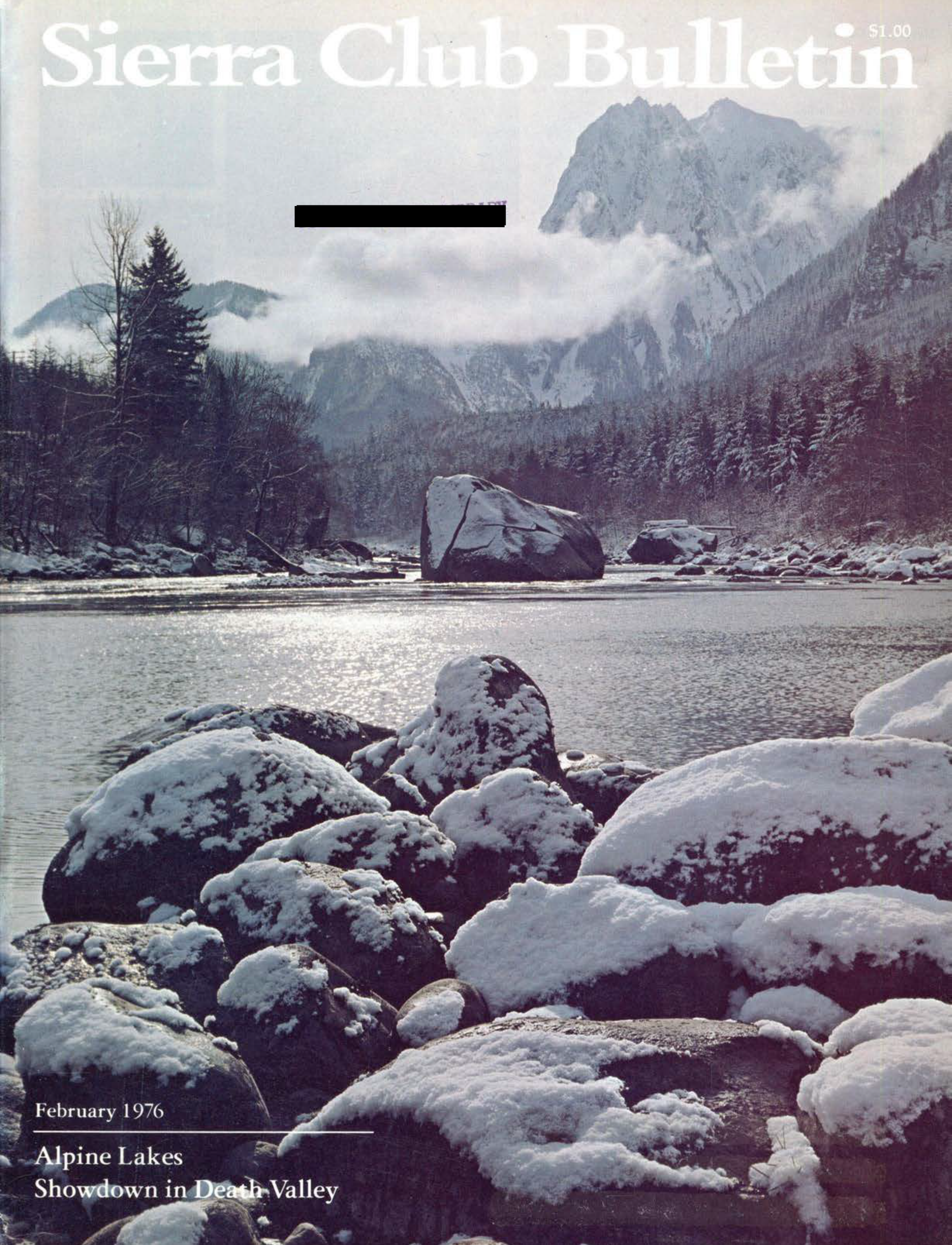
Sierra Club Bulletin
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February 1976
Alpine Lakes
Showdown in Death Valley

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FOR 83 YEARS the Sierra Club has defended wilderness and the integrity of nature. To protect and conserve the natural resources of this planet; to preserve the quality of our environment; to restore what has already been needlessly spoiled: these are the ends toward which the Sierra Club applies its strength.

INFORMATION/EDUCATION. Through its books and periodicals, films and exhibits, the Club points out the challenge we dare not fail to meet: to formulate a sane and tenable relationship between the human race and the fragile world that sustains us. Sierra Club outings have taken on new meaning as lessons in "walking lightly" on our vulnerable land. Rock climbing, winter camping, ski touring, kayaking, scuba diving, mountaineering: Sierra Club classes, formal and informal, teach these and other skills. The themes are safety and respect for the land.

SERVICE TRIPS. Wilderness survey trips to endangered areas gather the data the Club must have to lobby for preservation. Trail maintenance trips and clean-up trips combine fun and service. "Inner City Outings" conducts first-time wilderness trips for the urban young. For some participants, these experiences may be the start of lifelong friendships with the land. We hope that all will come away with at least a little more awareness of what a gift the natural world is—and how greatly it deserves our care.

RESEARCH. The Club's office of environmental research surveys the work of experts in many countries and carries out its investigations in such fields as geology and forestry. This scientific back-up helps the Club define its policies and state its case to the public, to legislators, and to courts.

SIERRA CLUB LEGAL. In recent years the Club has found it increasingly necessary to turn to the courts to force compliance with environmental protection laws. This is the task of the Sierra Club Legal Defense Fund. Without this legal pressure, many of our best statutes would be empty pronouncements of good intent.

LOBBYING. The Club's essential work is to promote sound laws and policies and, more fundamentally, the climate of opinion that allows these laws and policies to succeed. The Club's small hired staff spends most of its time in this field. The real momentum, however, comes from thousands of active Club members offering uncountable thousands of hours of volunteer service, backed by the dues and contributions of the entire membership.

There is everything to be done, most of it at chapter and group levels: complex issues to study and understand, policy to debate, meetings and hearings to attend, news to spread, letters to compose.

In the search for solutions that are long-lasting, the Club must constantly communicate: with legislators, leaders in business, labor, minority groups, and many others. The lack of such contact could be crippling.

CONTRIBUTIONS TO THE SIERRA CLUB. The effort we make is costly, but the stakes are huge. Gifts made directly to the Club are applied largely toward lobbying efforts, and can no longer be deducted from the donor's taxes. If a deduction is important to you, we invite you to consider a gift to the Sierra Club Foundation, which funds educational, legal, scientific and literary projects. Consider also a bequest to the Sierra Club: such a gift is a strong personal statement, and a legacy that will live.

Sierra Club Bulletin

FEBRUARY 1976 / VOLUME 61 / NUMBER 2

Cover: ***Rising above the Skykomish River, Mt. Index is a popular destination for day hikers in the Alpine Lakes region near Seattle. It would be included in a national recreation area surrounding the proposed Alpine Lakes Wilderness now before Congress. For more on the wilderness proposal,*** ***see page four.*** ***Photograph by Ed Cooper.***

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The Alpine Lakes . . .
Seattle's Backyard

For most of its length from northern California to the Canadian border, the Cascade Range is an intermittent series of lofty volcanoes connected by low forested ridges. But in Central Washington State, just north of Mt. Rainier, the highest peak in the range, the Cascades assume a different aspect. The majestic, isolated symmetry of the great volcanoes to the south gives way to a complex system of ice-plucked and glacier-scoured ridges, divided by deep, forested river valleys and adorned with hundreds of alpine lakes.

The northern portion of this alpine complex has already largely been preserved in the Glacier Peak Wilderness and the North Cascades National Park, but the southern part, the Alpine Lakes region, remains unprotected. This seems strange, for the Alpine Lakes lie only an hour's drive east of Seattle and have, as a result, received more recreational use than already protected areas—more, for example, than Mt. Rainier and Olympic national parks combined.

The reason for the popularity of the Alpine Lakes region lies in its rare blend of wilderness grandeur and accessibility. More than 600 sizeable lakes are tucked into the glacial crannies scoured from the sides of its 6,000–9,000-foot peaks. Myriad streams, ranging in size from snowmelt trickles to four major rivers, carry its waters to Puget Sound and the Columbia River. The peaks themselves include remote giants accessible only to the rock climber, as well as summits that are easily attained even by the novice mountaineer. Long expeditions are unnecessary for exploring this region; many of the finest spots are reachable on day hikes. Fishermen have their secret spots, as do hunters, and on sunny weekends entire families can be seen on the trails and by the lakes.

Legislation to create an Alpine Lakes Wilderness has now reached a critical stage in the House of Representatives. More than a half-million acres are at stake, an area so beautiful that its preservation has been a major concern of the Sierra Club for years. Initially, the work was done by local conservationists in Washington State, but now a national campaign to generate support for the proposed wilderness area is essential. For the issue has run afoul of a timber-industry campaign of considerable intensity. To help inform readers in all parts of the country, we asked one of the local Sierra Club leaders in Washington to send us a communiqué from the front. His account appears below.

The Editor

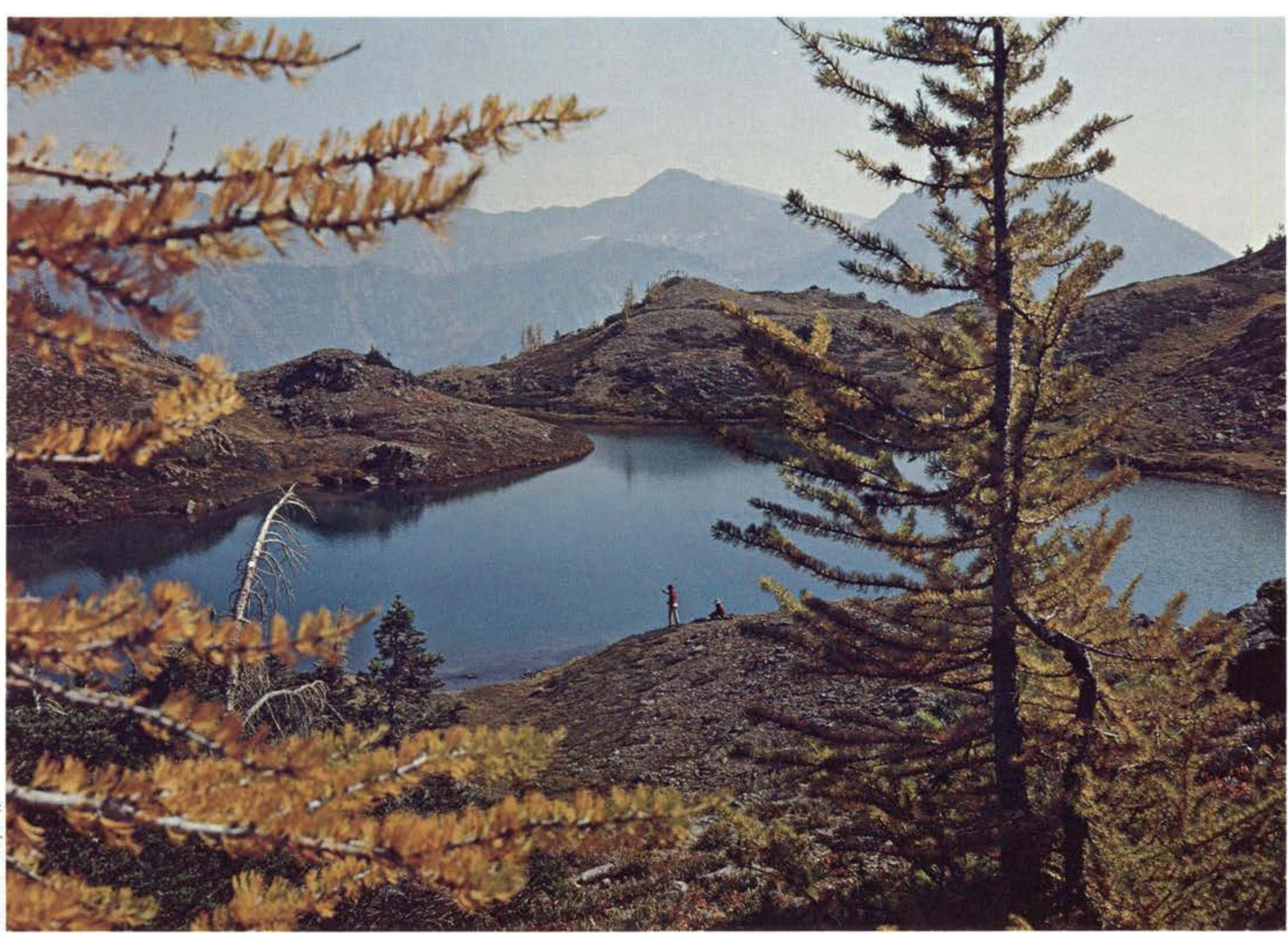
Mt. Stuart (9,470') dominates the skyline above Stuart Lake.

HERE IN WASHINGTON STATE, we are in the late stages of the long process of delivering our cherished plans for an Alpine Lakes Wilderness into the hands of others. This had to be, of course, but nonetheless it's a bit like sending your five-year-old off to school for the first time. The issue is now before the House Interior Committee, and the outcome is uncertain because the timber industry has vigorously opposed including any of the forested river valleys in the proposed wilderness.

The campaign to create an Alpine Lakes Wilderness began in earnest

Wilderness

For nine years, conservationists in Washington State have worked to create an Alpine Lakes Wilderness. Now that their dream is close to fulfillment, they need your help.



Bob and Ira Spring

Ed Cooper

Fishermen try their luck at Lake Edna near Grindstone Mountain.

nine years ago with the formation of the Alpine Lakes Protection Society (ALPS). The society stressed a balance for all users and area economies as well as protection of the wild lands, advocated compatible land-use planning in the area surrounding the proposed wilderness and sought the support of local conservation groups. These groups, including the Sierra Club, have now joined ALPS in supporting HR 3977, the "citizens' bill" now before Congress. Having such a dedicated core group has proven to be important; at every key phase so far, there has been a conservationists' plan for the Alpine Lakes and a group mobilized to support it.

The "citizen plan" has now become embodied in HR 3977, which would:

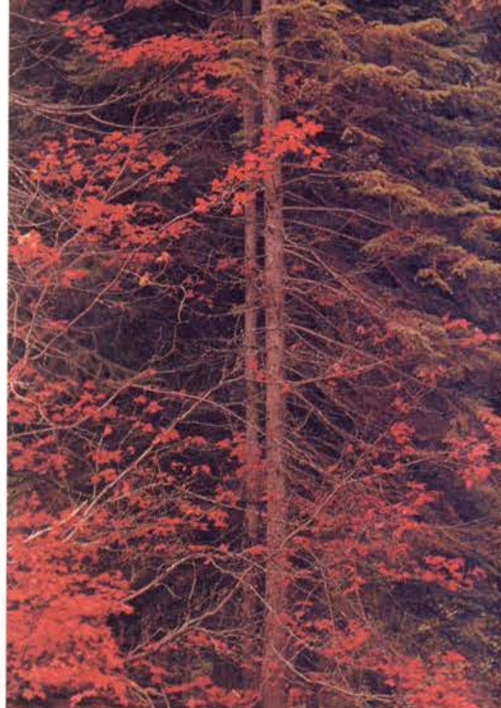
- Establish an Alpine Lakes Wilderness of 575,000 acres;
- Establish a national recreation area (NRA) of 1,016,000 acres surrounding the wilderness, thus ensuring compatible uses in the developed perimeter zone, including highway corridors. (Zoning would apply to both private and public lands; a land-use plan for the entire area would be prepared by the Forest Service);
- Authorize studies of the major rivers of the area for classification under the Wild and Scenic Rivers Act; and
- Provide land exchanges for crucial wilderness lands still in private hands as a result of last century's checkerboard railroad land grants.

Initially, the Forest Service had no plan, though it inclined toward a much smaller area than ALPS had in mind. The agency, just learning that responsiveness to public opinion was essential, was cautious, dragging its feet for much of nine years. Then, when the Forest Service was ready to move, the White House bottled up the proposal for yet another year. Thus

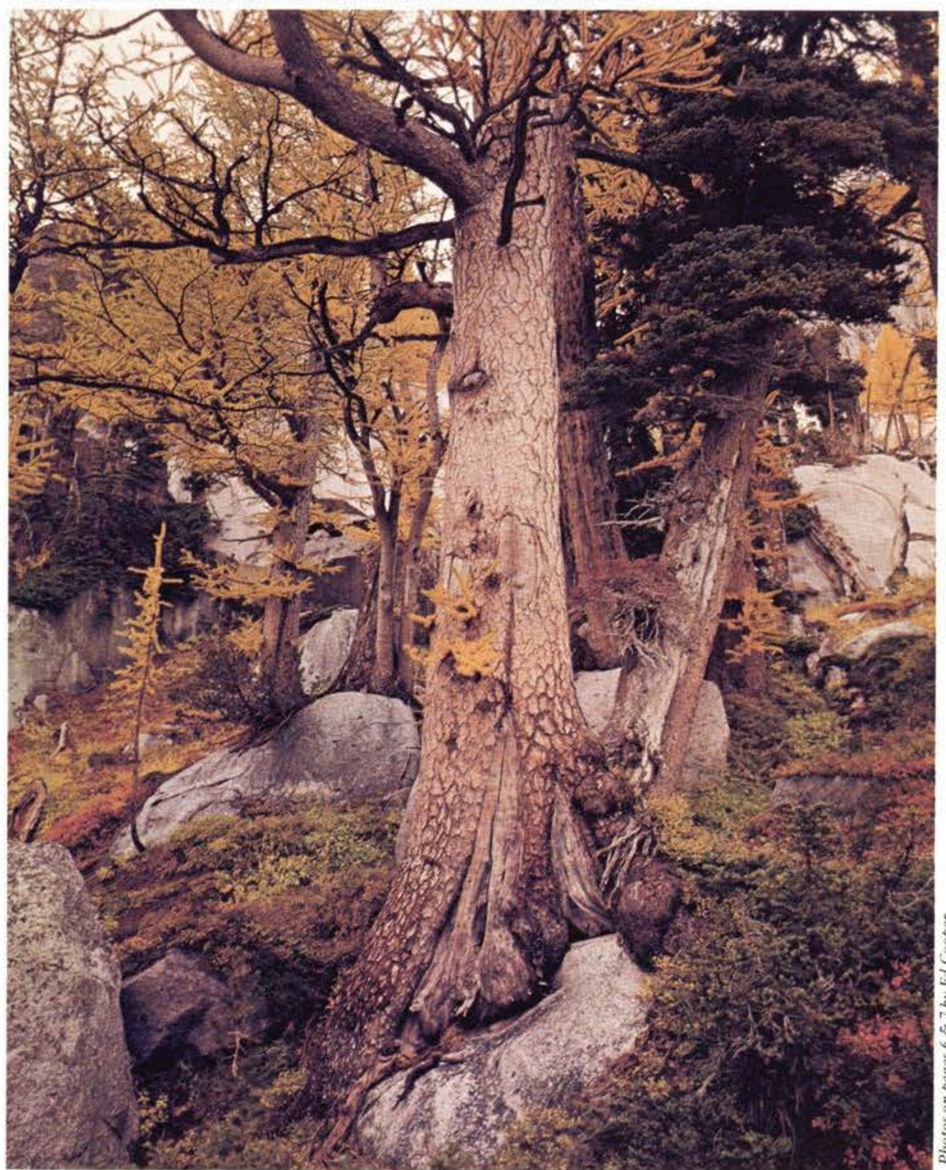
did we all learn persistence, keeping the issue before the public, with the result that thousands of people would turn out when public opinion was sought. Such responsiveness paid off; when the Forest Service recommendation finally appeared, it was much closer to our own than anticipated, though it fell short of our goals in many respects.

As it now stands, the Forest Service plan would classify 374,000 acres as wilderness, after some land exchanges were completed. Special management would apply to the perimeter zone, but without real authority over the use of private lands. In addition, two small neighboring areas would receive scenic classification. Despite the shortcomings of the Forest Service plan, however, its shift toward our views was very important because an agency position in matters of dispute is often viewed as a middle ground between industry and the conservation community. The tendency of uncommitted congressmen to go for the agency proposal, or something close to it, is always very strong.

Then, last year, the Washington State congressional delegation decided it was time to move on the Alpine Lakes issue, a decision that rested in large part on the sustained public interest in the proposed wilderness. Serious action began last summer and fall, when field hearings were held and the state's congressmen began to work out a joint position. Since then, local conservationists find themselves in a new, if somewhat strange position. As long as their Alpine Lakes plan was not going anywhere, they enjoyed a high degree of control over it. Now that it's on its way, they have influence but little control. Now they spend more time trying to read tea leaves: "What did congressman so-and-so mean when he said such-and-such?"



The larch, a deciduous conifer, turns gold each fall; this splendid specimen grows in the remote Enchantment Basin.



Photos on pages 6 & 7 by Ed Cooper

As the delegation began to consider the bill, the timber industry launched a campaign of their own—in Washington, D.C., 3,000 miles away from the Alpine Lakes. Timber lobbyists began to blanket Capitol Hill, ten and fifteen strong at certain key times. As pressure mounted, conservationists had a lot to wonder about. Would the urban members of the delegation, representing most of the recreational users of the area, hold firm? They did. Would Representative Mike McCormack, with half the Alpine Lakes region in his district, cave in to industry and abandon the conservationists who had supported him in previous close elections? He did. What sort of plan would the delegation agree on? A very "iffy" compromise, with McCormack even in opposition to that.

At this point, the scene shifted to the House Interior Subcommittee on National Parks and Recreation, whose membership could not be counted on to know much about the Alpine Lakes. Fortunately, Representative Lloyd Meeds, who also has much of the Alpine Lakes in his district, was on the subcommittee and could lead the way in shaping the issue. Meeds

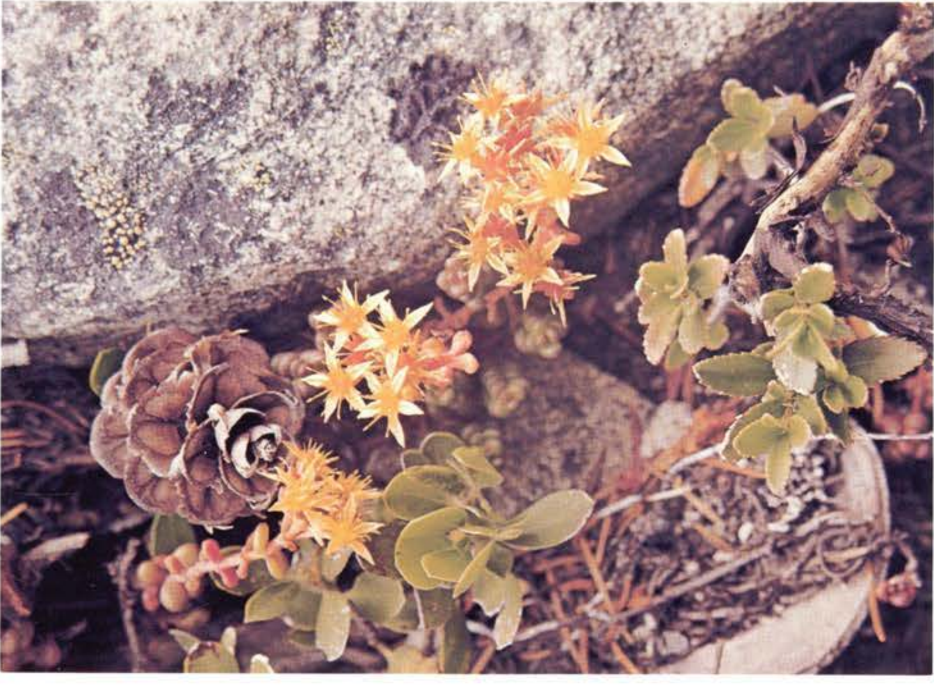
is not entirely for the conservationists' proposal, but he is conscientious and has a thorough grasp of the complexities involved. He was also instrumental in helping Hells Canyon legislation through the committee last year.

The delegation bill (now generally known as the "Meeds Bill," H.R. 7792) has been modified somewhat by the subcommittee. In its present form it would classify about 384,000 acres as wilderness, adding parts of three major forested valleys not included in the Forest Service's plan. It would provide for some special management for federal lands on the perimeter, but for private lands would keep the Forest Service in an advisory role only, except in extraordinary circumstances. Even this modest amount of perimeter regulation, however, has drawn outraged cries from the timber industry.

A second view of Mt. Stuart shows the blend of open parkland and bare rock that characterizes the Alpine Lakes high country.

It was difficult going in the subcommittee even though the Alpine Lakes region had its champions. Representative McCormack appeared before the subcommittee with an emotional speech, saying that passage of even the weakened bill proposed by the delegation would cost thousands of jobs in his district. Sadly, the political impact of such rhetoric is not much lessened by its falseness. The rest of the delegation, led by Meeds, tried to reverse this impression, but the damage had been done. Those on the subcommittee wanting a good excuse to listen to the timber industry now had a dandy. In a key vote in early December, an industry substitute bill almost beat out the delegation bill. The vote was only 11-10; at stake were the finest forested valleys: Deception Creek, the upper reaches of Icicle Creek and Chiwaukum Creek.

The next step lies with the full House Interior Committee, which will consider the issue in February. The timber industry, heartened by the close subcommittee vote, will continue to do their worst, but we hope that wilderness supporters across the country will rally to the cause. The bill will then go to the full House, where we expect a floor fight, perhaps in March. Senate action is expected to follow House passage.



The intensity of the timber industry's campaign is perplexing, for it is out of proportion to the economic stake in the Alpine Lakes. In Washington State, the industry has already logged most of the best timber sites or has committed them to logging through road construction; perhaps it sees the Alpine Lakes issue as a symbolic one—the outcome of which might determine the future of the wilderness in the Northwest, or even nationally.

As I sit here in Seattle writing this article, I can see the peaks of the Alpine Lakes region from the window and can easily recall days spent in sunny meadows, beside clear lakes and in the deep shadows of valley forests. The Alpine Lakes country is a friendly ensemble not only of lakes—there are hundreds of them—but of streams, peaks, ridges and valleys. It sustains all manner of creatures and nourishes the people who hike its trails and fish its waters. It is to most of us involved in its preservation more than a mere tract of land, but I must leave others to sing that song. For now, I only hope that this account will give readers pause—time enough to pick up their pens and write their representatives on behalf of the Alpine Lakes. Every member of Congress is going to need a thick pile of letters to point to when the timber man comes 'round once more.

Richard Fiddler

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MALTHUS: The Continuing Controversy

PHILIP APPLEMAN

AT THE END of each day, the world now has more than two hundred thousand more mouths to feed than it had the day before; at the end of every week, one and one-half million more; at the close of each year, an additional eighty million. Aware of these alarming statistics, many national governments, influential institutions and private enterprises are trying to encourage increased production of all the necessities of life, particularly food, in the hope of preventing mass starvation, privation, and social disorder. Fortunately, there has been enough success in recent years to forestall, at least temporarily, a major disaster; but some serious regional famines have already occurred. In the world's poorest countries, where population growth is most rapid, the lives of hundreds of millions of people are constantly plagued by hunger and by diseases aggravated by malnutrition. Humankind, now doubling its numbers every thirty-five years, has fallen into an ambush of its own making; economists call it the "Malthusian trap," after the man who most forcefully stated our biological predicament: population growth tends to outstrip the supply of food.

Philip Appleman, Professor of English at Indiana University, was a founding editor of Victorian Studies *and author of* The Silent Explosion. *He is the editor of* Darwin, *a Norton Critical Edition, and of the new Critical Edition,* Malthus: An Essay on the Principle of Population *(W. W. Norton & Company, 1976), from which this essay is taken.*

Thomas Robert Malthus was born in 1766, the son of a gentleman who prided himself on his advanced ideas, and who was an admirer and friend of both Hume and Rousseau. Young Robert (he was never called Thomas) was at first privately educated; then, in 1784, he went to Jesus College, Cambridge, where he graduated creditably as Ninth Wrangler (an honors degree in mathematics) in 1788. In that same year he took holy orders, and later was appointed to a rectory. He was, however, less a "parson" (as his detractors have often chosen to call him) than a college professor, for in 1805 he became the first professor of political economy in the English-speaking world, at the new East India College in Hertfordshire, a post he held until his death in 1834.

According to the testimony of his friends, Robert Malthus was amiable, gentle and good natured—"one of the most serene and cheerful" of men, the writer Harriet Martineau called him. As a political economist, he advocated what might be called long-range benevolence: "My ultimate object," he wrote, "is to diminish vice and misery."

Yet this was the man whose social views were immediately and persistently assailed by humanitarians and social reformers all over Europe: "that black and terrible demon that is always ready to stifle the hopes of humanity" (Godwin); "this abominable tenet" (Coleridge); "the dismal science" (Carlyle); "this vile and infamous doctrine, this repulsive blasphemy against man and nature" (Engels). And the chorus of dissent has continued into our own time: Malthusianism is "a warning against all attempts to ameliorate the condition of society," wrote a tendentious scholar in 1953; it is a "gospel of despair," added another in 1955[1].

It is not difficult to understand this bitter and sustained hostility toward the genial Malthus and his work, for the basic idea he enunciated—that population tends to increase at a faster

1. Ronald L. Meek, ed., *Marx and Engels on the Population Bomb* (Berkeley, Calif., 1971), p. 10; Harold A. Boner, *Hungry Generations* (New York, 1955), p. 195.

rate than its food supplies—is indeed an ominous one, and few people are fond of prophets of doom. How did Malthus arrive at such a bleak view of the human condition?

Best of Times, Worst of Times

IT HELPS to recall that Malthus grew up during the Enlightenment, was ten years old when the American Revolution began and came to maturity at the time of the French Revolution. The late eighteenth century was for European nations what the late twentieth century is for much of the Third World: on the one hand, a time of economic hardship and social despair; on the other, a time of intellectual ferment, of movements for social and political reform, a time of energetic speculation about the possible improvement of societies and of people.

"Our hopes for the future condition of the human race," wrote Condorcet, "can be subsumed under three important heads: the abolition of inequality between nations, the progress of equality within each nation, and the true perfection of mankind." To these ideals, European intellectuals were giving their sympathetic attention and, often, their loyalty.

Then, in 1789, came the French Revolution, and in its wake, regicide, the Reign of Terror and the savaging of half of Europe by that imperialist Jacobin, Bonaparte. British suspicion of French institutions and French intentions, never at that time far below the surface, boiled up in widespread alarm and hostility. In England, it was not a propitious time for social reformers; and yet the infection of "French philosophy" was still there, and determined social critics like William Godwin went on with their work. Godwin's influential *Enquiry Concerning Political Justice* appeared in 1793, and in 1797 he issued a collection of essays called *The Enquirer*, in one of which, "Of Avarice and Profusion," he continued his examinations of the "first principles of morality," "justice between man and man" and "the extensive diffusion of liberty and happiness."

Robert Malthus and his father read Godwin's essay—with far-reaching results—but they differed on precisely the question of whether "the extensive diffusion of liberty and happiness" was possible in human affairs. The elder Malthus, true to his "advanced" ideas, held that it was. Robert disagreed; the reasons for his pessimism were fundamental. He had been reading Hume and Robert Wallace on the question of whether human populations had grown or declined since ancient times (Hume believed they had grown; Wallace, the reverse), and Adam Smith on how the numbers of laborers affect wages ("The demand for men, like that for any other commodity, necessarily regulates the production of men"); and Robert had arrived at a theory of population which, if "certainly not new" (as he said), had just as certainly never been presented as forcefully as he was now to present it. "I mean to place it in a point of view," he wrote, "in some degree different from any that I have hitherto seen"—a remarkable understatement, as it turned out. In his systematic way, he immediately wrote down his thoughts in a manuscript which he entitled *An Essay on the Principle of Population, as It Affects the Future Improvement of Society*. It was published anonymously in London in 1798.

Nature's Awesome Redundancy

THE DISCRETE PARTS of what Malthus had to say on his subject were, indeed, "not new." Social theorists like Hume, Smith, and Benjamin Franklin had shown an awareness of the tendency of populations to increase very rapidly unless somehow "checked." Eighteenth-century thinkers, however, viewed population growth as a mark of social well-being, not as a threat to the "improvement of society." An increase in people was generally taken to imply an increase in wealth: "Every wise, just and mild government," Hume wrote, "by rendering the condition of its subjects easy and secure will always abound most in people, as well as in commodities and riches."

Malthus saw it differently. He began with the awesome redundancy of nature: "Through the animal and vegetable kingdoms," he wrote, "nature has scattered the seeds of life abroad with the most profuse and liberal hand. . . . The germs of life contained in this spot of earth, with ample food and ample room to expand in, would fill millions of worlds in the course of a few thousand years." That observation may not have been "new" with Malthus; but it always *seems* new, simply because it is always, upon contemplation, staggering. And it always gives rise to the inevitable next question: if all organisms have this potential for rapid multiplication, if any single species could, in a comparatively brief time, overrun the earth, why does it not happen?

In *The Wealth of Nations* (1776), Adam Smith had already implied the question and given the answer: "Every species of animals naturally multiplies in proportion to the means of their subsistence, and no species can ever multiply beyond it." Nature, Malthus asserted, "has been comparatively sparing in the room and the nourishment necessary to rear them." "Room," then, is one of Malthus' two ineluctable limitational factors; but his emphasis in the *Essay* falls upon the second one: "nourishment." Malthus could not reasonably anticipate an increase in food supply that was greater than arithmetical, each generation. It follows that the tendency of population to multiply, if unchecked by other means, will be checked by "vice and misery"; it will simply (and of course only temporarily) outrun the supply of food. This is the most brutal and final of "positive" checks to population growth.

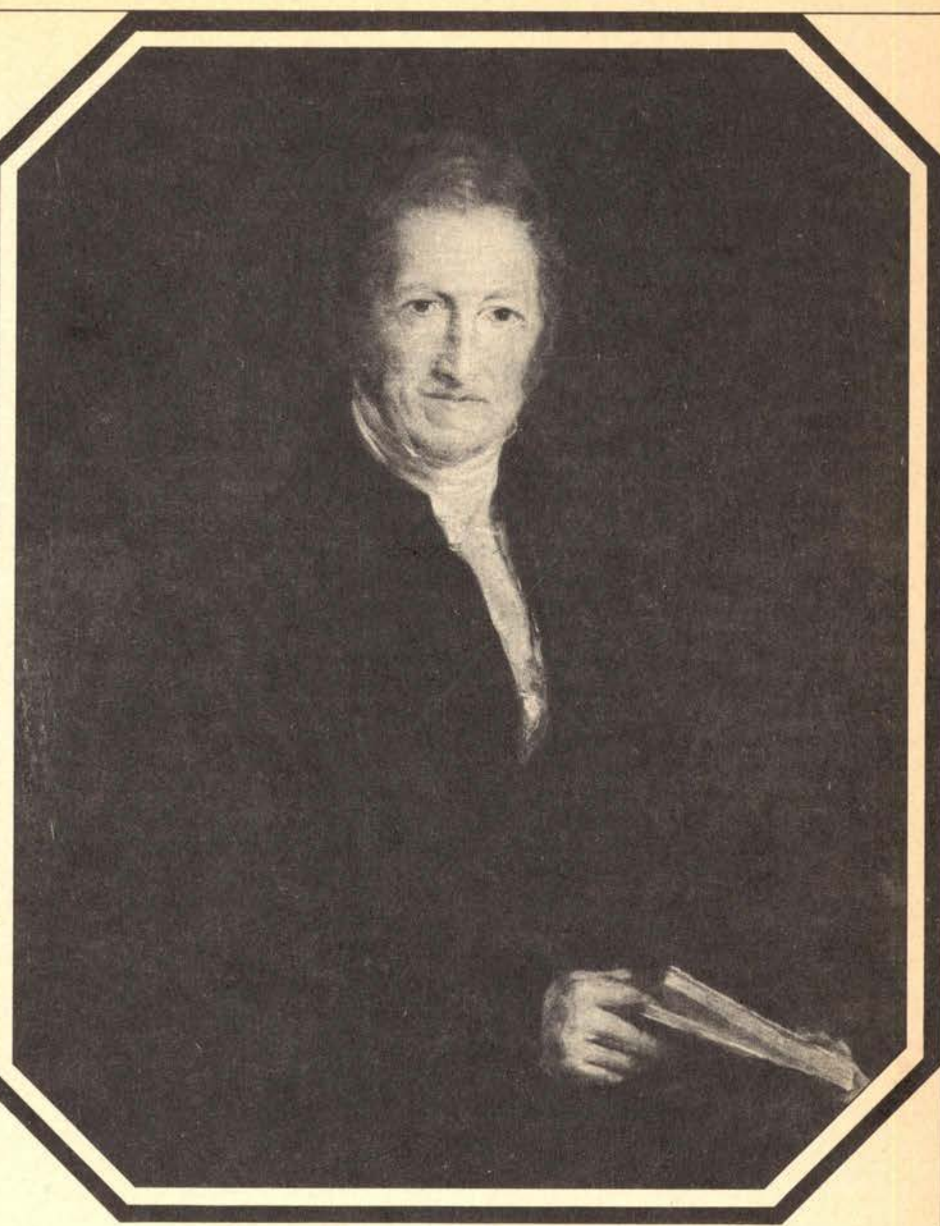
Celebrated Ratios

FOR MALTHUS' contemporaries, the immediate force of his argument derived from the quasi-scientific

way he chose to illustrate his premises. The former mathematics student could not resist a mathematical illustration: population can increase geometrically, he said, whereas agricultural production can only increase arithmetically.

> Taking the population of the world at any number, a thousand millions, for instance, the human species would increase in the ratio of—1, 2, 4, 8, 16, 32, 64, 128, 256, 512, &c. and subsistence as —1, 2, 3, 4, 5, 6, 7, 8, 9, 10, &c. In two centuries and a quarter, the population would be to the means of subsistence as 512 to 10, in three centuries as 4096 to 13, and in two thousand years the difference would be almost incalculable.

It was a persuasive illustration, partly because of its stark simplicity and partly because the first half of it —the geometric power of population increase—is true on its face: the reproductive potential of any plant or animal species verifies it. (Charles Darwin and Alfred Russel Wallace, impressed with Malthus' argument, found in it the key to their theory of natural selection.) The second half—the arithmetic maximum for agricultural production—was a conjecture rather than an observation, and its history is more complicated. It certainly seemed a safe conjecture when Malthus wrote his essay: to imagine agricultural production increasing even by arithmetic progression each generation, given the farming methods of the eighteenth century, seemed generous.



Thomas Robert Malthus. Jesus College, Cambridge, artist unknown. Photograph by James Austin; courtesy of W.W. Norton & Company.

No better than others at foreseeing the future, Malthus extrapolated from the best evidence he had, which was the agricultural practice of the late eighteenth century. The steam engine had been invented in that eventful year 1776, but it was not yet apparent in 1798 that the emerging shift from muscle power to machine power would revolutionize agriculture, making possible unprecedented increases in food supplies. (The application of modern biochemistry and genetics to agriculture was, of course, still further in the future and even less conceivable in Malthus' time.) When this began to happen, in the course of the nineteenth century, Malthus' celebrated ratios seemed to be discredited; and by the early twentieth century (as people of the industrialized countries increasingly chose to have smaller families), when someone spoke of the "population problem," he was as likely to mean the threat of *under*-population ("race suicide," it was often called) as of overpopulation. Malthus' fears then seemed distant and groundless. But after World War II, when death rates in many of the less developed countries were abruptly reduced to the levels of the industrialized countries, population growth rates shot up, and Malthus' handwriting once again appeared, clear and portentous, on the wall[2].

2. Although he did not foresee the great increases in food production of the nineteenth and twentieth centuries, Malthus believed that his theory allowed for such a possibility without loss of force. See, e.g., his letter to Nassau Senior, dated March 23, 1829: "The meaning which I intended to convey . . . was, that population was always ready, and inclined, to increase faster than food, if the checks which repressed it were removed; and that though these checks might be such as to prevent population from advancing upon subsistence, or even to keep it at a greater distance behind; yet, that whether population were *actually* increasing faster than food, or food faster than population, it was true that, except in new colonies, favourably circumstanced, population was always pressing against food, and was always ready to start off at a faster rate than that at which the food was actually increasing." (See Nassau W. Senior, *Selected Writings on Economics,* New York, 1966, p. 61.)

Historical Aberration

TODAY, EVEN IN the face of a Malthusian crisis of vast proportions, we in the West tend to remain the philosophical heirs of the eighteenth- and nineteenth-century prophets of Progress. We are inclined to be problem solvers; we pattern our mental futures on the successes of the recent past. And yet, the rapidly increasing food production of the last two centuries may be as misleading a guide as was the relatively static situation in Malthus' time. Many people are now becoming uneasy about our reliance on agricultural and industrial technologies which often have hidden, sometimes frightening, costs. We have been in the habit of taking accelerated agricultural productivity as the norm for a modern society; but we now recognize that it may be a splendid but temporary luxury, a historical aberration. For it is increasingly clear that the necessity of supplying food to very large and rapidly growing populations has pollution and resource-depletion effects that are more imminent and more destructive than they would be in a less densely populated world. Furthermore, the spectacular productiveness of American agriculture is based upon methods that demand such massive investments of fossil fuels and machinery that the energy required to produce some foods has now become greater than the energy obtained from them[3].

Thus, even with the "green revolution" fresh in our memories, Malthus' speculation about agriculture seems rather less mistaken, these days, than it once did. The validity of Malthus' argument depends, after all, not on the mathematical accuracy of his two ratios, but on their long-range relation to each other. And if Malthus was right—if population growth does, in the long run, have a tendency to outstrip food supplies—what, then, could he have hoped for by way of "the future improvement of society"? The answer is that as of 1798 he saw no real hope for permanent improvement, because he thought of the ratios as representing a law of nature as immutable as Newton's; and he saw no effective way of averting the grim consequences of that law. In Malthus' time, after all, there were only the crudest and most barbarous kinds of population control: undependable methods of contraception, abortion by shockingly dangerous self-induced means, and infanticide. To Malthus all of these were unacceptable, on moral grounds, and they therefore played no part in his first *Essay*[4]—which means that he was left without any practicable options, any effective way of preventing that excessive growth of population that is decreed by the redundancy of nature. So, he wrote, "This argument appears to be conclusive . . . against any marked and striking change for the better . . . any great and decided amelioration of the lower classes of mankind."

That is almost how he left it at the end of his first *Essay* in 1798—but not quite. Despite the relentless logic that drove him to this gloomy judgment, he apparently could not feel comfortable in a conclusion that seemed to recommend only an inhumane and fatalistic acquiescence in human misery. Malthus therefore recommended policies which would help to alleviate human suffering: land reform, the transfer of laborers from luxury manufactures to farming and a shift of national emphasis from foreign trade to agriculture.

Moral Restraint

STILL, HIS CONCLUSION was undeniably "melancholy," as he himself called it, and in his preface he apologized for that, pleading "that he has drawn these dark tints from a conviction that they are really in the picture, and not from a jaundiced eye." He would have been pleased, he says, to believe the optimistic visions of a Godwin or a Condorcet, but (in an ironic thrust) he "has not acquired that command over his understanding which would enable him to believe what he wishes, without evidence. . . ."

That is where the matter rested with Malthus in 1798. Then, for five years, he pondered the matter further and collected new evidence, and in 1803 brought out a revised edition of the *Essay* which was greatly enlarged (from 50,000 to 250,000 words) and less pessimistic than before. In those five years of reconsideration, Malthus had thought of the possibility of "another check to population which does not come under the head of either vice or misery." He called this check "moral restraint," by which he meant, simply, delayed marriage. "It is clearly the duty of each individual," Malthus wrote, "not to marry till he has a prospect of supporting his children."

The importance of recognizing this third possible check to population growth was that it admitted into Malthus' equation for the first time a conscious and potentially benevolent human element, a possibility that undesirable population growth could conceivably be brought under human control. This tended, as Malthus said, to "soften some of the harshest conclusions of the first Essay"; and it prompted Malthus' new way of viewing his grim subject—no longer simply

3. See, e.g., Eric Hirst, "Food-Related Energy Requirements," *Science*, 184 (1974), 134-138.

4. When, in 1822, Francis Place suggested contraception as a remedy for overpopulation, he felt obliged to put it in the most circumspect and defensive terms, and for more than a century thereafter, those who publicly advocated birth control risked imprisonment. Ironically, although Malthus himself disapproved of birth control, contraceptives were often called "Malthusian appliances" later in the century.

5. Walter Bagehot later commented acidly, "He does not seem to see that he has cut away the ground of his whole argument . . . . In its first form the *Essay on Population* was conclusive as an argument, only it was based on untrue facts; in its second form it was based on true facts, but it was inconclusive as an argument." (*Economic Studies*, London, 1880, p. 179) Bagehot's analysis of Malthus' position, however, is itself defective. It is not the "facts" that are changed in Malthus' second edition; they remain exactly as before, and are as true, or untrue, as they had previously been. What Malthus changed was the range of possible alternatives in the face of these facts, now for the first time admitting the possibility of human intervention into a situation he previously considered unalterable.

as a sort of biological juggernaut, but rather in terms of a moral imperative: "If moral restraint be the only virtuous mode of avoiding the evils arising from this principle [of population], our obligation to practise it will evidently rest exactly upon the same foundation as our obligation to practise any of the other virtues."[5]

Malthus' first *Essay*, by not accounting for the possibility of effective human intervention, described a real biological tendency without showing all of the available alternatives. The second *Essay*, by allowing for conscious human intervention, showed the same consequences as before, plus one more possibility—and a far preferable one. But the biological problem represented in the first *Essay* remained the same in the second *Essay* and remains a problem to this day. Whether or not people will, in fact, interpose prudential checks to catastrophic population growth seems to have been answered in the affirmative for the industrialized countries, but it has by no means been answered yet for most of the less developed countries, which are currently doubling their populations at alarming rates. There is a vast difference between the abstract possibility of problem solving, and the actual achievement of solutions.

For Malthus the human obligations were clear:

> We are not, however, to relax our efforts in increasing the quantity of provisions, but to combine another effort with it; that of keeping the population, when once it has been overtaken, at such a distance behind as to effect the relative proportions which we desire; and thus unite the two grand *desiderata*, a great actual population and a state of society in which abject poverty and dependence are comparatively but little known; two objects which are far from being incompatible.

That reasoning, and even that kind of optimism, cautious and qualified, have never been improved upon.

What Malthus did was to oppose an effective and tough-minded empiricism to the often woolly-headed utopianism so popular during his youth. Only after he had done this could Malthus propose a different kind of optimism, a qualified and wary optimism that recognizes and accounts for the dangers implicit in our biological nature. "Though our future prospects may not be so bright as we could wish," Malthus concluded his revised *Essay*, "yet they . . . by no means preclude that gradual and progressive improvement in human society which, before the late wild speculations on this subject, was the object of rational expectation."

To call this attitude, this message, a "warning against all attempts to ameliorate the condition of society" or a "gospel of despair" is obviously a misreading[6]. John Maynard Keynes' tribute to Malthus is far more accurate. Commenting in 1933 on the *Essay on Population*, he wrote:

> The book can claim a place amongst those which have had great influence on the progress of thought. It is profoundly in the English tradition of humane science—in that tradition of Scotch and English thought, in which there has been, I think, an extraordinary continuity of *feeling*, if I may so express it, from the eighteenth century to the present time—the tradition which is suggested by the names of Locke, Hume, Adam Smith, Paley, Bentham, Darwin, and Mill, a tradition marked by a love of truth and a most noble lucidity, by a prosaic sanity free from sentiment or metaphysic, and by an immense disinterestedness and public spirit. There is a continuity in these writings, not only of feeling, but of actual matter. It is in this company that Malthus belongs.[7]

Law of Diminishing Returns

MALTHUS' THEORY of population originated, as we have seen, in an argument with his father about "the future improvement of society"; significantly, nearly all of the subsequent controversies, still animated after more than 175 years, ultimately turn on that question. Discussions of "Malthusianism" have always been, and still are, compounded less of economics, narrowly defined, than of social philosophy, less of demography than of moral exhortation.

The early followers of Malthus included classical economists like David Ricardo, Nassau Senior and John Stuart Mill. Mill published his *Principles of Political Economy* in 1848; by that time he was heir not only to Malthus' original generalizations, but also to the subsequent discovery, made almost simultaneously by Malthus, Ricardo and two other British economists, of the Law of Diminishing Returns in agriculture. In his 1814 essay on the Corn Laws, and again in 1815, in a discussion of rent, Malthus had described the operation of diminishing returns. In fact, as early as the second edition of the *Essay on Population* (1803), Malthus had casually anticipated his own later discovery:

> It must be evident to those who have the slightest acquaintance with agricultural subjects, that in proportion as cultivation extended, the additions that could yearly be made to the former average produce, must be gradually and regularly diminishing.

However, he made only passing reference to diminishing returns in the *Essay on Population*, thinking perhaps that the *Essay* rested on other generalizations that were already sufficiently convincing. When John Stuart Mill published his *Principles of Political Economy*, however, he regarded diminishing returns as fundamental to agricultural production:

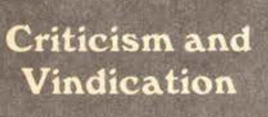
> It is vain to say, that all mouths which the increase of mankind calls into existence, bring with them hands. The new mouths require as much food as the old ones, and the hands do not produce as much.

Mill's work was so influential that he may be said to have shifted permanently the post-Malthusian emphasis,

6. About the "willful misrepresentations" of Malthus' ideas that are frequently assigned to the adjective "Malthusian," William Peterson writes: "Is this word ever used to designate, say, the first significant economist to recognize the importance of effective demand and thus the only nineteenth-century figure in the main line of classical economic thought to suggest the serious lacks in laissez-faire policies; or, in social thought, a pioneer advocate of universal education, the initiator of political science as a university discipline; or, specifically with respect to population, the theorist who analyzed both the relation between humans and resources and the effect of social man's rising aspirations on his fertility? Very little of the full and well rounded thought of Professor Thomas Robert Malthus is recalled in the commentary even of professionals" ("The Malthus-Godwin Debate, Then and Now," *Demography*, 8 (1971), 25).

7. John Maynard Keynes, *Essays in Biography* (New York, 1933), p. 120.

away from Malthus' ratios and onto the Law of Diminishing Returns. In doing so, he gave new force to the Malthusian principle.



Criticism and Vindication

MEANWHILE, the anti-Malthusians, who were largely well-intentioned social reformers of various persuasions, were rallying against the hated notion that population growth is an inevitable and insuperable "natural" obstacle to human betterment. Malthus, having argued for the retention of the protectionist Corn Laws (and thus for higher food prices) and for the abolition of poor relief, was soon characterized as a public enemy of poor people, despite his sincere insistence that these short-range severities were in their long-range best interest. But nineteenth century humanitarians refused to accept the inevitability of Malthus' grim "law" of population and his Draconian remedies, stressing instead the need to reform society itself in order to rescue humanity from poverty and misery. Godwin (Malthus' original target) responded, of course:

> Man is to a considerable degree the artificer of his own fortune. We can apply our reflections and our ingenuity to whatever we regret.

And as the century wore on, some well-known economists joined the assault on "Parson Malthus." Walter Bagehot's ill-considered criticism, in his *Economic Studies* (1880), has already been noted (see note 5 above). In the same year, the American Henry George was writing, in *Progress and Poverty:*

> I assert that in any given state of civilization a greater number of people can collectively be better provided for than a smaller. I assert that the injustice of society, not the niggardliness of nature, is the cause of want and misery which the current theory attributes to overpopulation.... I assert that, other things being equal, the greater the population, the greater the comfort....[8]

The most persistent of Malthus' critics have been Marxists. By stressing the pessimism of Malthus' first *Essay,* and ignoring the qualified optimism of the later editions, Marxists have characteristically painted Malthus as (in Marx's own words) "the great destroyer of all hankerings after human development," and as a capitalist hireling, a defender of class privilege. Until the 1960s, Marxists had been virtually unanimous in holding that overpopulation is a problem only of capitalist societies, not of socialist societies. The Marxian labor theory of value does not admit the Law of Diminishing Returns (under socialism, every pair of hands "can" produce sufficient food for every stomach, without limit); so, the argument goes, socialist societies should be capable of supporting any foreseeable population.[9] Recently, however, solid Marxist agreement on this subject has broken down, and, while "Malthusianism" is still ritualistically denounced, Chinese and Russian demographers and economists now openly debate the advisability of population control.

One reason for the changing Marxist attitudes toward population may be the difficulties that both the Soviet Union and the People's Republic of China have had in producing enough food to sustain their own burgeoning populations. The Soviet Union is now increasing by about two and a half million people per year; China, according to United Nations estimates, by over thirteen million per year. And in recent years, Russia, a former grain exporter, has had to import massive supplies of food grains from the capitalist West, while China, which was once the major exporter of soybeans on the world market, has now become a soybean importer, as well as a large wheat importer.

In any case, both the Soviet Union and China now consider population growth to be a matter of national interest and state planning, thus implicitly conceding Malthus' fundamental proposition. Population growth in the Soviet Union has been reduced (by individual family decisions, not by state planning) in ten years' time from a relatively high 1.7 percent to a more moderate 1.0 percent, while in China a vigorous national policy of population control—perhaps "the most comprehensive, ambitious effort to reduce births of any major country in the world," according to Lester Brown[10]—has brought its population growth rate down from 2.0 percent to 1.7 percent. So whatever the Marxists' official views on "Malthusianism" may be, the actual practice of the two largest communist nations confirms their tacit agreement with Malthus' proposition: that in the face of unchecked population growth, "*no possible form of society* could prevent the almost constant action of misery upon a great part of mankind, if in a state of inequality, *and upon all, if all were equal*" (emphasis added).

When Malthus died in 1834, the total population of the world was about one billion. If he were to return today, he would find a world population that is over four billion, and is now doubling itself within thirty-five years. Malthus would no doubt be surprised to learn that in only 140 years the world food supply has increased sufficiently to keep so many people alive; but he would be far less surprised to hear that of those four billion people, nearly half of them—almost twice as many people as existed in his own time—are suffering from malnutrition and are threatened by starvation. Despite a century and a half of progress in agricultural technology, there is little in today's world situation to suggest that Malthus would now change his mind: in many of the less developed countries, there is simply not enough domestic food to nourish the population adequately; widespread bad weather conditions in the mid-1970s have reduced world crop yields; food from foreign sources is increasingly expensive due to higher costs of oil and fertilizer; and meanwhile the world population keeps growing by eighty million mouths per year. World food reserves, which as recently as 1961 were at nearly a hun-

8. Henry George, *Progress and Poverty* (New York, 1942), pp. 141-142.

9. Compare, however, the dissenting view of Michael Harrington, in his *Socialism* (New York, 1970, page 149): "One cannot foresee a socialism capable of meeting the needs of a world which increases its numbers by the billions in the course of a single generation."

10. Lester Brown, *In the Human Interest* (New York, 1974), p. 130.

dred days' supply, were down to a mere twenty-seven day's supply in 1974.

Complicating and worsening the situation is the fact that the large numbers of babies born in the less developed countries after World War II have for some years now been coming to adulthood (and parenthood). They have flooded the labor markets, and, because so large a percentage of them are unable to find employment, they constitute a huge and growing reservoir of human misery. Other social problems, of varying degrees of urgency, have also been aggravated by rapid increases in population: shortages of housing and hospitals, of schools and teachers; inadequate clean-water supplies, sanitation and health care. Some of these may seem less alarming than shortages of food; but they compound human misery and are therefore part of the total cost of overpopulation.

Important Social Prophet

MOST WESTERN humanitarians in the post World War II period (unlike some of their counterparts in the nineteenth century) see population control as an urgent necessity for "the future improvement of society," and consider Malthus an important social prophet. Suspicious of "colonialist" and "imperialist" ideas, many scholars and political leaders in the socialist and Third World countries do not agree. They are persuaded that population limitation is less important for their social welfare than are economic redistribution and reform. They cling to the hope that a demographic transition toward lower growth rates will occur in their societies in the same way it has in the West: as a consequence, not a precondition, of economic development. Western economists and demographers, on the other hand, point out that the currently industrialized countries had a much more favorable starting position as regards development, including smaller populations, more available natural resources, the possibility of large-scale emigration and a century or more for the demographic transition to take place before low modern death rates were achieved. The less developed countries, lacking all of these conditions, can hardly depend upon repeating the Western experience.

Still, this is rather a difference of emphasis than a direct confrontation of strategies, because most contemporary Western social critics have abandoned the either-or approach of earlier ones. It has now become obvious that since the world already *has* population growth rates which threaten millions with starvation, it *must* attempt to bring these growth rates down—eventually to zero, but in the meantime as much as possible. And since the world also already *has* food shortages and at the same time the ability to raise more food, it *must* do everything possible to increase food supplies. There is nothing mutually exclusive about these two social necessities; on the contrary, they can be mutually reinforcing. In part because of rapid population growth, the world faces a future full of uncertainty and prodigious challenge; it is easy to be pessimistic, even fatalistic, in the face of such forbidding conditions. But the same man who anticipated the present condition also prescribed the only tenable response to it: "Sufficient remains to be done for mankind," Malthus wrote, "to animate us to the most unremitted exertion." SCB

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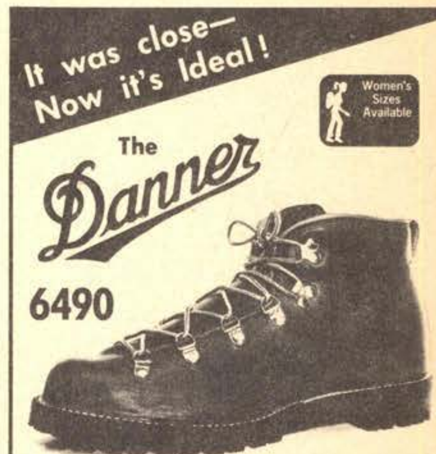

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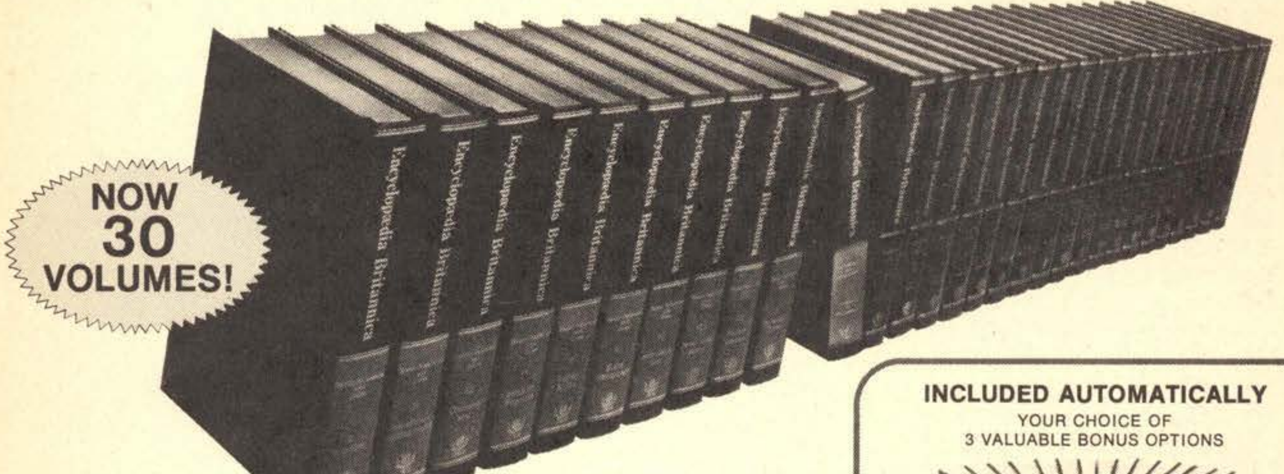

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OCS Update— Leases, Litigation, Legislation

STAFF REPORT

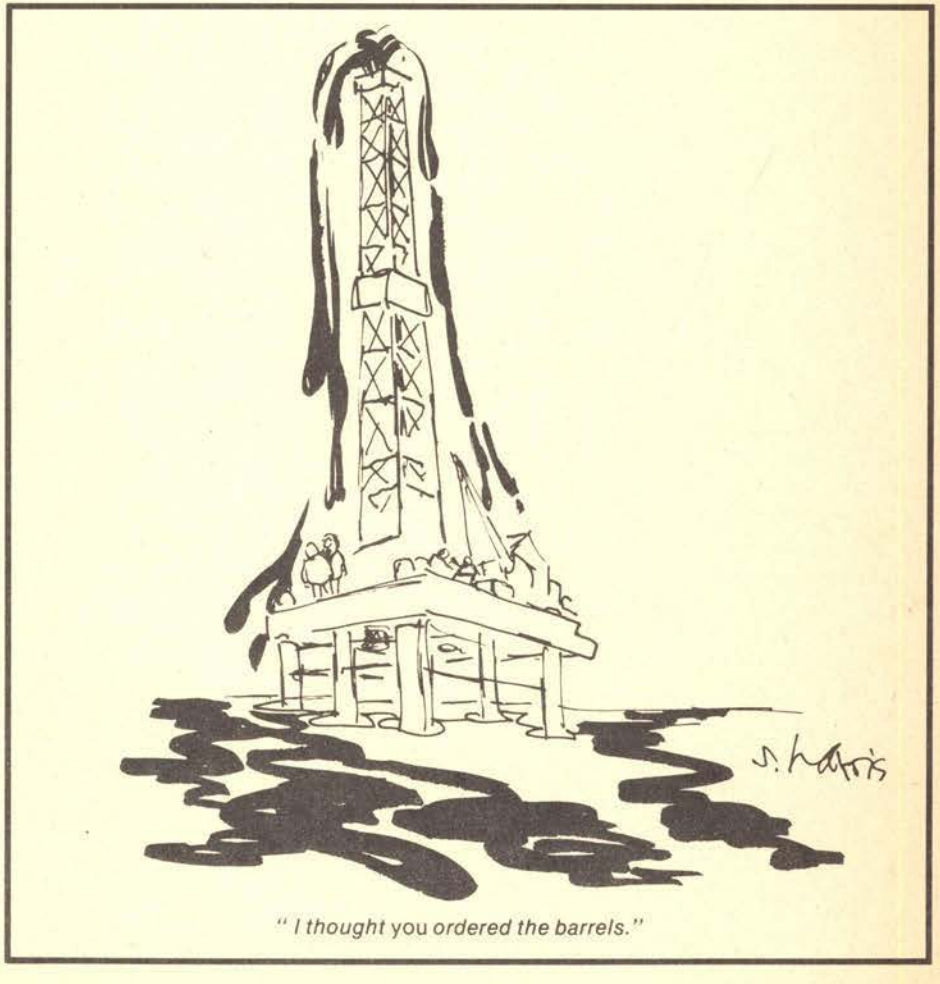
THE DEPARTMENT OF THE INTERIOR'S headlong rush to open the Outer Continental Shelf (OCS) to oil and gas exploration continues apace, even though thorough environmental impact studies have not been done and affected states have not completed coastal-zone-management plans. In response to White House directives to accelerate oil and gas development of OCS lands, Interior issued in June 1975 a revised leasing schedule running through 1978. The schedule lists three sales for the Southern California Coast, nine for the Gulf of Alaska, six for the Atlantic Coast and three in the Gulf of Mexico.

As a result of state pressures and legal skirmishing, some sales have been modified or slowed. For example, a third of a million acres offshore from Santa Monica, California, were deleted from the sale that took place in December. Even so, this was months before the California legislature will be able to act on the recommendations of the California Coastal Zone Conservation Commission, which recently completed the widely publicized California Coastal Plan. In part because of pending litigation, to which the club is party, only about one-third of the tracts offered in the Southern California sale were actually sold. As a result, feared environmental impacts may be reduced considerably.

State resistance to the sale of tracts in the Gulf of Alaska—considered by the Council on Environmental Quality as the area of highest risk—secured postponement of the lease sale from December to January. For the same reason, the Georges Bank sale off New England will include no tracts within forty-eight miles from shore.

So far, the Mid-Atlantic states have failed to protest the planned sale next May of Baltimore Canyon tracts, where offshore oil development could well result in spills contaminating Long Island and New Jersey beaches. The Gulf States have done nothing to slow or halt lease-sales, which have been occurring every few months. A deep-water sale is scheduled for March, 1977. The South Atlantic states—North Carolina, South Carolina, Georgia and Florida—after protesting that the government's leasing plans for the Georgia Embayment bear no connection whatsoever to its current studies of the area, have as yet taken no legal action. Yet the Georgia Embayment, which will go on the block in November, 1976, is an area of violent storms and has been ranked by the Council on Environmental Quality as second in environmental risk to the Gulf of Alaska among OCS lease areas.

In all the above areas but Alaska, Interior's Bureau of Land Management (BLM) has held conferences to which it invited marine scientists from each region for the purpose



"I thought you ordered the barrels."

of preparing environmental studies on proposed OCS developments. (In Alaska, BLM asked the National Oceanic and Atmospheric Administration to do similar research.) But the purpose of all but one of these studies is not, as one might suppose, to provide decision makers with data before OCS development is under way (conferees were told that other forums exist for this purpose). Instead, they are intended to provide criteria for assessing damages *after* spills or other polluting incidents have occurred, though some information may prove useful for drawing up drilling regulations. Interior is preparing environmental impact statements as required by the National Environmental Policy Act, but these will be released at about the same time the conference studies commence. Furthermore, the studies will not include coastal areas —near-shore waters, marshes, estuaries—where, marine scientists agree, the most severe impacts of OCS development (especially as a result of shipping and the development of onshore support facilities) are likely to occur.

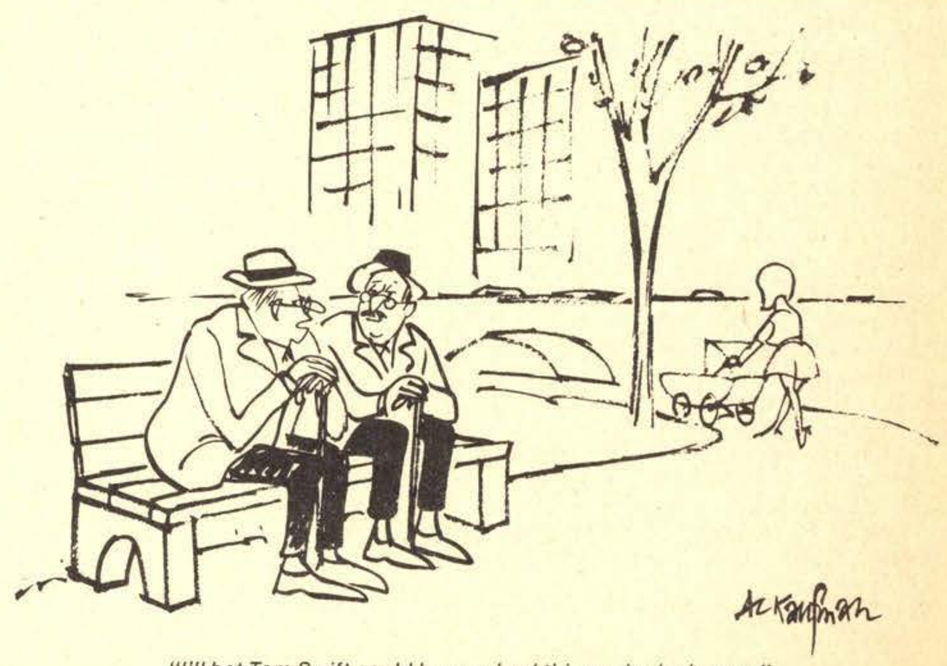
Last October, at the BLM's Atlanta conference on the South Atlantic, participants, for the first time, were charged with including impact predictions in their studies. The result was a broad-ranging plan to assess thoroughly the effects of metals and hydrocarbons on marine organisms and to study the impact of oil spills on marshlands. Even so, the leasing will have been accomplished before these studies are available. And since the government cannot cancel the leases, but only temporarily suspend them, it is unlikely that the Atlanta studies, however incriminating, will do much to stop actual drilling. The Interior Department says that the two-to-three-year interval between leasing and production will give states ample opportunity to cope with potential onshore impacts, but even if this turns out to be true, it does not give the states the chance to determine which sections of their coastline should be spared impacts altogether.

Attempts to remedy this situation through litigation and legislation are now under way, but time is essential; for the leases constitute legal contracts, and once they are sold it becomes extremely difficult, if possible at all, to persuade judges to enjoin the lessee from carrying out its prerogatives under the terms of the contract. Thus far, attempts by environmentalists and state and local governments to seek relief through the courts have met with only limited success. It seems essential that litigation be undertaken before the leases are sold rather than afterward. Therefore, affected states should be encouraged to take legal action as soon as possible. Even if unsuccessful, such a show of opposition might persuade the administration to reconsider its current program or encourage Congress in its efforts to amend the Outer Continental Shelf Act.

In the face of increasing pressures to develop new OCS areas, a substantial revision of existing law is needed so that federal leasing procedures will provide better environmental safeguards on drilling and onshore impacts and will provide an equitable share of OCS revenues to federal and state governments. On July 30, 1975, the Senate passed S.521, the provisions of which are a vast improvement over current practices. The bill authorizes federal exploration of coastal regions, gives the Secretary of the Interior a choice of several leasing plans, separates the leasing and development phases to a greater degree than they are now and gives the states and public a larger role in the federal approval of development plans. It also includes a $200 million energy-impact fund. This section amends the Coastal Zone Management Act to provide money to compensate for net adverse impacts of any energy-related facility sited in the coastal zone. Environmental groups view this provision as a bribe of sorts to get local communities to go along with accepting coastal siting of nuclear power plants, oil refineries and other energy facilities. Environmentalists want "impact money" to be restricted to OCS-related developments.

The House of Representatives is expected to complete action on its version of the coastal-impact bill by mid 1976. The House Merchant Marine and Fisheries Committee began to consider H.R. 3981 in January. As of this writing, the bill provides impact money on a revenue-sharing basis and restricts such funds to OCS development. A strong effort, however, is now under way to change this to a discretionary grant program for a variety of energy-related projects. The House OCS bill, H.R. 6218, is currently being redrafted by the Ad Hoc Select Committee on the OCS, and it is too soon to tell how closely it will follow the Senate bill. The administration has adopted a position that no changes are needed in existing law, and it is not at all certain that Mr. Ford's veto will not strike once again.

SCB



"I'll bet Tom Swift could have solved this ecological mess."

WASHINGTON REPORT

Brock Evans

Alaska's Second Pipeline

SOME OF US with long memories remember the struggle waged by conservationists over the controversial Alaska oil pipeline in the years 1968 to 1973. In that final year, Congress passed the Trans-Alaska Pipeline Authorization Act, defeating our major effort, which had been to secure consideration of a less environmentally damaging route. The vote was very close, however, and the intense debate at least had the effect of assuring that the pipeline would do less harm than if it had been built immediately.

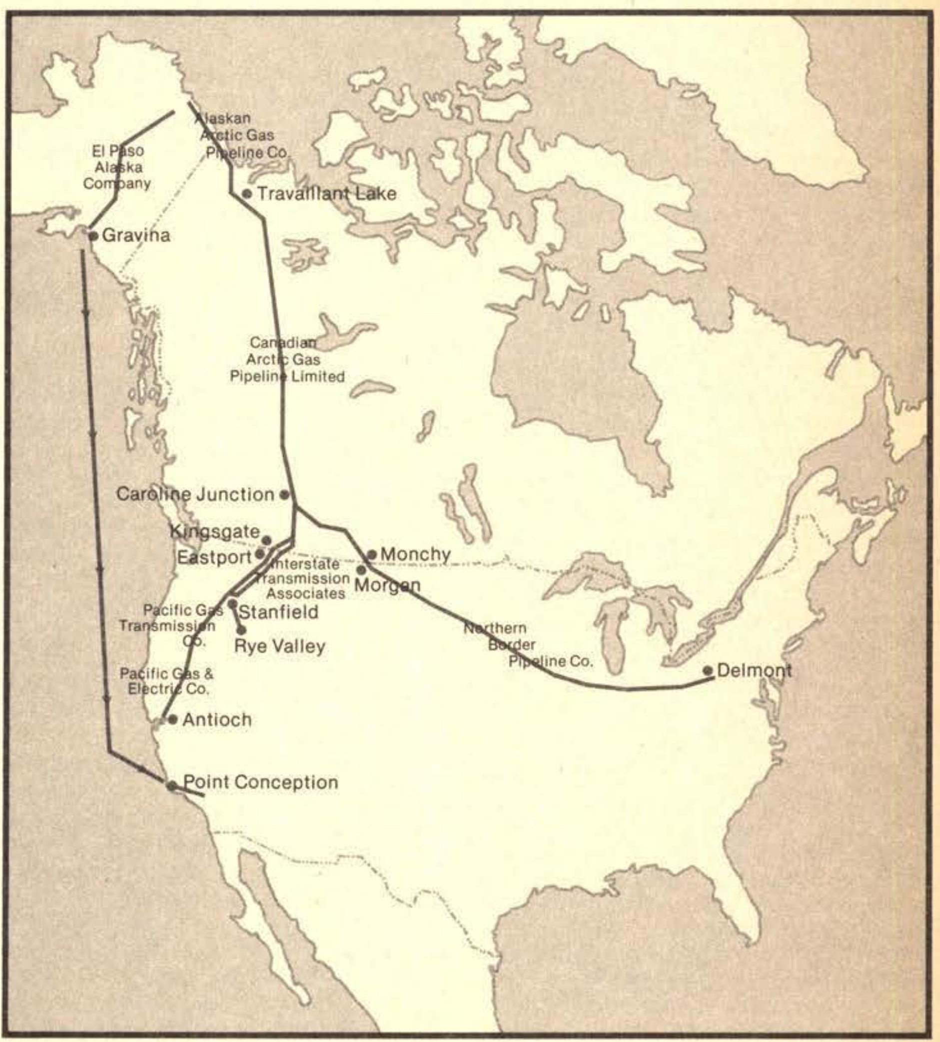
Now, the nation is faced with proposals for a second Alaska pipeline, this time, a natural-gas line from the Prudhoe Bay oil fields to the lower forty-eight states. As before, the choice of routes would have the most serious environmental consequences. The issue is almost certain to come before Congress in 1976, so it is important that we understand now what is at stake.

The gas-pipeline issue differs from that of the oil pipeline in several respects. For one thing, there is no problem, obviously, with oil spills, the main environmental concern in the first pipeline battle. For another, two separate corporations are competing this time for the right to build the pipeline; each has proposed different routes. The Arctic Gas Company, a consortium of major oil and gas producers, proposes a route involving up to 6,000 miles of pipe extending from Prudhoe Bay through Canada to the Midwest and the eastern United States. The El Paso Company proposes to follow the already developed oil-pipeline corridor and then transport the gas in liquid form by tanker to a facility somewhere on the California coast. Although both routes will certainly cause environmental damage, the El Paso route seems preferable largely because it would follow existing corridors and cross no important parks or reserves. The question of shipping liquid natural gas (LNG) and the siting of LNG facilities, however, does pose problems that have yet to be resolved.

Arctic Gas' proposal has by far the most disastrous implications for wildlife, wilderness and other environmental values in Alaska. Both of its preferred routes (the "primary route" and "secondary route") either cross or run adjacent to the famous nine-million-acre Arctic Wildlife Range in Alaska's northeast corner. It is the opinion of all environmental groups, as well as that of government and Federal Power Commission experts, that irreparable damage to wildlife and wilderness will result from either of Arctic Gas' preferred routes. The company has spent a great deal of money on public relations and on lobbying Capitol Hill in an effort to convince members of Congress that its proposed pipeline would be nothing but a thin sliver of pipe lost in the vastness of nine million acres of wilderness along the route. But an environmental impact statement (EIS) prepared by the Department of the Interior and the Federal Trade Commission shows otherwise. For the pipeline will not suddenly appear as if by a miracle; nor will it sit there mute in the wilderness like a piece of sculpture: it will have to be constructed and maintained.

To illustrate the damage that could be done, the "primary route" would cut through the heart of the great Arctic coastal plain, which comprises the northern third of the wildlife range; through the migrating and calving grounds of the second largest caribou herd in North America; and through important waterfowl nesting habitat. But it would not be any mere sliver of pipe; it would have three compressor stations operating day and night, and each station would have its own airport, with permanent twenty-four-hour lights. In addition, numerous communication towers would be scattered along the route, each with its own permanent lights. Constant airplane surveillance—up to six times a day—to detect leaks would also be necessary.

Wilma Frey, a special consultant to the Sierra Club, has determined the environmental damage that would be done on the broad flat coastal plain by the intrusion of these facilities. Assuming that sounds would be heard within a radius of thirty to forty miles from the source (according to a government EIS) and that lights could be seen within a ra-



Mike Jelf for the *Long Beach Independent Press-Telegram*

Airplane Wreck Clean Ups

IMAGINE SPENDING your vacation carrying parts of an airplane out of the mountains on your back—and paying to do it! Sounds crazy, but that is just what participants on Sierra Club Service Trips have been doing with enthusiasm. The Sierra Club Outing Committee sponsors and subsidizes these Airplane Wreck Clean Up outings as a small part of the overall Service Trip outing program.

The annual Airplane Wreck Clean Up outings began in 1971 when the National Guard helped us recycle a B-26 bomber by helicoptering the chopped-up wreckage out of the mountains. In following years, the army donated two training missions to flying out wreckage of a Navy C-45 and a B-18 bomber from locations high in the Sierra. Trip members have also carried out wreckage several miles cross-country from a Cessna 170, a Beech B35 and a Mooney 20. A new regulation forced cancellation of a fourth military airlift and left stranded piles containing parts of seventeen airplanes collected during our 1974 Kern Plateau outing. The Associated Blazers of California, a conservation-minded four-wheel drive club, came to the partial rescue of that project during a recent cooperative work weekend. The "Blazers" hauled out parts of eight airplanes over established jeep roads. So far the Airplane Wreck Clean Ups have recycled several tons of steel and 10,703 pounds of aluminum.

Airplane wreckage not only scars the landscape and represents a waste of resources, but often also triggers false-alarm "downed-plane" reports, complicating emergency search efforts for recently crashed airplanes. The Airplane Wreck Clean Up volunteers have removed some of the most difficult wrecks in the High Sierra, thereby dramatizing the existence of over 680 abandoned airplane wrecks in California. Yet, for every wreck that we have removed so far, as many as ten new wrecks have been abandoned in California. The Airplane Wreck Clean Up project is working toward the day when it is no longer permissible to abandon airplane wreckage.

Donald Mitchell

dius of twenty miles from the source, the construction and maintenance of the gas pipeline would for all intents and purposes constitute a "taking" of *all* the coastal plain, as well as most of the foothills of the Brooks Range. From three to four million acres are involved, and they would never be the same so long as the pipeline were in operation.

The same would hold true for the secondary route, except that about five to six million acres would be involved because more compressor stations, airports and the like apparently would be necessary. These are but the main problems posed by Arctic Gas' routes, but they are sufficient to explain why every major environmental group, as well as the state of Alaska and other groups, is totally against the proposal. Only in the Arctic Wildlife Range does there remain a chance to preserve a North Slope wilderness—the whole vast sweep of foothills and river valleys, of mountain and tundra plains, of wild Arctic coast—that used to characterize all of the region. There is no other place remaining in Arctic Alaska where there is a similar opportunity to protect such a landscape. This is truly our last chance.

Therefore, the Sierra Club Board of Directors has resolved that the club must oppose any intrusion into the wildlife range or into its proposed extensions to the south. There is simply no way to mitigate the anticipated losses. The board's position is that if a gas line is to be built, it should follow existing routes and already-developed transportation corridors.

There is another route to pipe the gas, if they must—the route proposed by the El Paso Company along the existing oil-pipeline corridor. Of course, we would want strict environmental controls there as well, but better an additional pipeline there than in a region still undisturbed. Still another alternative would be to run the pipeline along the existing corridor only to Fairbanks and from there along the Alaska Highway into Canada. The staff of the Federal Power Commission has, in fact, proposed just such a route, but Arctic Gas claims it would be too expensive.

These are choices that the nation will have to face in the next year or so. The issue and the competing applications are now being heard by the Federal Power Commission, but already, in an effort to push something through Congress as soon as possible, bills have been introduced by supporters of various routes. The forces are gathering and building, and conservationists must be ready as well. At stake is the entire Arctic Wildlife Range, the vastness of the wild Arctic North—the last place in Alaska where mountains still tumble onto unspoiled foothills and plains, where the yearly migrations of animals and birds proceed undisturbed as they have for thousands of years.

SCB

REGIONAL REPS REPORTS

Alaska: Hammond's New Plan

GOVERNOR HAMMOND plans to introduce his proposed national-interest-lands legislation in Congress early in the session. Meanwhile, his bill has been submitted to the Alaska public for comment. Development interests here are unanimously opposed, but at the same time, the governor's supporters are puzzled and disappointed by his apparent retreat from conservation principles.

He has chosen to minimize the amount of national-interest lands that would be added to the national conservation systems. He proposes about half as much land for parks and wildlife refuges as the Interior Department's bill (that's less than a third of what conservationists have suggested), and a quarter of his National Park Service acreage is miles-high rock and ice or national recreation areas, a developmental classification unsuitable for Alaska. The proposal's national wildlife refuges are envisioned as glorified multiple-use areas, and there are no wild rivers at all, though some may be added.

To supplement these modest nominations, Hammond calls for a new system intended to give the state equal participation in the management of federal lands of national interest. Briefly, sixty-two million acres of "Alaska Resource Lands" (ARLs) would be established by Congress, which would also decide the prime value or values and the appropriate federal management agency for each parcel of land. At that point, an Alaska Land Commission composed of three state and three federal members would take over and classify the ARLs for uses "compatible" with the prime value. The commission would also classify certain state and other federal lands within co-

Philip Hyde

operative-management zones. Classification would be for "sound multiple use," and would depend on the state legislature's acceptance of commission jurisdiction over state lands.

The governor has not said what prime uses he would prefer for his ARLs; he's waiting to hear from Alaskans, who have been asked to return a detailed questionnaire.

His ARL idea has some major weaknesses. The state could select up to thirty-five million acres—its remaining statehood land entitlement—from the ARLs, subject only to a veto by the federal co-chairman of the land commission. But Congress has already established a procedure for the state's identification of any national-interest lands it desires to own: when the Interior Committees take up the d-2 legislation, the state has the opportunity to convince the committees that state selection should take precedence over the national interest in these lands. This approach is more reasonable and equitable than the governor's. In any case, it wouldn't make sense for Congress to consider carefully and set prime values for ARLs (which even the state acknowledges are of national, not merely local, importance), assign a federal management agency, then watch the state appropriate the best of them.

A second fundamental weakness of the ARLs is the granting of classification authority for "compatible" uses to an Alaska Land Commission. It can be safely assumed that, in the nature of things political, the commission would be dominated by developmental interests. Moreover, the state favors the Bureau of Land Management (BLM) as the logical federal management agency for the ARLs. Such a BLM-Alaska Land Commission team is a prescription for the erosion of the natural values the national-interest withdrawals are intended to preserve.

But the central issue is the assertion that the state should have an equal say in the management of public lands whose natural values are of global importance. After being granted an extraordinarily generous Statehood Act land entitlement of 104 million acres, plus millions more acres of tide and submerged lands thought to contain billions of barrels of oil, the state now proposes to move in also on the federal lands, in the name of "flexibility" and "responsiveness to changing needs and demands." Unfortunately, the kind of flexibility the state wants is reflected all too clearly in the recent decision of the Alaska Game Board to allow aerial wolf hunting over thousands of square miles of state, BLM and Forest Service land. (The state would find it difficult to get such hunts authorized for national wildlife refuges and politically impossible in national parks.) One of the hunts calls for the complete extermination of all wolves in a 3,200-square-mile area as an "experiment."

As bad as the federal management record has been on certain of its lands—notably those under the jurisdiction of the Forest Service—the state's performance, on the whole, has been worse, certainly not adequate to justify the direct participation it wants in the disposition and management of the national-interest lands. Under the administration of Jay Hammond, some progress has been made, but he has to contend with local and regional developmental interests—as well as "outside" corporations—who are well represented in the state legislature. An example: because of opposition from local governments, native regional corporations, and the oil and gas industry, Hammond has quietly scuttled his own coastal-zone-management bill in the legislature.

Although the state's "fifth system" is being offered by Governor Hammond's d-2 task force, it was sold to them by the Federal-State Land Use Planning Commission. Established by Congress in the Native Claims Settlement Act, this commission has been controlled, on the federal side, by the BLM and dominated by developers on the state side. The present federal co-chairman, for example, was previously state and national director of the BLM. From its very first days, it made its major goal the trimming back of the d-2 withdrawals. From the standpoint of the BLM, any national-interest lands not placed in the four national conservation systems represent a clear gain, since they will revert to BLM management; hence the proposed "fifth system" of ARLs is really a stalking horse for the BLM.

Conservationists on the governor's task force who favored the establishment of new parks, refuges and wild rivers lost in the showdown between their larger three-system alternative and the "new system" ploy supported by the multiple-use proponents. As for the governor himself, he has been under relentless attack by exploiters and the state's largest newspaper; he may feel a need to compromise. But his recent speeches and talks with conservationists suggest that Governor Hammond has convinced himself that the dominant-use "fifth system" really is the answer.

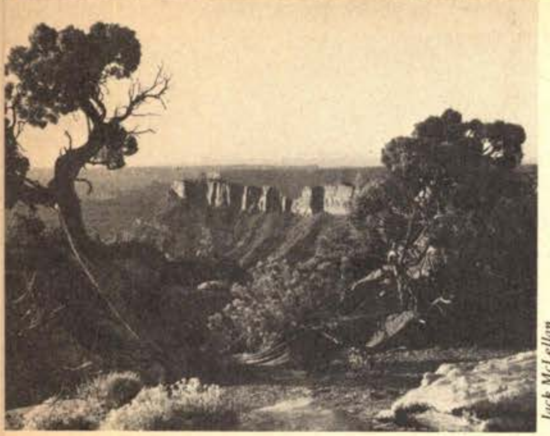
All this is not to suggest that cooperative land-use management is not desirable. It obviously is called for, given the jumble of state, native, and federal land ownership that is emerging. In response, the Interior Department and conservationists propose cooperative planning and management areas and foresee intensive use of interagency land-management agreements. There may even be a role for a revamped federal-state commission of some sort to coordinate these planning efforts; an orderly procedure for the remaining state selections, for example. But the fundamental objective of conservationists is to secure now the highest protection for the national-interest lands by placing them in the park, refuge and wild-river systems. And that is why conservationists are disappointed that Governor Hammond has offered yet one more system—a poor compromise—even before the major battles have begun in Congress.

Jack Hession

Southwest: Good News from Kaiparowits

THE PROPOSAL TO BUILD the nation's largest coal-fired power plant on a high plateau in southern Utah, surrounded by some of the most spectacular scenery found anywhere, is rapidly turning into one of the major energy-versus-environment controversies of the decade. (See *Bulletin*, August/September 1975, page 6.) On one side, the utilities, Utah politicians, and some government officials see the 3,000-megawatt plant as essential to achieving independence from Mid-Eastern oil, while promoting economic growth in the region. On the other side is an equally militant group, led by the Sierra Club, arguing that energy conservation can do more toward achieving energy independence, and at less cost, but that in any event southern Utah is simply the worst possible place to build such a facility.

Many people thought the issue was


Jack McLellan

resolved when, in June 1973, former Secretary of the Interior Rogers C. B. Morton rejected applications to build Kaiparowits. In his letter to the utilities notifying them of his decision, Morton said that "the scenic beauty of [the] rugged Southwest landscape, coupled with the clarity of the air in the vicinity, are national assets of major importance, worthy of protection for the enjoyment of future generations of Americans." He added that "a power plant on the Kaiparowits Plateau would exacerbate [air pollution] problems and impose severe additional adverse environmental impacts upon this area through the construction of associated facilities, such as transmission lines, haul roads, pipelines, and plant and mining facilities." "Additional impacts of this magnitude must be avoided in this area," he said.

While environmental groups were very pleased, the utilities and their friends immediately began an intensive lobbying campaign designed to reverse that decision. Seven months later Morton announced that he would accept new applications for Kaiparowits. The Bureau of Land Management immediately began work on the 2,700-page environmental statement on the Kaiparowits project that was the subject of public hearings throughout the Southwest in September 1975. The statement was roundly criticized for accepting without question the utility companies' forecasts of future energy demand, for failure to consider seriously energy conservation or substantially different sites as alternatives, as well as for a host of other deficiencies.

At the end of 1975, the three utilities who would own Kaiparowits—Southern California Edison, San Diego Gas and Electric, and Arizona Public Service—announced a one-year delay in construction, citing regulatory delays and objections by environmental groups as reasons. More probably, the delay was prompted by two years of energy demand growth far below the companies' projections, along with the high cost ($3.5 billion) of the plant and associated facilities. Prior to that delay, the utilities had hoped for approval by the new Secretary of the Interior, Thomas S. Kleppe, in March 1976, with construction to begin the following month. The one-year delay will allow time to conduct a thorough study of alternatives along with an analysis of the cumulative impact of Kaiparowits and other power plants planned for this region.

Meanwhile, the Sierra Club has petitioned the California Public Utilities Commission to require the two California utilities to obtain a certificate of public convenience and necessity before proceeding with the project. As it now stands, no government agency has determined whether this expensive and environmentally destructive project is really necessary in light of California's future energy demands. The utilities may escape an important form of regulation merely by locating the facility out of state.

The National Park Service has initiated studies of air quality over nearby Bryce Canyon and Capitol Reef National Parks and Glen Canyon National Recreation Area to assist the Secretary of the Interior in determining whether to authorize construction of Kaiparowits. These studies could lead to a request by the secretary to reclassify the air over these parks as Class I (most pristine) under EPA's nondeterioration regulations. Congress may also decide the issue of air pollution in national parks during its consideration of amendments to the Clean Air Act. Bills under consideration in both the House and Senate would mandate Class I status for national parks and wilderness areas.

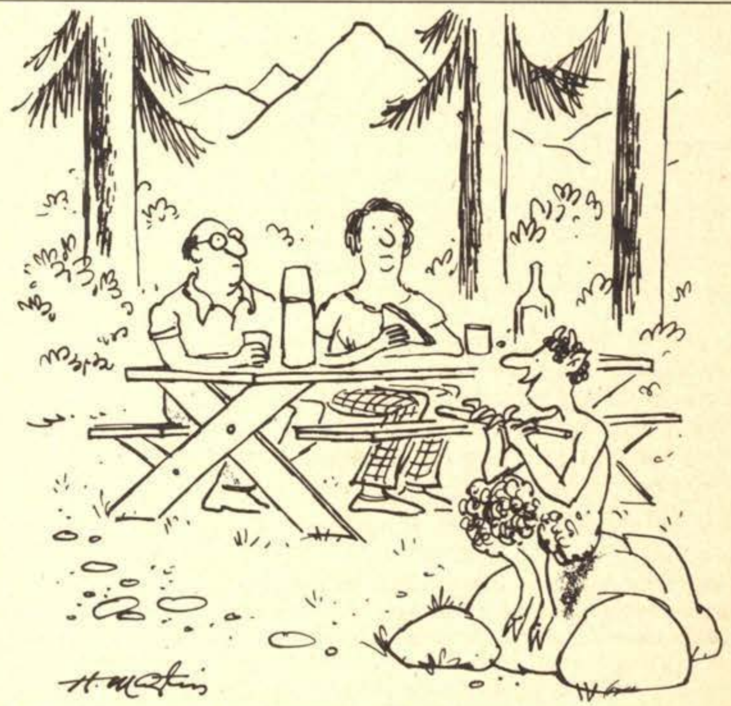
John McComb

WHAT YOU CAN DO

Write to the Honorable Thomas S. Kleppe, Secretary of the Interior, Washington, D.C. 20240.

- Ask him to reaffirm former Secretary Morton's sound decision of 1973, and again reject the applications to build Kaiparowits.
- Urge him to seek Class I designation of the air over the National Parks so as to better protect them against ill-conceived developments of any kind that would threaten the pristine air in the region.
- Urge him to use the delay granted by the utilities to undertake regional impact studies that would help to determine more acceptable locations for any energy-related facilities needed in the Southwest.

Send copies of this letter to your congressman or, better yet, write a separate letter urging, in particular, support for amendments to the Clean Air Act that would mandate Class I status for the air over our national parks and wilderness areas.



"Now, while you folks enjoy your picnic, I'm going to play for you the 'smother your camp fire' theme from my Gerald P. Holbrook State Park Suite."

The Ecologist

Journal of the Post Industrial Age

is the forum of a group of thinkers who have developed a common interpretation of the problems the world faces today, and a common set of closely integrated solutions.

THE ECOLOGIST'S overriding theme is that these problems — poverty and unemployment, famine and disease, over-population and pollution, crime and violence — cannot be solved by technological methods as proposed by modern reductionist science because they treat symptoms rather than causes and thereby create more problems than they solve, and also because they are, in any case, logistically inapplicable on anything but an insignificantly small scale.

These problems can be shown to be but the symptoms of biological, social and ecological disruption and can only be solved by adopting a set of solutions which allow for the reduction of man's disruptive impact on his natural environment.
To do this one must set out systematically to de-industrialise society — and to determine the details of this massive enterprise, which must affect every aspect of our lives, is the most daunting challenge which has yet been put to man's intellectual resourcefulness.

THE ECOLOGIST has been consistently ahead of its time. Papers which were regarded as heretical and outlandish when they were published four and five years ago, are now accepted wisdom.

In our first issue (July 1970) Allaby showed, in the face of "expert" opinion, why the Green Revolution could never work. It didn't and the reasons he gave have proved to be right.

In *Can Britain Survive?* a collection of articles from *The Ecologist* (1971) we predicted that the Arabs would withhold oil supplies, that Britain was heading for galloping inflation, increasing social problems and a serious food shortage. It also explained why present policies could only make matters worse, and what action was required. **No one listened.**

In January 1972 *The Ecologist* published its now famous *A Blueprint for Survival. The Guardian* wrote that one day it would prove as influential as the Communist Manifesto. It sold half a million copies, has been translated into 16 languages, and has been adopted by new political parties in four countries as a statement of their general social philosophy.

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Gordon Rattray-Taylor. August 1975

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Sanford Tepfer

The Proposed Dues Increase

THE ANNUAL SIERRA CLUB ELECTION this year will include balloting to ratify a dues increase. In December the Board of Directors voted,

> "Under Article XIX, Section 3 of the Club bylaws, that the annual dues of regular members be increased to $20.00 and that the annual dues of all other categories of membership remain unchanged at this time. This increase is subject to approval of the membershp at the next election by a majority of the votes cast."

This proposal came to the board after two years of discussion by the Membership Committee and the Sierra Club Council, with considerable participation by chapters and groups. Late in 1974, both the committee and the council decided to hold the line, pull in the belt by budget cutting and carry on an intensive member-recruitment campaign. Despite an austere 1974-1975 budget and a successful membership campaign, costs continued to escalate because of inflation. As a result, the Membership Committee, the Council and the Board of Directors, after further consultation with chapters, are now convinced that a dues increase is necessary to avoid crippling cuts in our conservation programs.

Sierra Club programs have expanded from an emphasis on wilderness preservation to include such issues as energy, land use and population, as well as other environmental concerns such as transportation, wildlife, water and forest practices. This expanded concern has necessitated the establishment of national committees for these program areas and others. A more significant consequence of the expansion is the need to follow and to lobby legislation in all of these areas at both state and federal levels. As an *environmental* organization, rather than only an outdoor club interested in wilderness, the Sierra Club has responsibilities that require funding. Our Washington Office consists of a small group of overworked and underfunded people, each trying to follow a myriad of bills through Congress. Their substantial legislative accomplishments would be a bargain at twice the price. Comparable examples exist in our field offices and in our volunteer structure at the state levels. Also, increased size has required decentralization of the decision-making process in the club and the establishment of the regional conservation committees and many new chapters. This larger and more complex organization requires more meetings, more travel and more money in order to function.

The escalated costs to the club of postage, telephone serv-

Summary of Budget—October 1975 through September 1976

Operation or Category	*Total Income*	*Total Expenses*	*Allocated Soft Money*	*Surplus & Reserve*
1. Dues & Admissions	$2,025,000	—	—	—
2. Contributions, soft	803,300	—	—	—
3. Contributions, hard	350,000	—	—	—
4. Investments	50,000	5,000	—	45,000
5. Special Bequest	170,000	—	—	170,000
6. Legal Defense Fund	500,000	500,000	500,000	—
7. Conservation	10,000	1,226,400	417,800	—
8. Films	15,000	76,000	66,000	—
9. Sierra Club Bulletin	76,500	270,000	38,500	—
10. Advertising	—	21,000	21,000	—
11. Books	930,000	839,800	100,000	—
12. Business Office	20,000	237,200	—	—
13. Member Services	15,000	779,500	25,000	—
14. Outings	1,050,800	989,100	3,800	—
15. Accounting	—	264,100	—	—
16. Executive Director's Office	—	63,800	—	—
17. Program Funding Office	3,000	46,900	1,000	—
18. Board of Directors' Office	—	59,500	—	—
19. Sierra Club Council	—	39,700	—	—
20. Reg. Conserv. Committees	—	60,000	15,000	—
21. National Issues Committees	—	55,000	55,000	—
22. Internal Committees	—	48,700	9,000	—
23. Ascent Magazine	17,000	17,000	—	—
24. Retail Store & Moving	10,000	37,400	—	—
25. Salary Increases for 110 employees	—	94,500	—	—
26. Surplus & Reserve	—	—	51,200	100,000
27. TOTALS	$6,045,600	$5,730,600	$1,303,300	$315,000

Notes on the Budget

1. Based upon continued membership growth at the rate of 5½% experienced recently. 2. Mostly through the Sierra Club Foundation; includes funds from President's Appeal, etc. 3. Mostly through activities of the Office of Program Funding; includes President's Appeal, exchange mailings, bequests and all other hard-money contributions. 4. Income from investments of the Permanent Fund; derived from Life Memberships. 5. A single large bequest that will be used to restore the Permanent Fund. 6. Sierra Club Legal Defense Fund (SCLDF) soft money used for lawsuits. 7. Conservation—the primary activities; income from *National News Report* and miscellaneous sources; includes field offices, Washington Office and costs of major campaigns. 8. Films; income from sales and rentals. 9. *Bulletin;* income from advertising. 10. Contributed advertising. 11. The Book program is now above the break-even point. 13. Member Services takes care of membership records, mailing lists, the library, services to members, leaders, chapters, etc.; income is through sale of mailing labels to chapters. 17. Program Funding is a fund-raising office. 21. Issues Committees include Wilderness, Energy, Land Use, Forest Practices, etc. 22. Internal Committees include Legal, Membership, Elections, Mountaineering, Budget, etc. 23. *Ascent* is a small mountaineering magazine published by the club; self supporting. 24. Store is something new at 530 Bush St.; moving is a one-time-only expense of the move. 25. Salary Increase; after the budget was ready, the board decided on the size of salary increases of employees for this year (7.0%); cost added at end of budget, while basic salaries are broken down by departments. 26. Surplus and Reserve; some of these funds may be used later to relieve hardship spots in the budget, as recommended to the board by the Budget Committee.

ice, travel and salaries are obvious. Our organization of over 153,000 members functions to influence governmental decisions largely through communication. All costs in this area have been inflated far beyond general living cost increases. Communication is the life blood of the club—communication with all members and, in particular, among our large body of volunteer leaders, who represent our principal source of political action and strength. The salaries of our 110 employees have been increased far less than their living costs have risen. Their continued loyalty and hard work in spite of personal financial sacrifice demonstrates their dedication to our cause. We must continue to support them as they carry on behind the scenes to help fight our battles and to help run our programs and as they work constantly in Washington and in state capitals to influence decisions.

In additional actions, the board indicated that if the dues increase is approved, part of the proceeds will be used to increase the allocation of funds to chapters and, thus, to regional groups. Also, in recognition of special problems involved in the financing of our small Canadian chapters, the board voted to establish a separate category of membership called "Canadian Members," with the dues rate negotiated, as at present, in the light of reduced conservation and member services rendered. No increase is proposed at this time for these members.

In an effort to offset possible negative effects of a dues increase on membership recruitment, the board also voted to eliminate the admission fee if the increase is approved by the members. With the advent of computerized records, the cost of enrolling a new member is less than before, and the fee can now be absorbed in the dues increase. The club could not afford to drop the admission fee, however, if the dues increase were not approved. By dropping the fee at the same time that the increase is effective, the first-year cost of regular membership remains unchanged. By limiting the proposed dues increase to regular members, the board has assured that there will be only one increase within a family. (The dues increase would not affect the following membership categories: additional for spouse of regular member, additional for junior family members, student memberships, senior memberships, and additional for spouses of student and senior members.)

As an aid to understanding the magnitude of the club's funding requirements and the costs of club programs, the budget for the fiscal year October 1975 to September 1976 is charted opposite. Each line is numbered, with explanations listed by line number. The "income" column shows gross income from all sources, listed by the activity that generates it. The "total expenses" column includes expenditures of both "hard" and "soft" money. Soft-money allocations are shown also in a separate column. Hard money, derived from dues and from non-tax-deductible sources, may be used for all purposes, including influencing legislation. Soft money consists of tax-deductible gifts, mostly to the Sierra Club Foundation and the Sierra Cub Legal Defense Fund, that are spent for various club purposes, primarily educational, and never for influencing legislation. The "surplus" column lists funds not to be expended this year, but used to restore the club's Permanent Fund, which was impaired seriously a few years ago during a time of financial crisis. We are rebuilding this fund slowly on a scheduled basis. All income from investments and from large bequests is used to restore the fund and may not be used for ordinary operations. Some of the money (line 26) is a reserve that may be spent later in the year for unexpected needs.

Sanford Tepfer, former chairman of the club's membership committee, is now on the budget committee.

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Protectionists, Managers and Exploiters

Brief Reviews of Some New Books on Wildlife

Juanita Alvarez Wint

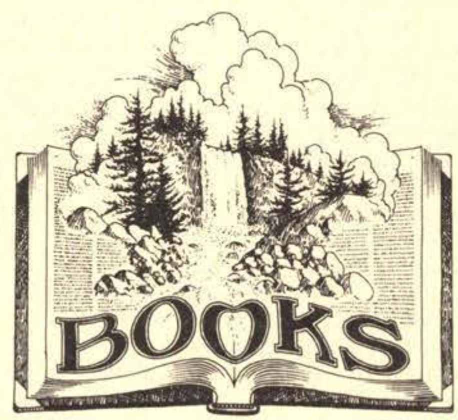
THE PRESERVATION OF WILDLIFE and habitat is among the most vital—and controversial—environmental issues facing the world today. Positions on these questions often are charged with emotion and expressed with fiery rhetoric, making productive discussion difficult, if not impossible. No one can benefit from such an impasse, but the most direct and destructive results are felt by the subjects of concern—the animals themselves.

There are three main camps in the wildlife controversy. At one end of the spectrum are the protectionists, who generally believe that all animals have what is essentially a "right to life." That is, no matter what their relationship to mankind, animals have their own intrinsic value, which entitles them to their existence. Protectionists like animals just as they are, just where they are, and believe that not one should be slain. They also address a broad variety of issues concerning the humane treatment of animals, a subject that other groups often avoid.

At the other extreme from the protectionists are those who may be characterized as "exploiters" of wildlife, viewing and utilizing this resource only in terms of its usefulness to commerce or sport. Uncontrolled exploitation has contributed directly to the decline and even extinction of many species.

Somewhere between these two extremes are the wildlife "managers"—federal and state game wardens, scientists perhaps and according to some definitions, conservationists of various persuasions. The goal of "management" is undergoing a long-overdue revision from the simple one of providing a surplus of animals to be hunted or fished to a more sophisticated one that considers the welfare of entire ecosystems. "Managers" have also begun to recognize "non-game" values, the ecologic, aesthetic and ethical reasons for assuring the survival of species and their habitats. Even so, there are many current practices that will have to be reconsidered before wildlife management can be considered synonymous with wildlife conservation.

A fourth attitude toward wildlife could be characterized as no attitude at all. Although it may come as a surprise to those intimately involved in wildlife issues, there are many people who do not even know—or care—that a controversy is raging, or if they do, may not think it has much to do with them or the price of a silver-fox jacket. These people may not be exploiting wildlife directly, but they may be contributing to the destruction of habitat or the reduction of species through over-exploitation. Consider the contractor who builds a shopping center where migratory birds used to nest or the consumer who buys light-meat tuna despite associated porpoise deaths.



Where does the Sierra Club stand? The comprehensive, environmentally based wildlife policy adopted by the Board of Directors in May 1974 clearly states the club's belief that the single greatest threat to wildlife today lies in habitat alteration and elimination. Although overexploitation accounts for the decline of many species, and in some cases is even the most significant factor, the key to conserving wildlife lies in the continued existence of diverse, nondegraded ecosystems. Wildlife is an essential component of these systems and a barometer of well-being for the entire biosphere. According to the policy, "The better wildlife can be maintained in all of its abundance and diversity, the better the habitat for all life on this earth, and the greater the number of ecological choices for the future."

Although the Sierra Club maintains that within natural ecosystems diversity and numbers of wildlife should be ensured through minimum human interference, it also recognizes situations where the ecosystem has been modified to the extent that appropriate management techniques may be necessary to ensure the protection of wildlife, particularly of rare and endangered species.

Regardless of one's views on how best to preserve wildlife, the fact remains that something must be done quickly. According to Lee Talbot, senior scientist for the President's Council on Environmental Quality, "During the past 150 years the rate of extermination of mammals has increased fifty-five-fold. If [these] exterminations continue to increase at that rate, in about thirty years all the remaining 4,062 species of mammals will be gone." Needless to say, other classes of animals are in little, if any, better shape.

A recent publication that documents the story of over 300 endangered species in a rather straightforward encyclopedic manner is *The Endangered Ones*, by James A. Cox (Crown Publishers, New York, 1975, $14.95). Cox, also the author of a two-volume book on birds published by the National Geographic Society, divides the animals according to both geographic location (North America, tropical America, Europe, Africa, Asia, Australia, island ecosystems and oceans) and class (birds, mammals, reptiles, fish). For each endangered species he provides a case history including habitat description, current numbers, forces that threaten the species and what can be done to save it. Much of the information presented comes from the *Red Data Book of Endangered Species* of the International Union for the Conservation of Nature and Natural Resources. The volume is beautifully illustrated with over 250 line drawings, engravings and photographs, and touches on everything from the short-tailed albatross to the hawksbill turtle. No clear bias is evident, and it is certainly useful as a reference.

Victor Scheffer, author of the widely acclaimed *The Year of the Whale* and *The Year of the Seal*, has now written a book dealing directly with today's changing attitudes toward wildlife management. *A Voice for Wildlife* (Charles Scribner's Sons, New York, 1974, $8.95) presents the traditional rationales for killing animals—subsistence, sport, fur, science—and describes the current wildlife-management system from citizen to federal bureaucracy. To his credit, Scheffer, current chairman of the Marine Mammal Commission, also describes the role that conservationists have played in changing attitudes toward wildlife, resulting in what he calls the "emerging wildlife ethic." Scheffer believes that mankind is coming to appreciate animals for their "contribution

to human life quality." As a result, he says, wildlife managers will listen more to those who want to use wildlife in appreciative, nonconsumptive ways; sport hunting will continue albeit in a more humane and imaginative fashion; and research into new methods of regulating animal populations will receive a substantial share of the money now poured into poisoning, shooting and trapping. Although Scheffer's perception of an awakening wildlife ethic is not novel, the discussion of this phenomenon by a man of Scheffer's reputation is invaluable in bringing about the changing ethic of which he speaks. *A Voice for Wildlife* is one of the first widely distributed works by a universally respected wildlife expert to devote significant discussion to this timely topic.

Taking up where Scheffer leaves off, Lewis Regenstein, executive vice-president of the Fund for Animals in Washington, D.C., has written an angry book, *Politics of Extinction* (Macmillan Publishing Company, New York, 1975, $9.95), in which he recounts the "shocking story of the world's endangered wildlife." Regenstein argues that there is a grand conspiracy against wildlife, and he does not hesitate to name the names, however impolitic, of those he holds responsible whether for profit or pleasure or even for scientific or educational purposes. He cites apathy, or worse, of government agencies and politicians, along with what he sees as the approving eye of some members of the conservation community, as responsible for the current destruction of wildlife. "Only a concerned and active citizenry," according to Regenstein, "can effect the legislative and government action needed to save our wildlife from extinction." Regenstein hardly claims to be an unbiased observer, and his book will certainly make many people uncomfortable, but it is valuable in the way that all such polemics are—shaking up the complacent to thought and, hopefully, action.

The old attitude that the hunter is the mainstay of wildlife conservation is the theme of *An American Crusade for Wildlife* by James B. Trefethen (Winchester Press, Boone and Crockett Club, New York, 1975, $12.50). It is a self-acclaimed "history of wildlife conservation" that largely restricts its coverage to what it regards as the virtues and accomplishments of modern wildlife management as implemented by the "sportsman-conservationist," by which Trefethen means primarily the conscientious hunter and fisherman. Trefethen, himself a "sportsman" and current director of publications for the Wildlife Management Institute, began this work fifteen years ago as a history of the Boone and Crockett Club, a prominent "sportsman" group founded by Theodore Roosevelt. Later, the author chose to develop the book into a history of wildlife in North America. Despite the obvious bias of Trefethen's account and the debatable nature of some of his conclusions, *An American Crusade for Wildlife* provides useful information. It describes an initial period of unbridled exploitation, documents the development of wildlife laws and policies, elaborates on the successes of wildlife-management techniques (notably the white-tailed deer, beaver and wood duck, all, interestingly enough, game species) and discusses the futile efforts of managers to communicate with extremists on both ends of the spectrum. Trefethen names a few names himself, and among them is none other than that master of exposé Lewis Regenstein, by definition a protectionist and therefore a thorn in the side of those Trefethen views as espousing reasonable approaches to wildlife conservation. Trefethen himself grows a bit unreasonable toward the end of the book, however, when he begins to protest too much about the "poor press" received by hunters in recent years. He credits this unfair publicity with creating a complete turnaround in public opinion about hunting; he does not consider the possibility that poor practice, rather than poor press, may have caused this change in attitude. So, this book is a mixed bag. Although partly a defense of hunting and hunters, its accuracy, and even opinions, in many areas should prove worthwhile even for those who may find hunting distasteful.

Moving on to more specific areas, an excellent work on that most maligned of creatures, the coyote, is now available. *God's Dog*, by naturalist-writer Hope Ryden (Coward, McCann & Geoghegan, New York, 1975, $12.50), details the author's often touching, two-year field study of coyote behavior, as well as her views and activities in trying to save this creature from an ongoing extermination program at the hands of ranching

interests. The title refers to an ancient Navajo name given the coyote out of admiration and respect for its beauty and intelligence, and it is in this spirit that Ryden treats North America's most successful wild dog. *God's Dog* is based on scientific data collected by the author, but it is injected with a healthy dose of feeling for the animal as well. There are always two sides to every story, and it is high time that a popular work presented the coyote's side to this one. Ryden is also the author of *America's Last Wild Horses*, a history and description of the current status of this animal.

To Save a Bird in Peril, by David R. Zimmerman (Coward, McCann & Geoghegan, New York, 1975, $9.95), is the delightfully written story of young conservationists who endeavor to save birds threatened with extinction. It tells of a few dedicated people who have developed dramatic new techniques to save the Long Island osprey, Bermuda cahow, whooping crane, Kirtland's warbler, Hawaiian néné goose, peregrine falcon and various European eagles. Zimmerman also describes what he considers to be the most dangerous enemies to the survival of rare birds—public apathy and the inertia of government bureaucracies. He applauds the efforts of conservationists to work around these impediments. The book will be an inspiration to citizen-conservationists as an example of what the individual can do to save our imperiled birds—and all wildlife, for that matter. Its case histories are filled with useful information and beguiling insights. You'll enjoy it even if you have no special interest in birds.

And last, we must pay tribute to one of our own, *Mind in the Waters*, published by Sierra Club Books in association with Charles Scribner's Sons (San Francisco and New York, 1974, $14.95). Assembled by Joan McIntyre, it is "a book to celebrate the consciousness of whales and dolphins." Ms. McIntyre, founder and head of Project Jonah, a dynamic organization dedicated to saving the world's cetaceans, has collected in this beautifully illustrated volume an entire spectrum of information on these intelligent marine mammals. Contributors include, among others, scientists, anthropologists and naturalists. The perspectives range through the history of man's feeling for these gentle creatures as celebrated in fable, poetry and myth, to their present plight at the hands of the whaling industry and also the implications for the future of the planet if we allow whales and dolphins to fade into oblivion. *Mind in the Waters* is at once scientific and humanitarian, beautiful yet frightening. The total effect is moving, hopefully to a point of action.

NO SWIMMING

BIRCH
LAKE HOTEL
SWIMMING 12 MONTHS A YEAR
THANKS TO THERMAL POLLUTION

Water, water everywhere Nor any drop to drink.

SAMUEL TAYLOR COLERIDGE
The Ancient Mariner

"The good news is, the bacteria count is down to one per gallon . . ."

"The way I see it, Captain, if the good Lord had wanted rivers to flow, He wouldn't have given us concrete!"

Franconia Notch

To the editor:

John French's article, "Barreling Through the Notch" in the October issue of the *Bulletin,* correctly identifies as a dilemma the choice of roles traditionally perceived by environmentalists: "whether to oppose a project in its entirety and thus be excluded from the planning process, or, judging that opposition will fail, attempt to work with the planning authority to try to minimize any adverse impacts." The dilemma is real for too many conservationists because they fail to heed the Sierra Club motto—"Not blind opposition to progress, but opposition to blind progress." By assuming that a project may have only adverse impacts, conservationists forfeit important opportunities to make significant contributions to the enhancement of the environment. This point is beautifully documented in the Franconia Notch-I-93 controversy.

Franconia Notch is indeed a "ten-mile valley of incomparable beauty." Unfortunately, its beauty has attracted to it the assortment of commercial establishments which are all too common along our major tourist routes. Among the attractions of the notch listed on an up-to-date Exxon road map are Clarks Trading Post, Natureland and an aerial tramway up Cannon Mountain. In order to walk through the Flume—as we are told hundreds of thousands do each year—one must pay a shrewd Yankee entrepreneur a crisp one dollar bill. The hodgepodge of establishments, the billboards, the traffic—all are a disgrace to the surrounding landscape. Even the symbol of the notch cause—the "Old Man of the Mountain"—is perverse, a crumbling rock ledge held together by pins and cables.

The construction of an interstate through the notch offers environmentalists an excellent opportunity to clean up the area. First, highway planners frequently find it as easy and as cheap to purchase a whole parcel of land as to purchase the specific portion of land they need. If planners can be shown that purchases of whole parcels are in the public interest, and that a managing agency is available, right-of-way acquisition for the highway could result in significant additions to national forest and state park lands. In addition, because of the scenic importance of the notch, scenic easements prohibiting billboards could be secured (by condemnation if necessary) along the entire twelve-mile stretch of highway.

Construction of a carefully planned highway offers a more indirect, but equally significant, method to improve the notch environment. The interstate could be built with no exits between Franconia and Lincoln except to a limited access Route 3 spur to Twin Mountain. The casual tourist could enjoy the mountain scenery at rest areas on I-93; those with a destination in the notch could use the old road but would have to join it either at the northern or southern end of the corridor. To discourage through traffic on this road, it should be closed at the notch, leaving two dead-end access roads. If constructed in this fashion, the interstate would greatly reduce the available traffic on which the crass commercial operators thrive. At the same time, those who enjoy using the recreational resources of the notch would be able to avoid much of the congestion and confusion created by the more casual tourists. Interpretive services and short hiking trails could be provided at the rest areas by the state parks department. These services would help less sensitive travelers learn of the beauty and the significance of the mountain landscape.

This blueprint for improvement may seem naive to some, or perhaps heretical. However, I believe strongly that environmentalists must now actively begin to seek creative ways to manipulate the forces of change, not just to mitigate their adverse effects, but actually to make the forces of change produce beneficial results. What I believe we need is: (1) faith that our technology, so frequently destructive, can in fact be adapted to improve a given environment and (2) a willingness to nurture a relationship of trust with officials currently in leading adversary roles. If we truly believe that all four-lane interstates must inherently be disasters, we leave no room for a best plan other than no plan. And if we approach highway planners with this attitude, there is little chance they will share their trust with us. What is needed is a communication of goals and values—a communication which should yield a final design much more beneficial than the original project.

Charles R. Carmalt
Raleigh, North Carolina

John French III responds:

I couldn't agree more with Mr. Carmalt's positive philosophy, so well expressed in the last paragraph of his letter. As for the notch road, my personal preference is also to close the road entirely at either end of the park and limit vehicle access, if any, to small electric buses. However, this seems to be as difficult to achieve as would be Mr. Carmalt's proposal to eliminate the commercial establishments he describes. To clarify his point, I should mention that all these establishments are south of the park entrance and do not interfere with enjoyment of the Franconia Notch Valley itself.

According to Paul Bofinger, president of the Society for the Protection of New Hampshire Forests, "Admission to the Flume is $1.25 for adults, 75c for children aged 6-12. This includes an optional bus ride which saves a mile or so of walking. The revenues go to the state's general fund. State-park maintenance and operating monies come out of the general fund, but there is no direct connection between the income and expenses." The toll does not apply to hikers who enter the Flume at its upper end as they come off the Franconia Ridge Trail. The relatively modest limits imposed on access to the Flume have helped preserve this treasure from destruction through overuse.

On two points I must strongly disagree with Mr. Carmalt. First, and most important, any four-lane road through the notch will be disastrous regardless of whatever incidental beneficial effects it may have. Every benefit he suggests could be achieved with less than four-lane construction. The impact of high-speed travel through the notch will forever diminish its aesthetic, historical and environmental values. Only a tunnel through the three-mile area of greatest fragility will preserve the notch, but, as that is unachievable, the less improvement one makes to the existing road, the better the land will be preserved.

Second, the Old Man is made of granite ledges several million years old; he is certainly not "crumbling." But he does have a tendency to slide, and his still firm features will indeed obey the laws of gravity if heavy construction takes place within his vicinity. If this can be avoided, I expect he will be around for at least as long as the rest of the Franconia Range.

Riverrunner's Library

To the editor:

I was pleasantly surprised that the authors of "A Riverrunner's Library" recognized my obscure work as the first comprehensive California river guide. Contrary to the statement that it is not readily available, it has always been available as an appendix to a free, state publication, but it should not be used as a river guide. It was hastily assembled for a river conser-

HAROLD BRADLEY DIES

The death of Harold C. Bradley at ninety-seven, the fifth honorary president of the Sierra Club, on January 4, 1976 in Berkeley, California removes from the club's ranks yet one more member with a direct link to its beginnings. Harold's father, Cornelius, was one of the signers of the club's articles of incorporation in 1892, and John Muir was a family friend who often visited the Bradley home. Thus, Harold was involved with the club from childhood on, remaining an active member during his service from 1906 to 1948 as professor of physiological chemistry at the University of Wisconsin Medical School. On his retirement, he returned to Berkeley and, from 1951 to 1961, served on the club's board of directors. During this period, he conceived of the wilderness cleanup campaigns that were the forerunners of the current service trips. From 1957-1959, he served as president of the club; on his retirement from the board in 1961, he was elected an honorary vice president, holding that post until his election as honorary president in December, 1974.

Larry Dawson

The Bradley tradition of outdoor and conservation activism is being carried on by his second wife, Ruth Aiken Bradley, and his sons Charles, David, Joseph, Richard, Stephen and William and their children. They have requested that a Harold C. Bradley Memorial Fund be established in The Sierra Club Foundation.

SIERRA CLUB ELECTION

Each year, the annual national election of the club is held on the second Saturday of April as prescribed by the bylaws. On April 10, 1976, five directorships and a dues-increase proposal will be at issue. A ballot, information brochure and return envelope (not postpaid) will be mailed by March 5 to each eligible member. Packets for members living outside the United States will be sent airmail. With the exception of junior members (under 15 years), all those listed in club records as members in good standing as of January 31 (about 155,500) will be eligible to vote.

The ten candidates for directors are, in order of appearance on the ballot: John M. Broeker, Abigail D. Avery, Kent Gill, Leslie V. Reid, William R. Ginsberg, Mark Ganopole Hickok, David Bedan, Edgar Wayburn, Ellen Winchester and Marvin W. Baker, Jr. Members should vote for not more than five candidates.

The information brochure will contain a statement from each candidate regarding pertinent background and his or her views as to the direction the club should take, together with a picture. It will also contain the text and arguments regarding the dues-increase proposal to raise the dues payment for regular members to twenty dollars.

If you do not receive a ballot by mid-March, or you mismark it, do this: Write a note of explanation to the following, and enclose the voided or mutilated ballot if you have it: CHAIRMAN, JUDGES OF ELECTION, Sierra Club, Department E, 530 Bush Street, San Francisco, California 94108. If addressed any other way, it will get delayed attention. After appropriate checking, an attempt will be made to send you a replacement ballot in time for it to be returned by the date of the election. This procedure is under the control of the Judges of Election. Ballots are to be mailed back to Elections Committee, Sierra Club, Post Office Box 2278, Oakland, California 94621. They will not be opened until the time for counting.

Lewis F. Clark
CHAIRMAN, JUDGES OF ELECTION

vation program, but as a guide is dangerously sketchy and out of date.

Your article overlooked *Canoeing Waters of California* by Ann Dwyer, also a Sierra Club member and active in both river touring and family canoe outings. This booklet includes prime central valley runs from the point of view of a capable river canoeist—runs that are not included in the excellent works of Martin and Schwind.

The review did not adequately warn readers about *Down the Wild Rivers* by Thomas Harris. The concern among experienced boaters is not that the author has not made enough runs on some rivers, but that it appears there are too many river sections that he doesn't seem to have run at all! More alarming than the omission of outstanding hazards and rapids is misinformation, including authoritative statements that lead the reader to believe that several runs are easy or safe when they actually have serious hazards and that several questionable canyons contain "runs" when significant portions have heretofore been considered unrunnable. What we find most shameful is that some of these problems occur in new material in the so-called "revised" edition after the editor had been advised of the book's shortcomings.

While paddling fatalities are but a small portion of California's 800 recreation-related drownings each year, rafts and inner tubes have accounted for more than 70 fatalities during the past three years, concomitant with the flurry of publishing activity and accelerated growth of the sport. The typical victim is a man, 25 years of age, running a river seemingly so easy he won't see any need to wear a lifejacket. The majority of people that want guidebooks to learn *where* to run rivers really need to know *how* to run rivers.

Carl Trost
San Francisco, California

An Unrecorded Chapter of Sierra Club History

To the Editor:
An impression prevails today that the Sierra Club's influence nationwide has been felt only since its expansion with chapters all over the United States. Not so, as an incident in the 1930s proves.

Pressure was being brought to bear to enlarge the public domain adjacent to the southeast boundaries of Sequoia National Park. Both the Park Service and the Forest Service were very desirous of acquiring the vast acreage. A six-foot-two gentleman named Morse, then head of the Forest Service in California, sought support from the Sierra Club and extended an urgent invitation to Ernest Dawson, then president, and to eight or ten offi-

cers of the club, to be the guests of the U.S. Forest Service on a week's horseback trip from Big Meadows, offering a first-hand inspection of most of the territory involved.

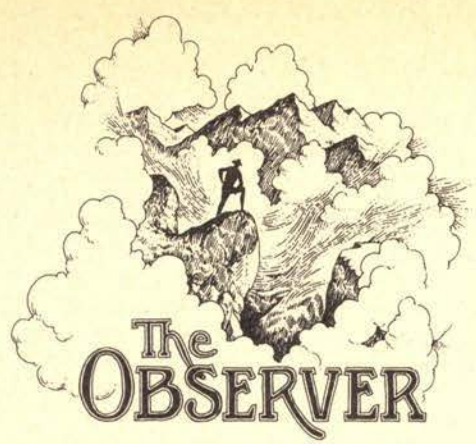
Ernest and I had just returned from our separate vacations and at first refused; then, I became intrigued and relented, after including a foremost local Sierran as companion. Ernest had wired six or eight officers of the club living in northern California [about the offer] but all turned it down because of vacations. Then, suddenly, all changed their minds and went, thinking the Forest Service would take it as an insult if no one responded. The photo, recently found, shows a dozen loyal members, plus the cook. It was taken at Scaffold Meadow in Sequoia National Forest, July 9, 1936. We held nightly campfires for discussion, after a daily horseback effort of about

Scaffold Meadow, Sequoia National Forest, July 9, 1936. Front row (L. to R.) Wood, Bernays, Hildebrand, Starr, Barnum, Elliott, Gibson. Back row (L. to R.) Hawkins, Morse, Brown, Friedhoff, Price

fifteen miles. Morse, who followed behind me, said that I rode about as far up as I did ahead! Groans, amid the talks at campfire, were audible, but a grand time was had by all.

The decision was unanimous for Sequoia National Park. The foresters were good sports as hosts, after giving us a never-to-be-forgotten experience. It was one of the earliest instances when the Sierra Club's endorsement was sought.

Philip S. Bernays
Sierra Club President 1930-1931
Laguna Hills, California



Robert A. Irwin

TO A REGULAR at such affairs, the Sierra Club Board of Directors' meeting of December 13-14 ostensibly differed little from any of the others of recent years. As usual, its crowded agenda called for action on, or attention to, a host of environmental or organizational issues. Nevertheless, that meeting was a historic one, the first ever to be held in the club's new headquarters at the San Francisco Environmental Center, 530 Bush Street. For nearly three-quarters of a century, the Sierra Club had been quartered in the Mills Building down the street. The semi-chaotic state of the new headquarters, with the building still under reconstruction, lent a feeling of drama to the meeting. The ragged, unfinished surroundings in the William E. Colby Library—knobless doors and ceilingless ceilings—provided a stark setting. The whole scene seemed to symbolize the forces both for change and for stability within the club. Physical change was abundantly evident. Stability underlay the surface confusion; the board in its deliberations was hewing to the same basic values and goals as those of the club's founders.

Seventy years earlier, the same William Colby for whom the library is named was serving as club secretary. In the June 1905 issue of the *Sierra Club Bulletin* he reported on the fiscal year ended May 6, 1905. The club, in his words, had completed "one of the most prosperous and encouraging years . . . and has been engaged in some of the most active and effective work since its organization." One of those accomplishments was the California legislature's returning of Yosemite Valley to the federal government "largely through the efforts of the club." Total membership stood at 858. In the same issue Treasurer Joseph N. Le Conte reported total receipts for the year at $3,049.13 and $100 on deposit in the club's permanent fund. Today, when membership exceeds 152,000 and annual receipts amount to $5.5 million, one must wonder at Colby's words, "prosperous and encouraging." Yet the club, as small as it was, did make waves. John Muir, Colby, Le Conte and all the rest of that small band of mountaineers and conservationists succeeded remarkably in attaining their goals. Out of their tireless volunteer efforts, Yosemite and other national parks and preserves on the West Coast were established.

Club's Number One Asset—Volunteers

The Sierra Club in the 1970s is following in the footsteps of those conservation pioneers. Its concerns have become global and have spread from wilderness alone to man's *total* environment. Its basic purpose, however, remains constant: to assure a natural, balanced environment for all forms of life. To accomplish that purpose, the Sierra Club depends upon a corps of experts from a multitude of special fields and geographic areas, and all of them, except for a handful of staff people, are unpaid, volunteer club members. At the December meeting they were present in impressive strength—all fifteen directors; two or three dozen members of national committees, subcommittees and task forces; and many others. They reported on and/or dealt with problems of club finances, Alaskan oil and gas lines, solar energy, inflation and unemployment, coal-slurry pipelines, family-farm legislation—and on and on. Their contribution of time, talent and wisdom has been the greatest asset of the club and has made it unique among conservation organizations.

As vital as the work of volunteers is nationally, at chapter and group levels it is absolutely essential. Strength at the grass roots nourishes the whole club. The day-to-day operations of club headquarters and the overall direction of the club are in the able hands of a full-time staff; not so for the chapters and groups, where virtually all work must fall on volunteers. (Some of the larger chapters have hired office help, mostly part time.) While lots of people really want to help, too many obstacles seem to come between

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would-be volunteer and job. One of the barriers is poor communications of what and who are needed. Another is a too-thinly-spread leadership, so busy with immediate, urgent tasks that it has no time to recruit or train any assistants. A third may be satisfied, entrenched cliques that see no need to involve new people, to develop leadership in depth. Whatever the cause of the failure to tap willing and able talent, the chapter or group suffers. Essential work is not done. And most damaging of all, disillusioned members who wanted to become involved finally just fade away.

Why They "Walk Away"

In one of the ablest pieces of reporting I have seen in my thirty years in journalism, Pauline Sortor interviewed rank-and-file members of the San Francisco Bay Chapter who had "walked away" and had either quit or become inactive. After six weeks and several dozen interviews, a certain pattern emerged. She selected six examples for her article last June in the chapter newsletter, *The Yodeler*. Half had quit the club either for policy reasons or for lack of involvement. But the others wanted to work. One, a member of several years' standing, was bitter. She told how she had kept trying to volunteer and how always the "someone who would call her" never did. The other two, both law students and both "not needed," were a bit calmer. One, a little miffed by a chilly refusal of her offer of legal-research assistance, did not see any point in just paying dues, so she quit. The other student, who is full of fresh ideas and who has questions that cry out for answers, could be making contributions to chapter and club. Instead, he is sitting idly, "unneeded" on the sidelines.

Sortor concludes her article with the following observations:

> The Bay Chapter is composed of 24,000 very different people. Yet there is probably more talent, experience and wisdom concentrated in this one group of people than anyone could afford to hire in the open market place. To the extent that we let this human "natural resource" go to waste, by focusing an inordinate amount of energy on trying to maintain "the way we were," by refusing to admit and commit the young and enthusiastic to the hierarchy of organization; to that extent, we are catering to the human impulses that have already wreaked such havoc in the natural world—the desire for power, for position, for a moment in the sun.

Sortor's article touched off an avalanche of letters to the editor in the following issues of *The Yodeler*. A healthy dialogue ensued between "insiders" and "outsiders." The outsiders recounted their discouraging rejections, one asking why would-be volunteers found it so tough to give away their human, but not their financial resources. The insiders agreed that the waste of talent was lamentable, but urged people to keep trying. One longtime insider, however, urged the club's leaders to take *affirmative action*. It's not enough, he said, merely to say, "We're here, get involved," or later on, "Have patience." The club and chapter hierarchy, he continued, should start explaining specifically how one can get involved . . . start using the talent that's out there by making it comfortable for people to break into the "in" group.

Ways to End the Waste

The offense of wasting human resources is common to all institutions, particularly to volunteer organizations such as ours. And the Bay Chapter, the largest and one of the oldest in the club, is not necessarily the greatest offender. Its open, lively airing of the problem indicates that it is a far piece from becoming ossified. Other chapters and groups—large and small, old and new—also waste talent. Most of them realize it and are trying to do something about it. A column in the newsletter of the 700-member Hawaii Chapter asks why it seems that "the same old people end up doing everything." It goes on to suggest that the insiders make some real efforts to get the outsiders in. The executive committees of a number of chapters (Toiyabe, San Diego, Redwood, Great Lakes, Uinta and others) are considering either reorganization or reforms to improve communications, increase dialogue and get members involved. Among the ideas:

- Holding new-member parties and orientation meetings;
- Beefing membership talent surveys, with prompt and thorough followups;
- Beefing up of committees—no more one-person shows;
- Making positive efforts to encourage rank-and-file attendance at executive committee meetings and seeing that its actions are reported in newsletters;
- Establishing priorities and setting goals within reasonable reach of the available manpower limits of the membership; and
- Developing techniques to make it easy for people to volunteer.

What You Can Do

If you, a would-be activist, feel left out, you should not heap all the blame on the insiders or old timers. Most of them are trying to get you involved. They do need you. One important first step for you is to keep yourself informed on what is going on. Besides the *Bulletin* and your

SOURCES FOR CLUB ACTIVISTS

Besides the *Sierra Club Bulletin* and chapter newsletters, a variety of other club publications are available, all from the Sierra Club, 530 Bush Street, San Francisco 94108, unless otherwise noted. Some are aimed at particular audiences. Some cover special subjects. All can help members become better informed environmental activists.

- *National News Report,* a four-page review of national environmental and club news and of legislation, often with backgrounding inserts. Mailed each Friday first class. $10 a year.
- *Population Report,* a monthly newsletter on national and world population problems and issues. Along with other source materials, it is available free from Judith Kunofsky, the club's Population Coordinator.
- *Council Newsletter,* an eight-page quarterly publication of the Sierra Club Council, primarily for volunteer club leaders, but also of interest to members at large. Free. Write to P.O. Box 30222, Santa Barbara, California 93105.
- *Energy Newsletter,* an eight-page occasional publication of the Conservation Department. It is available free, but donations are appreciated. Write to Eugene Coan, the club's energy consultant.
- *Alaska Report,* a bi-monthly newsletter available at no cost from Marcia Fowler, Alaska Task Force, Sierra Club, 530 Bush St., San Francisco, CA 94108.
- *International Report,* an "occasional paper" covering the club's role in global environmental issues and projects. Free, from the Sierra Club, Office of International Environment Affairs, 77 United Nations Plaza, New York, N.Y. 10017.
- *Somebody DO Something!* A lively, six-page environmental bi-monthly for children and their teachers. $1 for six issues, from the club's Information Services.
- *Reprints, Resource Sheets, and Handbooks,* a list of a wealth of environmental resource material available free or at modest cost, from Information Services.
- *The Sierra Club Political Handbook, Third Edition,* a 37-page guide through the federal legislative and bureaucratic jungle. From the Chapter Services Office, 50c.
- *The Grass Roots Primer,* the long-awaited, 288-page handbook for green activists. It details nineteen case histories of environmental battles led by concerned amateurs. Distilled from those cases is a step-by-step strategy for successfully conducting such campaigns. $7.15, paper only, Sierra Club Books.

chapter's newsletter, there are a number of other informative Sierra Club publications available. (See accompanying box.)

Also, don't underestimate yourself and your ideas. Introduce yourself. Speak up at meetings. Try to volunteer to do a specific job, preferably one of limited responsibility at first; and be sure to nail down your "employer" on the details.

Good luck! And with just a little of it, you'll be "in" and the club will have stopped wasting your talent.

Kent and Donna Dannen

CAN YOU HELP?

The October, 1975, Observer column on the organization of various statewide conservation coalitions has prompted an appeal for help in gathering information on all such groups that maintain any kind of contact with state governments. The column had reported on the work of Jerry Wray and Judy Groves, both of the Great Lakes Chapter, in establishing a lobbying coalition, the Illinois Environmental Council. The other chapter alluded to was Connecticut. Lack of space unfortunately eliminated reporting the efforts there of Patricia Felton and Ruth Bowers in helping to organize about forty-five of their state's conservation groups into an "Environmental Caucus," which regularly confers with the governor and other officials on conservation matters.

Now, Steven Parker, Assistant Professor of Political Science at Western Illinois University, Macomb, Illinois 61455, is asking for feedback from other chapters. Can you help a fellow Sierran? He is seeking to bring together in one publication data on and analyses of statewide environmental organizations. He calls his project a "strategy clearinghouse for ecology-oriented public interest groups." All that Parker needs now is the name and address of the group and one quick paragraph on what it does—not, he emphasizes, a lengthy treatise. Please send the information directly to him at Macomb, Illinois.

ON THE ROAD WITH "J MUIR"

If J MUIR would have given approval to the use of his name on any motor vehicle, it is probable he would have allowed it on Scott Kruse's Volkswagen, which gets a commendable forty miles per gallon. Photographer Kent Dannen of Estes Park, Colorado, spotted the plate last summer outside the eastern district office of Rocky Mountain National Park. (Dannen is the author/photographer of a 1973 book on Muir, *The American Wilderness in the Words of John Muir.*) Kruse at the time was serving as a summer backcountry ranger at the park. At the age of twenty-five, Kruse has probably had more wilderness and environmental experience than most people twice his age. He is now chief of research at Earth National Park Ecological Consultants and is working on an M.S. in Natural Resources at Humboldt State University, in Arcata, California. Since 1968, when he joined the club, he has worked as a fire fighter and wilderness ranger in state and national forests and as a fish and game field researcher, all in California. Late in the summer of 1974, after having served as ranger at Isle Royale National Park in Michigan, he steered his J MUIR-plated VW into central Wisconsin in search of Muir's boyhood haunts. In every case, the initial reticence of the conservative, aged guardians of the Muiriana of Marquette County vanished when they spied the J MUIR plates. Kruse was able to find idyllic little Muir Lake, the site of Muir's first home in America, and Muir's second home, still standing, beside a country road several miles away. Ever since Kruse got the plates in March, 1971, they have been opening doors for him—as well as attracting a few hefty body blows to his "Bug" in enemy territory! The California auto registration system allows a motorist to purchase plates with up to six letters of his own choosing for an initial fee of $25 plus $10 a year thereafter. The money goes into the state's environmental protection fund. For that purpose and for environmentalist Kruse, what combination of letters could be more apt than J MUIR?

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News

Toxic substances control

Legislation to control the thousands of hazardous chemicals now in use and to require testing of new chemicals before they reach the market continues to be a primary objective of the Sierra Club and other environmental groups. Mark-up of S. 776, the latest version of the Senate bill on toxic substances control, continues in the Senate Commerce Committee. The staff working draft of this bill, sponsored by Senators Tunney, Hart and Magnuson, is strongly worded, and consequently under considerable fire from industry. The House Subcommittee has completed action on H.R. 10318, which is a definite improvement over past House bills although it is not as strong as the Senate bill on pre-market testing. Timing of mark-up in the full House Commerce Committee is uncertain and may not occur until late February or March. Although the Administration continues to support the basic purposes of and need for this legislation, it supports a more conservative approach than that endorsed by conservationists. *Club members should voice support for a strong bill in both houses and oppose the inevitable weakening amendments.*

Wolves under the gun in Alaska

At press time, the Alaska Department of Fish and Game had exterminated all but two wolves in Unit 13, a 3,000 square mile area of public lands near Mount McKinley, and intended to proceed with similar wolf "control" programs in two other such areas. Conservationists had protested the hunt both to the state and federal agencies involved, claiming that such a "highly controversial action" necessitated an environmental impact statement under the terms of NEPA. A lawsuit by environmental groups was being prepared at the time of the hunt, which had not been scheduled to begin until February 1. Hopefully, the suit can be filed in time to enjoin further killing. Executive and congressional actions are also possible, and club members are urged to write to President Ford and their congressional representatives asking them to exercise their power to prevent this and all such questionable "management" actions by states on federal lands.

Regulations bode ill for porpoises

Final federal regulations on the incidental taking of porpoise in the course of commercial "purse-seining" for tuna announced December 5 are regarded as grossly inadequate by conservationists. Although environmentalists had recommended a quota on porpoise deaths and a full observer program, the regulations order no quota at this time and only a 10% observer program. A quota may, however, be instituted in May if observer information then indicates that the killing of porpoise during 1976 is likely to be higher than 70% of the 1975 kill. The 1975 figure is now estimated at about 130,000 animals, which far exceeds the maximum set last year of 85,450. The Marine Mammal Protection Act of 1972, under which current regulations were promulgated, calls for reduction in marine mammal mortality incidental to commercial fishing operations to "insignificant levels approaching zero."

Coalition sues NRC on plutonium recycling

The Natural Resources Defense Council, representing the Sierra Club and other environmental groups, filed suit December 19 to halt the Nuclear Regulatory Commission (NRC) from licensing the use of plutonium fuel in American nuclear-power plants. In May, 1975, after the Atomic Energy Commission (predecessor to NRC) was forced by another suit to do an environmental impact statement (EIS) on plutonium recycling, and after the resulting EIS was strongly criticized by the Council on Environmental Quality (CEQ), NRC agreed to prepare a supplement dealing with the critical questions of diversion and safeguards. In a decision applauded by environmentalists, NRC agreed at the same time that no licenses would be granted permitting construction or operation of reprocessing facilities until the safeguards questions were resolved. Suddenly, apparently under great pressure from the nuclear industry and the administration, NRC reversed itself, stating that it would grant "interim" licenses for plutonium recycling, that hearings on the final EIS would not permit cross-examination and that the EIS would be issued in two parts—one dealing with "environment and safety" and a second dealing with safeguards. The environmental groups contend that these decisions are contrary to the Atomic Energy Act and the National Environmental Policy Act.

Porpoise film available from EDF

The Last Days of the Dolphin, a film on the tuna-porpoise problem produced for the Environmental Defense Fund by Stanley Minasian and narrated by Dick Cavett is now available for purchase or loan. Much of the film was taken aboard tuna purse-seiners, and it stresses the need for effective regulations. Also included are interviews with spokesmen from government, industry and the environmental community. For information, contact the Environmental Defense Fund, 2728 Durant Avenue, Berkeley, CA 94704.

Action near on clean-air amendments

Congress is expected to vote soon on amendments to the Clean Air Act (See November/December 1975 *Bulletin*). In the House Commerce Committee and Senate Public Works Committee, lobbyists for utilities and industry are attempting to persuade members to weaken clean-air standards. It is notable that existing federal standards are those believed, given our current knowledge, to be the necessary minimum to preserve human health and welfare. Any proposal to permit deterioration to these levels is essentially a policy that allows air to be as filthy as can be tolerated rather than one that requires it to be as clean as possible.

News

Compromise energy act becomes law

On December 22, President Ford signed into law the compromise Energy Policy and Conservation Act. Its provisions include: (1) automobile fuel-economy standards to achieve an almost 100 percent improvement over the 1974 industry average; (2) energy-use labels and energy-efficiency targets for major home appliances and other consumer products; (3) energy-efficiency targets for industry; (4) grants to states to carry out energy-conservation programs; (5) requirements that federal agencies assess the energy impact of their actions; (6) energy-efficiency standards for federal agencies; (7) an education program on the need for energy conservation; and (8) a ten-year energy-efficiency plan for federal buildings.

Airports and NEPA

A version of Section 8 of the Airport and Airways Development Act amendments that would reduce by about half the number of airports required to prepare an environmental impact statement (EIS) under the National Environmental Policy Act is now being considered by the Senate. If passed, up to seventy EISs currently being prepared could be halted, including the one for San Francisco International Airport required by federal court order. The Senate Commerce Committee is expected to take up the bill soon, and letters to committee members urging that Section 8 of this bill be changed to conform with NEPA are needed. The House version of the airport bill passed on December 18 without the NEPA exemption.

Hells Canyon bill signed into law

On December 31, President Ford signed the bill creating a 662,000-acre Hells Canyon National Recreation Area (NRA) around the famous gorge of the Snake River on the border between Oregon and Idaho. The bill passed the Senate unanimously in June, and the House in November by a vote of 342 to 53. It creates a 662,000-acre Hells Canyon NRA to be managed by the Forest Service primarily for its recreational and scenic values. A sixty-eight mile segment of the Snake River and part of the adjoining Rapid River immediately become units of the national wild and scenic rivers system, while the rest of the 101 miles of free-flowing Snake River are placed in the "study" category, which prohibits dams. The lands within Hells Canyon itself—almost 200,000 acres—are designated as "instant wilderness," and another 110,000 acres of roadless area are designated as wilderness-study areas. The entire NRA is withdrawn from further mining claims.

Club testifies on Alaska lands

Testifying before the Senate Interior Committee, the Sierra Club's Alaska Task Force chairman, representing the Alaska coalition, urged support of S. 1688, which would set aside 106 million acres in Alaska for inclusion in national park, wildlife refuge, national forest and wild and scenic river systems. He urged the committee to direct the Interior Secretary to limit mining and off-road-vehicle access until Congress has decided the future of Alaskan federal lands. Another problem is that the state has chosen about 7.5 million acres that conflict with the national-interest proposals in S. 1688, and Interior continues to transfer title to various lands despite the conflict.

Mining halted temporarily in Glen Canyon NRA

The Sierra Club and two Utah residents, Ruth Frear and June Viavant, obtained a temporary restraining order December 15 from the United States District Court in Salt Lake City to prevent drilling scheduled to begin the same day on a group of uranium mining claims located in the Glen Canyon National Recreation Area. The Tiffany Claims are owned by Geodyne Resources, a Canadian firm. Plaintiffs petitioned the court to reopen a case that was terminated last year when an independent oil company agreed not to pursue drilling operations on leases it held in the same area. (For more on mining in the National Park System, see page forty-one of this issue.)

The New River can still be saved—letters needed now

A ten-year conflict between conservationists and utility companies over the fate of the New River in North Carolina may be resolved by March 1, 1976. To avert construction of a huge pumped-storage power project which would dislodge nearly 3,000 mountaineers from their ancestral homes, flood some of the richest food-producing bottomlands in the Blue Ridge area and destroy forever one of the most beautiful river valleys in America, the North Carolina General Assembly voted unanimously to take the threatened segment of the New River into the state's scenic rivers system. North Carolina Governor Holshouser then presented the state's plan to Secretary of the Interior Kleppe. Kleppe has the power to make this same stretch of the river a part of the national wild and scenic rivers system. Such an action would in all probability kill the power project. Miles O. Bidwell, Chairman of the club's Foothills Group, which has been intimately involved in the struggle to preserve the New River, said "From now until March 1, when Secretary Kleppe makes his decision, it is crucial that he receive a flood of mail from all parts of the country. Now is the time to make it clear that concern over the fate of the New River is not limited to North Carolina." Address: Thomas S. Kleppe, Secretary, Department of the Interior, Washington, D.C. 20036. Copies should go to President Ford.

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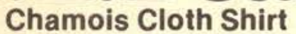
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News

Pesticides

More fireworks on pesticide issues can be expected this year in Congress as a result of EPA Administrator Russell Train's December 24 decision to suspend chlordane and heptachlor. Train suspended most uses of these two pesticides because they pose a cancer risk to humans, even though an earlier judicial ruling recommended non-suspension. *Letters are urged to Mr. Train applauding his courageous decision to suspend registrations for chlordane and heptachlor.* A substantial weakening of EPA's authority to regulate pesticides was narrowly averted in Congress earlier this year.

Synthetic fuel loan guarantees

A significant victory for the environment was won when the House voted by overwhelming margins on December 11 to strike Sections 102 and 103 of the Conference Report on H.R. 3474, the Energy Research and Development Administration Authorization. These two provisions would have authorized a joint oil shale project and provided up to $6 billion in federal loan guarantees for commercial oil shale and coal gasification plants. The Senate agreed to the deletion and the bill was signed by the President without Sections 102 and 103.

Club News

Board opposes Alaskan gas-pipeline routes

Among the actions taken by the Sierra Club Board of Directors at its December 13-14 meeting at the club's new headquarters in San Francisco were the following:

- Recommended that "natural-gas transportation routes in Alaska be confined to presently designated and developed utility corridors and that no significantly new utility corridors be developed for transportation of natural gas in Alaska." (See "Washington Report.")
- Opposed pending legislation that would grant the right of eminent domain to builders of coal-slurry pipelines.
- Favored taxes and other government policies to encourage development of existing solar-energy technologies, especially for space heating and cooling.

The board also approved the concept of a proposed interim policy statement on solar energy, pending the completion of a final policy. The interim policy favors the rapid development of solar-energy technologies while recognizing the need for comprehensive regional and national energy planning, land-use planning and environmental-protection programs in solar-facility siting. In addition, Congress and state legislatures are urged to provide sufficient funding to demonstrate the technical, environmental, and economic feasibility of solar-energy applications, providing that such research is carried out with appropriate environmental protection and only in areas of minimal potential impact.

Clinch to head Sierra Club Foundation

On January 1, Nicholas Clinch, an active Sierra Club member since 1952, took over as executive director of the Sierra Club Foundation. Clinch has been involved in club chapter, council and national committee activities, and is active in the California League of Conservation Voters. He is an attorney specializing in government contracts and leaves a position as vice president and council secretary of a large savings and loan association to head the Foundation staff. The Sierra Club Foundation raises tax deductible funds for various conservation programs, especially nonlegislative and educational activities. Clinch said, "I hope to greatly increase the effectiveness of the Foundation in its fund-raising efforts in order to provide a broader support for the various educational projects of the club."

Brock Evans elected NRCA vice president

Brock Evans, director of the Sierra Club's Washington office, was recently elected vice president of the Natural Resources Council of America (NRCA). The NRCA is a coordinating body of the country's top national and regional conservation groups and technical societies. The council promotes the sound management of natural resources in the public interest. Members include such groups as the American Forestry Association, Defenders of Wildlife, National Audubon Society, National Wildlife Federation, Sierra Club, the Izaak Walton League, the Wildlife Management Institute, and The Wilderness Society. Evans has directed the club's Washington office for three years and served as Northwest regional representative prior to his Washington appointment.

Sierra Club members win Mitchell prizes

Club members Bruce Hannon of Illinois and John Tanton of Michigan were awarded the first and third prizes, respectively, in the Mitchell international competition for papers contributing to the debate on "problems inherent in the transition from growth to equilibrium of population, material consumption, and energy use." Hannon, a member of the National Energy Policy Committee, wrote on "Energy, Growth, and Altruism." Tanton, a member of the Population Committee and its former chairman, discussed "International Migration as an Obstacle to Achieving World Stability."

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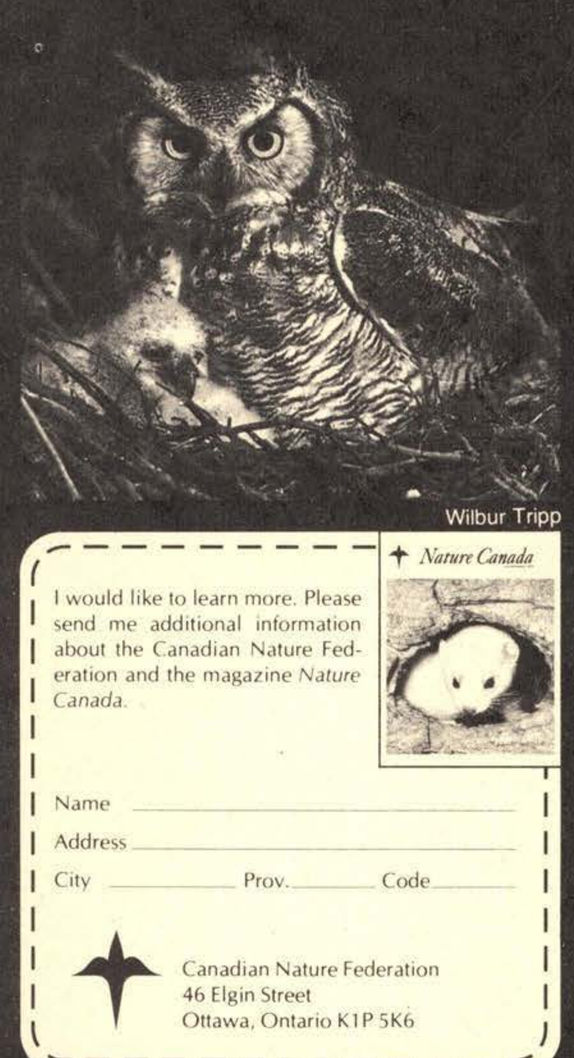

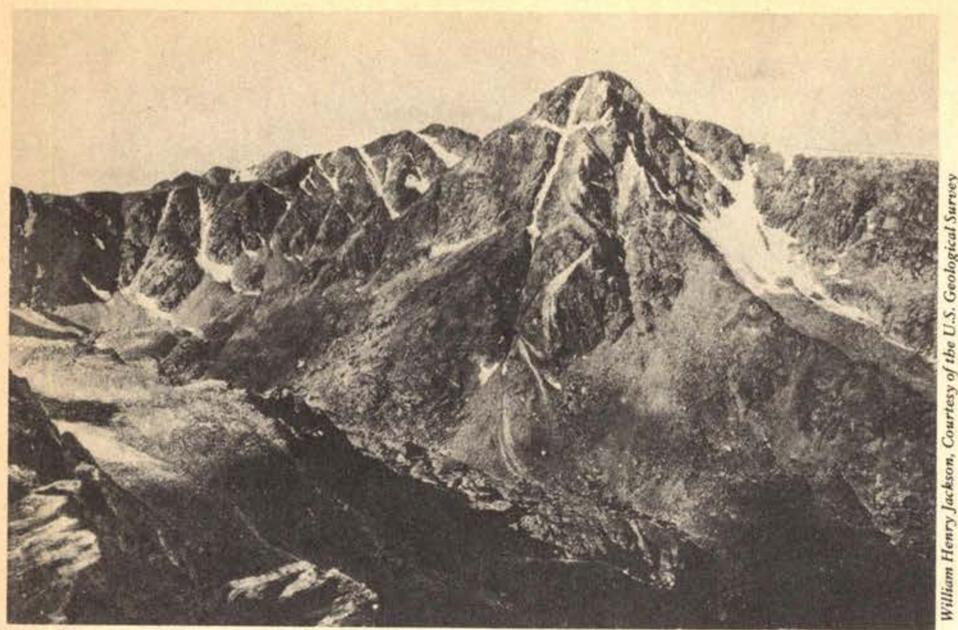

William Henry Jackson, Courtesy of the U.S. Geological Survey

CRUSADE FOR HOLY CROSS

ELEANOR STERLING

THE COVER of the June/July issue of the *Bulletin* featured a painting of Colorado's Mount of the Holy Cross, at one time perhaps the most celebrated peak in America. The artist was Thomas Moran, the nineteenth century painter whose work glorified the frontier wilderness and was instrumental in creating a climate of opinion favorable to the creation of national parks and the preservation of wilderness. No doubt Moran, were he still alive, would be pleased to learn that the area surrounding the Mount of the Holy Cross stands a good chance of one day being included in the national wilderness preservation system. On October 9, 1975, John McGuire, Chief of the United States Forest Service, recognizing exceptional circumstances, agreed to return 5,000 acres in the Holy Cross area for wilderness review. This decision was in response to an appeal by the Sierra Club Legal Defense Fund and the state of Colorado; the land in question had been removed from the review area by the Regional Forester on behalf of Vail Associates, who plan to develop nearby acreage as the Beaver Creek Ski Area, a recreational use that could well be incompatible with the wilderness character of the Mount of the Holy Cross study area. Chief McGuire's decision reaffirms the Forest Service's own policy that wilderness-quality lands should not be turned over to incompatible uses before a wilderness review has been completed.

Periodic episodes of controversy are nothing new to the Mount of the Holy Cross, which was known at first only through the tales of mountain men of a fabulous peak somewhere in the Rocky Mountain wilderness that bore on its flanks an enormous white cross. It remained legendary for many years largely because of its extraordinary inaccessibility, because its cross was obscured by another peak (Notch) and because it was misplaced by thirty miles on early maps. Then, photographer William Henry Jackson led his camera-laden mule through the area in 1872, climbed Notch, and took the most famous mountain photograph in American publishing history—a glassplate of the rocky, naked peak upon whose precipitous face three enormous intersecting crevices trap perpetual snow in the form of a shining cross, proving to a skeptical but sentimental nineteenth century American public that there was, indeed, a mountain in the New World wilderness marked by the symbol of Christianity.

A year later, when artist Thomas Moran expressed his wish to paint Holy Cross, Ferdinand V. Hayden of the U.S. Geological Survey, welcoming the publicity value of having a spectacular picture advertize his efforts, went a considerable distance out of his way to include Moran on his next western expedition. In the summer of 1873, while Moran painted the first of his six known versions of the mountain, Hayden established a geodetic station there.

The Mount of the Holy Cross and surrounding region became popular with climbers, wilderness travelers and those who would make religious pilgrimages, but its precipitous terrain fortunately defeated attempts to "improve" it. In 1929, by presidential proclamation, 1,400 acres were designated Holy Cross National Monument, but soon after it began to be reported by those who ventured into the area that the outline of the cross was becoming increasingly imperfect as a result of rock slides and avalanches and that the arms were gradually weathering away. Interest dwindled, visitors became less frequent and the monument was disestablished by Congress in 1950, the land reverting to the White River National Forest.

To those who knew the mountain, however, the cross was not disintegrating at all, but, depending on each year's snow fall, wind factors and sunshine, could appear either blurred or sharply etched; in fact, the angle of the cross' outstretched arms is apt to change occasionally depending on how deeply the crevices fill with snow. But loss of monument status was undoubtedly a factor, however unintentional, in Holy Cross' being preserved in such condition as to be rated highest in terms of wilderness quality of all areas considered by the Forest Service in Colorado. Now, the Sierra Club, the State of Colorado, historical buffs and wilderness lovers can look forward to a major wilderness study of the area, the result of which may finally be an official Holy Cross Wilderness of sufficient size to assure permanent protection of America's "mythical" mountain.

Eleanor Sterling, a freelance writer and former editor, is the author of "Wilderness and American Art," which appeared in our June/July issue.

Guest Opinion

From time to time in this space we will present "Guest Opinions"—messages from prominent individuals who are not primarily involved on a daily basis with environmental concerns, but whose voices should be heard by those of us who are. Their viewpoints on various conservation issues, while inherently interesting and important to us, will not reflect or represent Sierra Club policy. *The Editor*

Planet for Sale—A Bargain

Edward P. Morgan

Edward P. Morgan is a Washington journalist and broadcast commentator with a longtime interest in conservation causes.

LET'S SELL THE PLANET FOR PROFIT! It may be the only way we can save it. After all, the drive for profits, largely, has got us and the world where we are today, which is on the brink of ecological ruin, and neither moralizing nor mere viewing with alarm has pulled us back from that brink. Perhaps what we ought to do now is to apply the profit motive to a global salvage operation.

A slogan suggests itself: "Conservationists of the world, arise and unite! You have nothing to lose but the chain reaction of greedy exploitation of the Earth."

That may not exactly accentuate the positive, but we'll come to that; we need to examine the negative factors first.

True, the morality of the need to preserve the planet has been accepted, but only on the surface. Everybody agrees—sure, we must protect nature, clean up the streams, purify the air, husband resources and cleanse the soil to make our One World safe for posterity. The trouble is, measures to achieve all this cost money, and that gets in the customary way of making profits. So a depressingly large body of business and industry (including their trade union counterparts) has stolen the issue and short-sightedly hidden their rapaciousness behind it. Witness the timber and paper companies' gorgeous color ads in magazines proclaiming "our business is growing trees" while failing to show the destructive havoc of clearcutting vast stands of timber or the gutting, say, of hardwood forests in Indonesia by American and Japanese firms.

Oil companies salute the Bicentennial with pious arguments that the Founding Fathers would embrace our "free enterprise" system, but they don't bother to explain that the petroleum giants are not interested in free enterprise or the protection of the environment when either impede the expansion of their empires—and when do they not? The first thing Detroit did when car sales and assembly-line jobs dropped a year ago was to cry that exhaust and other environmental restrictions on the gasoline engine were worsening the recession, and increasing inflation by the cost of added gadgets. One doesn't have to be a radical-right disciple of Adam Smith to sympathize with the auto makers and especially the idleness of tens of thousands of workers in the industry. Yet would it have been too much to ask that somebody in a position of leadership—even the President of the United States, Michigander though he is—take the opportunity to declare, in effect:

"This really is the moment to restudy and reorder our priorities. Clearly, our economy is tied too closely to the auto industry to ban it and turn to bicycles overnight. After all, there are well over 100 million licensed vehicles (not counting motorcycles) on the road today. But simply restarting assembly lines is not the solution. In the long run that will just intensify the problem: bigger consumption of diminishing fuel at still higher prices, compounding traffic jams and making air pollution even worse. Now is the time, as never before, to push mass transit and require smaller, cleaner, more economical cars that will conserve fuel and give us time to bring order out of the chaos of our transportation system."

Though some of these changes are developing, slowly, through public pressure, no voice of leadership has articulated the issues with any clarity or persistence. (Washington, D.C., has already sunk more than three billion dollars into a subway system which the jealousies, selfishness and myopia of surrounding "bedroom-county" governments are threatening to sabotage even before the trains begin to roll.) Obviously, man and corporations cannot live by morality alone. They do require the bread yielded by a black bottom line. So while still battling oil spills and clearcuts, perhaps what conservation and environmental groups need most urgently to do at this point is to broaden their emphasis and find ways to convince business, industry and indeed a confused and doubting public that there really are profits in preserving the environment and controlling growth.

Russell Train, head of the Environmental Protection Agency, argues—not loudly enough, perhaps—that protecting the world around us is not just a matter of saving picture-postcard scenes for rubberneck tourists or outdoor fanatics fitted out by Abercrombie and Fitch, but a basic issue of *public health*. How many cases of emphysema could be averted by cleaner air? How many incipient cases of cancer could be checked if not only the air, but the earth and the water flowing over it, were rid of injurious particles and other hostile substances? How much, in other words, would the nation save on its staggering health bill if we made the environment more livable? There is inestimable profit here in avoiding loss—not just loss of life but hours on the job or in the classroom, and elsewhere.

Despite intensive—even vicious—lobbying by brewers, bottlers and related unions, Oregon was the first state to ban "no deposit-no return" bottles for beer and soft drinks. Opponents argued the law would destroy jobs. Ex-Governor Tom McCall, who pushed the bottle bill and other environmental reforms, now estimates Oregon enjoys a *net gain* in jobs from the new law; not large yet, but a gain, nevertheless. And Oregon's streets and roadsides were never tidier.

If there is an economic plus there, there can be similar pluses on other battlefronts to save the environment. (No offense to the funeral industry, but as Robert Kennedy pointed out before

his death, that sacred growth figure, the Gross National Product, includes the cost of highway accidents and carrying away the maimed and the dead.) No sooner had industry begun charging that environmental controls were holding back recovery than the White House Council on Environmental Quality launched a study of the question. It came up with impressive data proving the allegation was simply not true. Industry protested but, significantly, did not refute the data.

Human beings are creatures of habit, resisting change. Yet it must come. In the early spring of 1972, the Club of Rome released its celebrated (and damned) *Limits to Growth* report demonstrating how inevitable it was. Though it was deficient and incomplete, it said, in sum, that if the human race continues to consume, waste and pollute as we are now doing, civilization as we know it will collapse in less than a century. With all its admitted faults, the report did not argue that the alternative was a sterile, austere society, its growth stunted and paralyzed. It suggested that by changing priorities, rebalancing value judgments, we can have richer lives, with new growth occurring on mental and spiritual horizons. This demands change, even radical change, but since the solar system has not yet offered us a spare tire, so to speak, since our world is the only one we have, it would seem to make sense to argue that we will profit by preserving it. There apparently is even a growing constituency supporting this line of thought.

Wisconsin Senator Gaylord Nelson, one of the nation's leading conservationists and the father of Earth Day, declares that supporters of the environment have multiplied at least five times since the first Earth Day in 1970. But they must multiply by legions, and they need a leader to help them win. They should be able to enlist increasing support from business and industry as the choices become clear. Some profits are terribly short-term.

A year before his death in October, Historian Arnold Toynbee told the *London Observer:*

"Man's plundering of nature now threatens him with pollution and depletion. Few of the politicians of the developed countries have yet dared to tell the truth. . . . Now that the terms of trade are turning against the 'developed' countries in favor of the 'developing' countries, how will people of the 'developed' countries react? They are going to find themselves in a permanent state of siege in which the material conditions of life will be at least as austere as they were during the two world wars."

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Ed Cooper

SHOWDOWN IN DEATH VALLEY

DEATH VALLEY'S convoluted rock formations tell the story of the monumental upheaval that formed this stark landscape in the depths of geologic time. Today, this forbidding, yet beautiful, California wilderness, the lowest, hottest and driest place in North America, is being reshaped, this time not by nature. The mammoth machines of modern strip mining have churned up not only the earth, but a national controversy. The arena is filled with combatants: Congress, the Department of the Interior, environmental groups, and some of the nation's largest corporations. The issue is whether mining should be allowed in our national park system. There are two prizes: for conservationists, the integrity of America's most spectacular desert park and of other national parks and monuments as well; for corporations, valuable deposits of borate and talc in Death Valley and the right to mine in other units of the national park system.

The twenty-mule team, hauling thirty-six tons of borate ore on a ten-day, 165-mile journey from Death Valley to Mojave, California, in the late 1800s, is a colorful part of history. Today's giant trucks, each hauling thirty-six to sixty tons of ore around the clock from mines in Death Valley National Monument, are not so appealing. The prospector of the late nineteenth century hacked away with pick and shovel; now, explosives and huge earth-moving equipment are stripping away up to twenty-five tons of earth to get at only one ton of ore.

Calcium borate comes in two forms—both clear, white, crystalline minerals—called colemanite and ulexite. When heated to 2,000 degrees fahrenheit, their crystals explode; the resulting material is used in a number of industrial processes, including steel making, insulation, and the fabrication of special applications for glass.

Since June, 1971, Tenneco, Inc., the Houston-based oil, gas, and manufacturing conglomerate, with 1974 revenues of five billion dollars, has been strip mining for borate ore by the open-pit method. The company's largest operation in the monument is the Boraxa Pit, which is about 3,000 feet long, 600 feet wide and 240 feet deep, with a maximum depth anticipated to be 400 feet. Tenneco operates a smaller pit nearby and is developing another just to the south, right off the main road to Dante's View. From this popular 5,000-foot

overlook, the entire valley drops to 280 feet below sea level. The Boraxa Pit, located about half way between Dante's View and Zabriskie Point, two of the most visited spots in the national monument, is about ten miles from each.

Originally, Tenneco located mining claims in the Zabriskie Point area on top of unworked claims held for more than fifty years by U.S. Borax and Chemical Corporation. U.S. Borax, the twenty-mule-team company, has historic links to Death Valley, and its operations in Boron, California, are said to account for eighty percent of the borate production in the United States and about sixty-five percent in the non-Communist world. (U.S. Borax is now a subsidiary of the British international mining combine, the Rio Tinto Zinc Group.) Although Tenneco has withdrawn its claims from the Zabriskie Point area, its original move set in motion ripples of controversy that are still spreading.

"You Can't Cover the Scars"

IN RESPONSE TO COMPLAINTS from the Park Service about the new mining operations, Michele Metrinko, associate solicitor for the Interior Department, issued an opinion that the 1933 law extending the provisions of the 1872 Mining Act to Death Valley prohibited the Secretary of the Interior from withdrawing lands from mining operation in the monument. In a recent letter to Interior Secretary Thomas Kleppe, however, the Sierra Club Legal Defense Fund challenged this opinion, stating that the suggestion that "the Secretary of the Interior is powerless to act to protect the scenic resources of the monument from being ravaged by open-pit mining is simply wrong." The letter goes on to make three major points: (1) The Secretary of the Interior not only has the power to conserve the scenic, historic and natural resources of park system units, under the provisions of several statutes and legal decisions, he has a "general fiduciary and statutory duty" to do so; (2) "Allowing new or expanded open-pit mining operations within those areas of the monument presently before Congress for wilderness determination violates the Wilderness Act of 1964"; and (3) "Allowing open-pit mining operations to take place within the monument without first preparing environmental impact statements for such mining and without first studying alternatives to allowing such mining violates the National Environmental Policy Act." The letter ends with the suggestion that the club's interpretation of relevant statutes and legal precedents would prevail in any litigation, should such become necessary in order to assure that the Interior Department carries out what the club perceives as its power and duty to protect the scenic resources in Death Valley.

Frustrated in the attempt to work through its own Interior Department, as a result of the Metrinko opinion, the Park Service began to draw public attention to the mining in Death Valley. As a result, Congress and conservationists entered the fray. James Thompson, superintendent of the monument, said the service is concerned about both current and future mining operations in the vicinity of Zabriskie Point. "Our situation is the reverse of eastern strip mining where you have heavy rainfall," he said. "There is no rainfall here to speak of. There is no possible way to reclaim. You can't cover the scars."

William Tilden, an attorney with a San Bernardino, California, law firm representing Tenneco, said that the company would prefer not to be in the monument, but that reclamation was not required by law. "Tenneco has felt that in the monument it will do what is practicable," Tilden said. "The walls of the pit will be sloped, but it can't be filled in." Tilden said that waste dumps are being contoured and placed, when possible, out of sight. "If it was strictly economics, we would place the waste dumps elsewhere," he said. "The Park Service has talked with us, and where they are reasonable we try to get along with them." Tilden said that people are now driving by the Tenneco operations and either not noticing the waste piles or mistaking them for natural formations. U.S. Borax officials, however, scoffed at the notion that the Tenneco operations situated near some of the most heavily traveled tourist routes would not intrude into the landscape. If it is difficult to detect the Tenneco operations now, they said, just wait six months.

Superintendent Thompson is also concerned that modern strip mining will affect wildlife, which requires a great deal of water, perhaps the valley's scarcest commodity. "Tenneco comes several times a day to Furnace Creek Ranch for water," Thompson said. "We estimate they are taking 40,000 gallons a day mainly for dust control. They have even talked to us about a pipeline."

Robert Mitcham, the Park Service mining engineer in the monument, said that Tenneco has already diverted the path of Furnace Creek onto alluvial fans in the Gower Gulch area. Mitcham added that even underground mining of borates would cause problems. He said that there would be "considerable subsidence" and that Furnace Creek would have to be diverted even more to keep the water out of the deep mines.

Water is but one example of the immediate problems facing Park Service personnel as a result of the Tenneco operation, but they are worried even more about future developments. The service estimates there are 1,827 existing claims in the national monument, only twenty-five percent of which are being worked. Moreover, the service says new claims are being filed at the rate of about two hundred a year, a pace that picked up after the National Wilderness Preservation Act was passed in 1964, and increased even more after the Death Valley Wilderness Proposal was published in August, 1974. Curiously enough, the proposal excludes the Furnace Creek Wash corridor, which includes Zabriskie Point, as well as the talc-mining areas in the southwest corner of the monument.

Thompson estimates that about sixteen square miles of claims surround Tenneco's current mining sites. After the company withdrew its claims in the Zabriskie Point area, it still retained about 165 others, according to the Park Service, many of which are located on top of existing claims held by U.S. Borax. The Park Service estimates that U.S. Borax in turn controls about 3,500 acres of patented claims and 4,424 claims with mineral rights.

"The potential borate deposits in the Furnace Creek-Zabriskie Point area cover some 55,000 acres," Mitcham said. "There is a lot of potential for minerals being developed by Tenneco that is not even known." He said that the deposits being exploited in Tenneco's current operation are only

about one-tenth of what has been proven to exist along the Dante's View Highway and from there east toward the boundary of the monument. "Tenneco has drilled there for about three years," Mitcham said.

Robin Pate, vice president for mineral development of Tenneco Oil Company, a subsidiary of Tenneco Incorporated, said that reserves in the area where the company is now working will keep them busy for twenty to twenty-five years. "We have millions of tons of reserves in the park," he said. U.S. Borax executive vice president Robert Kendall said, "From a geological-probability standpoint, there are from thirty-five to fifty million tons of borate ore in the monument. That figure could be double or triple."

Although there are enough borate deposits to keep pit mines in Death Valley for years to come, borate is not the only mineral that attracts industry to the national monument. The other major mineral now being mined in Death Valley is talc. The soft white powder that is so gentle for baby's backside is obtained by blasting away rock formations. Three large firms—Pfizer, Johns Manville and Cyprus Mines—have talc operations in remote and sparsely visited Galena Canyon in the southwest corner of the monument. An official of one of these companies did not hide his pique at Tenneco, blaming the Houston firm's borate operations for bringing unwanted publicity to the talc mines.

Chuck Williams

Although borate mining precipitated the current controversy in Death Valley, the talc mines of the remote Galena Canyon area, shown here in two views, also constitute a threat to the scenic integrity of the national monument.

Mary Ann Eriksen

Golden Dreams, Hard Times

THE HISTORY OF DEATH VALLEY, of course, is largely one of prospectors and mule teams, of golden dreams and hard times. Mining is part of the valley's heritage, which is why Congress voted to continue to allow prospecting in the monument at the time it was created. But a prospector's pick is a far cry from today's earth-moving equipment. Before strip mining was possible, harsh desert conditions and uncertain economics protected Death Valley from the kind of wholesale gouging to which it is subjected today.

Superintendent Thompson said that between 1882 and 1940, the total value of Death Valley mineral production was only three million dollars, two percent of the annual production today in Inyo County, where Death Valley is located. But from 1940 to 1972, production averaged about $1.5 million annually, most of which has come from talc extraction. Current estimates of borate production are hard to pin down. The Park Service puts it at about 120,000 tons a year in the monument, but Tenneco mining superintendent Greg Sparks says it is about 72,000 tons a year. (To Thompson, a more important figure is the estimated five million tons of spoil material generated annually by borate mining.)

The Interior Department's statements regarding strip mining in Death Valley have been inconsistent, and the man on the firing line has been Nathaniel Reed, Assistant Secretary of the Interior for fish, wildlife and parks. Testifying before the House Interior Committee last October 6, Reed told congressmen that Death Valley borate production, which he estimated at 100,000 tons a year, is worth about four million dollars. (He estimated the value of the 100,000 tons of talc produced each year at three million dollars.) But only three days before, Reed told the committee that borate production in the monument produced "nearly fifteen million dollars annually."

Opponents of strip mining in Death Valley have asked just how vital is the borate mining in the monument, a question that involves imports and exports, deposits in Turkey, and the relative usefulness of sodium borates versus calcium borates. The Interior Department has testified that failure to develop the colemanite and

ulexite deposits (calcium borates) in Death Valley would cause the United States to rely unduly on Turkey, which has larger reserves of all types of borate ores, but whose borate industry is not so highly developed as ours.

But the U.S. Bureau of Mines' *Minerals Year Book* shows that right now, at any rate, we are exporting more borate ores than we are importing. In 1974, the United States imported from Turkey 21,214 short tons of calcium borate (colemanite), valued at $852,000, an increase of just over sixteen percent from the previous year's 18,216 tons. At the same time, U.S. exports of boric acid, which is derived from *sodium* borate ore (tincal), dropped from 41,407 tons in 1973 to 35,740 tons, valued at $8.8 million, in 1974. But exports of *refined* tincal in 1974 were 218,107 tons, valued at $33.8 million, a sharp increase from 1973 exports of 168,826 tons. The obvious question is how badly do we need the calcium borates of Death Valley if we have enough sodium borates to allow us to export over 200,000 tons?

Some industry sources say that there is really no difference in the uses of the end products derived from calcium- and sodium-borate ores. They even go so far as to discount the importance of colemanite and ulexite (calcium borates) compared with the huge tincal deposits of U.S. Borax outside the national monument. The company abandoned its colemanite production, but not its claims, in Death Valley when the tincal deposits were discovered in Boron, California, a small town in the Mojave Desert some seventy-five miles southwest of the national monument.

U.S. Borax's executive vice president, Robert Kendall, does not completely discount the importance of colemanite in the current market. He said there is a special need for calcium borate for fiberglass and textile fiberglass, uses for which sodium borate is not desirable. This market, however, could be supplied by sodium borate ores if an extra processing step were used to remove the sodium. Of course, this would be more expensive than using calcium borate products directly.

Kendall said that there are three major borate deposits in the United States—in Boron, California, in nearby Searles Lake (a dry lake) and in Death Valley. "The reserves in Boron are substantial," Kendall said, "but the exact figure is confidential." He added that although it is not accurate that the deposits would last another hundred years, they would at least stretch into the next century. "Now more borates are exported than imported," Kendall said. "The Turks have large reserves of tincal and colemanite, and the trade situation could change."

Fast Action in Congress

THE MOVE BY TENNECO in the Zabriskie Point area has added one more spark to a long-standing struggle between the Park Service, and the mining industry and its partisans among other agencies within the Department of the Interior. Death Valley has become a rallying point for concern about mining in other national parks and monuments, notably Crater Lake National Park, Mount McKinley National Park, Glacier Bay National Monument, Coronado National Memorial and Organ Pipe Cactus National Monument. For years, the Park Service has been trying to

Claims and Counterclaims

William Tilden, the young San Bernardino attorney whose law firm looks after Tenneco's interests in California, sat behind the desk in the air-conditioned trailer office at the Boraxa strip-mine site in Death Valley National Monument. Tenneco had been operating the mine for a few years, so why all the fuss now? Two words were his answer: "Zabriskie Point." Zabriskie Point, one of the most famous scenic spots in the nation, and most assuredly in Death Valley.

Tenneco had located mining claims in the Zabriskie Point area on top of long-held but dormant claims of U.S. Borax and Chemical Corporation.

"We have claims in the Zabriskie Point area located on top of U.S. Borax claims. We have no intention of mining Zabriskie Point," Tilden said on that hot Wednesday morning last September 17.

On September 22, Robin Pate, vice president in charge of minerals for Tenneco Oil Co., a subsidiary, said "Our plans are to go underground near where we are presently mining [about ten miles from Zabriskie Point]."

"We think there is a title defect in the U.S. Borax claims," Pate said. "We want the title defect corrected, and for us to do that we have to take it [disputed claims] to court. If we don't, a third party could come in and challenge those claims and since those would be their only borate deposits, they would have to mine those claims."

Pate was asked why all the fuss over Tenneco operations in the monument.

"It's an effort by the Park Service to stop mining in Death Valley," Pate said. "We've known about it for two years. We just happen to be a large operator, and we are catching the flack. I went to great lengths to explain our plans to the Park Service. I didn't think they would make Zabriskie Point an issue. They have done us an injustice. We did not expect the bad publicity."

The publicity apparently had an effect on Tenneco because the giant Houston conglomerate pulled out of the Zabriskie Point area. A company spokesman said Pate instructed company personnel to remove the claim stakes and withdraw the claim papers from around Zabriskie Point.

"We are not going to challenge the U.S. Borax claims in the scenic [Zabriskie Point] areas," the Tenneco spokesman said. He indicated that withdrawal was prompted by the "extreme" publicity and an apparent misunderstanding between Tenneco and the Park Service.

Almost immediately after Tenneco withdrew, Death Valley Chief Ranger Dick Rayner said that a "single prospector" informed the Park Service he intended to file claims in the Zabriskie Point area. The single prospector's name remained a mystery until the middle of October, when Park Service officials identified him as Dale Hawkins, who, as of November, had a Furnace Creek mailing address. Hawkins was a surveyor for Tenneco at the Boraxa mine and had supposedly quit in September.

Park Service officials, relating conversations with Hawkins, said his strategy is to sit on his claims located on top of U.S. Borax and watch Tenneco and U.S. Borax fight it out in court over other disputed claims in the monument. If Tenneco wins, Hawkins feels he will have a marketable commodity, Park Service officials said. If U.S. Borax wins, Hawkins feels he has lost nothing.

Mary Ann Eriksen

The enormous size of Tenneco's Boraxa Mine, located about half way between Zabriskie Point and Dante's View, can be appreciated if one remembers that the tiny trucks just visible in the pit have tires as tall as a man.

exclude mining from the parks and monuments, while the mining industry, led by the American Mining Congress, has contended that exclusion runs against the national interest.

The notoriety of the Zabriskie Point incident has also served as a catalyst for some of the fastest action Congress has seen in years. Some sources in Washington believe the Tenneco move has thrown the mining industry off balance, at least temporarily, by providing a popular marshaling point for environmental interests.

Three bills were introduced in Congress last fall, and the Interior Committees of both houses held hearings almost immediately thereafter. Representative John Seiberling's (D-Ohio) bill, H.R. 9540, would prohibit future claims and mineral purchases in the national monuments, but would permit the working of existing claims. Environmentalists regard this bill as quite inadequate, for it is tantamount not merely to locking the barn door after the horses have been stolen, but to not caring about whether the horses are stolen or not. It would do nothing to stop current mining operations.

A second House bill, introduced by Morris Udall (D-Arizona), is more appealing to conservationists. Udall's bill (H.R. 11092) would (1) prohibit mineral leasing in all units of the national park system; (2) grant the Park Service broad condemnation powers; (3) establish a four-year moratorium on all mining in park-system units; (4) prohibit further mineral entry in Death Valley National Monument, Mt. McKinley National Park, Organ Pipe Cactus National Monument, Crater Lake National Park, Glacier Bay National Monument and Coronado National Memorial; and (5) include a statement to the effect that the Park Service should acquire all existing claims in park-system units.

In the Senate, S 2371, introduced by Lee Metcalf (D-Montana), Alan Cranston (D-California) and others, has been reported out of the Interior Committee; a floor vote is expected some time in February. The bill would impose a four-year moratorium on the disturbance of any new surface areas within Death Valley National Monument, Mt. McKinley National Park and Organ Pipe Cactus National Monument, but it would not prevent strip miners from digging deeper in existing pits. Supported by conservationists, S 2371 directs the Department of the Interior to make a study during the moratorium to determine which claims should be purchased and which should be allowed to continue operation. Interior opposes the moratorium because it would nullify existing mining rights; the department says this constitutes a "taking." Its position, as stated last October, is that it would favor legislation prohibiting further mining in the parks and monuments, but leaving existing claims alone.

Park Service aerial surveys in Death Valley have revealed that since September 30, perhaps in response to the above legislation, talc producers in the monument have enormously increased their strip-mine operations. Between October 1 and the present, Pfizer has strip mined 2.5 times the area that it had stripped in the nearly four years between January 1, 1972 and September 30, 1975. Pfizer has probably opened two additional mines as of this writing; the company is now working six days a week in Death Valley. Similarly, Cyprus Mines has stripped five acres since September 30 and is now working seven days a week. Johns Manville plans to open a new mining area soon. Apparently the companies intend to disturb as much new acreage as possible before a moratorium prevents further damage.

Eminent Domain

PARK SERVICE OFFICIALS said that before Tenneco entered the picture, the service was about to approach U.S. Borax with regard to purchasing its claims in the Furnace Creek-Zabriskie Point area. An Interior Department official added that as long as money was available, the department would be willing to purchase claims on a willing-seller/willing-buyer basis. Tenneco, however, is unlikely to be a willing seller. The purchase of existing claims is complicated by the different methods for determining the sales price. Would it be based on the $100-a-year county assessment fee, which must be paid to keep a claim current, or on the assessment fee plus the cost to the claim holder to determine whether minerals are present in sufficient quantity to make mining feasible? If the government were to purchase claims on either basis, the cost would not be out of reach. But if the cost of the claims to the government were based on their potential mineral value, the price would be considerable.

Kendall, of U.S. Borax, said that the borate deposits in Death Valley are too valuable to exclude mining entirely from the national monument. "Our position," he said, "is that Congress should direct the Interior Department to analyze the relative values of the scenic and mineral areas. We recommend that the monument boundaries be redrawn." The U.S. Borax recommendation would cut a corridor out of the monument from just below Zabriskie Point southeast to the current monument boundary. Kendall said that his company "has no objections to the Park Service regulating and policing activity to make mining environmentally responsible." Kendall also said that if the monument boundaries were redrawn, U.S. Borax would vacate its claims near Zabriskie Point in return for other federal lands outside the monument.

It is unlikely environmentalists will ever agree with Kendall that the way to stop mining in a national monument is to delete the areas where mining claims exist. Such a proposal, though it might seem perfectly sensible to mining executives, is anathema to those who do not believe that the mere presence of minerals demands their extraction regardless of the consequences to competing values. If Death Valley's calcium borates were possibly essential to national survival, perhaps some compromise would ultimately have to be made. But for the sake of Tenneco's—or U.S. Borax's—earnings column, environmentalists will hardly be willing to permit continued destruction of the Death Valley landscape. Whether Tenneco can be stopped remains to be seen. Although public attention and outrage have been considerable, these alone may not assure passage of legislation that would stop the mining now under way. The fate of the Metcalf bill will depend largely on how vigorously environmentalists press their current advantage. The large mining companies, of course, will be active on Capitol Hill in the months to come—perhaps more active than ever.

William Greenburg is an environmental reporter for the San Bernardino Sun-Telegram. *His last* Bulletin *article was "Smog and Politics in Los Angeles" (February 1975).*

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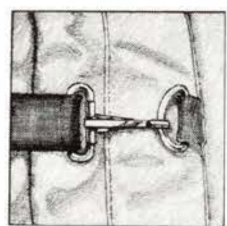

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