is timid; the wild is bold. The tame is always ruffled and soiled; the wild is trim and clean as his pasture. . . ."

The modern bighorn in the Sierra still fit Muir's words, but many other bands do not. In Banff and Jasper national parks bighorn have become road beggars, eating cigarette butts and melon rinds, unafraid of the approach of man. Even in the Yukon I found Dall sheep on the hills near Kluane Lake National Park to be docile, soiled, and timid. A sign proclaimed "Sheep Mountain," and Alaska Highway tourists scampered around the hillsides to get snapshots. The slopes were as overgrazed as a domestic sheep ranch. Predators had been greatly reduced in this area from hunting and trapping before it became a park; consequently the Dall sheep have little fear of the approach of large mammals. They would lie in woolly bundles in the rocks, until I almost

stepped over them, before moving away in a haphazard fashion. I saw nothing of the intricate defense mechanisms—rams acting as guards, exposing one at a time to danger—that I had observed in the Sierra bighorn and in other, wilder bands of Dall, Stone, and Rocky Mountain sheep. These sheep had little use for their powerful telephoto vision that developed over eons when life hung on the thread of seeing and avoiding enemies without being seen themselves. I was watching a herd of grazers in a huge, alpine zoo.

Out of the national park I observed another herd in a more obscure location. They were wild and wary. The barren slopes and canyons offered little in the way of camouflage and I could not approach them. There was evidence of recent predation and I found wolf tracks on the sheep paths. What would happen if members of the Kluane Lake band were transplanted to an area such as this? Could they survive? I doubted it.

Farley Mowat's *People of the Deer* describes the obliteration of a race of northern Indians who lived in the Canadian Barrens. Their numbers dwindled from tens of thousands in the early 19th century to less than 20 survivors in 1950 who were evacuated from their homeland "for their own good." What had caused their extinction? The answer was white men, not because they took the land and exploited it but because they made the Indians dependent on them. Only a handful of white men ever visited these Indians, but they did set up a few trading posts where the Indians could trade furs for white men's goods. Over a couple of generations they began to lose aspects of their culture that had previously been important to survival. When financial recessions in the white men's world forced the abandoning of the trading posts, the Indians of the Barren Grounds were unable to reproduce their culture.

The Sierra bighorn, like the extinct Indians of the Canadian Barrens, is a species intricately adapted for living in the arctic-alpine zone. I am not a scientist, and even if I were I could not predict the exact forms of negative feedback to come from man's uninvited attendance in the homes of the sheep. Paiute Indians hunted the Sierra bighorn for hundreds of years—

*Continued on page 46*



# The Public Domain—

## *Why Was It, What Was It, and Where Did It Go?*

T. H. WATKINS

WHAT FOLLOWS is the story of a squandered inheritance, an inheritance vouchsafed the citizens of this country nearly 200 years ago: the public domain, a theory that became fact by proclamation of the Continental Congress in 1779. Next to the Constitution and the Bill of Rights, it was probably the single most important development to emerge from the rancorous years of national organization that accompanied and followed the Revolutionary War. Like those two venerable legacies, the public domain was subsequently harried by generations of misinterpretation, confusion, subversion, and abuse. Unlike them, much of the public domain did not survive. We are the poorer for that fact.

### *What was it?*

The public domain was land, land held in trust by the federal government and owned by the people of the United States, although the seeds of its realization were planted long before the United States had become even so much as a dream. Beginning with the Royal English Charter of 1605, which granted the Virginia Company the power to "make habitation, plantation, and to deduce a colony of sundry of our people into that part of America commonly called Virginia," six colonial grants had stipulated northern and southern boundaries that stretched, quite literally, from sea to shining sea. Each of the fortunate six (Massachusetts, Connecticut, North Carolina, South Carolina, Georgia, and Virginia) thus acquired, on paper, a

3,000-mile strip of the American continent.

Virginia claimed even more than that, since her charter sent her boundaries "up into the land, throughout from sea to sea, west and northwest," giving her effective control of Kentucky and nearly all lands north and west of the Ohio River. New York, to make things interesting, also claimed much of this land, on the contention that her jurisdiction over the expansion-minded Iroquois Indians applied to all lands that tribe controlled through the rigorous application of the tomahawk.

By the time of the revolution, the inconvenience of Spanish control of the western two-thirds of the continent had chopped these grandiose claims clear back to the Mississippi River, but they still included millions upon millions of acres, an immense colonial patrimony of crowded timberlands, navigable rivers and, most importantly, bottomlands whose soil was so rich and moist a man could mold it in his fist.

As usual in the affairs of men, that heritage of land became the center of a bitter squabble from the very moment the individual colonies elected to coalesce into "a more perfect union." For a time, in fact, the contention threatened the creation of any kind of union, perfect or no. As the sentiment for organization grew during the 1770s, so did the conviction that the western lands of individual colonies should be turned over to the union as the price of admission. This point of view, unsurprisingly, was most vigorously put forward by the landless colonies (Maryland, Rhode Island, New Hampshire, New Jersey, Pennsylvania, and Delaware). Among other things, these colonies feared that local

taxes, their principal means of raising money, would drive citizens away to the landed colonies, who could depend upon land sales for the bulk of their financing, providing they were allowed to keep their trans-Appalachian claims. After the beginning of the war with England, the opinions of the landless colonies were echoed by the Continental Congress, for equally unsurprising reasons: land was money, and the embryonic government of the not-yet United States was in desperate need of revenue and knew that it would continue to be for some time to come. A final—and significant—measure of support came from big-eyed land speculators, who viewed the national ownership of the country's western lands as a rich pie ready for the carving. Inasmuch as many of these same speculators were members, relatives of members, or friends of members of the government itself, it was not a farfetched notion, as we shall see.

The landed colonies, who had money problems and hungry speculators of their own to contend with, resisted the whole idea, but in vain. Even though they outnumbered the landless colonies (if we include New York's vague claims to western lands), the pressures were enormous and telling. In 1778, Maryland, the leading opponent of the landed colonies, announced that she would not ratify the pending Articles of Confederation unless each colony-about-to-become-state granted

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*This is the second in a series of articles on the public domain. The first, "The Lands No One Knows," by Charles S. Watson, Jr., appeared in the September issue, and the third, again by T. H. Watkins, will be published in our next number.*

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*T. H. Watkins is the author of California: An Illustrated History as well as the forthcoming Sierra Club book, On the Shore of the Sundown Sea.*

whatever western lands it might hold to the central government. Maryland claimed to be acting out of pristine concern for the larger good of the country, since she had no visible special interest in the disposal of western lands (although the speculators who infested her government like carpenter ants certainly did). Those states whose interest was visible indeed found it more difficult to hide behind pretty rhetoric, for if they refused to accede to Maryland's demands, they were patently willing to axe the creation of a viable national government for no better motive than simple greed.

The problem for the landed states was compounded immeasurably on October 30, 1779, when the Continental Congress formally requested the transfer of western lands, and was further complicated on October 10, 1780, when Congress not only repeated the request but stated the hallowed concept of the public domain as it would come to be understood: "*Resolved*, that the unappropriated lands that may be ceded or relinquished to the United States, by any particular States, pursuant to the recommendation of Congress of the 6 day of September last, shall be disposed of for the common benefit of the United States. . . ." It was too much. One-by-one, the landed states gradually succumbed, beginning with New York in 1780 and continuing until 1802, when the state of Georgia finally and reluctantly ceded its western lands. Except for a number of "reserves" held back by several states to satisfy land bounties given to members of local militia, the United States thus became the owner and administrator of the ancestral public domain, nearly 300 million acres of land between the Appalachian Mountains and the Mississippi River.

It was only the beginning, for as the country's continental urge could not, or would not, be restrained, one massive chunk of real estate after another came under federal ownership: in 1803, the Louisiana Territory was purchased from France; in 1819, Florida was purchased from Spain; in 1846, the Oregon Territory was acquired from Great Britain by treaty; in 1848, the conclusion of the Mexican War brought the Mexican Cession, including all of California, Nevada, and New Mexico, most of Arizona, and parts of Colorado and Utah; in

1853, the Gadsden Purchase "finished off" the Arizona acquisition; and in 1867, the purchase of Alaska from Russia added a final sweep of territory to the federal land bank. In a little over two generations, the United States government had become the proprietor of 1,817,572,200 acres of land in the continental United States and territories and Alaska, together with all the mountain ranges, hills, forests, woods, meadows, lakes, ponds, grazing and agricultural lands, and deserts appertaining thereto—all of this ideally to "be disposed of for the common benefit of the United States." Today, federal, civil and defense agencies own and administer only about 765 million acres of public domain, more than one-fourth of it in Alaska. The remaining 1,052,572,200 acres have indeed been "disposed of" in one manner or another over the past 193 years, but to whose "benefit" is a question still rattling around in the coffin of history.

#### *Where did it go?*

The disposal of the public domain was from the beginning tangled in a welter of emotional, economic, and entrepreneurial considerations, which simply obliterated any possibility that it could be accomplished within hailing distance of logic or consistency. At the heart of the problem was the attitude of the government itself, for as long as land was looked upon basically as a commodity to be gotten rid of, rather than a resource to be managed, it was certain to encourage chicanery, jobbery, and monopoly, no matter what laws might be worked out to govern the disposal. In practice, if not exactly in theory, land laws were made to be circumvented.

Take the very first of those land laws, for example: the Ordinance of 1785, which declared that all government-owned lands would be surveyed and divided into townships six miles square. These, in turn, would be subdivided into 36 numbered "sections" of one square mile each, or 640 acres. Whole townships, as well as individual sections, would then be offered for sale at public auctions in each of the original 13 states; purchases of less than 640 acres would be barred, and the minimum bid allowed would be \$640.

The Ordinance of 1785 was an exceedingly tidy means of organizing

land sales—and an open invitation to speculation. By authorizing auctions only in the eastern cities, Congress neatly eliminated the participation of the pioneering western farmer. Moreover, even if that worthy yeoman could have been present at the sales, it was less than likely that he would ever want a parcel as large as 640 acres, or be able to pay for it if he *did* want it. Land jobbers, however, were present, did want 640 acres (and more), and could afford to meet the asking price. Individual speculators and organized companies thus acquired millions of acres of the public domain, chopped it up into smaller parcels, jacked up the price per acre, offered more-or-less generous terms of credit, and sold it off at a gorgeous profit. One of the largest and most successful of these land-jobbing institutions was the Ohio Company, which managed to lay hands on no less than 1,781,760 acres of Ohio Valley land in 1787. What is more, Congress, in the persona of its Board of Treasury, was positively roundheeled in its eagerness to accommodate the company: through a complicated and thoroughly illegal system of co-ownerships, under-the-table transfers, and whatnot, the Ohio Company acquired this bounty of land for eight cents an acre, something under one-twelfth the price called for in the Ordinance of 1785.

The calculated good fortune of the Ohio Company was both symbol and symptom of America's approach to the disposal of the public domain throughout the rest of the 18th and most of the 19th centuries. Although the supervision of that disposal was taken out of the more-than-somewhat-tainted hands of the Congressional Board of Treasury with the creation of the General Land Office in 1812, the public domain remained the largest and juiciest morsel on the menu of what historian Vernon L. Parrington called "The Great Barbecue," and it was systematically carved into pieces and gobbled up, until by 1900, two-thirds of it had been consumed.

It was a giveaway, plain and simple—but a giveaway couched in such flowery pragmatism that its true nature was lost in a swamp of inarguable ideals. There was nothing "wrong," in theory, with the idea that the government should sell land as one means of supporting itself; in practice, however, the manipulations of speculators like the Ohio Company so com-



*Mormon homesteaders near Echo City, Utah. Their small sod-roofed cabin would soon be in bailing distance from the soon-to-be-built Union Pacific railroad, which with other railroads received land grants totaling one-tenth of the public domain.*

pletely gutted the revenue potential of land sales that for nearly 30 years, sold land accounted for less than ten percent of the government's annual income. It was not until the second decade of the 19th century, when pressures from western settlers and speculators forced the General Land Office to lower the minimum purchase area to 80 acres and allow auction sales at or near the land to be purchased, that land-sale revenues became a significant item in governmental coffers (reaching as high as 40 percent in some years). Even so, by then, much of the trans-Appalachian Public Domain had already been divided up by eastern entrepreneurs. After the Civil War, the tradition crossed the Mississippi into the Great West, where nearly 100 million acres were sold outright in huge tracts to speculators, mining companies, lumber companies, and wheat-farming corporations—all of it at prices which did not reflect the true value of the land.

Again, there was nothing "wrong" with the idea that the federal government should aid the financing of local education through land grants, first by assigning one section out of each surveyed township for the support of schools, and finally by the Morrill Land-Grant Act of 1862, which al-

lotted each state in the union 30,000 acres of western lands for each of its senators and representatives in Congress, such land to be located anywhere in the West where there was no competing claim. Local speculators, of course, had little difficulty in persuading state legislatures to sell them chunks of this land at prices far below real or potential value. In this fashion, about 140 million acres of the public domain slipped from public control into the hands of jobbers. Similarly, there was nothing "wrong" with the idea that the federal government should grant to the states "swamp and overflow" lands, which the states could then reclaim and sell at a comfortable margin of profit. Here again, local speculators connived with state officials to obtain more than 80 million acres of valuable cropland whose only resemblance to swampland was the kiss of an occasional summer rain.

There was nothing "wrong" with the idea of compensating American Indians for reservation lands confiscated during the period of Indian concentration after the Civil War, either by allowing the Indians to sell the land directly or through the government itself. Another 100 million acres were thus passed along to the ever-present jobbers, who exercised both style and ingenuity in obtaining land at prices

that made it only a little less generous than an outright gift.

There was nothing "wrong" with the concept that federal lands could be used to help finance the construction of vital public improvements, such as railroads, giving private capital the incentive to invest in such works. This was manifestly logical and reasonable, and so, beginning in 1850, the Congress of the United States authorized the disposal of 181 million acres of the public domain to various railroad corporations—nearly *one-tenth* of the whole sweep of government lands. This particular giveaway, one of the greatest boondoggles in the history of land use, was accomplished by granting 131 million acres to the various transcontinental railroads in the form of anywhere from ten to 40 alternate sections of land for each mile of track laid, and by giving another 49 million acres to the states for the encouragement of local railroad construction. Thus, by 1900, a handful of railroad corporations, chief among them the Union Pacific Railroad, the Southern Pacific Railroad, the Northern Pacific Railroad, and the Santa Fe Railroad, owned more land in the continental United States than any other organization or institution save the government itself. In California alone, where the Southern Pacific

Railroad enjoyed almost a virtual monopoly of rail transportation, 11 million acres of the public domain had been siphoned off to support railroad construction.

There was nothing "wrong" with the idea that the federal government should make land available to genuine settlers and farmers at the cheapest, most convenient rates possible as a means of encouraging settlement and development. This concept, first promulgated by Thomas Jefferson, was forced to take a back seat to the revenue interests of eastern politicians and speculators until well into the nineteenth century, when the political influence of the West finally made itself felt. The first major expression of the idea of providing "land for the landless" was the Pre-emption Act of 1841, which stipulated that any settler who had shown the gumption necessary to go out into unsurveyed lands of the public domain and attempt to settle them should have the first option to buy land when they were offered for public sale. The price was set at \$1.25 an acre for no more than 160 acres, and any settler who already owned more than 320 acres was declared ineligible. The Pre-emption Act was a genuine aid to the real settler, but speculators large and small were still able to get around the law through "dummy entries" and other such devices, not excluding the bribery of land office clerks. Speculation became so rampant under the Pre-emption law, in fact, that it rapidly became the tool of the kind of small-scale entrepreneur who would have pricked up his ears at the words of Charles C. Nott almost 50 years later: "Go West, young man, go West, to make money to buy land to grow corn to fat hogs to make more money to buy more land to grow more corn to fat more hogs."

As the Mississippi Valley filled with corn-growers and hog-fatteners, hungry eyes gazed upon the unsettled portions of the trans-Mississippi West and the cry for "free" land echoed even more resoundingly in the halls and cloakrooms of Congress. The result was the Homestead Act of 1862, which gave any adult citizen the right to claim 160 acres of the public domain for a \$10 filing fee. After he had "proved up" by having "resided upon or cultivated the same for a term of five years immediately succeeding the time of filing," he could then secure

final title to the land. Devised in the humid east, the law was simply unworkable in the arid and semi-arid West, where a man needed at least 2,000 acres for a ranch, 360 to 460 acres for an unirrigated farm, and no more than 40 or 60 acres if he practiced irrigation. The effort to "prove up" on 160 acres of blistering hardpan soil broke both heart and back, and scores of thousands of failed claims reverted to the public domain or fell into the hands of large-scale speculators and ranchers. For if the Homestead Act was a snare and delusion for the small farmer, it was a boon to these latter individuals, who cheerfully twisted the law to their own ends. Under the law's "commutation clause," any settler not wishing to wait five years could purchase his 160 acres at the pre-emption price of \$1.25 an acre after six months in residence. Jobbers and ranchers hired troops of lackies to file and "reside" on choice bits of land for six months, then buy it and turn it over to their patrons. Residence was proved by swearing to the existence of a "twelve by fourteen dwelling," neglecting to mention that the measurement was in inches, not feet, or by renting a portable cabin for five dollars, or by tacking a pair of shingles to a tent and swearing that the habitation was a "shingled dwelling." Of the 80 million acres claimed under the Homestead Act in the nineteenth century, most ended up in the ownership of one jobber or another.

Three amendments were later attached to the Homestead Act, but only one of these, the Timber Culture Act of 1873, was a genuine attempt to improve the Homestead law. This act allowed any homesteader to claim an additional 160 acres, to become his if he planted one-fourth of it in trees within four years. Tree-planting and a four-year wait were of little interest to speculators, and of the 10 million acres claimed under this law most were owned by legitimate farmers. The other two amendments were less respectable. The first was the Desert Land Act of 1877, a cattlemen's lobbying effort which provided for the tentative title to 640 acres in the Great Plains or Southwest (including California) by a payment of 25 cents an acre. If he could prove he had irrigated the land within three years, he could then secure final title by paying an additional dollar an acre, and in the meantime he could transfer the tenta-



*Who manages the public domain?*

tive title. Teams of cowboys were rounded up to file claims for their employers, buckets of water were dumped on the ground so that witnesses could swear they had "seen water on the claim," and another 2,674,695 acres disappeared from the public domain. Another 3.6 million acres vanished under the terms of the third amendment to the Homestead law, the Timber and Stone Act of 1878, the child of lumber interests. This act applied only to those lands in California, Nevada, Oregon, and Washington that were "unfit for cultivation" and "valuable chiefly for timber and stone," and allowed any citizen or first-paper alien to claim and buy 160 acres for \$2.50 an acre (not much more than the price of a single log then, and somewhat less than the \$10,000 an acre that redwood land, for example, brings today). Historian Ray Allen Billington described what followed: "Company agents rounded up gangs of alien seamen in waterfront boarding houses, marched them to the courthouse to file their first papers, then to the land office to claim their quarter section, then to a notary public to sign over their deeds to the corporation, and back to the boarding houses to be paid off. Fifty dollars was the usual fee, although the amount soon fell to \$5 or

\$10 and eventually to the price of a glass of beer."

So went the public domain, hostage, finally, to a glass of beer.

At some point in the last quarter of the nineteenth century, the government looked around and discovered that it had given away more than half of the nation's legacy of land, most of it under circumstances that were shady when they were not downright illegal. In 1880, Land Commissioner William A. J. Sparks announced that land disposal had been "very largely conducted to the advantage of speculation and monopoly, private and corporate, rather than in the public interest." The public domain, he said, had been "made the prey of unscrupulous speculation and the worst forms of land monopoly through systematic frauds carried on and consummated under the public land laws."

Stating the problem was one thing, correcting it quite another. Congress balked at doing more along the lines of land law reform than throwing in an occasional minor revision, and throughout the rest of the nineteenth century and well into the twentieth, millions upon millions of acres of the public domain continued to slip into private ownership. Still, the concept of freehanded disposal that had dominated the government's approach to its lands for more than a century gradually succumbed to a movement for management and reservation. Gifford Pinchot, Chief of the Forest Service during the second administration of Theodore Roosevelt, outlined this new concept in 1910. The foremost duty of this country, he said, "is to bring about a fundamental change in the law and the practice toward conservation, to prevent for the future what has been in the past, the useless sacrifice of the public welfare, and to make possible hereafter the utilization of the natural resources and the natural advantages for the benefit of all the people instead of merely for the profit of a few."

A noble sentiment, that—the manifesto for a revolution. In the spirit of this revolution, most of what was left of the public domain after the jobbers and lumbermen and railroads and corporate farmers and ranchers had sliced out their shares slowly fell under the mantle of federal management: 160,174,791 acres in the National Forest system after passage of the first forest reserve authorization in 1891;

19,381,042 acres in the National Park program after the creation of Yellowstone National Park in 1872; 473,302,297 acres into the hands of the Bureau of Land Management after its creation in 1946; and the remainder divided among various other government agencies.

This shift in the concepts of federal

land use did not take place without howls of outrage and a bombardment of delaying tactics from those who had become accustomed to viewing the public domain as a piece of cake. Even today, when management, rather than disposal, has been generally accepted as the right and proper thing to do, there are those who would still like

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*The public domain remained the largest and juiciest morsel on the menu of what historian Vernon L. Parrington called "The Great Barbecue." Today, this is the literal truth as urban sprawl encoraches even into the deserts.*



# New Standing for the Environment

How the Sierra Club Legal Defense Fund  
has established new precedents in law,  
and why they are good for you.

WHEN THE DEFENSE dockets of United States courtrooms are occupied by a Secretary of Agriculture charged with apparently attempting to launder millions of acres of de facto wilderness out of public protection, when the Administrator of the Environmental Protection Agency is accused of setting pollution standards that would foul the airsheds of rural America, and when a Secretary of the Army is caught circumventing Congress with an after-the-fact environmental impact report on the first phase of a \$1.35 billion river channelization project, government suddenly finds itself just another litigant before the bar of justice.

Over the past several years, public interest law, particularly environmental law, has forced government into a position of accountability. The ancient legal tradition of sovereign immunity is falling before a new and fuller exercise of the American Constitution's system of checks and balances. Change has not come easily. For decades the Sierra Club and its conservation allies have worked to secure laws to protect the nation's scenic resources and, more recently, to combat the mounting pollution problems of urban industrialism. As Congress has responded, the major polluting and resource-exploiting industries have countered by manipulating the administrative branch of government into a noncomplying, often illegal, position. Conservationists petitioned federal agencies, but the agencies were free to respond to or ignore the petitions—no matter how meritorious.

Then, in 1965, a giant dome of granite on the banks of the Hudson provided the breakthrough for the Club and all environmentalists. In an

effort to defend Storm King Mountain in New York against a proposed two-million-kilowatt pumped storage power project, the Sierra Club and the Scenic Hudson Preservation Conference won court recognition of their noneconomic interest in the fate of the mountain. David Sive, a New York attorney and Club leader, was allowed to argue before the bar the place of natural beauty in an industrial society.

The Sierra Club was quick to broaden its strategy, and within a few years after Storm King, the Club was actively paralleling its traditional legislative programs with enforcement proceedings in the courts. The Club's Legal Committee, originally formed to deal with tax, copyright, and related Club legal affairs, was retooled by its leaders, Don Harris, Frederic Fisher, and Phillip Berry, to handle the Club's new environmental litigation as well. In 1971, the Club moved to institutionalize its litigating function by creating the Sierra Club Legal Defense Fund (SCLDF).

James Moorman, a graduate of Duke University School of Law and co-founder of the Center for Law and Social Policy in Washington, D.C., was named executive director. Moorman built the new organization around a nucleus of four outstanding young lawyers. Three of these lawyers work full time in SCLDF's San Francisco headquarters: John D. Hoffman, Yale Law School and a Fulbright Scholar; Barry Fisher, UCLA Law School and organizer of Rhode Island's OEO Legal Services Program; and Laurens H. Silver, University of Chicago and formerly director for the National Legal Program on Health Problems of the Poor in Los Angeles.

The fourth attorney, Anthony Ruckel, of The George Washington Uni-

versity Law School and Sierra Club counsel for Rocky Mountain litigation since 1969, is also a full-time staff member and is in charge of SCLDF's Denver office. Bruce Terris, a Washington, D.C., attorney, is on retainer from SCLDF to represent the Club in the District of Columbia. In addition, SCLDF established a nationwide network of more than 30 volunteer attorneys to undertake Club cases, receiving research and personnel backup and out-of-pocket expenses or, on occasion, modest fees from SCLDF.

Although only two years old, SCLDF has explored a wide range of public law, that body of statutes regulating government agencies. SCLDF has sought and won many orders requiring government officials to comply with environmental laws. On the motion of SCLDF attorneys, courts have ordered government agencies to produce key documents for public scrutiny. SCLDF lawyers have interrogated and cross-examined agency personnel under oath. The courts have listened as SCLDF attorneys have probed deeply to determine if administrators have provided an acceptable level of rational findings to support their actions. With SCLDF as its voice, the Sierra Club is winning equality with governmental agencies.

In the early cases, the Club's standing to sue was continually and vigorously challenged by the defendants. Finally, in the Mineral King litigation the issue of standing was separated from the issue of the legality of federal permits to Disney Enterprises' \$35 million mass recreation proposal for the southern Sierra valley. In April, 1972, the Supreme Court, ruling on the standing issue alone, said that the Club can bring suit whenever it can demonstrate that injury has been or will be done to the recreational, environmental, and esthetic interests of its membership and programs. Although the Club was required to make technical amendments to the allegations of standing in its complaint, the Mineral King decision settled finally and favorably the Club's right to prosecute on behalf of the environment.

The young litigating arm of the Sierra Club has already won cases that will affect environmental quality into the next century. The scorecard shows 75 victories—large and small—with few defeats. The most important litigation to date is SCLDF's series of

three court victories that may prevent the Environmental Protection Agency from graying the air of rural America. The law at stake is the conservationist-backed Clean Air Act of 1970, drafted to allow "no haven for polluters anywhere in the country." As directed by the act, the EPA set national air quality standards calculated to upgrade urban air quality.

The agency then set guidelines for state implementation of these standards that would have needlessly and illegally sacrificed the clean air of vast rural and suburban regions of the country. If the EPA's policy of relocating high-pollution industries to clean air areas is allowed to stand, the air quality outside the nation's large cities and inner suburbs will deteriorate to the levels set in the federal standards for dirty air areas. In other words, air quality in the Rocky Mountains and the Great Plains would be allowed to deteriorate to the levels now present in Boston, Akron, Detroit, and Pittsburgh.

The Club sued the EPA under the Clean Air Act for failing to protect present clean air areas. SCLDF stated that the federal air quality standards do not represent the true threshold of human tolerance to air pollutants and that, if the EPA would set strict emission control standards on stationary sources, industry would be forced to develop and use improved pollution control technology. SCLDF charged that EPA's unlawful pollution relocation policy is tailored to facilitate industry plans to locate extensive coal-burning electric power installations in rural areas. This process, which will result in an astonishing deterioration of air quality, is already well under way. The astronauts report that the smoke plume from New Mexico's Four Corners power plant is the only man-made object visible in outer space.

In June, 1972, the U.S. District Court for the District of Columbia agreed with the Sierra Club and ruled that the Clean Air Act prohibits the significant deterioration of air quality in any portion of any state. The Court gave the EPA until December to establish new regulations for any state plan that allows the fouling of presently clean air. The EPA appealed the decision. The Court of Appeals in November, 1972, and the Supreme Court in June, 1973, both affirmed the District Court decision.

Claiming that "there has been no definitive judicial resolution of the issue whether the Clean Air Act requires prevention of significant deterioration of air quality," the EPA implemented the court order (in form only) by proposing four alternative sets of "significant deterioration" regulations—none of which prevents significant deterioration of air quality. In September the EPA held regional field hearings on the four alternatives and will presumably issue final regulations sometime this winter. The Sierra Club is prepared to return to court if the final regulations do not meet the requirements of the Clean Air Act and the District Court order.

In June, 1972, one month after filing suit to protect the nation's airsheds, SCLDF launched the biggest land case in U.S. history—a suit to protect 56 million acres of de facto wilderness, "where the earth and its community of life are untrammelled by man." Statutory protection for wilderness did not come until the Multiple Use-Sustained Yield Act of 1960 ordered the Forest Service to expand its traditional timber management concerns to include such noneconomic uses as

recreation and wilderness. The Wilderness Act of 1964 provided additional protection by instituting review procedures reserving to Congress and the President the final decision on wilderness designation for certain classified public lands.

The Forest Service only paid lip service to the new legislation. Lumbering and mining assaults on Forest Service lands of high wilderness and recreational quality continued. The Sierra Club issued its first challenge to Forest Service management policies in the spring of 1969, when the service advertised a timber sale in East Meadow Creek, a virgin forest contiguous to the Gore Range-Eagle's Nest Primitive Area of Colorado. As wilderness contiguous to a classified primitive area, East Meadow Creek was guaranteed a review by Congress and the President under the Wilderness Act. The Club won a court order indefinitely halting the sale until such a review is held. The case was hard fought for three years, but in March, 1972, East Meadow Creek opened the door for judicial review of Forest Service activities.

And some very ambitious Forest



Service activities were in progress. The Forest Service is custodian of an estimated 56 million primeval roadless acres in blocks of 5,000 acres or more. These acres, representing a basic reservoir of American wilderness, had been excluded from the Wilderness Act as a result of timber industry lobbying efforts. On August 11, 1971, the Chief of the Forest Service issued a directive to the regional foresters to inventory all roadless areas of at least 5,000 acres, to identify "new study areas" for potential wilderness recommendation, and to hold public hearings. The recommendations for new study areas were due at service headquarters by June 30, 1972.

Conservationists had long supported the concept of a roadless area wilderness review, but not this kind of review:

- The deadline precluded a thorough review of the 187 million acres of national forest, so numerous eligible roadless areas never made the inventory lists.

- Time and the winter snows guaranteed that little information on the wilderness characteristics of the 1,400 roadless areas that did make the lists would be collected before the June 30, 1972, deadline.

- The same limits and snows ended any chance for other federal agencies or concerned citizens to offer informed comment; therefore, on occasion, public hearings were not held.

- Several Forest Service regions overlooked the Forest Service Manual's criteria for wilderness review and wrongfully disqualified many roadless areas.

These points constituted severe lapses in due process. But the Chief of the Forest Service left the Club no choice but to go to court when he announced that after June 30, 1972, any roadless area not designated as a new study area would be immediately subject to activities that would alter its wilderness character. He referred to the "demands for intensive recreation" and the "need to meet national housing goals." Whereupon on June 16, 1972, the Sierra Club Legal Defense Fund brought suit against the Secretary of Agriculture and the Chief of the Forest Service.

The Forest Service had treated the law as lightly as the wilderness. The Sierra Club and its co-plaintiffs

charged the service with violation of the National Environmental Policy Act, the Multiple Use-Sustained Yield Act, the Due Process Clause of the Fifth Amendment, and their own Forest Service Manual regulations. The Club asked the court to enjoin the defendants from permitting any development that would endanger the wilderness quality of the inventoried roadless areas until environmental impact statements were prepared and wilderness classification reviews held.

Shortly before the trial (in November, 1972) the chief partially conceded, ordering the preparation of environmental impact statements for any proposed development within the 56 million acres of inventoried roadless areas. The court dismissed the case, inviting the Club to resume litigation if the environmental impact statements are inadequate or if the Forest Service violates the law in subsequent wilderness review proceedings. In its narrowest construction, the Club's action has implemented the National Environmental Policy Act with respect to 56 million acres of public land. In a broader and inherent sense, the outcome goes beyond the inventoried wild lands to require due consideration for wilderness alternatives in all national forest land-use decisions.

If the Sierra Club had failed to force government to obey its own laws, the will of Congress to preserve clean air and wilderness would have meant nothing. The Constitution orders the executive branch to "take care that the laws be faithfully executed." Yet, ever since long-range environmental considerations began to win some parity with short-term economic interests in Congress, a succession of administrations has ignored or loosely interpreted environmental laws. Thus, even the National Environmental Policy Act of 1969 (NEPA), the landmark legislation that requires all federal agencies to administer their policies and regulations in accordance with specific environmental objectives, would be but empty rhetoric if the Sierra Club and other conservation organizations had not determined to watchdog its enforcement.

Given the scope of the act, it is not surprising that half of SCLDF's case load involves NEPA violations. One of the Club's key NEPA victories to date was won against the Army Corps of Engineers' illegal development

plans for the Trinity River Basin in Texas. This river environment, plagued by federal assistance since the Civil War, suffered when earlier channelization projects caused destructive saltwater intrusions into the region's rice field irrigation systems. The current generation of Army Engineers came up with a \$1.35 billion "salinity control" solution that would have cut out 184 natural crooks in the river and created a 370-mile straight-line barge canal from the Gulf of Mexico to Fort Worth. (See *Sierra Club Bulletin*, July/August, 1973.)

Faced with growing opposition and the requirements of NEPA, corps officials and other project supporters met in Galveston, where they decided to complete the first phase of the project—the Wallisville Reservoir (soon 70 percent finished)—as soon as possible and simultaneously compose a favorable environmental impact statement. The Sierra Club and local conservation groups went to court, suing the corps for failing to prepare an impact statement for the total project and charging that the impact statement for the Wallisville Reservoir was inadequate. The case resulted in a court decision that foreshadows the day courts will rule directly on when a project's environmental cost outweighs its social utility.

The suit, undertaken by Robert H. Singleton for SCLDF, achieved a key goal of environmental lawyers: the Texas court broke a long-standing tradition of avoiding cost-benefit analysis issues and ruled that NEPA obligates judicial review whenever the claimed ratio involves environmental valuations. The court found that in making the Wallisville analysis, the corps had quantified environmental benefits, but ignored environmental costs; had arbitrarily escalated benefits over the years to match increasing construction costs; had summarily doubled the life span of the project to offset front-end project costs; and had claimed recreation benefits in excess of actual need.

In February, 1973, the court terminated construction on both the Trinity River and Wallisville projects. The court also terminated the concept of NEPA as simply an environmental full-disclosure law. Under this decision the corps cannot transform the free flowing Trinity into a series of polluted and stagnant pools by merely

*Continued on page 40*



# Bonnie & Claus

**H**ERE'S CLAUS again with his bonnie helper, hitting the Christmas trail with Sierra Club books. This year, plant a few under your tree. Ideas take root. "And do not dally," warns Claus, "for the days dwindle down to a precious few."

Claus has a point. A certain ghost of Christmas Past reminds us of

*Continued overleaf*



the hundreds of Club members who placed blind trust in the swiftness of the U.S. Mail and the flawless efficiency of the Club's order-fulfillment process. Result: a rootless humbug of a Christmas. But, as anyone who avoided that experience knows, the mail at Christmas is never swift, and no mail-order operation is without some flaws.

Having extirpated the avoidable flaws in our system, we join Claus in urging you to order your Sierra Club books, portfolios and calendars early. Still, some doubts may linger about the reliability of the mails; in which case, you have the option this year of paying a surcharge to cover the cost of additional postage—and thereby speed your order on its way (see details on order-form envelope).

The Christmas catalogue follows. Felicitous shopping!



# The Sand Country of Aldo Leopold

A PHOTOGRAPHIC INTERPRETATION BY  
CHARLES STEINHACKER/ESSAY BY SUSAN  
FLADER/SELECTIONS FROM THE WRITINGS OF  
ALDO LEOPOLD/WITH 35 FULL-COLOR  
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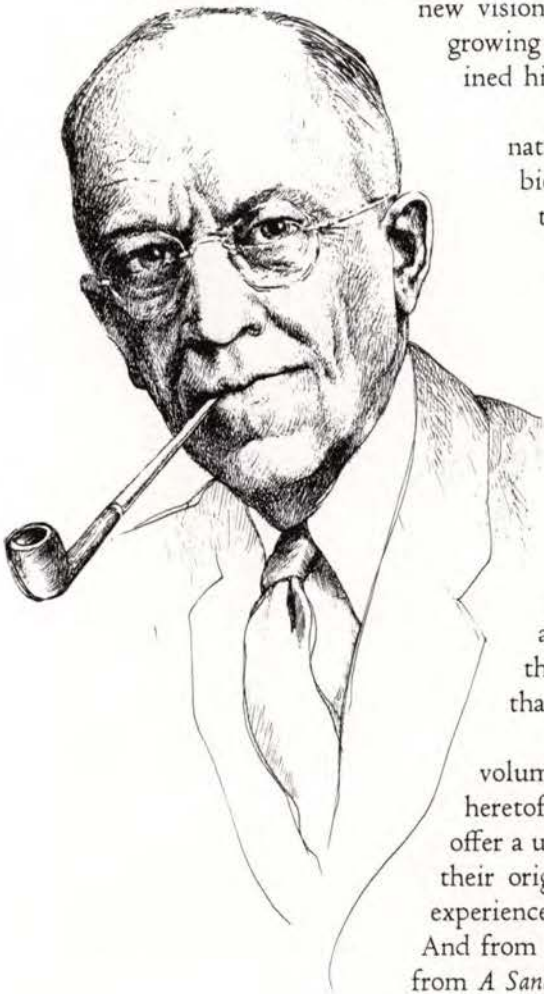


**A**LDO LEOPOLD arrived in the sand counties region of central Wisconsin in 1925. A decade later, he purchased a derelict farm there, and he died nearby in 1948, shortly after consigning to publication a small collection of his essays. First published by Oxford University Press, *A Sand County Almanac: and Sketches Here and There* is a gentle, modest manifesto in which Leopold, an incurable dissenter in the mold of Henry David Thoreau, rejected the old Abrahamic concept of land as a commodity and called instead for a new vision of land as a community to which all men belong. Yet despite the growing popularity of Leopold's prose, no one—until now—has truly examined his ideas against the larger setting of the landscapes that shaped them.

The deed is done. Here is a handsome book in which a gifted nature photographer, Charles Steinhacker, and a dedicated historian-biographer, Susan Flader, share their knowledge and understanding of the person and the place—a person who has come to be regarded as a prophet in the evolution of a new association between man and land, a place little known and undistinguished save as it stimulated in that person and others a deepened respect for the larger community of life.

"It was a coming together in maturity," writes Ms. Flader. "Aldo Leopold was well past the midpoint of his life when he came to the sand area of central Wisconsin, already a forester, wildlife manager and conservationist of national repute. And the sand counties were older still, their long history intimately involved with the geologic and human history of the continent. . . . From his own direct participation in the life of the land, he came to an appreciation of the ecological, ethical, and esthetic dimensions of the land relationship, and from that experience evolved a sense of place that required a word richer than land. He called it country."

As Anthony Wolff points out in his introduction, the style of this volume is faithful to its inspiration. Writes Wolff: "For those who have heretofore had to infer Leopold's landscape from his prose, the photographs offer a unique opportunity to see the context from which Leopold's words take their original impetus and meaning. Susan Flader describes his sand county experience in the larger setting of the area's history and Leopold's own life. And from Aldo Leopold himself, this volume includes a quintessential selection from *A Sand County Almanac*."





*A town is saved,  
not more by the righteous men in it  
than by the woods and swamps  
that surround it.*

A SIERRA CLUB LANDFORM BOOK BY MARVIN MORT AND CHARLES E. LITTLE/CAPTIONS BY GEORGE U. JONES/WITH MORE THAN 40 COLOR PHOTOGRAPHS/128 PAGES/RETAIL PRICE: \$19.95/MEMBER'S PRICE: \$17.50.



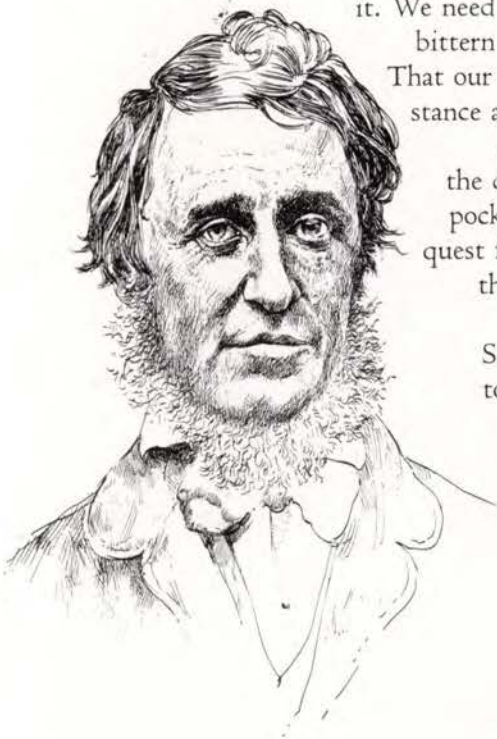
**I**N THE GENTLE WOODLANDS of Concord, which he would immortalize in *Walden* and other works, Henry David Thoreau fronted the elemental facts of human existence and the dynamic relationship between man and the land. Even then, he saw emerging in America a society beset by conformity and urbanization. And he was one of the first to understand the importance of what would be called—one hundred years later in the argot of the city planner—open space:

“Our village life would stagnate if it were not for the unexplored forest and meadow which surround it. We need the tonic of the wilderness,—to wade sometimes in marshes where the bittern and the meadow hen lurk. . . . We can never have enough of nature.”

That our village life has stagnated for want of Thoreau’s wild tonic is a circumstance all too familiar throughout much of America today. Ticky tacky sprawl and metropolitan metastasis roll on from sea to shining sea. Yet for all the denatured landscapes, nature still prevails in small, protected strips and pockets in and around the overgrown villages where most of us live. In our quest for a quality of life, these humble wildlands are no less important than the greatest of our national parks.

In celebration of the natural landscapes of urban America, the Sierra Club announces publication of a new Landform book which brings together a talented nature photographer, Marvin Mort, and a sensitive environmental writer, Charles E. Little. Together, they examine not only the scenic values of our urban wildlands but the ideas which have assured such areas some measure of permanence in modern society.

In his essay exploring the literary and philosophical roots of contemporary conservation, Little warns us to beware of too much reliance on facts and too little on perception. “Environmentalism,” he writes, “must now balance its predictions of apocalypse with visions of a better life.” Marvin Mort provides such visions. The photographs speak to us of the enduring yet fragile beauty of wildlands undisturbed on the borders of the city of man.



# 1974 Sierra Club Calendars

RETAIL PRICE: \$3.95 MEMBER'S PRICE: \$3.50 each

## New Wildlife Calendar

Inspired by Bruce Keegan and the members of the Club's Wildlife Committee, this new calendar is a tribute to the diversity of the wild species of North America. Included in the selection of 13 outstanding color photos are the golden eagle (Tom Myers), coyote (Galen Rowell), bighorn sheep and bobcat (Al Morgan), grizzly bear (Edgar Wayburn), alligator (Patricia Caulfield), osprey (Don Bradburn), and brown pelican (Dennis Stock), among others. (10¼ x 8½ inches.)

## Wilderness Wall Calendar

The Club's perennial best-seller. Featuring 14 outstanding photographs of wild America. This edition of the wall calendar previews a number of new Club publications: two photographs by Marvin Mort from the forthcoming Landform book, *A town is saved, not more by the righteous men in it than by the woods and swamps that surround it*; three by Philip Hyde from a forthcoming revised edition of *Island in Time* and the new Sierra Club Gallery, *Mountain and Desert*. There are photographs as well by Arthur Twomey (the Southwest) and Ed Cooper (the Northwest), among others. (10¼ x 13½ inches.)

## Engagement Calendar

The engagement (desk) calendar for 1974 features some 56 full color photographs and facing pages for each week of the year. Among the contributors are Ed Cooper, Phil Hyde and Richard Rowan (covering the West), Wilbur Mills and Olaf Sööt (Alaska), John Earl (Southeast), and Patricia Caulfield and Marvin Malkin (the Northeast). Also featured in the new desk calendar are text excerpts from such recent Club books as *Slickrock*, *Everglades*, *Edge of Life* and *Floor of the Sky*. (6½ x 9½ inches.)

*Note:* Please specify an alternate calendar choice on your order form. Just in case your first choice runs out of stock.



Sea otter by Jeff Foott, from the 1974 Wildlife Calendar.

Cactus by Ed Cooper from the 1974 Engagement Calendar.



# The Sierra Club Gallery



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## Mountain and Desert

BY PHILIP HYDE

"The photographs in this portfolio," writes Philip Hyde, "were selected not so much to display places, but to express something of the range of landscape and natural forms, and, above all, to communicate that love which flows from a close contact with nature. . . . My intent is not to awe, but to stimulate empathy and love."

## Trees

BY RICHARD ROWAN

"What we have here," writes Richard Rowan, "are the moods of trees, the feeling of branches and foliage and bark against the larger tapestry of sky and sea and landscape. Not every tree can be the poem Joyce Kilmer promised. But nearly all have the wonderful magic of a grand design in nature."

# ASCENT

THE SIERRA CLUB  
MOUNTAINEERING JOURNAL \$3.50

Now in its seventh successful year, ASCENT is designed to become a permanent part of your library. Articles are concerned with the total Alpine experience; outstanding photographs of mountains and the people who climb them; accounts of major climbs and expeditions; satire, essays and opinion, humor, book reviews, and Sierra climbing notes. ASCENT continues to offer the beauty, whimsy, and sheer visual delight that is mountaineering.

ASCENT 1973 features stories of an epic three week ordeal on Europe's largest rock wall (the Trolltind), the awesome ascent of the north face of Alberta, a photo essay of Canadian faces in winter, a tour through the Taurus Mountains of Turkey with Harold Elwood, and a report on the rise and fall of the Yosemite Decimal System by Jim Bridwell.

Some back issues containing often-quoted articles are still available for \$3.50 per issue. (See order form.)



Cerro Torre, Patagonia. By Lee Dickinson. The cover of Ascent 1973.

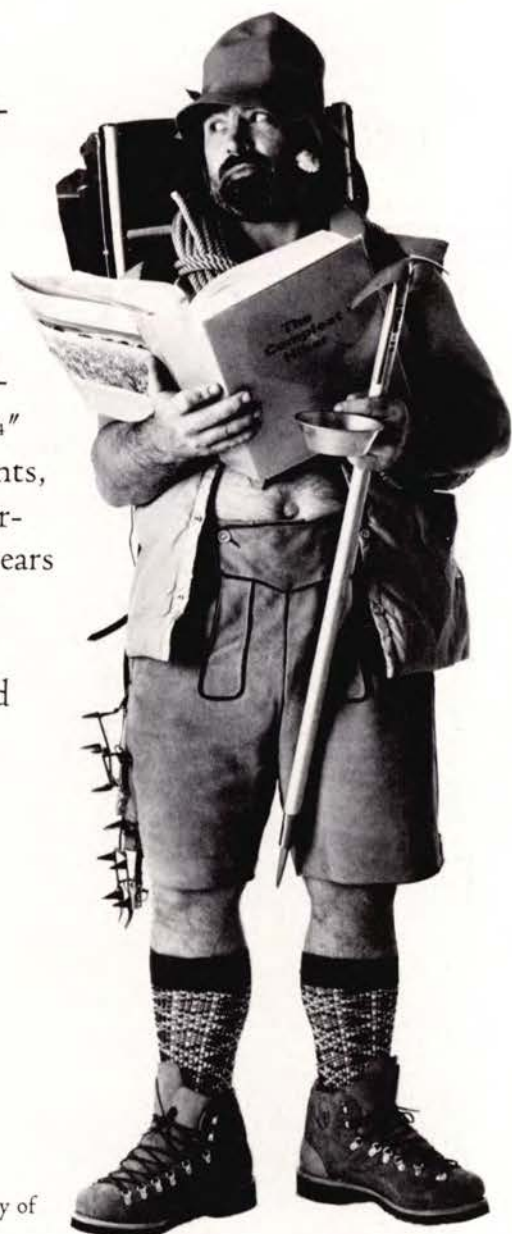
# Totebooks

*Going-light guides  
to wilderness enjoyment*



Here's Clod again (not to be confused with Claus), trudging along the trail with a buckram-bound blockbuster.

What a pity. Bonnie knows better. She totes *Totes*, the books built for outdoor practicality. The 4½" x 6¼" format fits any pocket of the pants, parka or pack. The flexible, water-repellent cover will withstand years of hard use. Next trip out, try *Totes*. They do make a difference. (See opposite page and the one following.)



Bonnie and Clod's apparel and all equipment courtesy of The Mountain Shop, 228 Grant, San Francisco.



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## Wilderness Skiing

BY LITO TEJADA-FLORES AND ALLEN  
STECK/SKETCHES AND PHOTOGRAPHS/  
276 PAGES/RETAIL PRICE: \$6.95/  
MEMBER'S PRICE: \$5.50

For the skier who is disenchanted with high costs, crowded slopes and snow-balling commercialism, here is *the Totebook* on how to get away from it all. Enchantingly and informatively written by ski instructor Lito Tejada-Flores with Allen Steck, editor of *Ascent* (the Sierra Club mountaineering journal). Included are chapters on: Nordic cross-country and alpine touring techniques . . . clothes, boots, waxes and accessories . . . planning the tour . . . shelter . . . food selection . . . snow hazards . . . first aid and evacuation . . . where to go—from New England to the High Sierra.

## Hiking the Yellowstone Backcountry

BY ORVILLE BACH/228 PAGES/MAPS/  
RETAIL PRICE: \$4.95/MEMBER'S PRICE: \$4.25

## Hiking the Teton Backcountry

BY PAUL LAWRENCE/176 PAGES/MAPS/  
RETAIL PRICE \$4.95/MEMBER'S PRICE: \$4.25

The backcountry of Yellowstone and Grand Teton national parks contains some of the most scenic—and wild—country remaining in America today. Yet, for want of adequate guides, few hikers have been able to enjoy the wilderness that lies but a few miles from the parks' developed areas. Now, with these new Totebooks, ramblers may leave the madding crowds behind and strike out for higher, wilder country. For the *Teton* hiker, Paul Lawrence describes a full range of trails, from Jenny Lake to Hidden Falls, Rendezvous Mountain to Teton Village, and on into some of the connecting paths in Targhee and Teton national forests. For the *Yellowstone* hiker, Orville Bach details the trails of the Bechler, Thorofare, Central Plateau, Gallatin and Washburn regions, among others. Both

books include indispensable tips on how to prepare for a Teton-Yellowstone trip, and the latest information on geology, flora, fauna, and backcountry etiquette.

## Hut Hopping in the Austrian Alps

BY WILLIAM E. REIFSNYDER/207 PAGES/  
MORE THAN 30 PHOTOGRAPHS AND  
MAPS/RETAIL PRICE: \$3.95/MEMBER'S  
PRICE: \$3.40

The first up-to-date English language guide to the Alpine trails and huts of Austria, by an American hiker who has been there with notebook and camera. Reifsnnyder describes everything you need to know in planning a hut-hopping trip through the Austrian Alps: how to get there, what to expect in accommodations, what to wear, how to decipher the monetary system. Thus prepared, the reader may then select one of three week-long rambles through the Stubai, Lechtaler or Tauren Alps of Austria. Each tour is described in one-day units, from hut to hut, and each unit is illustrated by photographs and a trail-map keyed to an elevation scale. A unique introduction to one of the world's most beautiful mountain regions.

## Hiker's Guide to the Smokies

BY DICK MURLLESS AND CONSTANCE  
STALLINGS/374 PAGES/MAPS/RETAIL  
PRICE: \$7.95/MEMBER'S PRICE: \$6.95

In 1971 some seven million people visited Great Smoky Mountains National Park. But lack of any kind of hiker's guide has been causing massive, burgeoning, over-use of the Appalachian Trail where it passes inside the park's boundaries. Meanwhile the 500 miles of side trails have remained almost totally unused.

Now, with this guide in his pack, any hiker can safely leave behind the over-traveled A.T. and explore the rest of the park's lush wilderness. The 1,409 kinds of flowering plants that grow there make the

Smokies a botanist's delight. Our guide tells you about them, the fauna, the outstanding scenery (highest range east of the Mississippi) and the local history as evidenced by remains of settlements you'll find along the trail.

## Mountaineer's Guide to the High Sierra

EDITED BY HERVEY H. VOGEL AND  
ANDREW J. SMATKO/356 PAGES/  
RETAIL PRICE: \$7.95/MEMBER'S PRICE: \$6.95

The definitive mountaineering guide to the peaks and passes of the Range of Light.

A timberline wilderness country of great beauty, the Sierra Nevada has always been popular with Californians. Now its sparkling snow slopes and challenging peaks are attracting outdoors people from everywhere. All class 1 through 4 climbs have been culled from Hervey Vogel's *Climber's Guide to the High Sierra*. Andrew Smatko has thoroughly updated all those trail descriptions, and added new ones on additional peaks.

## Climber's Guide to Yosemite Valley

BY STEVE ROPER/304 PAGES/RETAIL  
PRICE: \$6.95/MEMBER'S PRICE: \$5.50

The Club's most popular guide to lofty places. Roper describes nearly 200 new routes accomplished in the six years since the original hardcover publication of this title. What's more, each description from the old

guide has been wholly updated. In all, Roper describes 482 climbs and an appendix lists each by grade and difficulty. With 16 "locator" photographs.

## Food for Knapsackers

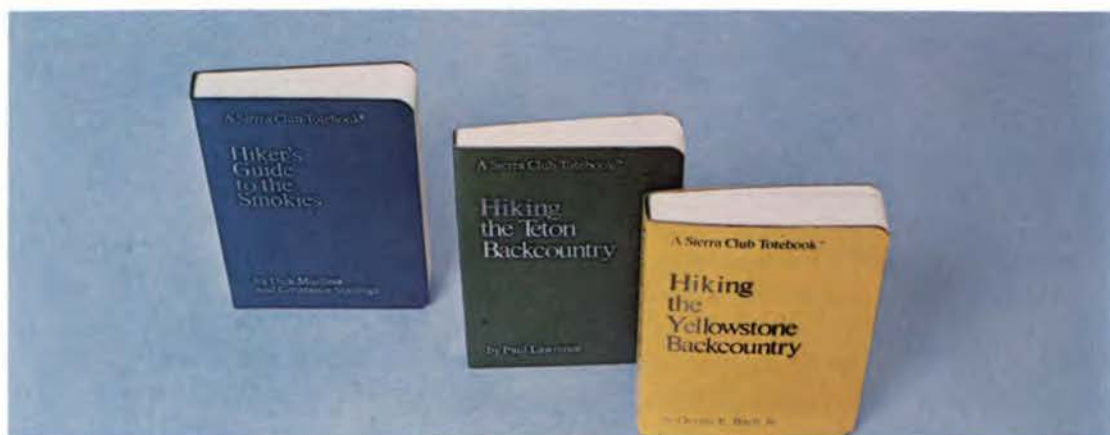
BY HASSE BUNNELLE/144 PAGES/  
RETAIL PRICE: \$2.45/MEMBER'S PRICE: \$2.15

A complete culinary guide for the veteran trail trampler as well as the novice. This unique book tells you *everything* you need to know, both before and during a trip: what to buy, what to carry, where to shop, and even how to cook what you've been carrying so carefully. Expanded, with information on freeze-dried foods, from a popular Sierra Club monograph. The recipes are trail-tested.

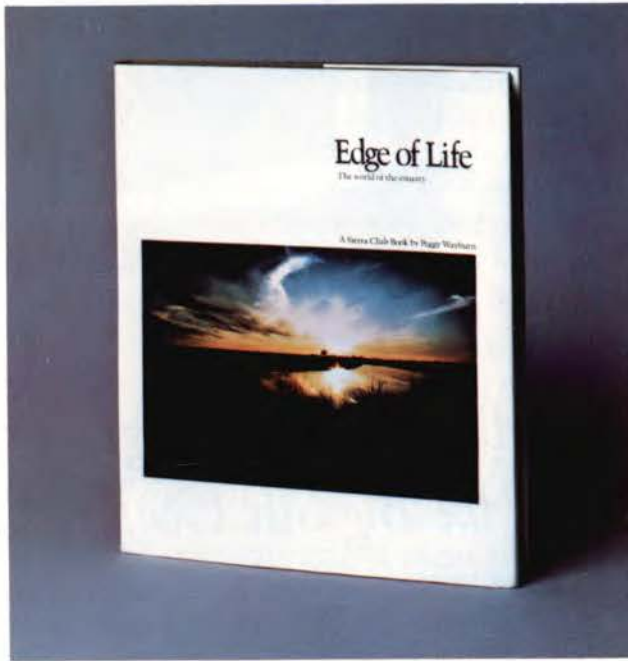
## Cooking for Camp and Trail

BY HASSE BUNNELLE WITH SHIRLEY  
SARVIS/198 PAGES/RETAIL PRICE: \$3.95/  
MEMBER'S PRICE: \$3.40

*Cooking* is the new companion volume to the best-selling *Food for Knapsackers*. In that book, though, the emphasis was on the back. In this one, it's on the stomach—some 200 trail-tested recipes intended for those people traveling by shank's mare, raft, rowboat, pack animal or dog sled. Everything from Camp Coffee to Sonofabitch Stew. Plenty of hearty, simple, dishes for the beginning campers, and also lots of adventurous recipes to test the old pros. The reader will find, in addition to the recipes, wise advice for preparing nutritious meals, and important instructions on the selection and use of stoves.



# Landform Books

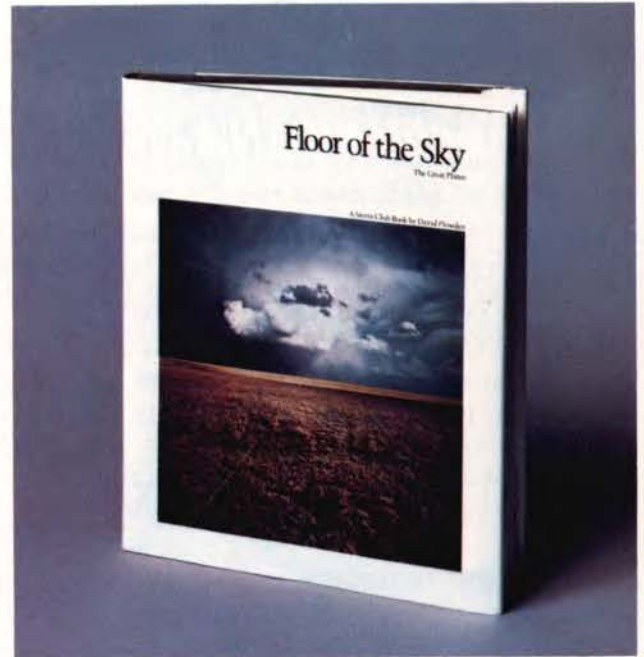


## *Edge of Life: The World of the Estuary*

BY PEGGY WAYBURN/32 COLOR  
PHOTOGRAPHS BY DENNIS STOCK/  
INTRODUCTION BY PAUL BROOKS/144  
PAGES/RETAIL PRICE: \$14.95/MEMBER'S  
PRICE: \$12.95

Since life on this planet first evolved in the brackish waters of the estuary, the tidal marsh has sustained a level of biological productivity unmatched by any other land form. And yet man continues to destroy estuaries in an effort to convert them into garbage dumps and subdivisions. Ms. Wayburn focuses her study on one prototypical marsh that has been touched by man but still survives. She examines the estuarine web of life, from the microscopic wrigglers of the mud flats to the great birds of prey. And she leaves the reader with a fuller understanding of the value of coastal wetlands and of the urgent need to preserve the few that remain.

## *Exploring man's habitat*



## *Floor of the Sky: The Great Plains*

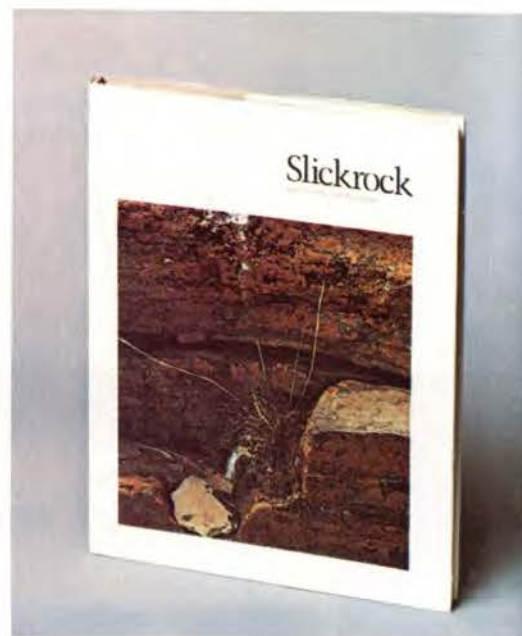
BY DAVID PLOWDEN/76 PHOTOGRAPHS  
BY THE AUTHOR, IN FULL COLOR AND  
DUOTONE/128 PAGES/RETAIL PRICE:  
\$19.75/MEMBER'S PRICE: \$17.50

Misunderstood and unappreciated, the Great Plains represent the most left-behind land form in the United States. People have been hurrying across the plains for 120 years, often confusing them with the long-grass prairie to the east, always eager to leave both regions for the gold and glamour of the transmontane West. Yet to such a sensitive eye as David Plowden's, there is more than enough to understand and appreciate between the 98th meridian and the Rocky Mountain wall. For here is a piece of authentic America—a raw country dominated like none other by the awesome beauty of the sky, a place of short grass and tall grain, of windmills silhouetted against rain clouds, or pronghorns and prairie dogs, of indomitable people living out their lives in Broken Bow or Wild Horse or Plentywood or Last Chance or Sundown. With notebook and Hasselblad, Plowden has pieced these essential elements into a powerful photographic and reportorial mosaic of the past and present of the Great American Plains.

# The Exhibit Format Series

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## Slickrock

BY EDWARD ABBEY AND PHILIP HYDE/144 PAGES/  
RETAIL PRICE: \$27.50/MEMBER'S PRICE: \$24.00

Twenty-second in the award-winning series and "... both the most spectacular and the most militant one yet" (Roger Jellinek, *The New York Times*), *Slickrock* celebrates the endangered wildlands of Southeast Utah with 68 striking, full-color photographs by Hyde and a brilliant, biting essay by Abbey. "... The most beautiful of that beautiful series. ... Its photography, color reproduction, layout and printing are nothing less than superlative, while its text is poetic, anecdotal, vigorous, often angry, always informed. ..." (Wallace Stegner, *Natural History*).

## Everglades

BY PATRICIA CAULFIELD/144 PAGES/  
RETAIL PRICE: \$27.50/MEMBER'S PRICE: \$15.00

Accompanying Ms. Caulfield's 65 color photographs are selections from the writings of Peter Matthiessen and an essay in six chapters by John G. Mitchell. "... A generous array of dazzlingly beautiful photographs. ..." (*Wall Street Journal*). "With this volume, Sierra Club books strike an elegant blow in the fight for environmental action. ..." (*Newsweek*). "I found in the text a more lasting, vivid experience of the Everglades than my mere presence. And so I argue that the essay is worth several trips. ..." (Monroe Bush, *American Forests*).

## Not Man Apart: Photographs of the Big Sur Coast

WITH LINES FROM ROBINSON JEFFERS/  
FOREWORD BY LOREN EISELEY/  
INTRODUCTION BY MARGARET OWINGS/  
EDITED BY DAVID BROWER/160 PAGES/  
RETAIL PRICE: \$25.00/MEMBER'S PRICE: \$22.00

"The most beautiful book the Sierra Club has published ... one can almost hear the roar of the breakers and smell the wild sea breeze. Lines from Robinson Jeffers' poetry give the added depth of emotion that man can feel for nature." (*Oakland Tribune*).

## Glacier Bay: The Land of Silence

TEXT AND PHOTOGRAPHS BY DAVE BOHN/  
FOREWORD BY L. J. MITCHELL/166 PAGES/  
RETAIL PRICE: \$17.50/MEMBER'S PRICE: \$12.00

Glacier Bay is a new-born land still emerging from the Little Ice Age. It is a land filled with the roar of violent winds and thundering avalanches, and yet at times there is an incredible silence. In Alaska, where natural scenes are commonplace, Glacier Bay is perhaps the most awe-inspiring of all. Dave Bohn recreates for us the full gamut of beauty of this superb wilderness park.



## *Gentle Wilderness: The Sierra Nevada*

TEXT FROM JOHN MUIR/PHOTOGRAPHS BY  
RICHARD KAUFFMAN/168 PAGES/RETAIL  
PRICE: \$30.00/MEMBER'S PRICE: \$25.00

Here, nearly a century later, is the Sierra Nevada that John Muir wrote of so vividly in *My First Summer in the Sierra*. But now Muir's notes and sketches are enhanced by the photographs of Richard Kauffman. The gentle wind blows through Mr. Kauffman's color photographs; the gentle light radiates from the pages. Now you can share John Muir's awe and fully understand why he wrote: "And after ten years spent in the heart of it, rejoicing and wandering . . . it still seems to me above all others the Range of Light. . . ."

## *"In Wildness Is the Preservation of the World"*

BY ELIOT PORTER/SELECTIONS FROM HENRY  
DAVID THOREAU/EDITED BY DAVID BROWER/  
168 PAGES/RETAIL PRICE: \$25.00/MEMBER'S  
PRICE: \$22.00.

This is probably the book for which color photography was invented. In the introduction to this book of photographic interpretations of New England matched with superb selections from Thoreau, Joseph Wood Krutch writes: "Eliot Porter makes no attempt merely to *document* the selected passages. Instead—guided by pure artistic instinct—he has realized that the way to add to what Thoreau had written was to catch Thoreau's spirit. . . . As a result, Porter's pictures are truly in the spirit of Thoreau."

## *Kauai and the Park Country of Hawaii*

TEXT AND PHOTOGRAPHS BY ROBERT  
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The exotic beauty of this legendary island paradise is captured by a man intimately involved in creating on Kauai one of the nation's newest and most unusual national parks. 72 full-color plates.

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FOREWORD BY DAVID BROWER/160 PAGES/  
RETAIL PRICE: \$17.50/MEMBER'S PRICE: \$12.00

"If one had to choose the single outstanding gift book," wrote Robert Kirsch of the *Los Angeles Times*, "it would almost certainly be this one. It is a meld of art and craft, form and content." 72 full-color photographs by Eliot Porter and selections from the writings of Joseph Wood Krutch.

## *Words of the Earth*

BY CEDRIC WRIGHT/FOREWORD BY ANSEL  
ADAMS/EDITED BY NANCY NEWHALL/96 PAGES/  
RETAIL PRICE: \$15.00/MEMBER'S PRICE: \$12.50.

Cedric Wright—poet, photographer, naturalist—reveals his belief that every man's spiritual horizon can be expanded by his contact with nature. "It is Mr. Wright's gift to show us 'the unmarked fact' of America's wilderness with such clarity, grandeur, and intimacy that one dwells for a time in the scene and can return to it again for refreshment" (Edward Weeks, *The Atlantic*).

## *This Is the American Earth*

BY ANSEL ADAMS AND NANCY NEWHALL/  
112 PAGES/RETAIL PRICE: \$15.00/MEMBER'S  
PRICE: \$12.50.

"Although Thomas Jefferson argued that no one generation has a right to encroach upon another generation's freedom, the future's right to know the freedom of wilderness is going fast. And it need not go at all. . . ."—From the Foreword by David Brower.

Catalogue cover photograph by Nick Zurek. Photo of Fall books and calendars by Irwin Cohn. Thoreau and Leopold portraits by Joseph A. Smith. The design is by John Beyer.

# The Backlist

## Cloth

ALDABRA ALONE. By Tony Beamish. Foreword by Julian Huxley. 222 pages. Retail price: \$7.95/Member's price: \$6.95.

ALMOST ANCESTORS: THE FIRST CALIFORNIANS. By Theodora Kroeber and Robert F. Heizer. 168 pages. Retail price: \$15.00/Member's price: \$12.50.

ON THE LOOSE. T. & R. Russell. 128 pages. Retail price: \$7.95/Member's price: \$6.95. If a young person lives in your house or in your heart, here is a book to present as a gift. It is a chronicle of triumph and tragedy—the triumph of gaining an insight about oneself through an understanding of the natural world; the tragedy of seeing the splendor of that world increasingly threatened by men who don't know or don't care.

THE POPULATION BOMB. By Dr. Paul Ehrlich. 192 pages. Retail price: \$5.95/Member's price: \$5.00.

SNAKE WILDERNESS. By Boyd Norton. 176 pages. 8 color plates. Retail price: \$7.95/Member's price: \$6.95. This side of Alaska, the largest contiguous wilderness in the United States lies athwart the watershed of the Snake River in Idaho. Drained also by the fabled Salmon and Clearwater, this vast land of forest and mountain today is under constant pressure from mining and logging interests; and along the great streams themselves rise the specters of more and more dams.

## Portfolio

THE NATIONAL PARKS CENTENNIAL PORTFOLIO. By Dennis Stock. 12 gravure prints, boxed. Retail price: \$8.95/Member's price: \$7.65. These 12 prints, each 14 x 17 inches and suitable for framing, comprise a remarkable record of the variety of nature and the compelling allure of our national parks and monuments.

## Battlebooks

THE WATER HUSTLERS. By Robert H. Boyle, John Graves and T. H. Watkins. 254 pages. With maps. Retail price: \$2.75/Member's price: \$2.50. Nowhere in America is the manipulation of water resources pursued or contemplated on a grander scale than in the states of Texas and California, and throughout the New York metropolitan region. The authors report on the current plans for each area. The possible consequences of what they describe are vast and irreparable.

ACTION FOR WILDERNESS. Edited by Elizabeth Gillette. 222 pages. Retail price: \$2.25/Member's price: \$2.00. Key guidelines for identifying and protecting wildland resources. From the Sierra Club's 12th biennial Wilderness Conference, editor Gillette has assembled a provocative collection of tips on landsaving techniques.

JAMES BAY: The plot to drown the North Woods. By Boyce Richardson. 190 pages. Retail price: \$2.75/Member's price: \$2.50. A hard-hitting report on the multi-billion dollar scheme to dam and squeeze hydroelectric power from seven wild rivers in the North Woods of Quebec's James Bay watershed, one of the last great wildernesses in eastern North America.

STRIPPING: The surface mining of America. By John F. Stacks. 176 pages. Retail price: \$2.25/Member's price: \$2.00. A timely report on the ravages of this exploitative practice.

ENERGY. By John Holdren & Philip Herrera. 256 pages. Retail price: \$2.75/Member's price: \$2.50. The clash of growing power demands and their cost to environmental values, as seen by a scientist and an environmentalist.

CLEARCUT. By Nancy Wood. 176 pages with 16 photos. Retail price: \$2.75/Member's price: \$2.50. Nancy Wood examines this continuing raid on our forest resources.

MERCURY. By Katherine and Peter Montague. 160 pages. Retail price: \$2.25/Member's price: \$2.00.

OIL ON ICE. By Tom Brown. 160 pages with map. Retail price: \$2.45/Member's price: \$2.15. One of Alaska's foremost journalists explores a leading threat to the delicate ecosystem of our largest state, as plans proceed to build the controversial trans-Alaskan pipeline.

OILSPILL. By Wesley Marx. 144 pages. Retail price: \$2.75/Member's price: \$2.50. The author of *Frail Ocean* describes the ecological impact of spilled oil.

SURVIVAL SONGBOOK. Edited by Jim Morse and Nancy Mathews. 26 line illustrations by Jos. A. Smith. With an introduction by Pete Seeger, guitar chords and an LP record guide. 144 pages. Retail price: \$4.95/New special member's price: only \$1.00.

## Historical & Wilderness Conference

JOHN MUIR AND THE SIERRA CLUB: The Battle for Yosemite. By Holway Jones. Retail price: \$10.00/Member's price: \$7.95.

GALEN CLARK, YOSEMITE GUARDIAN. By Shirley Sargent. Retail price: \$5.75/Member's price: \$4.80.

JOHN MUIR'S STUDIES IN THE SIERRA. Edited by William E. Colby. Retail price: \$4.50/Member's price: \$4.25.

WILDERNESS: THE EDGE OF KNOWLEDGE. Edited by Maxine E. McCloskey. Retail price: \$6.50/Member's price: \$5.50.

WILDERNESS IN A CHANGING WORLD. Edited by Bruce Kilgore. Retail price: \$5.75/Member's price: \$4.80.

WILDERNESS: AMERICA'S LIVING HERITAGE. Edited by David Brower. Retail price: \$5.75/Member's price: \$4.80.

## Guidebooks

ILLUSTRATED GUIDE TO YOSEMITE. By Virginia and Ansel Adams. Retail price: \$3.95/Member's price: \$3.40.

MANUAL OF SKI MOUNTAINEERING. Edited by David Brower. 236 pages. Retail price: \$4.95/Member's price: \$4.20.

STARR'S GUIDE TO THE JOHN MUIR TRAIL. By Walter Starr, Jr. 135 pages, map. Retail price: \$2.00/Member's price: \$1.80.

## Specials

NORMAN CLYDE OF THE SIERRA NEVADA: RAMBLES THROUGH THE RANGE OF LIGHT. 29 Essays on the Mountains by Norman Clyde. 176 pages. Retail price: \$7.50/Member's price, by special arrangement with Scrimshaw Press: \$6.25.

## Hiding the real cost

# Northern Plains Stripmining

REMEMBER WHEN something like TVA or Boulder Dam was advertised about the world so thoroughly that you knew what it was before they turned the first spadeful of earth? Well, the most literally earth-shattering power project in history is geared up and going ahead today in the Northern Plains, and you don't hear much about it (unless you read conservation magazines *all* the time) for the very good reason that even an ad man's bookie would find the revealed prospect indecent.

Here are some of the basic facts, as set forth in the suit brought by the Sierra Club and other plaintiffs against Secretary of the Interior Morton and other responsible officials.

The so-called Fort Union formation of eastern Montana and Wyoming and western North and South Dakota may be the largest coal reserve in the world, with some 1.3 trillion tons of located reserves. A fraction of this—still a staggering 34 billion tons—is quickly accessible to stripmining, the preferred method of extraction in these days of the big machine. Perhaps as much as 280 billion tons can be stripped over the next 35 years.

While this coal can be processed into gas with present techniques or perhaps turned into liquid fuel if the Middle East revolts against us, the main thrust of development in the immediate future is toward the construction of pit-head electric generation plants, often much larger than the notorious Four Corners plant in New Mexico (the smoke plume of which is the only mark of "civilization" that can be seen on the face of the earth from outer space according to one of our astronaut teams). Altogether, as much as 197,000 megawatts of generating capacity—more than the current electrical production of Japan, Germany, or Great Britain—could go on the line in the next 25 years. At the same time, gasification and liquidification plants would sprout up, and coal would be exported by 100-car trains to distant points. (Muskogee, Oklahoma, is the site of two plants to be fueled with Wyoming coal, and plans are afoot to export Northern Plains coal even to West Virginia!)

Water in vast amounts is going to be needed to cool the plants, pipe the slurry, and maintain the half-million miners, carwashers, and short-order cooks that could be involved in the operations. Already the Bureau of Reclamation has on file applica-

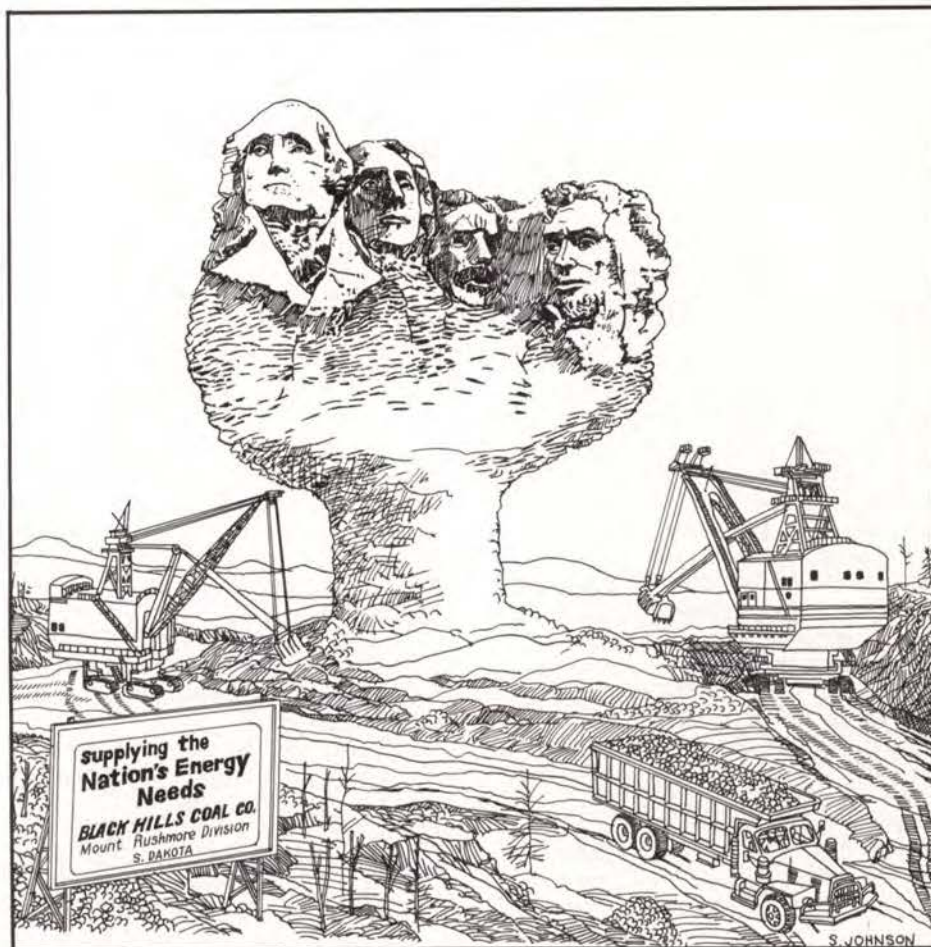
tions for over 1,700,000 annual acre-feet of water to support the initial energy production alone.

Already the Bureau of Land Management and the Bureau of Indian Affairs has issued coal exploration permits or mining leases on over 836,000 acres of land. This is just a fast start at the 54 million acres of Federal and Indian lands in the West that have coal reserves. The land of the Big Sky is slated to become the land of the Big Bucket.

With ranchers of the Northern Plains up in arms about the prospect of the biggest strip-mining ripoff in history (in this area the ranchers are the present backbone of the economy), and with years of conservationist activity culminating in the present Sierra Club suit, why is it that executive bureaus are compliant with industrial demands that

ignore such basic law as the Environmental Protection Act? As the Sierra Club brief puts it: "Despite the actions which have been taken and will soon be taken by defendants, they have prepared no comprehensive environmental impact statement on the coal development as a whole or environmental statements on any single action which has been taken." It goes on to state that there is no evidence that the government ever plans to prepare environmental statements or commission interdisciplinary studies that could show alternatives to the presently planned development.

The *why* is of course the money involved—profits that are real, or can be realized, only if the shoddiest malpractices of the stripmining and electrical generating industries are permitted. You don't have to be an economist to think there is something odd



about using an obsolescent method of generating electricity (in quantities capable of supporting the economies of West Germany or Japan) aroundabout northeast Wyoming, or that there must be something fishy about shipping coal to Illinois or West Virginia. The words that will come to mind are "cheap" and "fake."

There you have it. The true social costs have not been built into the economic equation. As an energy producer you start by leasing public lands (guess how that works!), then you use cheap and destructive methods to skim out the easiest coal; you cheap skate on putting things back the way you found them (it's only desert); you don't have to worry about your incredible air pollution (because it's still not as bad as Los Angeles); you get transmission rights-of-way for a song (see *Bulletin*, September, 1973), and if West Virginia doesn't work out as a coal buyer, you sell the surplus to Japan. As for the people involved, the hicks can go to the devil—and the tens of thousands of people you bring in (mostly indirectly) can live in hell.

Here is reality: Real and tangible costs to the public must be shown; furthermore, weight must be given to intangible human and environmental costs. It is probable that on the first basis alone—the costs to the public that an honest accounting will figure up—the tangible cost of stripmining the Northern Plain will prove uneconomic. If the second cost—the cost to some people in



particular and the whole environment in general—is accounted, there will be no doubt as to the balance.

About 85 percent of the region's coal reserves are held by the federal government. The development of these reserves is clearly a matter of important public policy. The public will be pressed to go along with the stripmining schemes in the name of the "Energy Crisis." The same public should realize that the more appropriate title is the "Energy Binge."

There is no means by which we can increase our energy demands at the present rate over a long period. It is public folly to destroy our public lands in the interests of a short-run, cheap skate rip-off that will solve no crisis of any sort.

The real crisis, the "Common Sense Crisis," is indeed upon us, and the Sierra Club is arguing common sense through our courts.

Roger Olmsted

## WASHINGTON REPORT

Brock Evans

### The Breath of a Nation

FOR A PERIOD of about 12 days around the Labor Day holiday, the whole eastern half of the United States sweltered under a record heat wave. Hardest hit was the heavily populated New York-Washington, D.C., corridor, where the stifling heat was exacerbated by one of the worst air pollution crises in history. For 12 days newspapers, television, and radio blared out the warnings: air pollution alert, people with respiratory diseases should stay inside, everyone should move about as little as possible, the air is dangerous for your health. Like a great grey cloud, the sickening hot pall hung over the cities, choking all those inside, like a vision out of Dante's *Inferno*.

Perhaps coincidentally, one of President Nixon's first statements to the public after this period was an appeal to Congress and the people, not to strengthen the air pollution laws, but rather to weaken the Clean Air Act and the standards that Congress im-

posed two years ago to alleviate such conditions. The President called for a weakening of the standards imposed by the act particularly on the emissions of sulfur oxides, created by the burning of high sulfur oil. Otherwise, he said, the nation will face a severe "energy crisis" this winter. Such, of course, is the position of the electric utilities and coal and oil companies. The upshot of the President's appeal will be to intensify the serious assaults now being planned upon the Clean Air Act by these industries this fall and early next year.

The battle over the Clean Air Act now shaping up may turn out to be the biggest and most important struggle that environmentalists will face. The integrity of the act for which we fought so hard just three years ago is now at stake. Now, it is the only thing between us and a progressive deterioration of air quality. If the act is weakened as the President and the utility companies

want, even if temporarily as they claim, everyone knows the act may never be put back together again. The coal and utility companies will use the "energy crisis" to achieve their long-range goal of weakening the Clean Air Act, in just the same way as the big oil companies used the "crisis" to bludgeon Congress into passing the Alaska pipeline legislation.

Already, hearings are being held by Senator Muskie's subcommittee of the Public Works Committee in the senate, and by Florida Congressman Roger's subcommittee on public health of the house Interstate and Foreign Commerce Committee. The purpose of these hearings, which are now under way, is to lay the ground for possible future changes in the act. The utilities, coal companies, chambers of commerce, and oil companies are there in force—and so are we. The advocates of change will claim that, in certain instances, too rigid applications of the standards set by EPA for implementation of the act would mean shutting down whole cities. They also claim that air pollution is no longer the problem it was several years ago, and that therefore the entire act is too strict.

How valid are these arguments? It is possibly true that in some areas, such as Los Angeles, some reasonable extensions of the deadlines are probably in order—as long as the cities or areas involved continue to take affirmative steps to clean up their air. But it is absolutely not true that the standards must be weakened in order to alleviate the alleged "energy crisis" this winter. As Senator Henry Jackson, perhaps the Congress' leading spokesman on the energy question, said the other day, there is no shortage of low-sulfur oil to be burned for heating this winter, and the clean air standards must not be weakened. But it is necessary now for the Administration to take strong steps to fairly allocate fuel oil among the various areas of the country. If it does, if it will abandon its bankrupt voluntary allocation program, then there should be no problem.

It does not now appear that the Administration will back away much from its general policy of granting the oil companies and other utilities what they want. It will not demand mandatory and fair allocations of low-sulfur oil. It will not insist upon enforcement of the standards of the Clean Air Act, apparently whether human health is involved or not. It will, to the contrary, continue its course of letting the companies determine

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the allocations, and join with them in their assaults on the act itself.

We cannot let this happen. We fought too hard and too long for a good clean air act to see it destroyed now. It may be possible to agree to certain minor changes in parts of the application of the act, such as deadlines for certain specific places that can demonstrate a real problem. But it is not acceptable that

the heart and soul of the act be weakened and changed.

The health of the whole nation is at stake. The act is under attack now because it is starting to work. If we let the energy companies get away with this effort, we will never see an end to it. If the standards are drastically changed, we may never be able to get them reimposed.

## CAPITOL NEWS

### Clean Air Quality—The Latest Report

One of the more complex and vitally important aspects of protecting our nation's clean air has once again been publicly argued. Proponents, opponents, and debaters of the question of preventing significant deterioration of clean air quality spoke at hearings across the nation before the Environmental Protection Agency in late August and early September. In Washington, D.C., Atlanta, Dallas, Denver, and San Francisco environmentalists, industrialists, scientists, and farmers appeared to voice their concerns on this issue.

As many readers know, the Sierra Club first focused national attention on significant deterioration of clean air in a lawsuit that claimed that the EPA has a clear mandate under the Clean Air Act to protect the quality of air that is cleaner than the secondary standards established by the act. The U.S. Supreme Court upheld the decisions of the lower courts which had ordered the EPA to prevent "the significant deterioration of air quality in any portion of any state." Following the June, 1973, ruling of the Supreme Court, the EPA issued four alternative proposals toward achieving protection of our nation's clean air. At the same time they gave notice of public hearings where citizens could comment on these plans. The public was given a month and a half to prepare for the hearings—and the record stays open until October 10 for written comments.

This issue affects many parts of the United States. Its most dramatic impact will be on the Northern Great Plains and Southwest

regions. However, it has significance in the Northeast, the Pacific Northwest, the South, the Midwest, Hawaii, and Alaska—anywhere the polluting effects of man's residences and industries are not yet manifest.

The Sierra Club, along with other groups and individuals, does not believe that any of EPA's four proposals will protect clean air quality. The Club, in concert with many concerned leaders of the fight to save clean air, has been working over the past year to develop a plan that would effectively prevent significant deterioration of clean air in any portion of any state. A general outline of this proposal, as well as a critique of EPA's plans, appeared in the September issue of the *Bulletin*. (The details of the Sierra Club's plan were presented in Washington, D.C., and Denver, Colorado, by Laurence I. Moss, Sierra Club President, and Dr. Michael Williams, two of the plan's formulators. Copies of their plan and their testimonies can be obtained from Cynthia Wayburn at the Sierra Club Legal Defense Fund, 311 California Street, San Francisco 94104.)

Environmental groups throughout the country turned out with strong voices supporting prevention of significant deterioration of clean air quality. Many groups supported the Sierra Club's plan despite cries from industry that "no growth" would occur if it were implemented. In Denver an extra day was scheduled to handle the number of speakers. Citizens came from North and South Dakota, from Montana, Wyoming, Nebraska, and New Mexico. The outcome of this debate will determine the future patterns of development in the states where these concerned people live. In Washington and San Francisco the response was also encouraging. Sitting alongside the power companies and developers were representatives of most organized environmental groups. Doctors and laymen associated with health care spoke of the low-level effects of air pollution on human health and the necessity for preserving clean air areas for the health of all humankind. Desert

dwellers told of the need to maintain the high quality of their air in Nevada, Arizona, and California—both for reasons of health and of economics. The state of Oregon came out strongly in favor of prevention of significant deterioration of its air quality. In Atlanta and Dallas our showing was not as strong as might have been hoped, perhaps because the complexity of this issue obscured its significance and because opposition to effective regulations is so strong. Yet some voices were heard protesting any serious degradation of air quality in those regions, too.

The battle is not yet finished—the EPA has yet to promulgate final and effective regulations preventing significant deterioration. The continued support of those who wish to protect as well as enhance air quality is needed as economic and energy demands increasingly attempt to override environmental considerations.

### Nixon chides Congress for inaction on energy

Chiding Congress for unbalancing his budget and calling for speedy action on Administration legislative proposals, President Nixon sent his "second" State of the Union message to the 93rd Congress. In what appeared to be an attempt to shift blame for future energy shortages onto Congress, Mr. Nixon declared: "The energy problem requires more than Presidential action; it also requires action by Congress."

The President urged fast enactment of his agenda of bills, particularly bills on energy and the environment. He announced he had directed his energy advisor, John Love, to meet with state officials to ease air pollution regulations and thus "help minimize fuel shortages this winter."

Nixon said "highest urgency" legislation that should be adopted before year-end includes bills for construction of the Alaska pipeline, construction of deepwater ports, deregulation of natural gas, and establishment of new standards for surface mining.

### Support motor boat ban in the Grand Canyon

Letters to congressmen are needed to counteract a campaign by commercial river boatmen that could stymie a National Park Service plan to return the Colorado River in Grand Canyon National Park to wilderness by phasing out motors over a period of years. With the active support of conservationists, the Park Service last year announced plans for a five-year phase-out of motor-powered craft on the river, concurrently switching to oar-powered trips and

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## AN EDITORIAL VIEW

**A Look Toward a New Rhetoric**

**T**HE SIERRA CLUB has become an eminent conservation organization—national in scope, forceful on legal and legislative fronts, recognized in publishing—largely on the vigor and success of its environmental campaigns. Its members and staff have fought battles from the North Slope to the Everglades; they won one fight for the Grand Canyon and gained only a partial victory for the redwoods; they fought to defeat the SST and TAP; they win and lose a thousand local campaigns for wild lands and clear water and pure air every year. They fight on.

Our Sierra Club rhetoric is filled with calls to battle. Our successes are tallied in campaigns won and lost. Our tactics have a martial tone of gathering strength and dispersing forces. Our opponents often view us with enmity. We rejoice in each successful foray.

Now, however, is a time to look beyond this battle rhetoric to some broader way to talk about and think about what we're doing. The militancy of our language and our strategy almost forces us to see all politicians, lawyers, administrators, and industrialists as adversaries. If they're not for us, they're against us. Someone must always lose, our frame of reference tells us. Sometimes we, sometimes the bad guys. Our very words make it difficult to describe problems as more and less important. So we need a new rhetoric—one which still keeps us tough, still keeps us vigorous and active, still keeps us sure of ourselves and our goals.

Maybe, in 1973, the Sierra Club is really involved in a crusade for a new land ethic. Our cause is a global one—the sanctity of the natural planet. Our goal becomes a way of life that mediates human desires and needs for things and the limits of the earth's resources in an embodiment of the highest ecological principles. Our organization takes on the character of a social movement.

With a crusade rhetoric, we will assert the rightness of our cause with fervor and dignity across the land. We will utilize strategies of persuasion and involvement. Both reason and emotion will become tools. We will emphasize the moral quality of our actions, redefining ethics for resource use in an over-populated, over-materialistic time. This frame of reference permits, even encourages, a more positive cast to our program; maybe we can move away from the negative image of always being against things. Yet we can still reasonably use strong adversarial action against moves that would degrade or destroy our surroundings, such action taken in the name of a positive ethical principle.

Two basic issues lie at the root of almost every problem the Sierra Club confronts; neither is really amenable to concentrated frontal attack. These issues are a life style that has an insatiable appetite for resources and an economic system that finds it difficult to produce environmental benefit if that affects private profit. Both issues require more subtle, long-range programs to affect people's basic attitudes. Both require that we seek a wider range of support than we presently have. Both demand educational and informational efforts. Both need a dramatization of the drastic consequences of a consumptive society and of the glorious possibilities implicit in a new set of values. The crusade is a useful way to approach each of these needs.

So a zealous Sierra Club goes on from its victorious battles and its defeats to a new crusade for earth sanctity, seeking to bring about a society which really lives a Leopold land ethic.

*Kent Gill, Vice President*

placing gradually stricter limitations on how many persons may use the river.

In their campaign to arouse opposition to the NPS plan, the river runners apparently have managed to convince their former and current passengers that the only safe and "convenient" way to see the river and the canyon is in motor-powered craft. Many letters to that effect are pouring into the Park Service.

Sierra Club members who support the idea of wilderness in the Grand Canyon—certainly one of the true "wild" places left on this continent—and those who believe in meeting the river on its own terms without the help of modern conveniences, must write to their congressmen and to the Secretary of the Interior supporting the Park Service's plan and calling for an end to motors in the Grand Canyon. Equally im-

portant, ask your congressmen to request the NPS to make studies to determine the level of use that the river and the canyon can withstand without damage and without losing their wilderness character. The time to write is now!

**President pushes SST despite Congress' vote**

What environmentalists had felt would be the final blow to American supersonic aircraft development (SSTs)—the May, 1971, congressional vote to terminate federal funding for construction of prototype SSTs—may be shattered by continued Administration backing of supersonic research and development programs. Although Congress only appropriated \$16.5 million for fiscal year 1974, composed of \$11 million for NASA and \$5.5 million for the FAA, President Nixon this year requested a whopping \$38 million for agency SST spending, with an additional \$4 million for further phase-out costs for the Boeing prototype program killed in 1971.

While Congress trimmed funds to last year's level, the Administration quietly pursued a careful strategy to revive the American supersonic industry. In January, 1973, it was reported the President assured France and England, currently developing the Concorde, of U.S. landing and takeoff privileges in this country for the jointly built SST. Opening American airports to the Concorde, scheduled to begin commercial service in 1975, is designed to place added pressure on the SST-reluctant Congress through arguments of maintaining the country's economic competitiveness in the international air travel market. Recent administrative regulations prohibiting overflights at supersonic speeds by civilian SSTs is considered to be a Nixon attempt to temporarily placate environmentalists.

A six-page resume of SST activities, including bibliographical references, is available by request at Mills Tower.

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## NEWS VIEW

## "We oppose mindless progress," McCloskey tells chemical workers

"We are against the kind of mindless progress that rides roughshod over human values, that befouls the environment, that destroys our heritage, and defrauds posterity," Sierra Club Executive Director Michael McCloskey said in a major speech to the annual convention of the Oil, Chemical and Atomic Workers Union in Toronto.

"We are against the kind of progress that forces your members to constantly face ever more exotic and lethal new chemicals in their work—before safeguards have been worked out; against the kind of progress that is represented by the strip mining of Appalachia, that is turning its hills into wasting sores; against the demolition of historic districts in our cities that need to be restored; against the elimination of species after species of wildlife; and against leaving future generations with a biologically impoverished planet, exhausted resources, and too much radioactive debris.

"We are for progress that is genuine—that enriches this and future generations," McCloskey said. "We are for mass transit, for renovation of urban housing, for reforestation, for reclamation of derelict lands, for recycling operations, for reclaiming waste water, for solar power, for returning nutrient wastes to the land, for integrated pest control, for clean air and water, for open space and parks, and for better public health programs," McCloskey said.

Some 650,000 jobs have been created by modern environmental protection and pol-

lution control programs, McCloskey said. This is expected to grow to more than a million by 1980. One reason workers and environmentalists should work together, McCloskey said, is that workers and people with limited incomes are the chief victims of environmental disorders.

"You know that 100,000 American workers die each year from occupational diseases—largely because of pollution in the workplace; 80,000 people are injured in the U.S. each year by pesticides, many of them workers. Most workers live within five miles of the plant in which they work, where air pollution is thickest. Air pollution is worst in the central cities inhabited largely by people of limited means. Air pollution limits your lifespan, curtails your vigor, and reduces resistance to disease," McCloskey said.

### Club's clean air stand myth-represented

The Sierra Club's proposed clean air plan outlined at the end of August has been misrepresented in four myths. Northern California Regional Conservation Committee Chairman Lowell Smith testified at Environmental Protection Agency hearings in San Francisco.

Myth one, he said, is that the Sierra Club proposal is enormously complex and difficult to administer. The fact, he said, is that the Club's proposal is "a scientifically simpler and vastly more complete and effective version of EPA's proposal no. 1."

Myth two is that "no significant deterioration" is a problem only for wilderness and other undeveloped areas. In fact, even San Francisco and Los Angeles have lower levels of sulfur oxide pollutants than those permitted by EPA's secondary standards, a level which a recent government study shows is inadequate to protect the public health.

Myth three is that the only harmful effects of permitting pollution to increase to the level of the secondary standards will be a loss of what EPA calls "aesthetics." In reality, the secondary standards do not provide protection against many harmful health effects, which have been demonstrated in scientific studies, but not yet quantified.

Myth four is that the Sierra Club proposals represent a "stop-all-development" philosophy. "The fact is that the Sierra Club

proposals will actually encourage the right kind of growth, while preventing premature and excessive development of new concentrations of uncontrolled polluting industry.

"The Sierra Club proposal will prevent massive 'runaways' of industry from urban areas, with a consequent loss of jobs and tax base," Smith said. "They will provide industry with a maximum incentive to develop new technology to control air pollution, so that communities may have the economic development they desire without sacrificing air quality and public health."

### Club urges labor agency to control carcinogens in chemical industry

Sierra Club spokeswoman Linda Billings urged the Labor Department's Occupational Safety and Health Administration to adopt regulations controlling exposure of workers to 14 cancer-producing substances used in the manufacture of insecticides, dyes, inks, plastics, rubber, explosives, linoleum, floor tiles, textile processing, and other chemical processing.

"Such regulations," she said, "will have a beneficial effect in controlling release of

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these substances beyond the workplace—into the general environment. They dramatize the problems posed for society at large by their release through a variety of disposal methods.”

**SRI energy study flunks objectivity tests**

A report produced by Stanford Research Institute for several California companies was labeled “discredited” by the Sierra Club’s California Energy Task Force. The report was a utility response to a Rand Corporation study last November urging the state to cut its electricity consumption to 40 percent of the demand projected by the year 2000.

The SRI report “at best can be characterized as an advocacy document aimed at satisfying a client rather than one providing an objective analysis of a critical problem,” wrote Club task force chairman Sidney Moglewer to SRI President Charles A. Anderson. Moglewer enclosed the task force’s 28-page critique of the SRI report.

“The SRI report does not apply the scientific spirit (open, explicit, and objective) but rather consistently refers to the authority and expertise of SRI,” the Club task force said. “It does not take a disinterested view but rather reflects the *a priori* biases of the California utility companies who sponsored the study. And it is not responsive solely to the evidence and analysis produced but rather draws conclusions that are not supported by the study’s work.

“Inasmuch as SRI’s reputation has been based upon past objective work,” Moglewer told the consulting firm, “I would suggest that you carefully consider the danger to your organization inherent in the production of ‘advocacy’ studies. These types of studies will only bring your organization into the political arena without the shield of being an objective organization.

“The astonishingly poor quality of the analysis, which would surely warrant a failing grade in an undergraduate paper at any good engineering school, does a disservice to SRI, to the sponsors of the work, and to the policy makers who presumably expected to be enlightened by this report.”

In a four-sentence reply, SRI’s Anderson wrote Moglewer that complex subjects can produce “some sincere differences of opinion” and that the SRI report was prepared “in a manner completely consistent with the highest professional standards and objectivity.”

**North Plains coal suit**

The Sierra Club and five other plaintiffs filed a petition in Federal District Court of the District of Columbia for a summary judg-

ment to block development of North Plain coal deposits, until federal agencies comply with National Environmental Policy Act requirements. The Club contended that the departments of Interior, Agriculture, and Army have failed to prepare and consider comprehensive environmental impact statements in connection with plans to open coal reserves in Wyoming, Montana, and North and South Dakota.

**Engineering in ignorance destroys a creek**

The Army Corps of Engineers, reports Jean S. Barnard of the Club’s Marin (California) Regional Group, has frankly admitted “they went ahead and worked up an elaborate \$4-million scheme for ‘structural modification’ (channelization) of our beautiful little Mill Valley creek—Arroyo Corte Madera del Presidio—that runs through the center of our town, *without having checked the stream-flow data.*”

The corps admitted in a letter to a city official that its study “had to be based on

indirect and to a large extent inferential and judgmental methods,” and that when they finally put a water gauge on the creek, they found the flow so much less than their calculations that they could no longer justify any structural modifications at all.

**Interior looks at tar sands**

J. Wade Watkins, an Interior Department energy research expert, urged greater attention by government and industry to development of “tar sands” and heavy oils as potential new fuel sources. He told an engineers’ meeting in Washington that more than 500 tar-sands deposits exist in 22 states, representing the equivalent of 25 to 35 billion barrels of crude oil, and that deposits of heavy oil equal about 100 billion barrels. Heavy oil is crude oil too thick to flow from most oil wells, and tar sands are porous rocks with semi-solid hydrocarbons suitable for conversion to petroleum products. Extraction methods are being sought to recover fuel by processing the deposits where they lie, through boreholes.

**ALASKA TASK FORCE**

The Sierra Club’s Alaska Task Force, under the chairmanship of Edgar Wayburn, M.D., would like to invite interested members to join its efforts to pursue the Club’s Alaska programs.

To implement the Alaska Native Claims Settlement Act, major legislation will be introduced in Congress proposing national parks, wildlife refuges, and wild and scenic rivers in Alaska, which will need environmentalists’ support. The Club plans to keep Task Force members informed of legislative developments in Washington and newsworthy events in Alaska. Participants can help support bills by writing letters to their Congressmen or by submitting comments to congressional committees holding hearings on Alaska proposals. Congress has five years to make its decisions in implementing the Alaska Native Claims Settlement, with initial action beginning soon.

Other projects in Alaska of great interest to the Club include the trans-Alaska pipeline, proposed oil and gas transportation through Alaska and Canada, new highways, logging, and protection of fish and wildlife.

Membership in the Task Force is not limited. You need not have been to Alaska nor do you need any special expertise about Alaska. We hope that environmentalists interested in preserving Alaska’s superb natural heritage will help in the Club’s efforts by participating in the Task Force. If you are interested in Alaska’s future and willing to respond periodically to special alerts and mailings on Alaska by writing your representatives, please fill out the form below and return it to the Club’s headquarters.

ALASKA TASK FORCE  
SIERRA CLUB, 1050 MILLS TOWER, SAN FRANCISCO, CALIF. 94104

[Please Print]

NAME	TELEPHONE	[home]
	(area code)	
ADDRESS		[work]
	(area code)	
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## REGIONAL REPS REPORT

**Offbase Oil Exploration**

Peter Borrelli

"The trouble with today's conservationists is they have no sense of discovery. They don't understand technology or progress. They require that everything proceed at zero risk or not at all. Why, if Lewis and Clark were alive today, they'd have to file environmental impact statements for every river crossing."

And so it goes—the seemingly endless banal characterization of conservationists as neo-Ludites with a touch of Malthusian fever. The occasion for the above mindless comment was a hearing conducted by the Council on Environmental Quality (CEQ) at the state headquarters of the National Academy of Sciences in Washington, D.C. The subject was oil on the Atlantic outer continental shelf (OCS) and in the Gulf of Alaska. The jab about Lewis and Clark came from one of a platoon of oil lobbyists during one of those off-the-record moments of candor.

The Washington hearing is but one of a series being conducted by the CEQ around the country, ostensibly to find out what people think about offshore drilling. The hearings began in September in Washington, Boston, and Anchorage, and are scheduled for Mineola, New York (October 3-4), Philadelphia (October 11), Ocean City, Maryland (October 12), and Jacksonville, Florida (October 16-17). They are part of a year-long study by the CEQ on the environmental impact of oil and gas development, a ticklish subject given the matrix of energy trade-offs. Presumably, the question is, "To drill or not to drill," but the CEQ's ability to remain impartial in this affair is itself a question of considerable concern. After all, the idea for the study came from President Nixon's energy message to Congress last April, in which he called for a threefold increase in OCS leases by 1979. Given this presidential prod, can the CEQ play it straight?

The schedule of hearings reflects the CEQ's concern to keep the study above board, but skeptics question the value of such hearings given the public's lack of information on the issue. Even the oil industry seems limited to intelligent guesses when it comes to saying how much oil is out there. So the magnitude of the problem is virtually unknown. The oil industry does possess some seismic data about oil and gas potential on the Atlantic coast, but it claims that such information is proprietary. How it thinks a rational energy policy can be developed in a proprietary vacuum remains a mystery. But this is the way the industry has always operated, and its traditional chummy relationship with government has not

changed significantly since the disastrous Santa Barbara blowout.

By involving the public in this affair, the CEQ is trying to seem objective—as, indeed, we hope it is. It has contracted with the National Academy of Sciences to conduct an independent critique of the study and has invited the Sierra Club and other environmental groups to participate. This represents a major departure from traditional procedures in such matters, but it remains to be seen whether such measures will effectively safeguard the public's interest.

Slowly, ever so slowly, we are beginning to understand the tactics of the energy crisis. During the Alaska pipeline controversy, for example, Congress was persuaded by the oil lobby that without the North Slope oil, disaster was as certain as tomorrow. But now, less than two months after receiving congressional approval for the pipeline, industry spokesmen are saying that North Slope oil is not adequate, that we need OCS oil too. Alaska was supposed to provide two to three million barrels a day, but the big argument being advanced on behalf of OCS exploration is that the North Slope will provide only about 1.3 million barrels a day. And so it goes.

The President, the Department of the Interior, and the oil industry agree that we must exploit every available domestic petroleum resource in order to avoid being dependent on oil imports, especially Arab oil imports, which could account for about 40 percent of U.S. consumption by 1985. Whether this dependence can be avoided, whether indeed it must be avoided, is a question of byzantine complexity, involving a host of issues, problems, postures, policies, prejudices, habits, and decisions. The entire mess well illustrates Marston Bates' eloquent definition of ecology as the "economy of nature," and economy as the "ecology of man." Both words are derived from a Greek root meaning household, and never has our household been in such disarray. It is certain that we are not going to bring order to chaos by pursuing simple-minded, single-handed, short-term solutions. Ecosystems and economies never respond favorably to such heavy-handed measures.

Right now, the pressure for OCS exploration is greatest in the South, where a major lease sale is pending for oil and gas exploration off the coasts of Mississippi, Alabama, and Florida. The draft environmental impact statement on the proposed lease comes to the candid but dismaying conclusion that "sooner or later a major oil spill will result if this proposal is implemented. We are certain that thousands of minor spills will

result." Other problems implicit in OCS development are the destruction of coastal marshes and estuaries, as has happened at a frightening rate in Louisiana, and the inevitable development of ancillary facilities—refineries, tank farms, port facilities, and the like—along the adjacent coasts.

The implications for both the local ecology and economy are profound, and so far no one has bothered to sit down and make even a respectable stab at predicting what the results of such developments are likely to be. Not to do so is to proceed blindly into an untenable future. For this reason, the Sierra Club supports comprehensive federal land-use legislation, and recommends that no OCS development should be permitted until the states involved have implemented coastal management plans under the provisions of the Coastal Zone Management Act of 1972. We must proceed with caution. Certainly, Lewis and Clark tested the current and depth of every river they crossed.

The oil industry and the Administration, intrepid explorers that they are, would plunge ahead, arguing that we must act now to avert a crisis. Yet if a crisis is so imminent, why have we not begun a crash program of energy conservation, something rather more serious than the President's recent request that the states voluntarily reduce highway speed limits? Strenuous measures to conserve energy would be neither disastrous nor unprecedented. We did so in World War II, and as Donald Rogers of the American Economic Foundation pointed out in a recent *New York Times* article, "The crisis was met, the shortages were overcome, the Republic survived."

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# Clair Tappaan Lodge

AS THE TIME approaches when the first snows and the chilly winds of winter come to the Sierra, we want Club members to know about Clair Tappaan Lodge, a very pleasant place to stay for excellent skiing, snowshoeing, or for just plain resting. The lodge is located west of Donner Summit on old Highway 40, two miles after leaving Interstate 80 at the Soda Springs-Norden turnoff, and is a few minutes walk or drive from the major ski resorts in the North Tahoe area.

The lodge has a capacity for 150 people and provides hot meals morning and evening. Food for bag lunches is available at breakfast time. Dormitories, dormettes or family rooms of five to eight bunks each, and cubicles of two bunks each are equipped with mattresses, but no sleeping bags or blankets are provided. The lodge is run in a cooperative fashion, with only a paid manager and cook, so each person must sign up each day for a housekeeping or maintenance chore.

Advance reservations for meals and lodging will be needed for any stay beginning November 30, 1973, through Easter, April 14, 1974. These can be made by writing Clair Tappaan Reservations, in care of the Club office at 1050 Mills Tower, 220 Bush Street, San Francisco, California 94104. Requests will be handled at the Club office in San Francisco from November 15 through April 11, and can be made in person, by mail, or by telephone if money is on deposit for this purpose. Full payment must be made before a reservation can be issued. To stay at the lodge before November 30 or after Easter, telephone or write the lodge manager (916 426-3632), telling him the time you plan to arrive, the length of your stay, and the size and composition of your party.

Application envelopes containing information on lodge rates and procedures should be used when requesting winter season reservations. These envelopes can be obtained from the Club office in San Francisco or from the

lodge. Reservations are made only for weekends of two full days (starting with Friday night's lodging and including three meals for each full day), and for any number of weekdays. Anything less than one full weekday or one full weekend must be arranged with the lodge manager on a space-available basis. Members are encouraged to send money in advance as a deposit to draw upon during the season. Records are kept, and any balance will be refunded upon request.

Deadline for making lodge reservations at the office for a weekend is 11 A.M. on the Thursday before that weekend. For those who have worked to maintain the lodge, ten beds are held in reserve until the preceding Monday noon. Until Wednesday of each week, a maximum of ten non-member guest reservations will be accepted at the rate of no more than one guest per member. After Wednesday, additional guest reservations will be accepted if space is available. Sponsors must accompany their non-member guests for their entire stay.

As in past seasons, a charter bus will leave San Francisco and Berkeley each Friday night, beginning January 4, and will return each Sunday night throughout the ski season as long as there is sufficient demand. The bus will return on Monday night, February 18 (after the three-day Washington's Birthday weekend). There will be no bus service Easter weekend. The bus will leave San Francisco each Friday at 6:15 P.M. from the United States Mint, Market and Duboce streets, and will stop for passengers in Berkeley at 7 P.M. at the Southern Pacific station, Third Street and University Avenue. Arrival at the lodge is planned for about 11 P.M. Departure from Norden will be at 6 P.M., after Sunday dinner, with arrival in Berkeley about 10 P.M. and San Francisco about 10:30 P.M. There is ample space for skis and luggage. When arrangements have been made at the office, passengers with hand luggage

(no skis) may be picked up near the freeway at Vallejo, Davis, and Sacramento. Aside from private car, this chartered bus is now the only direct transportation to Norden; the trains and Greyhound bus no longer stop there.

Applications for the Christmas and Easter holiday weeks will be accepted after November 1, but will be held until November 30 and March 5 before being acted upon. If demand exceeds available space, the lodge will be filled by lot, and remaining applications kept on a waiting list or the money refunded or credited.

If a reservation has to be canceled, telephone the office as soon as possible; there are graduated cancellation charges. Ask the name of the person receiving the call and follow up at once with a letter of confirmation enclosing the reservation slips. If cancellation of a weekend reservation is made after 11 A.M. on the preceding Thursday, it is necessary to telephone the lodge manager. In any case, however, charter bus cancellations must be cleared through the Club office. Any member may be required by the lodge manager to produce his membership card.

Hutchinson Lodge, with a capacity of 20 persons, is available during the winter only to groups, which must supply their own food. Rates are \$2.50 per day per person, with a minimum non-refundable payment of \$20 per day due at the time the reservation is confirmed. (For weekends, minimum reservation at "Hutch" is for two days, *i.e.*, \$40.) Preference will be given to Sierra Club groups that make reservations a month or more in advance. All Hutchinson Lodge arrangements and reservations are made by the Clair Tappaan Lodge manager and not through the Club office. Chapters, committees, sections, and other divisions of the Sierra Club may have reservations confirmed six months in advance in order to meet publication deadlines. For other parties, reserva-



tions will not be confirmed longer than 30 days in advance.

Memorial ski huts are primarily for the benefit of Sierra Club groups, but if space is available, they can also be used by other conservation groups. Food and supplies must be carried in to all four huts, although food may be

supplied by the lodge if arrangements are made in advance. Always clear your plans through the Clair Tappaan Lodge manager. The suggested voluntary rate per person is \$1 per day, which can be paid at Clair Tappaan Lodge when checking out for the hut. The lodge manager is instructed to

deny use of a hut and assistance to any group that, in his judgment, is inexperienced or lacks necessary equipment, or if the weather conditions or other factors would, in his judgment, make the trip to a hut too great a risk.

Although we love animals, please do not bring pets.

## 1973-1974 Winter Rates at Clair Tappaan Lodge

### *American plan by reservation*

Weekends—Friday lodging through Sunday dinner....	\$18.00
7 consecutive days (not to start with Saturday lodging) ..	54.00
5 weekdays—Sunday lodging through Friday dinner....	40.00
5 weekdays—children under 12 except Christmas weeks	27.50
Single days—weekdays may be reserved at the Club office	9.00
Single days—children—weekdays only except at Christmas	6.00

### *Charter bus transportation*

*(WEEKENDS ONLY) January 4 through April  
except Easter weekend*

Round trip .....	15.00
One way .....	8.00
<i>(Bus \$18 on 3-day weekends.)</i>	

### *Partial reservations made only at the lodge*

Lodging—available only at the lodge.....	4.00
Breakfast—available only at the lodge.....	2.50
Breakfast and lunch—available only at the lodge.....	3.50
Lunch alone or as first unit of stay.....	not available
Dinner—available only at the lodge.....	3.00

### *For members, applicants, and guests*

### *Cancellation charges*

Minimum charge for cancellation of meals and lodging.....	\$2.00, Bus \$4.00
Cancellation with more than six days' notice.....	10 percent
One to six days' notice.....	25% meals and lodging \$5.00 bus (\$4.00 one way)
Less than 24 hours' notice—meals and lodging....	\$3.00 per day —chartered bus....\$6.00 (\$4.00 one way)
Failure to arrive or give notice of cancellation....	100 percent

Reservation slips must be returned for cancellations and refunds. Make CTL reservations at the Sierra Club office, 1050 Mills Tower, San Francisco 94104. Send full payment, and give age and sex of each person wishing reservations, to facilitate assignment of bunks.

*Hutchinson Lodge*—Reservations are made directly with the Manager, Clair Tappaan Lodge, Norden, California 95724. Rates are \$2.50 per person per night with a minimum charge of \$40 per weekend. Bring your own food. Scheduled groups of the Sierra Club have priority.

*Memorial Ski Huts*—Scheduled trips have priority. Reservations are made with the manager at CTL, and keys are obtained from him. The suggested voluntary donation of \$1 per day can be paid at the Lodge when checking out for the hut.

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### Law (Continued)

fulfilling procedural obligations to file an environmental impact statement. In what SCLDF Executive Director Moorman calls "the most detailed analysis any judge has ever done and may ever do of what is expected in an environmental impact statement," the court told the corps to come back when it had gone beyond disclosing likely adverse environmental impacts and had fully explored mitigation measures and project alternatives; when it had restructured its cost-benefit procedures; and when it was prepared to evaluate environmental impact from a standpoint of objectivity, not advocacy.

Between winning standing to sue and its successes in enforcing NEPA, the Sierra Club has contributed significantly to the emerging trend to make government more accountable to the citizen. The Forest Service is now answering to the public for its proposed timber sale contracts in Alaska, Montana, Oregon, California and West Virginia and for a ski development planned for California's El Dorado National Forest. The Department of Transportation has been challenged on a broad front from Leakin Park Expressway, Baltimore, to the Century Freeway, Los Angeles, to the Copper River Highway of Alaska. The Department of Interior has been questioned on Redwood National Park implementation procedures, on predator control and poisoning policies, on the proposed Teton River Dam in Idaho, on offshore oil and gas leases in the Gulf of Mexico, and on permits facilitating the Four Corners power complex in the Southwest. The TVA has been sued as a major consumer of strip-mined coal from Appalachia.

The Department of Defense and the Corps of Engineers have jointly and individually responded to the Sierra Club on such questions as granting an effluent discharge permit for a proposed oil refinery in Washington and dredging operations in New Haven Harbor, Long Island Sound, and San Francisco Bay. The Department of Housing and Urban Development has been asked to rethink locating a new town on the recharge zone of an aquifer that serves one million residents in South Texas and to evaluate whether Manhattanization of several

San Francisco Bay communities with the attendant air, noise, and water pollution problems is indeed urban renewal.

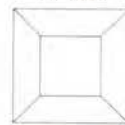
These actions represent only a cross section of the Sierra Club Legal Defense Fund's ongoing litigation with government agencies. The Club has also prodded the federal bureaucracy into environmental law enforcement by participating in such quasi-judicial administrative proceedings as licensing hearings and appeal board reviews. Frequently SCLDF files *amicus curiae* briefs in courts and before administrative agencies in support of other environmental litigants. Perhaps the most important of these briefs was the *amicus* on behalf of the Scientists' Institute for Public Information and Natural Resources Defense Council's successful suit to force the Atomic Energy Commission to

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make a technological assessment of its multibillion dollar liquid metal fast-breeder reactor (LMFBR) program. Under the program, 500 commercial LMFBR's would be in operation by the year 2000, producing 45 percent of the United States' electrical power output. By the year 2000 the LMFBR's would also have produced one million kilograms of toxic, long-lived plutonium, requiring storage outside the biosphere for generations to come. In June, 1973, the Court of Appeals for the District of Columbia ordered the AEC to prepare an environmental impact statement for the new LMFBR technology, giving full consideration to all reasonable alternatives.

The environmental stakes in these lawsuits are enormous—national air quality, millions of acres of wilderness, an entire river basin, the production of one million kilograms of volatile nuclear waste. These are the key issues, but each environmental legal victory has a by-product: a federal agency has again been routinely called into court; a government official has again found himself under cross-examination; agency personnel must again produce a record of findings, proving a rationally considered plan of action. "Within the past five years, the basic relationship of federal agencies to citizens has changed fundamentally," Michael McCloskey, executive director of the Sierra Club, said. "Citizens now have a mechanism through the courts to pursue their objectives on a level of parity with government agencies." It is well that they do. For should clean air and pure water disappear, should forests and wildlife be destroyed, should power and plutonium be produced in careless tandem, the environment itself will hand down a verdict from which there will be no appeal.

*Julie Cannon is former news editor of the Sierra Club Bulletin.*

### Public Domain (Continued)

to get their hands on portions of the public domain and turn it to a profit. And there are those in government who are still willing to let it happen. Management has not guaranteed protection and preservation. The fires of "The Great Barbecue" have been reduced to embers—but they are not yet dead.



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# On Mineral King and the Kern Plateau

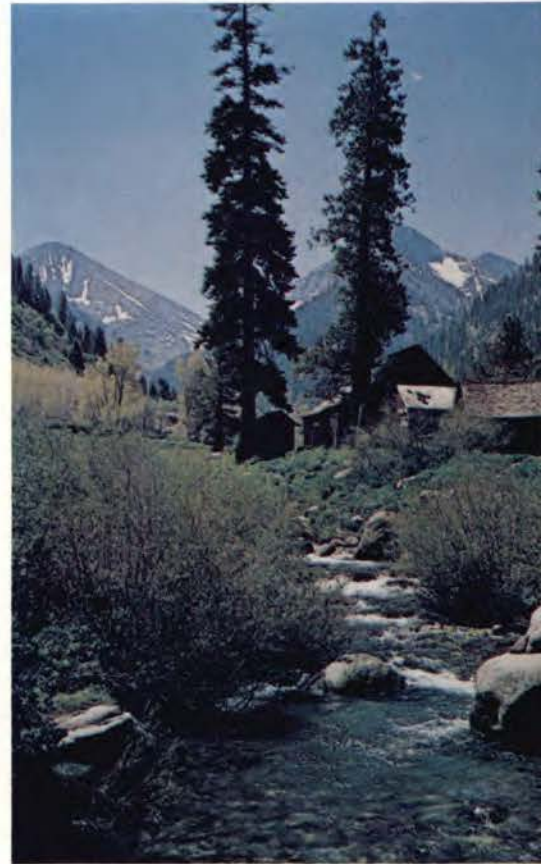
LARRY E. MOSS

**M**INERAL KING ABIDES—but just barely. Seventy-five years after John Muir complained in the January, 1898, issue of the *Atlantic Monthly* about the lack of care afforded the area; 50 years after the Sierra Club first urged that the valley be added to Sequoia National Park; seven years after the Club filed suit to prevent Disney's proposed ski resort—after all this time, Mineral King is still largely unspoiled, but it is not yet part of Sequoia National Park and could still become a mickey-mouse resort. It could still be lost.

The adjacent Kern Plateau, which lies just south and east of Mineral King, has not enjoyed the public notoriety of the valley, but is of equal concern to conservationists, who want the region also to be added to Sequoia National Park. The threat to the Kern Plateau is less glamorous than that to Mineral King—logging rather than resort development—but it has persisted for some time now and is proceeding apace. Both areas, if they are to retain their scenic charm and ecological integrity, must be preserved now.

Mineral King, which is largely surrounded by Sequoia National Park, has for over a century now attracted people who yearn for spectacular scenery and the balm of nature's tranquillity. The valley itself is quite small—only a few hundred acres—but it is the geographic focal point for this part of the Sierra. It is an important trailhead for trips into the wilderness of the southern Sierra, and though the floor of the valley is only 7,800 feet in elevation, it offers in all directions striking views of alpine summits. Mineral King is the fount of the east fork of the Kaweah River, which flows west through Sequoia National Park. The valley itself is fed by many streams, which cascade into the valley from the numerous small glacially formed basins beneath the surrounding peaks. These streams water beautiful gardens of lupine, lilies, gentians, and countless other wildflowers. The lower valley comprises meadows dotted with islands of conifers interspersed with aspen groves that shine gold each fall. Mineral King, at the end of a winding, narrow 25-mile-long road, is just far enough from civilization to have staved off the crush of visitors that otherwise would have assured its ruin.

The Sierra Club's concern for Mineral King extends back into the 19th century, to Muir's *Atlantic Monthly* article of 1898. In the 1920's, when other additions to the park were being considered, the Sierra Club said, "We feel that the retention of these three townships—Mineral King—within the park is a matter of great importance, by



*The softened forms and muted tones of a gray autumn day in Mineral King mark an end to the warm brilliance of summer and foreshadow the cold, white months of approaching winter.*

---

Larry E. Moss is the Sierra Club  
Southern California Representative.

means of the fact that large numbers of deer and other game, which live in the higher regions of the park during the summertime, make these three townships their winter home."

However, the U.S. Forest Service, which then as now managed the valley, opposed the addition of Mineral King to Sequoia Park because of mining claims dating from the silver rush of 1872-1888. Eventually a compromise was reached: Mineral King was not included in the park, but the Sequoia National Game Refuge was created on 15,000 acres surrounding and including Mineral King Valley.

It is interesting to read the testimony of the Chief of the U.S. Forest Service before Congress in 1926 in favor of creation of the Sequoia National Game Refuge. The following dialogue is taken from the hearing record before the House Committee on Agriculture:

*Mr. Chairman:* Will the game refuge be subject to grazing?

*Chief Forester Greeley:* I think not. There may be a little grazing in there, but practically none.

*Mr. Chairman:* You will not permit grazing in there?

*Chief Forester Greeley:* No, sir, grazing ought to be excluded from the game area.

*Mr. Chairman:* What is the particular reason for segregating this and setting it aside as a game refuge?

*Chief Forester Greeley:* In the first place we felt that the Mineral King area should be kept out of the park, because there is a considerable section of mineralized territory there that has been prospected and mined in a small way for a good many years. Now leaving that out of the park, you can readily appreciate that with the park boundaries surrounding this little peninsula of national forest land, all but the little neck, it would be extremely easy to have poaching on park lands if hunting were permitted on national forest lands. Aside from that there is a very valuable deer herd in this region partly in the national forest and partly in the present park, and we think as a matter of game conservation it is desirable to enlarge somewhat the area subject to special protection. This is one of the big breeding grounds of deer for the whole southern Sierra region.

How times change! In 1926, the

Forest Service was so solicitous of the welfare of the deer herds that it opposed grazing in Mineral King. Today it is anxious to allow the construction of a mammoth winter and summer recreational complex and resort, which would have a much more deleterious effect on the deer herds than any grazing by livestock possibly could.

In 1949, the Forest Service issued a prospectus for bids from private parties to develop a modest winter sports facility in the Sequoia National Game Refuge. No potential developers emerged because there was no all-weather highway to the valley. In 1965, the Forest Service issued a second prospectus outlining the concept of a winter sports development projected to cost a minimum of \$3 million, and eventually accepted the \$35 million development proposal of Walt Disney Productions for an ambitious year-round resort. The Sierra Club, after other recourses had been exhausted and the Forest Service had made it perfectly clear that they planned to issue a final permit for the development, filed a lawsuit to prevent the project. The Federal District Court in San Francisco granted a preliminary injunction in July of 1969, but the Court of Appeals overruled the trial court. Then, in 1972, the U.S. Supreme Court, by a vote of 4 to 3, ruled the Sierra Club did not have standing to bring the lawsuit because of the manner in which the case was argued. Since then, the Club has returned to

the district court in San Francisco with an amended brief complying with the provisions for standing laid down in the Supreme Court. The case has been accepted by the court and is now waiting for trial. In addition to the Sierra Club, the plaintiffs against the government now include the Mineral King District Association and nine named individuals.

The amended complaint catalogues the various laws the Forest Service has broken in their attempt to develop Mineral King and also alleges the various types of environmental damage that will occur if the Disney corporation is allowed to proceed.

So despite the strong public opposition to the proposed Mineral King development project and the obvious associated problems of air and water quality, sewage disposal, disruption of wildlife populations, and substantial adverse effect on the surrounding wilderness of Sequoia National Park, the Forest Service is still attempting to bulldoze through with their discredited development plan. This continuing blindness impels us to question their ability and resolve to adequately manage the Mineral King Valley and the remaining wilderness in the national forests south of Sequoia National Park.

Nor is the history of the Forest Service's stewardship of the wild Kern Plateau country south of Sequoia National Park particularly encouraging. Above all else, this is a land of meadows—large and small, wet and dry—

*Little Kern Lake in Kern Canyon, a long, deep trench cut by the Kern River, which begins in the remote high country of Sequoia National Park and flows south through the unprotected Kern Plateau. This region is the home of the golden trout.*







A snow-fed lake in the mountains just east of Mineral King Valley.

separated by ridges and granite domes, which are rather gentle and friendly as mountains go, and surrounded by forests mostly of marginal commercial value. The precipitous Little Kern River Canyon leads south from Farewell Gap, which is the low point on the ridge separating the Little Kern from Mineral King Valley. The impressive canyon of the main fork of the Kern River runs south from Sequoia National Park to greet the Little Kern. Golden Trout Creek and the south fork of the Kern River drain the Kern Plateau itself. This country contains five main forest communities—the Pinyon woodland, Jeffrey pine forest, red fir forest, foxtail pine forest, and the alpine slopes—and supports about 1,275 species of plants. (A more detailed look at the plant communities of this region is provided by Ernest Twisselmann in his excellent *A Botanical Scanning of the Kern Plateau*.)

This country supports deer, bear, cougar, pine martin, bobcat, coyotes, and white-tailed jack rabbit, but the most unique form of wildlife in this region south of Sequoia Park is the golden trout, which is California's state fish. Prized for its brilliant color, this gold-sided trout slashed with scarlet is native only to certain tribu-

aries of the upper Kern River. There is scientific disagreement as to how the golden trout evolved, but today taxonomists generally recognize two subspecies: *Salmo aguabonita*, from the south fork of the Kern, and *Salmo whitei*, from the Little Kern River drainage. Many factors undoubtedly contributed to the evolution of this brilliant fish, but one of them must have been the brilliant white and yellowish sand beds of these native streams. The golden trout thrives only in the high mountains and has been successfully transplanted to Washington, Idaho, and particularly the Wind River Range in Wyoming, where several world record goldens have been caught. The natural home of this most-brilliant-of-all trouts, however, is a few streams that drain this wilderness south of Sequoia.

The initial logging operations on the west side of the Kern River were poorly conceived and executed. Logging roads and skidways were gashed into the hillsides, and the once-bountiful natural fisheries of Bear Creek, South Creek, Nobe Young Creek, and Parker Meadow Creek began to decline as sand and silt filled the streams. When plans were considered to extend operations to the Kern

Plateau itself, Pat Thompson (then Regional Forester) agreed with the Kern Plateau Association and other conservationists that logging operations should not commence on the plateau. Thompson wrote, "The comparatively small stands of merchantable timber on the plateau would not warrant the sacrifice of other basic values involved in this type of exploitation; road construction is not necessary to insure adequate fire protection, and no logging should be contemplated for this area except in case of an extreme national emergency." At that time, he issued an administrative order to limit development on the plateau, which was respected for a decade.

Then, in 1956, the Forest Service abruptly changed this policy and announced that logging operations would begin on the Kern Plateau. In 1959, at the request of conservationists, the U.S. Senate Committee on Interior and Insular Affairs sent forestry consultant Robert Wolfe to study the area. Mr. Wolfe found that recreation and watershed were the primary values of the plateau, but despite his report logging proceeded apace. Mr. Wolfe was very concerned with the effect road placement and construction would have on the plateau, but the

Forest Service was more concerned with the welfare of lumber mills than with the welfare of Sequoia National Forest.

When the Forest Service proposed a Domelands Wild Area in 1961, the Kern Plateau Association and the Sierra Club requested enlarged boundaries in order to save the native fisheries of Trout and Taylor creeks. These requests were ignored because of small stands of timber at the headwaters of these streams. So the logging roads moved north until there were but 260,000 acres of undeveloped country in Sequoia and Inyo national forests south of the park. When local Forest Service officials recently recommended that the remaining undeveloped country be studied for its wilderness potential, the regional forester sliced their recommendations in half and removed the Little Kern area from consideration. As might be expected, that is where the timber is. Conservationists have urged Forest Service Chief McGuire to reinstate the 130,000-acre Little Kern region on his wilderness study list. The Forest Service claims to have been "studying" the wilderness values of the Kern Plateau and Little Kern Canyon for years and years as logging roads have steadily inched north. Perhaps it is time to take another tack.

Congressman Tom Rees of California has introduced H.R. 5732 which would enlarge Sequoia National Park. I quote from section one of his bill: "For the purpose of protecting their scenic and natural values and to prevent their destruction by logging and other commercial exploitation, the portions of the Kern Plateau, Kern River drainage, Little Kern River drainage and related areas that are specifically described in section two are hereby made a part of Sequoia National Park and are removed from administration as part of the Sequoia National Forest and Inyo National Forest." H.R. 5732 would add to Sequoia National Park the remaining 260,000 acres of wilderness on the national forests south of the park.

Much progress has been made in the years since the Sierra Club filed suit to prevent the illegal development of Mineral King. The road originally scheduled to cross Sequoia National Park has been deleted from the California state highway system, and the National Environmental Policy Act has passed. The Disney cor-

Please write to your Congressman (House Office Building, Washington, D.C. 20515) and ask that he or she sponsor and support legislation to place Mineral King in Sequoia National Park. Also ask that he support H.R. 5732, which would add the remaining wilderness of the Kern Plateau and Kern River watershed to the park. This legislation is pending before the House Committee on Interior and Insular Affairs. Particularly needed are letters to congressmen in states other than California in order to obtain broad national support for this issue in Congress. Also, please write to California Senators Alan Cranston and John Tunney (Senate Office Building, Washington, D.C. 20510) and ask that they support the Mineral King and Kern Plateau legislation. If possible, please send copies of your letters to President Nixon (The White House, Washington, D.C. 20500).

poration and the Forest Service from time to time declare that the size of the project has been scaled down, but they seem to have no concrete plans. But perhaps most important is the changing attitude of the U.S. Park Service, which today seems strongly inclined to include the Sequoia National Game Refuge in Sequoia National Park. The Park Service has never granted the permit necessary before any highway—or railroad, as Disney has suggested—could be built across the park.

Seventeen California congressmen and a like number of congressmen from other states have introduced legislation to add Mineral King Valley and the rest of the Sequoia National Game Refuge to the park. Jerome Waldie, Charles Wilson, Philip Burton, Ron Dellums, Don Edwards, Augustus Hawkins, Bob Wilson, Robert Leggett, Pete Stark, Pete McCloskey, John Moss, Leo Ryan, George Danielson, Ed Roybal, Jerry Pettis, George Brown, and Tom Rees are the California congressmen who have sponsored or co-sponsored this legislation, and H.R. 5752, H.R. 3089, H.R. 5272, and H.R. 6823 are the numbers of the principal bills.

A substantial push to move these pieces of legislation through Congress is needed now. The addition of Mineral King Valley and the Golden Trout and Little Kern River regions would allow Sequoia National Park to tell the complete story of the southern Sierra Nevada from Mount Whitney and Giant Forest to the lava flows of the upper Kern Plateau, the magnificent sculpture of Little Kern Canyon, and, of course, Mineral King itself.

Not long ago the commercial interests were moving along with their destructive development plans for Mineral King. Today we are on the brink of a great victory if all of you across the country will help.

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### Bighorns (*Continued*)

perhaps thousands—before the coming of white men. If anything, the sheep grew more wary because of the approach of Indian hunters. Modern man approaches the bighorn as a friend, but like the traders in the North, his effect continues long after he has gone. Gradually the animals lose their fear of the approach of large mammals; they slow their response to noises. The behavior patterns of bighorn are ancient; the habits of all the subspecies are strikingly similar. We already know that bands of Sierra bighorn have perished without succeeding in moving to another territory. Intuitively, we must realize that the intricate animal culture that has allowed them to survive in the arctic climate of the high mountains cannot withstand major changes in behavior.

The future direction becomes obvious. Either human impact must be reduced in the present and potential range of the bighorn or they will vanish. This does not mean that all people must be kept away from all bighorn all of the time. Some usage of the area can continue on a drastically reduced scale. For the bighorn, human contact is like many poisons—harmless in small doses but fatal once a certain threshold is reached. Recreational use in the High Sierra is growing at the rate of 18 percent per year, while bighorn numbers continue to decline. Furthermore, wilderness travel in the past two decades has made a gradual transition from large groups with pack stock following trail systems to modern, self-contained back-

packers who wander cross-country through the highest parts of the bighorn's range.

For nearly four decades biologists have been proposing sanctuaries for the last of the Sierra bighorn. The ideas were shelved until David Dunaway became a wildlife biologist for Inyo National Forest. He devoted much effort to the problems of the bighorn and quickly realized that human impact, not forage competition and depletion, was the major cause of their continued decline. He proposed a 41,000-acre California Bighorn Sheep Zoological Area to include a large portion of the eastern Sierra between Mount Williamson and Mount Baxter, excluding the heavily used Kearsarge Pass region where bighorn have been absent for many years.

The proposed zoological area represented a new trend in wilderness management. Instead of preserving something "for the people," it set aside wilderness for its own sake. Strangely enough, the Forest Service anticipated opposition from only one quarter: conservation organizations—

like the Sierra Club—who represent the wilderness user. Many people have the idea that conservationists are a group of elitists who wish to "lock up" public lands for their personal enjoyment, preventing others from "using" the Great American Outdoors as they choose. Like hunters, trail-bikers and snowmobilers, wilderness trekkers were expected to demand their right to use the mountains as they pleased.

The Forest Service was pleasantly surprised. The Sierra Peaks Section of the Sierra Club, which frequently has trips in the proposed area, immediately agreed to terms that would prevent them from cross-country travel on the eastern slopes of some of their favorite mountains. Other groups of wilderness users offered no resistance to the plan and the zoological area was established in January, 1972.

We need constantly to be reminded that wilderness exists not *for* the visits of men, but *in spite* of those visits. Wilderness is a place where the current of evolution, which quite incidentally led to the creation of man, continues little interrupted by his presence. This definition precludes a large number of human visitors—not for the sake of elitism, but to prevent mankind from becoming an orphan of his own evolutionary heritage. One of the early proposals for a sheep preserve ended with these words: "Our noble bighorn will 'come back' in a very few years to its former range and numbers, and thenceforth hold its own, to thrill with keenest esthetic delight every summertime visitor to our Yosemite highlands."

The present zoological area has been set aside for the sake of bighorn, not people. It is not a game-park, for cityfolk to come and gawk, but a remnant of the wildlands that greeted the first white men in the Sierra Nevada. It is also an indication to the public that conservationists are not trying to lock up the wilderness areas of the world for their own use. We have proved we will recognize any valid use of a wild area—even if it means excluding ourselves.

*Galen Rowell is an accomplished mountaineer, with several first climbs to his credit, and an expert on the mountain wildernesses of Canada and Alaska, as well as the Sierra. A first-rate writer and photographer, Galen's first article for the Bulletin, "Fragile Nature, Fragile Man," appeared in January.*

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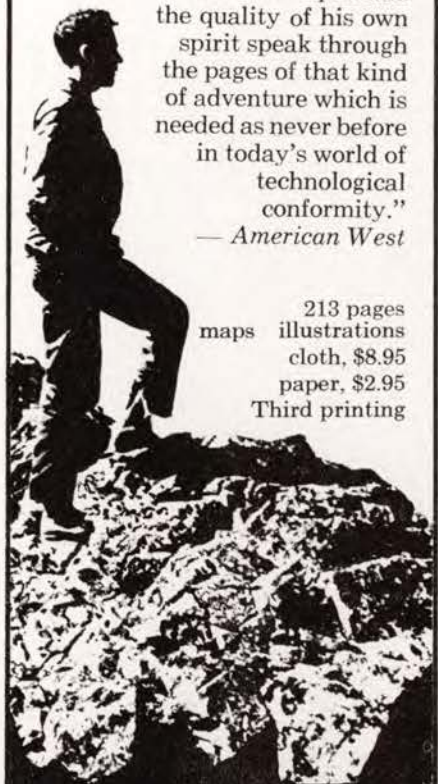
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