

Sierra Club Bulletin

80¢

October 1975

NEW ENGLAND: Franconia Notch
Penobscot, Dickey-Lincoln

CLAIR TAPPAAN LODGE



F.T. Malm

AS THE WINTER season approaches, club members again have the opportunity to participate in a variety of winter sports activities at Clair Tappaan Lodge, the club's unique ski facility in the High Sierra.

We want all club members to know about the facilities, rates, and reservation procedures for the lodge. It is located in a spectacular setting near Donner Summit on old Highway 40, two miles after leaving Interstate 80 on the turn-off to Soda Springs and Sugar Bowl, and is only a few minutes walk or drive from most major ski resorts in the Donner area. The lodge operates the longest rope tow in the West. It runs up Signal Hill which is three-fourths of a mile behind Clair Tappaan Lodge. Here, skiing can be enjoyed in uncrowded conditions for a nominal fee. In the Warming Hut at the foot of the tow one can enjoy a warm fire and relax between runs. The National Ski Patrol is on duty each weekend when the tow is running, and one can make arrangements at the lodge for ski instruction (both Alpine and Nordic) at modest cost.

Skiing, snowshoeing, and ski touring are the main attractions during the winter season, and fun races, such as the weekly Sunday slalom, are open to all. For those who desire to participate, our ski team competes in various other races held in the area. Local one-day ski touring is a popular way to enjoy the area, but opportunities for overnight tours to nearby shelter huts are also available.

The lodge has a capacity for 150 people and provides hot meals morning and evening. Food for bag lunches is available at breakfast time. Dormitories; dormettes, or family rooms, of five to eight bunks each; and cubicles of two bunks each are available. All have mattresses, but members must bring their own sleeping bags, flashlights, and toilet articles. The lodge is operated on a nonprofit cooperative basis, so each person must sign up each day for a housekeeping or maintenance chore.

Advance reservations for meals and lodging will be needed for any stay beginning December 1, 1975, through Easter, April 18, 1976. These can be made by writing Clair Tappaan Reservations, Sierra Club,

530 Bush Street, San Francisco, California 94108.

Requests will be handled at this address from November 17 through April 16, and can be made in person, by mail, or by telephone if money is on deposit for this purpose. *Full payment must be made before a reservation can be issued.* To stay at the lodge before December 1 or after Easter, write or telephone the lodge manager at P.O. Box 36, Norden, CA 95724 (916-426-3632). Tell him the time you plan to arrive, the length of your stay, and the size and composition of your party.

Application envelopes containing information on lodge rates and procedures should be used when requesting winter-season reservations. These envelopes can be obtained from either the club office in San Francisco or the lodge. Reservations are made only for weekends of two full days (starting with Friday night's lodging and including three meals for each full day), and for any number of weekdays. Anything less than one full weekday or one full weekend must be arranged with the lodge manager on a space-available basis. Members are encouraged to send money in advance as a deposit to draw upon during the season. Records are kept, and any balance will be refunded upon request.

The deadline for making a weekend lodge reservation at the club office is 11 A.M. on the Thursday before that weekend. For those who have worked to maintain the lodge, ten beds are held in reserve until the preceding Monday noon. Until Wednesday of each week, a maximum of ten nonmember guest reservations will be accepted at the rate of not more than one guest per member. After Wednesday, additional guest reservations will be accepted if space is available. Sponsors must accompany guests for their entire stay.

As in past seasons, a charter bus will leave San Francisco and Berkeley each Friday night, beginning January 9, and will return each Sunday night throughout the ski season as long as there is sufficient demand. (After the three-day Washington's Birthday weekend, the bus will return on Monday night, February 23. There will be no bus service Easter weekend.) The bus

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Cover: Autumn rain on leaf-gold reminds us of why we first became conservationists. Our shared appreciation for the earth's beauty binds us together, perhaps, even more than do the particular issues that each day define our concern. Photographer, Lloyd Englert.

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

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BARRELING

*Almost every thing
in nature which can be
supposed capable of in-
spiring ideas of the sublime
and beautiful, is here
realized. Aged mountains,
stupendous elevations,
rolling clouds, impending
rocks, verdant woods,
chrysal streams, the gentle
rill, the roaring torrent,
all conspire to amaze,
to soothe and to enrapture.*

THE WORDS OPPOSITE were written about the Franconia Notch valley of the White Mountains of New Hampshire more than a hundred years ago by Pastor Jeremy Belknap, and still are substantially true today. Before the end of this decade, however, if the highway builders have their way, an interstate highway will cover its woods with concrete, and the thunder of 80,000-pound trucks will shatter its stillness forever.

The Franconia Notch area is a ten-mile valley of incomparable beauty, with some of the most dramatic terrain in New England. The word "notch" describes its narrowest point, where the flanks of the two opposing mountain ranges nearly touch. More than a million visitors a year flock to its many attractions and enjoy its pure waters and clear air. The section of the Appalachian Trail that passes through it is only one of many footpaths that have served generations of hikers.

During the height of the fall foliage season and on an occasional summer weekend, traffic on the narrow two-lane notch road slows to a crawl, exasperating local residents and detracting from the park atmosphere.

It is generally agreed that some modest highway reconstruction in the notch valley is needed — a turnout or parking area here, a wider shoulder there — but the proposed four-lane interstate highway has created a dispute that sharply illustrates the constant dilemma of 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 Franconia Range of the White Mountains is largely included within the 6,400-acre Franconia Notch State Park, which in turn is surrounded by the White Mountain National Forest.

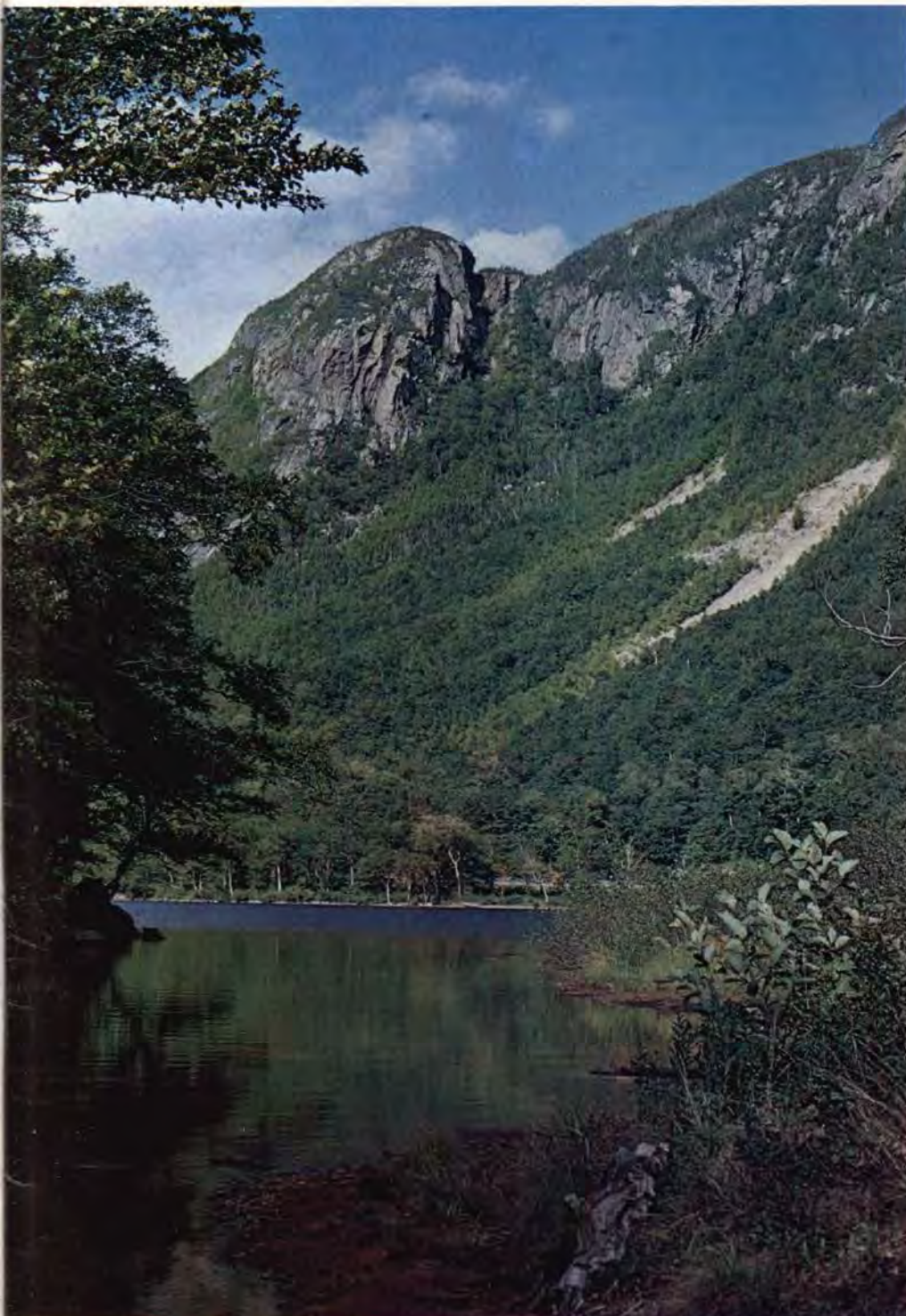
The range was carved by the great glaciers of the Ice Age and is a spectacular series of knife-edge peaks above timberline, rising more than 3,500 feet above the valley floor, all connected by narrow ridges. It takes only one day to hike the entire range. Directly across the valley, 1,200 feet above the notch itself, on the east ridge of Cannon Mountain, is one of the most unusual geologic features in New England: the "Old Man of the Mountain," a rock-ledge formation forty-five feet in height which, seen from the notch, closely resembles what is known as the classic New Englander profile — firm of jaw and brow with a clearly defined expression of great determination. The Old Man was immortalized by Nathaniel Hawthorne in his short story "The Great Stone Face," and has been the official state symbol since 1945. Nearly 100 years ago, Daniel Webster said of the Old Man:

Men hang out their signs indicative of their respective trades; shoemakers hang out a gigantic shoe; jewelers a monster watch, and the dentist hangs out a gold tooth; but up in the mountains of New Hampshire, God Almighty has hung out a sign to show that there He makes men.

On the valley floor below lies Profile Lake, a small pond of great beauty which neatly reflects the Old Man's face. Other attractions of the notch include the Flume, the Pool, and the Basin. The crystal clear Pool is 150 feet across and forty feet deep, fed by the rushing waters of the Pemigewasset River and bordered by cliffs 130 feet high. The Flume is a deep natural gorge nearly 800 feet long, with high perpendicular rock walls. A footpath through it along the tumbled rocks of the stream enables hundreds of thousands of persons to experience its beauty every year. The Basin is a giant glacial pothole hollowed into the riverbed rock. Years ago Pastor Belknap described it thus in his journal:

John French is a New York attorney and an advisor on environmental legislation to the governor of New York.

through the NOTCH



Dick Hamilton

The granite bowl, sixty feet in circumference, is filled with water ten feet deep, that is pellucid as air. The rocky shelf, twenty feet above, has been grooved by a cascade that perpetually pours over; and into the depths of cool shadow below, golden flakes of light sink down like falling leaves.

The struggle to save the notch from highway development is older than the federal highway system. Once a trail used by migrating bands of the Abenaki Indians on their way to their Woban-aden-ak ("to the place of the high White Mountains"), the narrow two-lane road through the notch was built in 1813, and aside from paving, has remained largely unchanged to this day. In 1956, the New Hampshire Department of Public Works and Highways included the road as an interstate part of a planned federal highway from Boston to Montreal. Since most of this was eventually built via I-93, I-89, and I-91, the state now argues that the road is needed to assist the economic development of the depressed northern part of the state. But a recent survey of area residents by a local conservation commission, assisted by the state's independent highway engineering consultants, found that eighty-one percent of the people interviewed were against construction of a four-lane highway through the notch. Sixty-one percent favored modest improvement to the existing road consistent with the preservation of the wilderness character of the park.

The first "public" hearing on the proposed four-lane interstate highway through the notch was held in July, 1957, without advance notice to any of the major conservation organizations in the state. Some months later, wide public dissemination of this plan was made by the highway department, and if it expected few problems in building the road through the park, its memory must have been short: the park had been created only thirty

years before in order to save it from the lumberman's axe, and \$400,000 had been raised to buy the land by, among other people, thousands of the nation's school children, who gave a dollar each to "Buy a Tree." In 1957, then, many of the 15,000 who had contributed to the creation of the park came once again to its defense.

The most effective opposition was initially provided by two of the nation's oldest conservation organizations, the Appalachian Mountain Club (AMC) of Boston, Mass., and the Society for the Protection of New Hampshire Forests, of Concord, N.H. (the society), the two groups most responsible over the years for the creation and preservation of the park and the notch. The Sierra Club did not have a New England Chapter at that time, but many members also belonged to the AMC and the society, and were working with those groups in their efforts for the notch. On September 5, 1958, AMC President Donald Severance wrote Secretary of Commerce Sinclair Weeks requesting that there be for I-93 a careful consideration of alternate routes away from the park or even a possible modification of "federal interstate defense highway standards" for the notch route. Secretary Weeks was the son of the principal founder of the White Mountain National Forest, and his attention was easily secured. He responded to the letter ten days later, promising "to do everything I can do to see that a satisfactory solution is arrived at."

In 1958, Wesley Powell was elected governor of New Hampshire, and was as unwilling as his predecessor to oppose the state highway department, which always has the largest budget and the greatest political influence of any agency in the state. (By contrast, per capita expenses for education are among the lowest in the nation.) With the governor's support, the New Hampshire legislature passed a bill in March, 1959, authorizing the Franconia Notch route, and the governor urged that it be completed by 1963. But the proponents of the road suffered a setback that year when, after an engineering consultant retained by the state highway department had assured the New Hampshire legislature, in 1958, that a road through the notch would not face severe landslide danger, the worst landslide in many years roared down into the notch in

October, 1959, burying several cars and completely covering the projected site of the new road. Many feared that construction blasting would also damage the Old Man, whose rock ledges were already reinforced by bolts and chains because of earlier slippage. For the next seven years, public pressure kept the notch itself intact, but I-93 began to creep north from the Massachusetts line.

The Resurrection

In 1966, New Hampshire elected John King as governor, and the notch route began to come to life again. I-93 was now complete to Plymouth, New Hampshire, some twenty-five miles south of the park and one of the possible departure points for alternate routes. But the state was uninterested



The Old Man of the Mountain

in other routes. Governor King convened the official route-location hearing near the notch on March 30, 1966, and it was attended by 800 people. State and local officials were well prepared for it: one observer estimated that at least half the audience was composed of public officials and employees and their families. Predictably, sixty out of sixty-eight witnesses testified in favor of the notch route. (One local official likened the approaching interstate to "a ribbon of gold.") Opponents of the notch route had to wait for more than four hours to testify. The state Division of Parks was not given a meaningful role, despite its having jurisdiction over

the land to be taken. Incredibly, no other routes were presented for comment, despite a prior request by then AMC President Saunders to Governor King urging a reexamination of alternate routes." Governor King was not moved. Making the kind of mistake that so many other public officials have been making for years, he described the issue as "a clear-cut clash between the economic needs of the area and conservationists." Faced with this appalling lack of sensitivity, several influential citizens and organizations created an informal committee to study other routes, calling themselves, for lack of a better name, the Ad Hoc Committee. Represented on this committee were its chairman, Paul Bofinger, who was president of the society and a Sierra Club member, former New Hampshire governor Sherman Adams, former Secretary of Commerce Sinclair Weeks, and AMC members E. H. B. Bartelink, Frances Belcher, and Malcolm McLane, together with representatives of the Audubon Society and several other New Hampshire environmental organizations.

In a letter to Governor King in April, 1966, the Ad Hoc Committee requested a new study of the situation, since none had been made after 1959, and, among other things, they strongly urged that a Citizens Advisory Commission be appointed to work with the state's independent engineering firm and appropriate state and federal agencies. A majority of the committee thereafter concluded that other routes were not feasible (cost was the principal factor in their decision), and elected to seek modifications in the state's notch design plans. They particularly urged the use of tunneling at the most significant points. But many felt that stronger opposition was essential; in particular, Bartelink formed the Notch Alternate Route Committee and actively began a study of alternate routes.

To assist in negotiations with the state, the Ad Hoc Committee retained three former officials of the Eisenhower administration: former Federal Highway Administrator Bertram Tallamy, former National Park Service Director Conrad Wirth, and former Assistant Presidential Counsel Henry Roemer McPhee. Wirth had suggested that a 4,800-foot tunnel be built under Eagle Cliff, which would enable the highway to bypass the nar-

row notch entirely, but would still permit an interstate to be built within the park. McPhee, however, felt that it might be possible to stop the road in its entirety if Congress would enact legislation to protect park lands from highway builders. It seems incredible today, but in 1966, there was no federal legislation that would restrict the building of an interstate highway through parks. At the request of the Ad Hoc Committee, and largely at the expense of the society, McPhee drafted what became Section 4(f) of the Department of Transportation Act of 1966. He then took the principal responsibility for getting it through Congress in the face of mammoth opposition from the highway lobby. Now Section 1653 (f) of U.S. Code Title 49, it states in part that:

The Secretary shall not approve any program or project which requires the use of any publicly owned land from a public park . . . unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm to such park. . . .

Countless acres of public land have been preserved from the encroachment of transportation projects because of this statute, and its provisions have been invoked in several disputes including Overton Park in Memphis, Brackenridge Park in San Antonio, and the Junipero Serra-Crystal Springs controversy near San Francisco.

Cut and Cover

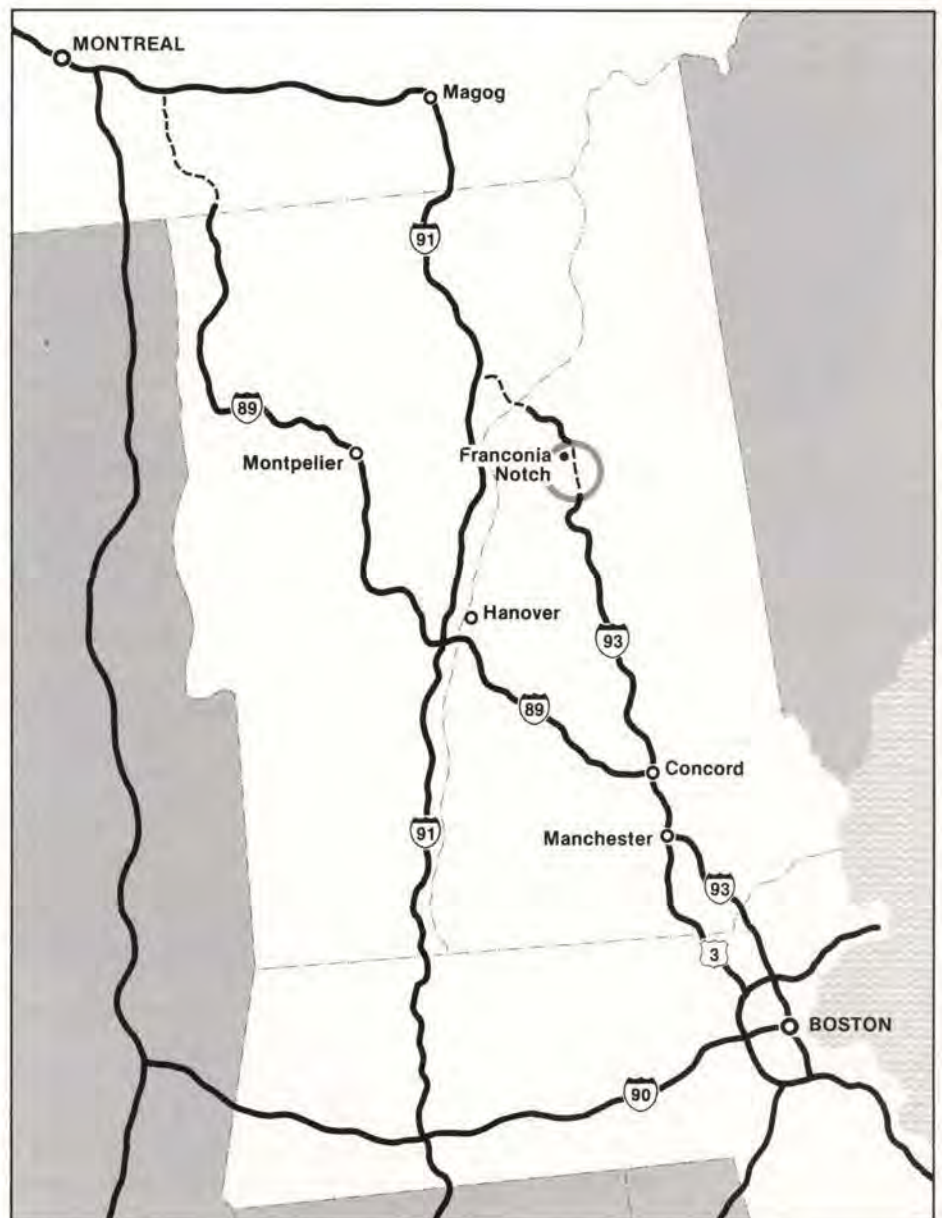
On November 30, 1966, Governor King approved the tentative plans of the state highway department's I-93 alignment through the notch, including a 3,000-foot "cut and cover" trench in the Profile Lake area. In an effort to gain support for the notch route, he also established a Special Franconia Notch Citizens' Advisory Committee — which the Ad Hoc group had requested — and asked it to develop a master plan for the notch, which would include proposals for easing I-93's passage through it. Two of its five members were Sherman Adams and Paul Bofinger. The final report of the Advisory Committee was eventually finished in December, 1968, and strongly endorsed the Eagle Cliff Tunnel as its first choice. It also recommended that, among other things, "the entire length of the interstate through Franconia Notch State Park should be designed with its

eventual conversion to a park road in mind." Cost estimates for the tunnel ranged from \$38 million to \$88 million. The environmental groups within New Hampshire generally went along with the tunnel route because the most critical area of the notch would be undisturbed, although many members within those groups favored an alternate route completely outside the notch. This difference of opinion somewhat reduced the effectiveness of the groups' position, but it was even more unfortunate that the New Hampshire Department would consider neither the tunnel nor an alternate route.

John A. Volpe, former governor of Massachusetts, had been appointed Secretary of Transportation in No-

vember, 1968, and Walter Peterson elected governor of New Hampshire. The following month the outgoing King administration approved the Advisory Committee's second choice, the "cut and cover" trench, rather than leave the choice to its successor.

Volpe had been known in Massachusetts as a road builder, and in fact had approved the Massachusetts section of I-93 some years before, when he was state superintendent of highways. Enormous pressure was placed on Volpe by all sides, and, surprisingly, in March, 1970, Volpe notified a "shocked" Governor Peterson that he was postponing "indefinitely" construction of I-93 through the notch, specifically citing the National Environmental Policy Act (NEPA), en-



acted the previous year, and Section 4(f) of the 1966 Act. Perhaps one can attribute his decision in part to the efforts of Sinclair Weeks, with whom Secretary Volpe had been close for many years (indeed, he had once been described as Weeks' political protégé). Peter Borelli and Stuart Avery of the Sierra Club were also especially active. But Volpe also permitted the state to begin construction of I-93 north and south of the park, and funds which would have been spent on construction of I-93 through the notch were, as a practical matter, diverted to construction at either end. This piecemeal approach was begun without filing an environmental impact statement under NEPA, despite the opinion of environmental lawyers that this action violated Section 102 of NEPA, Section 4(f) of the Department of Transportation Act of 1966, and Section 138 of the Federal Aid Highway Act of 1968. Untroubled by any of this, the New Hampshire highway department also began its corridor design plans for construction of I-93 through the notch. Robert Whitaker, the new highway commissioner, had written an article nearly twelve years before, when he was a state highway engineer, which flatly ruled out any route other than the notch for I-93; his consideration of alternatives could be expected to be minimal.

WMEC is Born

The Ad Hoc Committee had reconvened in January, 1969, and now included representatives of the Sierra Club Atlantic Chapter (the New England Chapter was not yet formed). By April of 1970, as I-93 moved north toward the notch, and faced with the steady erosion of its bargaining power, the committee reestablished itself as the White Mountain Environmental Committee (WMEC) with its principal concern the overall planning for the entire White Mountain region. Paul Bofinger was named chairman.

In 1972, a number of things had happened to set the stage for a new chapter. The behind-the-scenes activity in Washington by the state of New Hampshire to reverse Volpe's decision had become so intense that he felt obligated to restate his initial opposition to the road. By letter dated September 21, 1972, to the AMC, the secretary said in part:

I can assure you . . . that any future transportation proposal in the Woodstock-to-Franconia area will require preparation of a comprehensive environmental impact statement involving full consideration of all reasonable alternatives, taking into consideration my earlier refusal to approve the Interstate through the Notch, which I am now reaffirming.

To many, however, this indicated a reversal of his position. The letter says that, in effect, the secretary has approved I-93 construction to both ends of the park without benefit of compliance with the laws mentioned above, but will require such compliance when it comes time to join the ends. Shortly thereafter Secretary Volpe resigned to become Ambassador to Italy.

In November, 1972, blasting for the southern approach of I-93 six miles below the park triggered a mammoth landslide which completely covered an unfinished section of I-93, reinforcing the predictions of the WMEC that a similar result would occur from blasting within the park. But the state proceeded with its plans, and began to prepare the environmental impact statement *only* for the Littleton-Waterford section of I-93 north of the park. Shortly thereafter the AMC and the society finally felt compelled to retain legal counsel, but decided against bringing suit after a lengthy conference with other conservation groups and also with the federal Environmental Protection Agency and Department of Transportation. They decided that the most crucial time for such a suit would be with the filing of the environmental impact statement for the Littleton-Waterford section.

A Compromise

Against this background, on March 15, 1972, the Dean of Senate Republicans, Norris Cotton of New Hampshire, introduced an amendment to the Federal Highway Act in an effort to reach a compromise solution. The amendment was stated in general terms, essentially providing that segments of the interstate system less than twelve miles could, under certain conditions, be constructed as parkways with limited vehicle usage. The amendment was unanimously approved by the Senate, and an effort by James Cleveland, representative for the district in which the park was located, to weaken the amendment was defeated in the Senate-House

Conference Committee. A revised form emerged from the conference, and was adopted as Section 158 of the 1973 Federal Highway Act. The Section would permit the Secretary of Transportation to approve construction of I-93 for its twelve-mile length in the park . . .

as a parkway type highway to geometric and construction standards . . . which the Secretary determines are necessary for the safety of the traveling public, for the protection of the environment, and for the preservation of the park-like and historic character of the Franconia Notch area adjacent to the highway.

The state of New Hampshire, with the secretary's concurrence, was given the authority to limit the use of the highway to specified types of vehicles during peak periods of the year. The phrase "parkway type highway," without a definition, has caused confusion ever since. Senator Cotton stated in 1974 that he had intended only to see the present two-lane road widened by two or three feet on each side, with a dividing barrier to prevent head-on accidents. Others have argued that four or more lanes would be permitted.

Court Action

In 1974, after considerable soul-searching and pressure from an increasing number of its members, the AMC finally went to court for the first time in its history, and was joined by the society. The suit was filed in the U.S. District Court in New Hampshire for an injunction against further construction until an environmental impact statement covering the notch route could be prepared. Permission to intervene on the side of the AMC and the society in the suit was granted to an organization called Save the Old Man, Inc. (SOM), a 200-member New Hampshire organization. SOM was formed by a young AMC member named Lindsay Fowler who had for several years been a strong and vocal opponent of any highway development in the notch. The court also permitted an organization called the Council of Citizens for Economic and Environmental Responsibility (CONCERN) to intervene on behalf of the defendants. CONCERN's stated position was that completion of I-93 is essential to the economic survival of northern New Hampshire.

In March, 1975, the court granted the injunction. In a strongly worded

Continued on page 56

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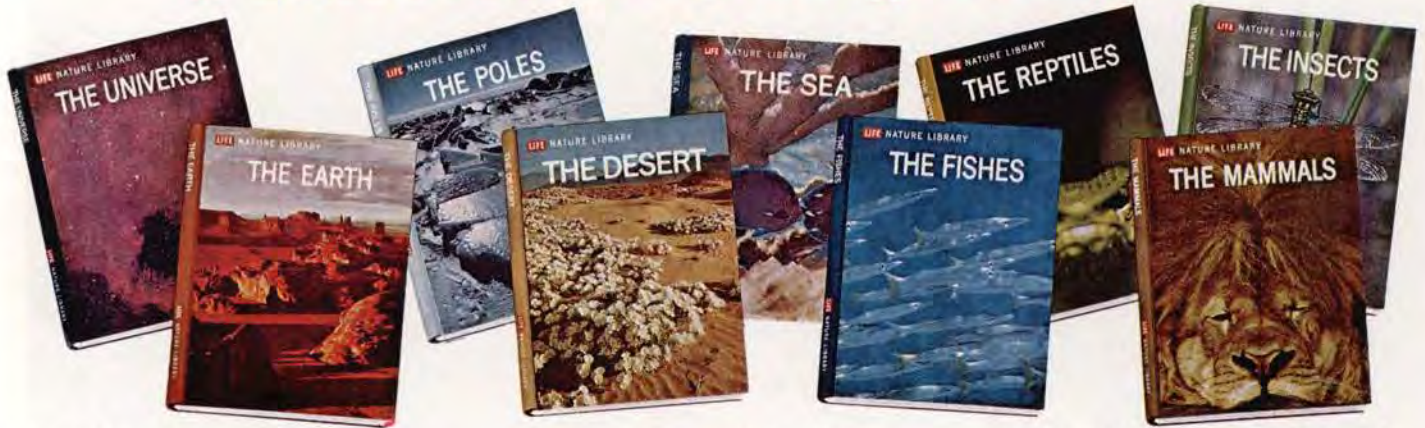
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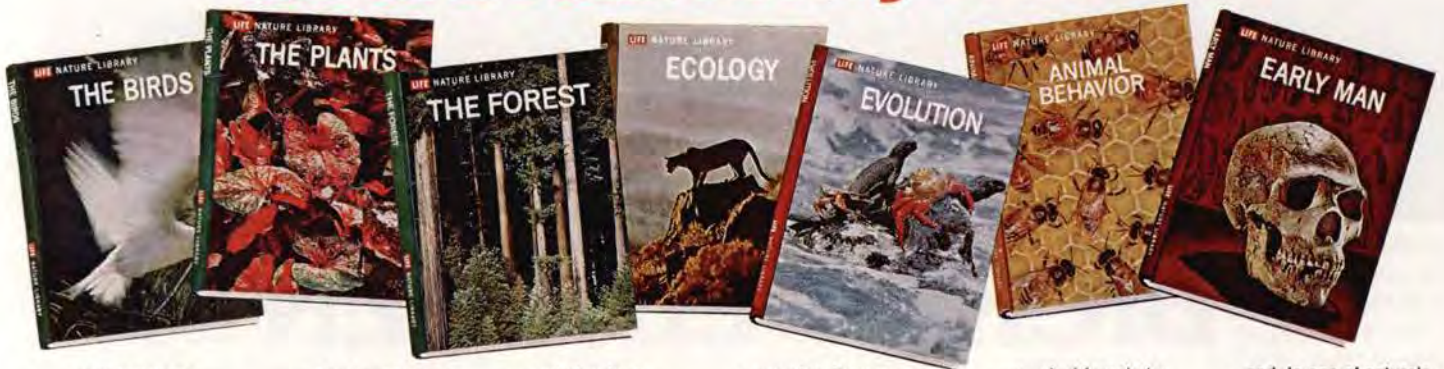
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in others the
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reached 136°
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... and where nature
decided that, despite
the cold, despite the
heat, despite everything,
life was going to
win out in a million
ways... life that probably
originated here
in the sea...

... where it flourishes
today even at depths
of six miles...

... life that moved
onto the land...

the incredible story of nature



... and took wing...

... all depending on
(and making possible)
a variety of vegetation
from tiny flowers to
massive redwoods...

... existing in an
intricate chain that
relates every living
thing on the face
of the earth...

... groping for new
and better ways of
survival...

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Charles Steinbocker

DICKEY-LINCOLN

Large Dams, Larger Promises, and even Larger Debts

STEPHEN WHITNEY AND PAUL SWATEK

THE ST. JOHN RIVER rises in eastern Quebec, flowing into a northern corner of Maine before pushing north and then east in a 400-mile arc to the Bay of Fundy in New Brunswick. Although many miles of lower river are punctuated with small power dams, the water above the town of Dickey, Maine, is free-flowing, a powerful, virgin stretch that is easily among the longest segments of wilderness river in the eastern United States. The river runs through the heart of the most remote section of Maine's famed "North Woods." In the midst of this wild area, the U.S. Army Corps of Engineers, aided and abetted by a host of politicians panicked by

the so-called "energy crisis," proposes to construct the mammoth Dickey-Lincoln Hydroelectric Project. The proposal calls for two dams — a 760-megawatt hydropower facility at the town of Dickey, Maine, and a seventy-megawatt regulating structure located eleven miles downstream at the site of the former Lincoln School.

The project is not new. The prospect of building the dams, thereby flooding 90,000 acres of the upper river valley, has loomed over the St. John for more than ten years. The Corps originally proposed the dams in the early sixties as part of a package deal, along with a tidal-power facility for Passamaquoddy Bay, nearly 200

miles southeast on the Maine coast. Ultimately, the tidal generator proved unfeasible, but the St. John River dams were then touted for their own merits, earning congressional authorization, but no funding. Thus the project was stalled until the spring of 1974, when the energy panic of that winter and the public fury at the utility industry for rising electricity prices created a golden opportunity for supporters of the Dickey-Lincoln dams to resurrect the moribund project. They dusted off the ten-year-old plans and peddled them to a receptive press and public as New England's own solution to the Arab oil boycott, an environmentally benign source of

endless renewable energy. And as fate would have it, May of 1974 brought record floods on the St. John, which did substantial damage to Fort Kent, the nearest community downstream from the proposed dams. The Dickey-Lincoln Project would solve that problem too.

In June, 1974, despite energetic lobbying by a handful of environmentalists and sportsmen, and residual opposition from fiscal conservatives in Congress, an attempt to delete \$800,000 in preconstruction planning funds from the Public Works Appropriation Bill failed in the House of Representatives by a close 201-185 vote. The money was endorsed by the Senate late that summer.

In 1975, the issue is jobs. Powerful Senate Budget Committee Chairman Edmund Muskie said he wanted the dam, so the Corps received another \$1.46 million allotment from Congress to continue advanced engineering and planning and to develop an environmental impact statement following guidelines drafted by a private firm under contract to the Corps. The Army claims that the impact statement "will identify all significant environmental, social, and economic impacts induced by the project, and recommend methodology for measuring and evaluating these impacts." Pressure to go ahead with the project is expected from Maine senators William Hathaway and Edmund Muskie, whose concerns about the state's ailing economy have led them in this case to abandon their normally conscientious environmental positions.

The dam at Dickey would rise 340 feet above the present streambed of the St. John. Sixty-five million cubic yards of material would be used to construct an earthfill dam almost two miles wide at the top. It would be the sixth largest dam in the United States and the eleventh largest in the world, surpassing the Aswan Dam in size. The Lincoln School Dam, by comparison, would be only eighty-seven feet high and 1,290 feet long. Some of the aggregate and facing stone would be quarried from the nearby wild Deboulie Mountain region. Additional construction would be needed at five additional sites to build dikes to keep the 80,000 acre Dickey Dam lake from spilling into adjacent watersheds.

The main factor responsible for persuading Congress to proceed with

the Dickey-Lincoln Project has been its appeal as a nostrum for the complaints of New England consumers, whose electricity bills have soared over the past few years because of increased fuel costs. But one thing is certain: whatever the magnitude and specific character of what is popularly known as the "energy crisis," it is not going to be met through such expedients as dams. The Dickey-Lincoln Project, for example, would not even begin to provide electricity until 1986, and then not in amounts that would significantly alter the energy picture in New England. Yet Congress seems to favor such projects if only because they give the appearance of decisive action. They are tangible, if dubious, achievements that can be shown to voters in place of more elusive long-range solutions.

The revival of the project in 1974 sparked environmentalists, canoeists, and sportsmen to form a coalition to muster support for what the United States Fish and Wildlife Service has called the Northeast's "only remaining wilderness of its type, by present-day standards." Under the name "Friends of the St. John," the Sierra Club, Appalachian Mountain Club, Maine Natural Resources Council, American Canoe Association, Trout Unlimited, The Wilderness Society, Friends of the Earth, and twenty-five other supporting groups from Maine to Rhode Island have worked to inform congressmen, senators, and citizens throughout the Northeast about the patent disadvantages of the proposed Dickey-Lincoln dams.

Supporters of the project have advanced four arguments to justify their position:

First, that New England needs the additional generating capacity that the Dickey-Lincoln dams would supply;

Second, that the project would provide jobs for the region;

Third, that the dams would control the annual spring flooding of the St. John River, thereby protecting the vulnerable floodplain community of Fort Kent; and

Fourth, that Dickey-Lincoln, as a public power project, would provide cheaper electricity than that generated by private utilities.

As rhetoric, these arguments can be persuasive in the absence of facts. Everybody wants more power for less money; everybody wants more jobs;

everybody wants to be protected from floods. Those who oppose the Dickey-Lincoln Project also want these things. The point, however — and the only point — is that the two dams will not fulfill these functions in any significant way. There are, in fact, better and cheaper alternatives.

Promise of Power

Of the total 830 megawatts of installed capacity that would be generated from the Dickey-Lincoln dams, only 105 megawatts would go to Maine. This electricity would be sold to the state for use as intermediate (or cycling) power and it would go to Maine's preferred customers — federal installations and municipal utilities — rather than to the private utilities that serve most of the region's households. Since ninety-seven percent of the consumers in the recipient area are already served by private utilities, they would receive no electricity from the dams. Only three percent of the consumers would benefit, and as we shall see later, this benefit would be minimal.

The remaining 725 megawatts of power would be transported more than 450 miles to southern New England in order to provide supplemental electricity during greater Boston's six-hour period of daily peak use. But the Dickey-Lincoln dams would in all provide only two and a half hours of peaking power. If the generators were to operate twenty-four hours a day, the reservoir would virtually go dry within a few months. The St. John's modest flow could not possibly supply turbines for full-time generation in spite of the huge size of the proposed dams. So the project's contribution to Boston's peak-power needs is only fractional; additional generators would have to be constructed in the region to meet the remainder of the city's demand during the daily peak period. Although the total output of the Dickey-Lincoln dams would be nearly 1.1 billion kilowatt-hours per year, demand is growing at a rate that would set consumption in New England at 100 billion kilowatt-hours per year by the mid- to late-1980's. At the very most, the dams could contribute only one percent of that projected requirement.

In other words, the claim that the Dickey-Lincoln Project will in any significant way alleviate New England's energy shortage now or in the

future is simply untrue. Its contribution — in Maine, in all of New England — would be marginal.

Promise of Jobs

In a time of recession, make-work projects are big sellers at the legislative box office because of the many jobs they are supposed to provide. Dams, especially, have always been popular with Congress, though it has been estimated that they provide fewer jobs per dollar spent than most alternative ways to spend government money. Of course, unemployment is now high everywhere, and Maine's Aroostook County is also feeling the pinch. In response, supporters of the Dickey-Lincoln Project have represented it as one answer to high unemployment in the area. In fact, it will provide no answer at all.

First, the worst unemployment in the area occurs during the winter months, when the two main industries — logging and potato farming — must cut way back. Dickey-Lincoln will not alleviate this seasonal unemployment because dam construction will also have to virtually cease during Maine's fierce and abiding winters.

Second, since construction would not begin until 1978, the project cannot help unemployment now. A Corps of Engineers' employment scale reveals further that a significant number of jobs would not be provided until 1981. Even then, at the time of maximum employment on the proposed dams, the unemployment rate in Maine would be reduced by only one-half of one percent, and then if, and only if, the anticipated maximum of 1,800 jobs *all* went to Maine residents, an unlikely possibility judging from experience elsewhere. Many of the jobs, for example, are technical and will probably be filled from out of state. Those that aren't are more likely to be filled by nearby Canadian labor than by Mainers.

Third, there would be very few permanent jobs. Dam construction would provide jobs for only a few years, so the project offers no long-range solution to anybody's unemployment.

Promise of Flood Control

The St. John River has overflowed its banks ten times in the past thirty-five years, as it flushed out winter ice each spring, and if anything, the floods, for

uncertain reasons, have grown worse. In the spring of 1974, the waters inundated the floodplain town of Fort Kent (population 4,575), the largest community in the upper St. John watershed. Naturally, flood control became a prominent issue. However, in the past when the Corps proposed to build a series of dikes to protect the city, the town fathers were never willing to appropriate Fort Kent's share of the cost. Instead, they heralded the regulatory capability of the Dickey-Lincoln Project as the savior for vulnerable floodplain communities, even though the dams would provide no more protection and would cost the public anywhere from 250 to 500 times as much. Last year's floods broke this resistance, and with conservationists' blessings construction on the dikes is scheduled to begin in 1977, and will be completed eighteen months later. By comparison, the Dickey-Lincoln dams would not begin to provide protection for another decade. The Corps' final environmental impact statement for the dike admits that Dickey-Lincoln is not a practical solution to the floods at Fort Kent because the project "could not possibly be built quickly enough to solve Fort Kent's immediate problem."

Promise of Cheap Power

Perhaps the most politically potent argument used by supporters of the Dickey-Lincoln Project is that it would provide cheaper electricity than alternate sources. The Corps' January, 1974, analysis claimed that Dickey-Lincoln's energy would be available for twenty-seven percent less than the private alternative (2.5c per kilowatt-hour versus 3.4c per kilowatt-hour) and that this would save consumers \$11.7 million annually. It also claimed a benefit-cost ratio of 2.6 to 1. Like most of the other claims made for Dickey-Lincoln, however, the economic arguments for the project fall apart under analysis.

Estimates of the total cost of the project vary according to who is making them and what assumptions they are using. The 1965 authorization estimate for the dam alone was \$218.7 million and had grown to \$356 million in 1974. But critics of the project refer to Dickey-Lincoln as a "billion dollar boondoggle." The actual cost is likely to be much closer to \$1 billion because the Corps' estimate conveniently ignores any inflation in the

price of materials or labor during the period of construction. It also factors in no profit for the construction firm that would build the dams.

When calculating annual "costs," the Corps assumed a 3.25 percent borrowing rate for the Dickey-Lincoln Project and 8.75 percent for the privately financed alternative. It counted in taxes for the alternative project but not for their publicly subsidized project. It also assumed that it could cut the \$123 million additional cost of transmission lines in half, when the nearest 345 kilovolt transmission line is 150 miles away and is expected to be at capacity by the time Dickey-Lincoln power would be available.

The Corps' benefit-cost calculation completely ignores the loss of annual timber production from the 88,000 acres that would be flooded by the reservoirs. The new lakes would totally disrupt existing logging operations in the area. These have coexisted for many years with other uses and account for a large part of the activity in the local economy.

Although more than ninety-five percent of the claimed "benefits" for Dickey-Lincoln relate to its role as a power project, the Corps cannot resist claiming flood control, employment, and recreational benefits as well. How the Corps could figure that Dickey-Lincoln could produce a net recreational "benefit" is hard to believe. According to the Appalachian Mountain Club's *New England Canoeing Guide*, the upper 120 miles of the St. John have "no equal in the Eastern United States in the number and diversity of wilderness canoe trips which can be made." Replacing this unusual recreational opportunity with a large flatwater lake can hardly be termed a "benefit" in a state already blessed with some 3,000 natural lakes. Furthermore, the water level of the lake would necessarily fluctuate over the course of the seasons and there would not be time to rid the bottom of the lake of the stumps of the forest that would have to be clear-cut. Fishermen who now enjoy one of the finest brook trout fisheries in the United States would have fun catching snags while trolling for lake fish.

In fact, the wildlife impacts from the immense lake would be severe. There would be a loss of 17,600 acres of deer-yard essential to the survival of white-tailed deer in northern

Maine's severe winter. The Corps plans to spend \$2.3 million to *move wildlife*; however, as a Massachusetts wildlife official noted, "One does not 'move' wildlife laundry fashion; there is a little matter of available room." He continued, "Perhaps this is the most telling clause in the entire proposal for it underlines the environmental illiteracy of the people who have allowed Dickey-Lincoln to progress this far."

If all the actual costs and benefits had been figured into the Corps' calculations, it is extremely doubtful that Dickey-Lincoln would even begin to justify itself economically. Accepting all of the Corps' assumptions, the total consumer savings would be only \$11.7 million annually — less than one percent of the \$1.6 billion that New England consumers paid for electricity in 1972. When the Corps' questionable assumptions are knocked out, this modest saving is likely to evaporate completely. There should be no misunderstanding: Dickey-Lincoln power would be expensive power in both dollar costs and environmental costs.

But the most telling economic argument against building the dams is that for the same money, alternate facilities could be built and other programs pursued that would yield greater savings on every New Englander's electricity bill, as well as other tangible benefits. The public money now allotted to the project could be applied more practicably and economically to a variety of other public projects that would be of much greater value in both the short and long term — expanding and modernizing the existing rail systems in the region, stimulating construction of waste-water treatment plants, promoting solid-waste recycling centers, and subsidizing the cost of home insulation and storm windows, to name only a few. Indeed, using Oak Ridge National Laboratory figures, it can be estimated that an investment of only \$100-150 million for retrofitting homes with insulation and storm windows would produce energy savings equal to those anticipated for Dickey-Lincoln. Furthermore, this project, along with others mentioned above, would produce far more long term jobs, better pollution control, and more efficient energy use than Dickey-Lincoln.

New England's avowed energy needs can be met in an economical,



Charles Steinbacher

innovative way by constructing solid-waste-disposal facilities such as the one scheduled to start operation outside Boston in 1975. The Dickey-Lincoln dams would cost thirty times as much as this facility but produce only three times as much power. In other words, neither the American taxpayer nor the New England consumer are getting their money's worth at Dickey-Lincoln, and in the bargain they are losing one of the finest wild rivers left in the eastern United States.

When a dike shields Fort Kent from spring floods, the St. John should be

allowed to continue the course it had cut when Champlain first encountered it on the feast day of St. John the Baptist in 1604. The old clatter of woodsmen's tools and the sounds of wilderness share the majesty found in its uninterrupted length, breadth, and varying moods. One traveler has reflected that "the St. John gradually came to have an ominous presence that grew almost palpable. The mighty river swept inexorably on to the sea as it had done for centuries, a primitive force against which man seemed insignificant." **SCB**



THE MAKING OF A WILD AND SCENIC RIVER

ELIZABETH GILLETTE

FLOWING THROUGH the largest unbroken wild area in the north-eastern United States, the Penobscot River alternates between long placid stretches, tumbling whitewater, and huge man-made lakes as it makes its way through Maine's evergreen forests toward the Atlantic. Congress recognized the special scenic and historic qualities of the Penobscot seven years ago when it ordered the river be studied for possible inclusion in the National Wild and Scenic Rivers System. Understanding the study process itself is important because it is the vehicle through which landowners; the community; and local, state, and federal agencies can exchange opinions regarding the present and future status of a river. In the case of the Penobscot, the study is especially important for conservationists because the river is typical of a whole class of so-called "study" rivers, where problems of existing land ownership and traditional usage patterns demand imaginative, innovative planning and management in order that protection be accomplished.

Under the system established by the 1968 Wild and Scenic Rivers Act, rivers and their immediate environments may be preserved in free-flowing condition for their "outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural," or similar values. The act provides for three different river classifications and a flexible system for managing them to stabilize land and water uses. The Penobscot wild and scenic river study was begun in March, 1974, by the Interior Department's Bureau of Outdoor Recreation (BOR). Although the study itself represents only half of the two-step process by which a river is added to

the Wild and Scenic Rivers System, it may ultimately determine the speed with which the final proposal moves through Congress. Once a river study is completed, the Executive Branch forwards its findings and recommendations to Congress for possible legislative action. When the various points of view have been reconciled, national river protection may be hastened;

The Penobscot study is important because the river is typical of many for which preservation will require imaginative solutions.

when they have not, the proposal faces further uncertainties and may be slowed or killed.

Historically, the Penobscot helped feed and shelter New England's aboriginal inhabitants. Indians poled the river in birch canoes to fish, hunt, and perhaps winter by large inland lakes. From the Penobscot, they could reach the St. John, Kennebec, and Allagash rivers — and ultimately the St. Lawrence basin — with only short portages. In the last century, loggers drove white-pine logs by the thousands down the Penobscot to the mills at Bangor. Henry David Thoreau, in his memorable record of several Penobscot floats, *The Maine Woods*, lamented in 1853: "I had come all this distance partly to see where the white-pine, the Eastern stuff of which our houses are built, grew, but . . . I had

found it a scarce tree." Today, second-, third-, and even fourth-growth forests line the Penobscot. State law will put an end to log drives in 1976, though they have virtually ended already. Hundreds of logs that once broke away from the booms still lie on sandy shores, bleached white by sun and worn smooth by wind, water, and winter snows.

The Penobscot's east and west branches are the specific segments that Congress ordered the Department of the Interior to study. These streams flow from bogs in west-central Maine through the north Maine Woods — a forested wilderness now managed for timber — and converge at Medway. In just three days on the west branch, canoeists may shoot rough whitewater rapids and paddle long stillwater stretches reflecting majestic, mile-high Mt. Katahdin and the neighboring mountains of Baxter State Park. While several deep gorges are impassable by canoe and must be portaged, the west branch also includes quiet "logans" or bogs, with lush, low grass and abundant waterfowl. Eagles and osprey also live along the Penobscot; trout and salmon fishing are excellent; beaver, bear, deer, and moose all breed here. Similar natural and recreational attractions characterize the east branch, which follows an even wilder course through wooded bluffs and slopes.

To begin its study of the Penobscot, BOR organized a federal-state task force. Representatives from Maine's Department of Conservation plus the federal Fish and Wildlife Service, National Park Service, and Forest Service, among others, were invited to assist BOR's planning team. While other organizations and municipal

Continued on page 58

Rights to EARTHCARE: A Petition

THIS PETITION will be submitted to the Secretary-General of the United Nations for consideration by the Human Rights Division of the U. N. Secretariat and by the Economic and Social Council in accordance with established U. N. procedures for receipt of human rights petitions.

ADD YOUR NAME NOW IN SUPPORT OF THE EARTHCARE PETITION

Send your petition to: EARTHCARE, c/o Sierra Club,
777 United Nations Plaza, New York, N. Y. 10017, U. S. A.

Three years ago, acting upon the recommendations of the United Nations Stockholm Conference on the Human Environment the General Assembly declared that safeguarding the environment is a prerequisite to "the enjoyment of basic human rights — even the right to life itself." Each Government is responsible for securing such rights.

For the first time in Earth's history, our species has the capacity to violate the environment on a scale that endangers the existence of all species. The heedless exploitation of nature and the careless use of resources already threaten our inheritors with a world physically and spiritually impoverished. We must act now to renounce such a perilous course and to conduct our affairs in harmony with nature.

We have little time to reshape our global community. The next thirty years will produce a doubling of world population and an even greater explosion of expectations. We shall not cope with the consequent stresses on social organization without first reordering our values in recognition that human life is a part of nature. Our decisions must be grounded in ecological principles.

The biosphere comprises myriad interrelations between plants and animals, land, air and water. We can modify some ecosystems, even enhance them, but we may not abuse them. Given our elementary knowledge, we cannot press the limits and capacities of natural systems without incurring the gravest danger. We are not immune to the hazard of ecological breakdown resulting from irreparable acts.

Regardless of our political, economic or social organization, the lessons of natural science must guide all human affairs. Despoliation of natural environments denies science keys to better understanding and enriching all life. Without environmental protection, short-term economic gain impairs economic stability in the longer span of time. No new development should proceed until its environmental impact has been appraised. The drive to exploit, regardless of consequences, must yield to rational use of natural resources. Human needs must be met, excessive demands rejected.

The nations gathered at the 1972 Stockholm Conference on the Human Environment proclaimed that protection of the human environment is the "duty of all Governments." They also agreed that their responsibility to secure natural systems from disruption is a necessary condition to achieving fundamental human rights. Too seldom have these commitments been honored.

Daily, Governments violate our human rights by ignoring the intimacy between the natural and human environments. Such behavior threatens the security of nations, individually and collectively.

After the Stockholm Conference we hoped that Governments would move quickly to avert harm to Nature and adopt a policy of EARTHCARE which creates the conditions for assuring human rights. Too little has been done.

Members of the United Nations have welcomed petitions seeking to assure fundamental rights. We add our own, as basic as any received before. Our right to receive protection of our common global environment must be honored.

Opened for signature on World Environment Day, June 6, 1975, for submission on United Nations Day, October 24, 1975.

Signature

Signature

Signature

Signature

Subsidizing Waste— A Brief Review of U.S. Materials Policy

PETER KING

ACCUMULATION OF material wealth in the United States is

rent trend continues, the number of nondisposable containers will be only one-third of the above figures.

While population growth in this country is now increasing at less than one percent a year, solid-waste generation is multiplying five times faster.



Recyclable and made from recycled waste.

continue to promote a throwaway culture and reuse or recycle only a significant portion of our discarded materials. By recycling and reusing materials, we could cut the total volume of waste, moderate the extravagant energy- and capital-intensive practices of mining and forestry industries, and reduce our dependence and exploitation of raw materials.

In retrospect, it would seem that solid-waste headaches were inevitable. The government has not only encouraged consumer spending, but through federal legislation and liberal policies has consistently provided a growing population with all of its material wants by encouraging (and subsidizing) the activities of extractive industries producing primary materials. Since the mid-nineteenth century, federal legislation has helped mining and lumbering industries flourish. Some of the early legisla-

tion which spurred their growth supported the notion that many of our resources were all but inexhaustible. As domestic supplies are depleted, these industries are compelled to seek new stores in other countries.

Mining the earth's mineral resources is an ancient business, and while we can continue to seek new supplies, we can only guess as to when the last stores will fade. In *Limits to Growth*, D. H. Meadows and associates predict that if the present rate of mineral use continues, the earth's stores of aluminum, for example, will last only another century; copper, only thirty-six years. In the long run, then, minerals policies will have to incorporate programs of reuse and recycling. There is much to be done in educating the public to these problems, however, because current government policies continue to encourage the exploitation of primary materials and hinder the reuse of secondary materials. These policies to discourage recycling are not part of a single, calculated program, but are the cumulative result of an array of disparate programs and policies. Let us focus briefly on some of the dis-

FROM _____
ADDRESS _____



...verage container, and comparative figures show how the throwaway trend is increasing. In 1958, ninety-eight percent of our soft drink and sixty percent of our beer containers were refillable. By 1976, if the cur-



"Oh, oh! Now we're exceeding the legal emission standards."

criminary policies that are currently operating.

Discriminatory Policies

One deterrent to the use of secondary materials, which is currently under fire, is the rail freight-rate structure. Setting transport prices is a complex process and, in the last analysis, much of the decision-making is left to the judgment of officials experienced in evaluating the transportability of the diverse commodities. Just a few of many considerations that must be analyzed when setting a freight rate are: shipping weight per cubic foot; liability to damage; trade conditions; competition with other commodities; and volume of direction, and length of movement. In evaluating possible discrimination between two commodities, the determination of "competitiveness" is a crucial consideration. However, there are no set rules for determining competitiveness, and the Interstate Commerce Commission, in its history of freight-rate setting and freight-rate hearings, has not consistently insisted that potential competitors, such as iron and steel scrap and iron ore, for example, actually be treated as competitors. As long as

primary and secondary materials are regarded as independent, noncompetitive commodities, there is considerable room for discriminatory treatment.

During hearings on the economics of recycling before the Subcommittee on Fiscal Policy of the Joint Economic Committee in 1971, evidence was presented which indicated blatant discrimination. For example, although copper ore and copper scrap were moved along the same West Coast route in 1971, the ore was priced at seventeen cents per ton while the scrap was priced at twenty-seven cents per ton. The railroad earned \$400 more for each car of scrap than for each car of ore; as a result, the scrap would bring a higher price later on, thus discouraging its use in favor of the cheaper primary material. Similarly, in a major transcontinental movement of aluminum ore (bauxite and alumina) and scrap aluminum in the same year, the rail carrier earned \$700 more for each car of scrap than for each car of ore.

Similar trends of increased contribution to the profits of the rail carrier can be found in the rates charged for scrap iron and steel over virgin iron ore, for glass cullet over glass sand, and for wastepaper over virgin pulp. The rates for iron and steel scrap and glass cullet also tend to increase with distance, thus tending to discourage long-distance scrap hauls. In the case of wastepaper, long distances are seldom encountered because mills using the competing virgin pulp are generally located close to the forest from which the pulpwood is cut, thus minimizing or eliminating transportation costs for the pulp. In all these cases, the high market price of the secondary commodity reflects the high price of transportation.

Benefits to Industries

Tax benefits represent the most significant means by which government policies give incentive to the use of primary materials. These benefits include cost- and percentage-depletion allowances, accelerated depreciation of capital outlays, capital-gains taxes, and foreign-tax allowances. For the mining industries, the percentage-depletion allowance has been a lucrative tax break since the 1920's. Though this has been repealed for oil, it continues for many other minerals.

Property-acquisition costs are not accounted for by this method, but a fixed percentage is deducted from yearly income. The percentage-depletion deduction is computed on the basis of the gross income of each individual property, as property is defined by the Internal Revenue Code of 1954. The method was adopted by Congress in an effort to provide a special incentive to exploratory activity by allowing the industries the choice of percentage-depletion or depletion based on operating costs. The percentage-depletion allowance is unique in that it can eventually exceed the amount of the original investment by a great margin.

Both the mining and timber industries benefit from the accelerated depreciation of capital. Rather than having to write off exploration and development costs over a long period through depreciation or depletion, the mining industry can deduct them directly from their operating income. Further special treatment is afforded the timber industry under present capital-gains tax policy. Normal transfers of property are taxed at a rate of up to forty-eight percent at the time of sale, yet the sale of timber is taxed at the thirty-percent capital-gains tax rate.

Finally, some uniform foreign tax allowances offer benefits to the primary materials industries. In the cases of timber and certain mineral extractions, taxes on foreign property holdings can be deducted directly from domestic taxes. Firms operating in underdeveloped countries are allowed a further adjustment of their U.S. taxes. As domestic supplies decrease and the demand for foreign reserves increases, the American materials industries stand to hold a strong competitive advantage, partly because our demand for minerals is so high and partly because the firms are already well established in some foreign countries. But programs geared toward increased exploitation of foreign ores will not only postpone a major recycling effort, they will leave more mining damage, use more energy, maintain the ever-increasing flow of solid waste, and foster a growing dependence on access to those foreign supplies. With the American demand for minerals as high as it is, a major program of reuse and recycling could at least supplement a program of

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minerals extraction, with fewer serious environmental implications.

The tax advantages and other policies favorable to industries that extract virgin materials do more than create large profits for the industries and discriminate against the use of secondary materials. They also create an economic prosperity within the industries that tends to lower the market price of finished goods. Thus, the *actual* costs of production are not paid for by the consumer of the finished product, but by the general taxpayer. That taxation should cover the balance of the total cost of producing goods from raw materials is economically unsound, and as long as the price of these goods on the market remains artificially low, there is no incentive to reduce our excessive use of raw materials. Perpetuation of this policy is environmentally destructive, for the entire process of manufacturing products from primary rather than secondary materials results in a greater proliferation of wastes and requires considerably more energy.

Using Recycled Materials

The amount of energy saved by making new products of recycled materials is remarkable. Producing steel ingots from scrap, for example, requires only one-quarter of the energy it takes to make them from iron ore. Processing scrap aluminum requires less than five percent of the energy required for ore, and in the case of copper, five to ten percent. The production of paper products from recycled fibers uses sixty to seventy percent of the energy needed to make them from pulp, but even that is a substantial saving.

Unfortunately, the use of recycled materials over the last few decades shows a distinctly downward trend. In domestic paper recycling, there was a steady drop from thirty percent recycled in 1951 to eighteen percent in 1972, while paper consumption increased by nearly half during that time. In the iron and steel industries,

the amount of scrap material used dropped by ten percent between 1928 and 1970, while ore imports increased nearly eighteen-fold.

The trend reflected in these recycling statistics may seem a bit discouraging, but it is definitely possible to change. For unlike the irreversible depletion of fossil-fuel reserves, many materials (such as metals and glass) will remain on the planet after innumerable usages. What we are faced with, then, is not so much a *shortage* of these materials as their *misallocation*. A significant part of our solid waste is not waste at all, but a vital resource. A fundamental change in attitude is necessary before it will be treated as such. Just as we have the technology to process raw materials and churn out a million diverse products, we also have the technology to channel the solid waste stream into the production of new materials and energy. In a time of widespread unemployment, many new jobs could be created in a national effort to construct and operate large-scale resource-recovery plants. Such a program could be started with a public-works orientation or with an increased allocation of federal dollars under resource-recovery legislation.

Great care must be taken, however, that a well-intentioned increase in resource-recovery programs is not taken to be a surefire solution to national materials-depletion and solid-waste problems. The city of New Orleans, for example, recently contracted for a major municipal resource-recovery plant, only to find itself legally bound to the perpetuation of a large and undiminishing flow of city trash. Ideally, a resource-recovery operation is most effective when it supplements a more intensive program to reduce solid wastes at their source. The bulk of our solid-waste problem stems from overconsumption and an excessive flow of materials — resource recovery by itself will affect little more than the tip of the iceberg.

Reduction of wastes at their source can be achieved in a number of ways. Perhaps the most significant would be to amend policies that favor primary-resource exploitation and discriminate against the use of secondary resources. Many of the tax advantages for the extractive industries should be phased out entirely, and freight rates

should be adjusted to allow secondary materials to compete on an equal basis. Such changes would necessitate some significant economic readjustments, but a balance would be reached in time. Savings could be measured in terms of fewer environmental alterations. Product durability standards should also be set to combat "planned obsolescence," and the introduction of packaging standards would eliminate much unnecessary "convenience" packaging. Banning nonreturnable bottles nationwide would be an excellent example of a much-needed packaging standard, and would make a significant dent in the solid-waste pile.

Some of these remedies will be featured in bills before this session of Congress. As the policy evaluations are still relatively new, the bills will require support from all levels, and even then, passage may be difficult. The solid-waste problem is becoming serious, meanwhile, and grassroots attention to it is vital. Now is the time to begin correcting our centuries-old misconceptions about a finite supply of materials. **SCB**



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EDITORIAL

Kent Gill

Sierra Club Investments

IN JULY, the *Los Angeles Times* reported that conservation organizations, including the Sierra Club and the Sierra Club Foundation, were investing in companies which have sorry environmental records. The article was widely reprinted and was the basis for a *Time* magazine article. Many members have expressed dismay at this allegation.

For the Sierra Club, the charge was an accurate reflection of investment policy prior to this year. In mid-1974, the club converted its portfolio of about \$570,000 in corporate stocks and bonds to a mixture of eighty percent federal notes and twenty percent corporate bonds. This change was undertaken to firm up the club's position for the part of the year when our cash flow requires that we borrow against the value of the portfolio. The portfolio has been selected by a professional investment counselor, who has served the club for many years, and included investments in Singer Credit, and Citizen's and Southern Realty. Recently, the club has sold bonds it held in Public Service Company of Colorado, Ohio Power, a Texas Eastern Transmission pipeline bond, and General Motors Acceptance Corporation. At times in the past, the club has deliberately held stock upon which to base stockholder action at corporate meetings.

The Sierra Club Foundation had its invested funds divided evenly between two investment counselors, one of whom was using environmental performance and effort as criteria for investment while the other was relying primarily on traditional criteria for safety and return. The Foundation Trustees found that its donated dollars are more safely and prudently managed by the firm which considers environmental performance when selecting investments. The Trustees directed that the investments counselor utilizing traditional criteria for investments be dropped. They further directed that the foundation be represented at certain stockholders' meetings as guided by its investment committee.

The *Los Angeles Times* article has precipitated much discussion among club and foundation leaders. The Sierra Club Board of Directors, on the Labor Day weekend, directed that environmental protection be a goal of Sierra Club investments and that the club avoid investing in offerings of our traditional adversaries. It also directed that a set of guidelines be developed to incorporate environmental criteria into investment policy. Donated stock or other securities in environmentally unacceptable companies will be sold at once.

The task the board set is not an easy one. Few investments, even those in federal paper, bank deposits, or state and municipal bonds, can be viewed with equanimity. Almost any investment could end up supporting unhappy land conversion or unsatisfactory development projects. A corporation with a weak environmental history but with firm intentions for improvement will have to be compared with one whose operations are basically nonthreatening to the environment. One wonders if it is possible to participate in any way in the nation's financial system without being a party to environmental degradation.

Yet the club's bylaws require a permanent fund, and its financial position requires prudence. Speculative investment in alternative energy systems for the future is beyond our means. The directors have moved carefully, but positively, toward a more environmentally oriented investment policy.

William Futrell

Working on the Railroads

TRANSPORTATION ISSUES cut across the four basic priorities of the Sierra Club: energy conservation, pollution control, ethical land use, and wilderness preservation. Currently, a serious imbalance exists in American transportation systems. Decades of massive government subsidies to highways, barge canals, and airlines have resulted in a decline in the most environmentally superior transport mode — the railroad. From 1955 to 1970, seventy-one percent of federal funds earmarked for transportation went to highways, fifteen percent to commercial aviation, and thirteen percent to the Corps of Engineers for inland waterways projects. Congress has appropriated approximately \$100 billion for the interstate highway system, giving its users an enormous advantage over its competitors. This massive diversion of funds to highways, to trucking and to the private automobile, is at the heart of the sickness of the railroads.

The superiority of trains in the energy-conservation and pollution-control fields makes revitalization of the railroads an important national priority. Three considerations point to the need for more rail transportation, not less. Railroads are less energy intensive; per ton-mile of freight carried, trucks use four to six times as much fuel as trains. Trucks use up more land; it is estimated that railroads can handle two to three times their present freight traffic without clogging up, while most truck-bearing highways operate close to capacity. Railroads cause less air and noise pollution.

Yet, the job of revitalizing the railroads is not moving forward at the pace it should. Part of the problem lies with the Interstate Commerce Commission (ICC), the federal agency which regulates the railroads, supervising the rates charged and the level of services performed. The record of the ICC in environmental affairs has not been good. Repeated lawsuits by citizen groups have been necessary to force it to comply with the National Environmental Policy Act.

The ICC's performance on substantive environmental questions has been, at best, insensitive. Yet, students of the ICC assert that it, more than other federal agencies, does what Congress wants it to do. It has a very clearly spelled-out mandate — to implement the National Transportation Policy, which states:

It is hereby declared to be the national transportation policy of the Congress to provide for fair and impartial regulation of all modes of transportation subject to the provisions of this Act [the Interstate Commerce Act], so administered as to recognize and preserve the inherent advantages of each; to promote safe, adequate, economical, and efficient service and foster sound economic conditions in transportation and among the several carriers; to encourage the establishment and maintenance of reasonable charges for transportation services, without unjust discriminations, undue preferences or advantages, or unfair or destructive competitive practices; to cooperate with the several States and the duly authorized officials thereof; and to encourage fair wages and equitable working conditions; — all to the end of developing, coordinating, and preserving a national transportation system by water, highway, and rail, as well as other means, adequate to meet the needs of the commerce of the United States, of the Postal Service, and of the national defense. All of the provisions of this Act shall be administered and enforced with a view to carrying out the above declaration of policy.

Efficient use of resources, energy conservation, or environmental quality are not mentioned. The Interstate Commerce Act should be amended to give the ICC a mandate to revise its policies to implement these vital objectives.

Several Washington observers have suggested that the cure for the nation's transportation problems is to remove railroad rates and service regulations from the ICC. The ICC was created in response to a deeply felt reform movement, and many feel that present conditions still justify an important role for it. All outside observers agree, however, that the time for regulatory reform is overdue, that ICC procedures need to be streamlined.

I suggest that it is time for citizens, Congress, and the ICC to construct a new national transportation policy emphasizing fuel economy, environmental cleanliness, efficient use of resources, and savings to the consumer. The Sierra Club intends to be part of that process, but we need the help of our members who have expertise in transportation matters. Please send your suggestions for nominees to the club's new transportation committee to the Secretary, Sierra Club, Mills Tower, San Francisco, California 94104.

NEW FOUNDATION STAFF

It is a pleasure to announce that Dr. Alice Pinsley is the new Eastern Representative for The Sierra Club Foundation. Her area of responsibility includes the Atlantic, Connecticut, LeConte, New England, New Jersey, Pennsylvania, and Potomac chapters. Her office is at 50 West 40th Street, New York 10018, (212) 354-9626.

Through special grants we are also extremely fortunate in having Mr. Stef Barragato as our representative for the Angeles, Kern-Kaweah, Los Padres, San Diego, San Geronimo, Santa Lucia, and Grand Canyon chapters. His address is: 2410 Beverly Boulevard, Suite 2A, Los Angeles 90057, (212) 387-9497.

Our representatives concentrate on fund-raising. They, as well as the Foundation staff in Mills Tower, will be pleased to give you help whenever possible in your fund-raising efforts.

VISIT VENEZUELA, AFRICA, OR PATAGONIA THIS YEAR

A few openings remain on late Season Sierra Club wilderness trips to the far corners of the earth. If you hurry you can still penetrate the little-known jungle of Venezuela to spectacular Angel Falls (trip 647, Nov. 8-23); see the prehistoric paintings of the Sahara by camel caravan in Tassili N'Ajjer, Algeria (trip 033, Nov. 13-Dec. 1); or spend Christmas at the far tip of the western world in remote Patagonia, and also visit the remarkable birds and animals of the British Falkland Islands (trip 648, Nov. 28-Jan. 1, 1975).

See the January, 1975, Sierra Club Bulletin for complete information or write the Outing Department.

The Beautiful, Incredible Monongahela Decision

Brock Evans and Gordon Robinson

IN A LANDMARK DECISION issued on August 21, the United States Fourth Circuit Court of Appeals upheld the so-called Monongahela Decision, which was issued by a federal lower court in *Isaak Walton League et al. v. Earl Butz et al.*, Civil Action No. 73-68-E. The plaintiffs, which along with the Isaak Walton League, included the Sierra Club, the Natural Resources Defense Council, and the West Virginia Highlands Conservancy, contended that the Forest Service had violated the terms of its basic charter, the Organic Act of 1897, when it clearcut some stands of immature trees in the Monongahela National Forest in the West Virginia mountains. The Organic Act authorizes the sale only of "dead, matured, or large growth of trees"; requires that "before

being sold [trees] shall be marked and designated"; and that timber sold "shall be cut and removed." In its decision, the appeals court made an extensive review of the legislative history preceding the passage of the 1897 Organic Act, and concluded: "This legislative history demonstrates that the primary concern of Congress in passing the Organic Act was the preservation of the national forests." The court also reviewed the history of the Forest Service itself:

It is apparent that the heart of this controversy is the change in the role of the Forest Service which has taken place over the past thirty years. For nearly half a century following its creation in 1905, the national forest system provided only a fraction of the national timber supply, with almost 95 percent coming from privately owned forests. During this period, the Forest Service regarded itself as a custodian and protector of the forests, rather than a prime producer, and consistent with this role, the Service faithfully carried out the provisions of the Organic Act with respect to selective timber cutting. In 1940, however, with private timber reserves badly depleted, World War II created an enormous demand for lumber, and this was followed by the post-war building boom. As a result, the posture of the Forest Service changed from custodian to production agency. It was in this new role that the Service initiated the policy of even-aged management in the national forests, first in the west and ultimately in the eastern forests, including the Monongahela."

The decision applies only to the Monongahela National Forest in the state of West Virginia, but the chief of the Forest Service has moved to apply it to all the national forests within the jurisdiction of the Fourth Circuit Court of Appeals. This move appears to have been a hasty one designed to generate adverse response to the decision. It is true, however, that the decision is a precedent that could be applied easily to other national forests. Therefore, it is important to ask how this ruling would affect timber management on the national forests if it were eventually applied to the entire system.

First, and most important, the decision would greatly restrict, though not outlaw, clearcutting in the national forests. For the Organic Act does permit cutting

of dead, matured, and large-growth trees, which would include the bulk of the old-growth timber in the western national forests. Since there are extensive areas in those forests which mostly contain large trees, limited clear-cutting would still be permissible in many situations, providing the trees were all marked and designated. The decision means mainly that the Forest Service will have to extend rotations sufficiently to permit young timber to mature. The service will have to mark the timber that is to be cut, which in turn means it will have to put foresters back in the woods, where they can apply their knowledge of silvics and really practice the science of forestry. Although the decision will not completely stop the Forest Service from practicing even-age silviculture, it will severely limit the agency's use of this method, for the service will not be able to clearcut areas large enough to maintain forest inventories by currently used mapping techniques. In other words, the Forest Service will have to give up tree farming and go back to practicing forestry. This will reduce the "allowable cut" in many instances and will improve the quality and value of timber sold now and in the future. It should also reduce the impact of logging on the national forests, as well as greatly enhance other uses.

It must be understood, however, that the decision specifically states that nothing in the order shall be construed as affecting the authority of the Forest Service to allow the cutting of trees for the purposes of (1) thinning and improving the forest in accordance with the Knutsen-Vandenberg Act; (2) protecting the forest from fire, degradation, insects, and disease in accordance with the Pest Control Act; (3) building highways, roads, and trails or managing the forest for uses other than timber harvesting, as permitted by the Multiple Use-Sustained Yield Act. In other words, the Forest Service still has all the authority it needs to practice sustained-yield forestry as required by law and to manage the forests for whatever scientific, commercial, and recreational uses are appropriate.

Several days after the decision, the Forest Service responded — some say retaliated — by shutting down timber sales in the four states within the court's jurisdiction. Although the agency claimed that this action was necessary so that it could examine the sales to see which ones did not entail illegal clearcuts, conservationists charged that the shutdown was unnecessary and was only done for the purpose of stirring up a political fuss in Congress.

The fuss has been stirred up, and it appears now that a major legislative

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battle on the issue may occupy a good portion of Congress' time late this year and early the next. The struggle will focus on the meaning of the Organic Act and on efforts by the timber industry and the Forest Service to amend it. The resolution of the issue may determine the management of the national forests for a long time to come.

Because the Monongahela Decision potentially could affect the entire national forest system, rumblings have also been heard from pro-timber senators and representatives both from other parts of the South and from the Pacific Northwest. A flock of industry executives arrived in Washington, D.C., in early September, and reportedly were lobbying the staffs of the House and Senate agriculture committees in an effort to further early passage of an amendment to the Organic Act that would permit a resumption of unrestricted clearcutting. The thrust of such an amendment appears to be the transfer of all authority over how timber is to be cut to the Secretary of Agriculture (i.e., the Forest Service).

"Why not let the professionals in the Forest Service decide how the logging is going to be done?" — this is the timber industry's pitch around Capitol Hill these days. But that is the crux of the problem: decisions on the management of the national forests have been left exclusively to the "professionals" in the Forest Service too long. The destructive clearcuts in West Virginia and elsewhere are the results of decisions made by these "professionals." The forests

that are now not growing back in southwest Oregon, the logging-road landslides that have fouled fishing streams in Idaho, the brutal destruction of scenery and wilderness in so many states — all have been the results of decisions by the Forest Service's "professionals." Finally, in West Virginia, environmentalists took the "professionals" to court (there was no other way to alter their plans) and the court found the "pros" had wrongfully ignored the statutory charter meant to authorize and regulate their decisions.

There is a growing and very impressive body of scientific documented evidence that the practice of clearcutting has led to a great deal of damage, not just to the scenic beauty of the national forests, but to wildlife habitats, the purity and drainage patterns of forest streams, and even to the capacity of the forests for regenerating themselves. Although a case can be made that clearcutting is appropriate in some cases, it is quite plain that the practice has been grossly abused, not only by the timber industry itself, but by the forests' own custodians, the United States Forest Service.

Shall the primary emphasis in the management of the national forests be the sustained yield of timber, along with the preservation of other uses and values, such as scenery, wilderness, wildlife, and recreation, or shall the forests be converted into mere "tree farms" to feed the timber industry? This is the question that Congress must face in the months to come.

REGIONAL REP REPORT

Northern Plains: Wyoming's National Runway

THE MAGNIFICENT SILENCE of Grand Teton National Park could still be broken by the loud roar of jet engines. At present, no jet aircraft can land at the Jackson Airport, which lies within the boundaries of Teton National Park on the sagebrush flats directly below the Teton Range. However, pressure has been building to bring jets into the valley, which would be possible if the existing runway were extended. In September, 1973, a public hearing was held on the proposal to construct safety improvements and to extend the runway. In the spring of 1974, following the release of the final environmental impact statement on the proposal, form-

er Secretary of Interior Rogers Morton authorized the safety improvements at the airport, but deferred decision on the runway extension until a regional transportation study could be completed. The runway decision is still pending, and many fear that developments now under way at the airport will undermine the transportation study by effectively piecemealing the park out of objective analyses and consideration of alternatives to a Jackson-Teton Jetport.

While the National Park Service is coordinating the federal-state Regional Transportation Study and moving ahead slowly with that study, the Jackson Airport Board is preparing a twenty-year

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master plan for the present site, has acquired significant financial commitment for a new proposal to improve the existing terminal facility, and is supervising the \$1.4 million safety-improvement construction program at the airport. A lot of dollars are being invested in the present site, and steps are being taken to encourage additional investment, with little recognition being given to the study, which will supposedly determine the future site.

Unfortunately, it is far easier to hire consultants to prepare a master plan than it is to coordinate federal agencies and three states. As a result, the Regional Transportation Study is lumbering slowly but faithfully along, while the Airport Board Master Plan appears to be steaming ahead with completion date scheduled for next summer. Furthermore, the airport manager, Bob LaLonde, is organizing support for his study through public statements to the effect that the master plan will contain enough information and is certainly the more expeditious study with which to make the decision on runway extension. With the Department of the Interior in such a state of flux, it is hard to judge its commitment to the Regional Transportation Study as the decision-making document. The club supports the regional

study as the more objective one and the one which has the mandate to analyze broader goals of alternative airport sites, transportation modes, and park planning. It is thus the only study that will address the fundamental issues at stake — the future of the Teton-Yellowstone region.

In addition to the master plan study, the Airport Board has proposed to "upgrade" the terminal facility by installing a curio shop, a restaurant, new luggage pick-up facilities, and a VIP room. It has already obtained commitments from state and local sources for most of its goal of \$500,000 to fund the improvements. This proposal is separate from the larger package of airport-safety improvements and has yet to receive approval from the National Park Service, which presently is preparing an environmental assessment of the project to be distributed for public review. With enough interest, a public hearing will be held; the assessment will determine whether an impact statement under the National Environmental Policy Act must be prepared. At that level of investment, the proposal appears to be a big foot in the door to keep the airport at its present location; it is certainly not necessary for airport safety and seems to go beyond what is needed in facility improvement

necessary for current levels of traffic.

The club is keeping close tabs on all these developments, especially through the efforts of the Legal Defense Fund office in Denver. In particular, we have requested an opinion from the National Park Service as to whether they will require a finding by the Secretary of Interior on the necessity of a larger terminal and eventually, of runway extension. It is the club's position that before either project can begin, the secretary must find both projects "to be necessary to the proper performance of the functions of the Department of the Interior" as provided by the Act of March 8, 1950, which authorizes the secretary to build and operate airports in and near national parks. We believe that such improvements as these, which will fundamentally change the character of the airport, must place the needs of the National Park Service before the needs of an airport board, chambers of commerce, and/or airlines and their passengers. We are awaiting an opinion from the solicitor general's office on its interpretation of the 1950 act. And, we are maintaining correspondence with all of you concerned with the future of Grand Teton National Park. Keep in touch. (P.O. Box 721, Dubois, Wyoming 82513)

Laney Hicks

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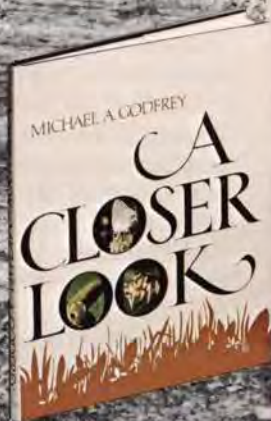
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The 1975 Sierra Club Holiday Books Selector





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"A CLOSER LOOK is a delight. It is refreshing to be reminded that man in his own domain — suburb, town, and city — is surrounded by a fundamental, dramatic, and vivid community of wild creatures and plants. And, true to the title of his book, Michael Godfrey's words and photographs bring the reader face-to-face with this diminutive, remarkable world of nature."

— Les Line, Editor, *Audubon Magazine*

A Closer Look

by Michael A. Godfrey

The average backyard or vacant lot can be a wilderness area—but to discover it, one must look closely. Many of us have no easy access to mountains, or forests, or other large natural areas. But most of us have access to a small patch of green—a backyard, vacant lot, woodlot, or even a strip of grass along a road or highway. Here is a "doorstep ecology," the processes of life taking place dramatically and furiously at our shoetops.

The ecosystems of a house (the creatures that live within the house, often unnoticed, and why they live there, and how they subsist), the life in a stream, spring ephemerals, winter birds, life in deadwood, grass flowers, caterpillars and grasshoppers, plant succession (what would happen over a period of one hundred years, should you one day decide never again to mow your lawn), are among the subjects described with imagination and appreciation.

Many splendid books have chronicled the remote wild and scenic treasures of the world, bringing them a little closer to us. Michael Godfrey has chosen to celebrate what is near, in space, yet still unknown. His book, he says, is an "invitation to hone our sensitivities to the life forms immediately around us; to see our wildlife neighbors in conflict and in concert with one another and with us . . . Through them we may see our sustaining life systems at work, and, above all, our own inextricable involvement with the biotic process."

As *A Closer Look* explains those fascinating processes, it at the same time reveals to us the beauty of these areas of often overlooked nature. 45 color photographs catch in detail subjects not easily visible to the untrained, unaided eye.

Michael Godfrey was raised on a farm in Virginia's Appalachian foothills. He has occupied himself as a commercial pilot and flight instructor, a bank public relations man, a management consultant, an accounting systems designer, and as a writer and a photographer. He has written a number of articles for nature publications including *National Wildlife* and *Wildlife in North Carolina*. His photographs have illustrated magazine articles, biology text books, and have appeared in Sierra Club Calendars. He lives in Chapel Hill, North Carolina.

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Thoreau Country

Photographs and text selections from the works of H. D. Thoreau
by Herbert W. Gleason
Introduction by Paul Brooks

This book is the distillation of one of the most remarkable photographic projects ever undertaken. Herbert Wendell Gleason, from 1899 to 1920, devoted much of his art to recording with his camera the precise sources which had inspired the writings of Henry David Thoreau. The landscape as Thoreau saw it — meadows, woods, farms, Walden Pond, Cape Cod, the Maine Woods — in all its fine detail, became the subject of Gleason's camera. The photographer walked in Thoreau's own footsteps, searching out the exact correspondence between camera image and Thoreau's observation, merging his camera eye with Thoreau's mind's-eye. Gleason's "Thoreau country," lost for many years, not only recaptures Thoreau's sources of inspiration, but records a place and time and way of life that have been lost irretrievably.

All 1230 Gleason negatives devoted to Thoreau country were carefully edited by Mark Silber, who selected the images and made prints especially for this book. Each photograph has been reproduced here in a fine screen duotone process, in black and gray, with varnish, in order to retain the meticulous detail contained in the plates. Each is accompanied by the passage from Thoreau chosen by Gleason. The result is a unique marriage of word and vision.

Herbert W. Gleason, born in 1855, began photography in 1899. He was intensely interested in Thoreau's writings and in the western wilderness areas of North America. His photographs illustrated the 1906 Walden edition of *The Writings of Henry David Thoreau* and *Through the Year with Thoreau* (1917), as well as John Muir's *Travels in Alaska*. After his death in 1937, Gleason's work went almost unnoticed, and it is only in the 1970s finding its way into publications once again. In this book Gleason's depiction of Thoreau country has been recovered.

A map of Thoreau country as it existed in 1906 is included.

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Other Homes and Garbage

Designs for self-sufficient living



Other Homes and Garbage

Edited by Jim Leckie, Gil Masters,
Harry Whitehouse, Lily Young

This is a book for the individual (or small group) who wants to live more cheaply, to be self-sufficient, and to consume less energy. A group of engineers from Stanford University have taken sophisticated engineering know-how and transformed it into comprehensive, hard-nosed practical source information for developing alternative styles of technology. The material is directed to low impact energy use of the resources of sun, wind, water, and land; to creation of a complete living system, ranging from architectural design that takes maximum advantage of natural heating and cooling to intensive gardening in your urban backyard; from design and construction of a solar pre-heater for your suburban hot water system to the creation of a totally independent electrical system for your country home; from water supply to recycling of waste matter. Each subject is covered in careful detail, with illustrations and graphs, sources and historical examples.

Contents include the subjects of: *Architecture* — including site determination and landscaping, specific building techniques, ventilation, lighting, the design of fireplaces, an energy evaluation of building materials, and solutions to specific problems; *Electricity* — its basic principles, primary generating sources (wind-driven generators, solar cells, waterwheels, and other possibilities, with a section dealing with low output sources), and electrical conversion and storage; *Solar heating* — including information on “bioclimatics” — the relation of bodily needs and metabolic functions to climate — climatology, energy requirements

for space heating, the availability of solar energy, a study of heat theory, seasonal heating requirements, and details on solar collection, storage, circulation and control, and component solar heating and cooling systems; *Waste handling systems* — including details on designing, building and operating a methane digester, with notes on raw materials and end-products, economic considerations and health impact, clivus multrum, outhouses, septic tanks, oxidation ponds, and composting; *Water supply* — including sources, pumps, transport of water and storage, treatment and health considerations; *Aquaculture* — including cultivation of several varieties of fish, shellfish, mariculture of invertebrates, vertebrates and algae; *Agriculture* — including French intensive and hydroponics.

Whatever one's lifestyle, this book offers ideas and information to enable one to gain more control over his or her existence.

Other Homes and Garbage was developed as a group project at Stanford University by engineering professors and students involved in a “bootleg” course (Stanford Workshop on Social and Political Issues, 185). Each chapter grew out of a “sub-course” developed out of this general course. *Other Homes and Garbage* represents the effort of these engineers to “demystify” engineering concepts, to enable the layman to design technologies that can simplify living without sacrificing quality of life. Jim Leckie, overall editor for the book, is Associate Professor of Environmental Engineering at Stanford.

320 pages. Diagrams, charts, tables, line drawings, mathematical formulae, index, and bibliographies. 8¼ x 11. Paper only.

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How to save your piece of the planet --
by the people who are already doing it.

THE GRASS ROOTS

PRIMER



The Grass Roots Primer

How To Save Your Piece of the Planet.
By the People Who Are Already
Doing It.

*Edited by James Robertson and
John Lewallen*

Environmental power to the people is the theme and purpose of this large-format, softcover compendium of "grass roots" activities and techniques used to combat environmental threats to us and our homes. In every corner of the land there are volunteers at work to save what is left of this country's wilderness, rural countryside, and the scraps of natural America that survive in cities and suburbs. They are plain people who believe that change occurs only because individuals make it happen. *The Grass Roots Primer* collects their stories and their ideas.

Nineteen stories which demonstrate how people from all walks of life in every region are making the protection of the environment their part-time occupations make up the first section of the *Primer*. They represent a cross-section of the kinds of problems which confront communities; at the same time they are a celebration of the human aspect of political participation — the commitment, the humor, the frustration, and above all the learning and the community sense that develop from such activity. One typical story reports the experience of a group of housewives who faced the construction of an ecologically unsound highway, which would eventually bottleneck traffic, and which would lop off sections of their lawns, and, in some cases, their homes. In the face of the cry of construction workers, "Get back in your

kitchen, lady, and let me build my road," the housewives prevailed. Highlighted with cartoons and ads from local newspapers, photos, poetry, and other graphic material, the text is visually striking.

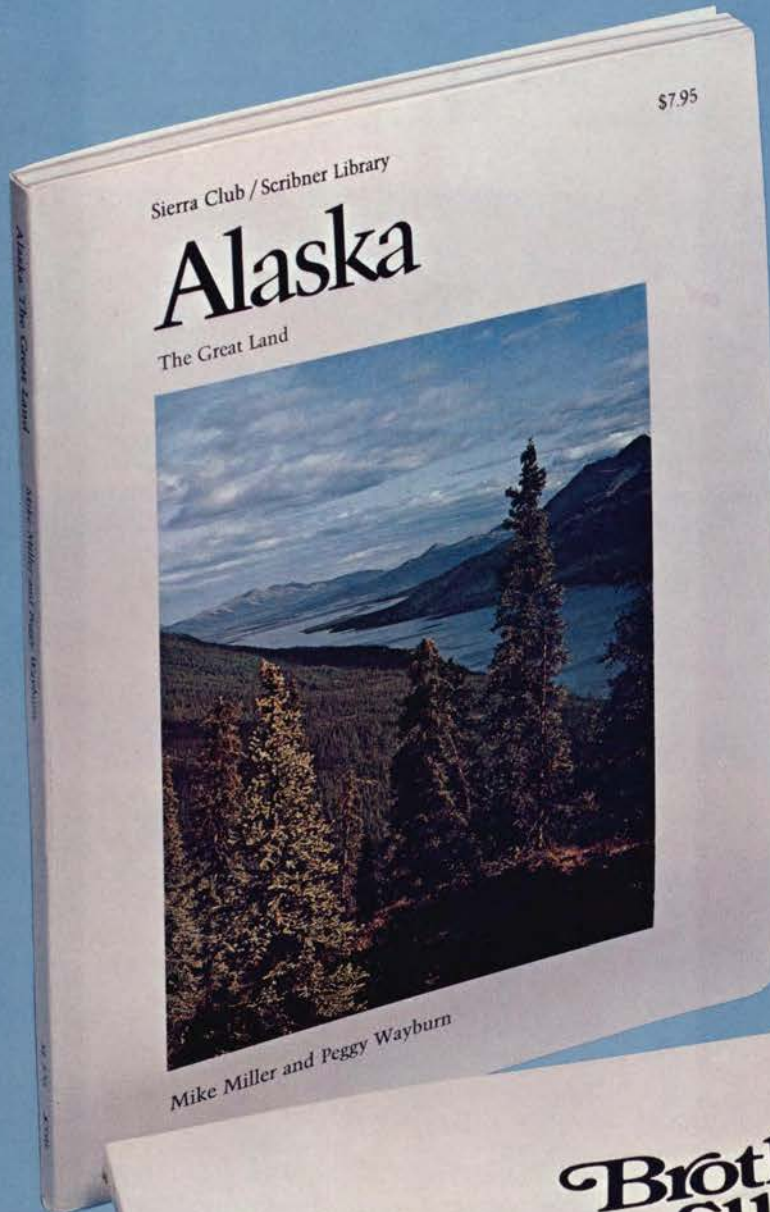
The second section of the *Primer*, the Manual, offers techniques that come from grass roots, refined by repeated experience. It takes you through the entire process, from identifying the specific problem at hand, the decision-makers, the points of access to the decision making process, what laws may have been broken (including a summary of major laws), the people who could support your cause, the opposition and its weaknesses; through the creation of an alternate proposal, the structuring of your own organization and choosing of leadership, identification of needs and resources; to the actual fray — maintaining cohesion, handling the press and publicity in general, dealing with hearings, initiative and recall campaigns, fund-raising, going to court, getting laws passed, and settling the issue — and beyond.

The message becomes clear: if we want to save the environment, if we want to save our homes, we will have to do it ourselves. No previous experience is necessary. Here is help — here are the stories of those who have battled and won (and sometimes lost) where it is most important — at home. Here is a place to start.

James Robertson is the head of Yolla Bolly Press, the designer of *Mind in the Waters*, and creator of *The Brown Paper School*, and *Amazing Life Games*. John Lewallen is the author of *Ecology of Devastation: Indochina*, and is a former features editor of *Clear Creek Magazine*. Both live in northern California.

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Sierra Club



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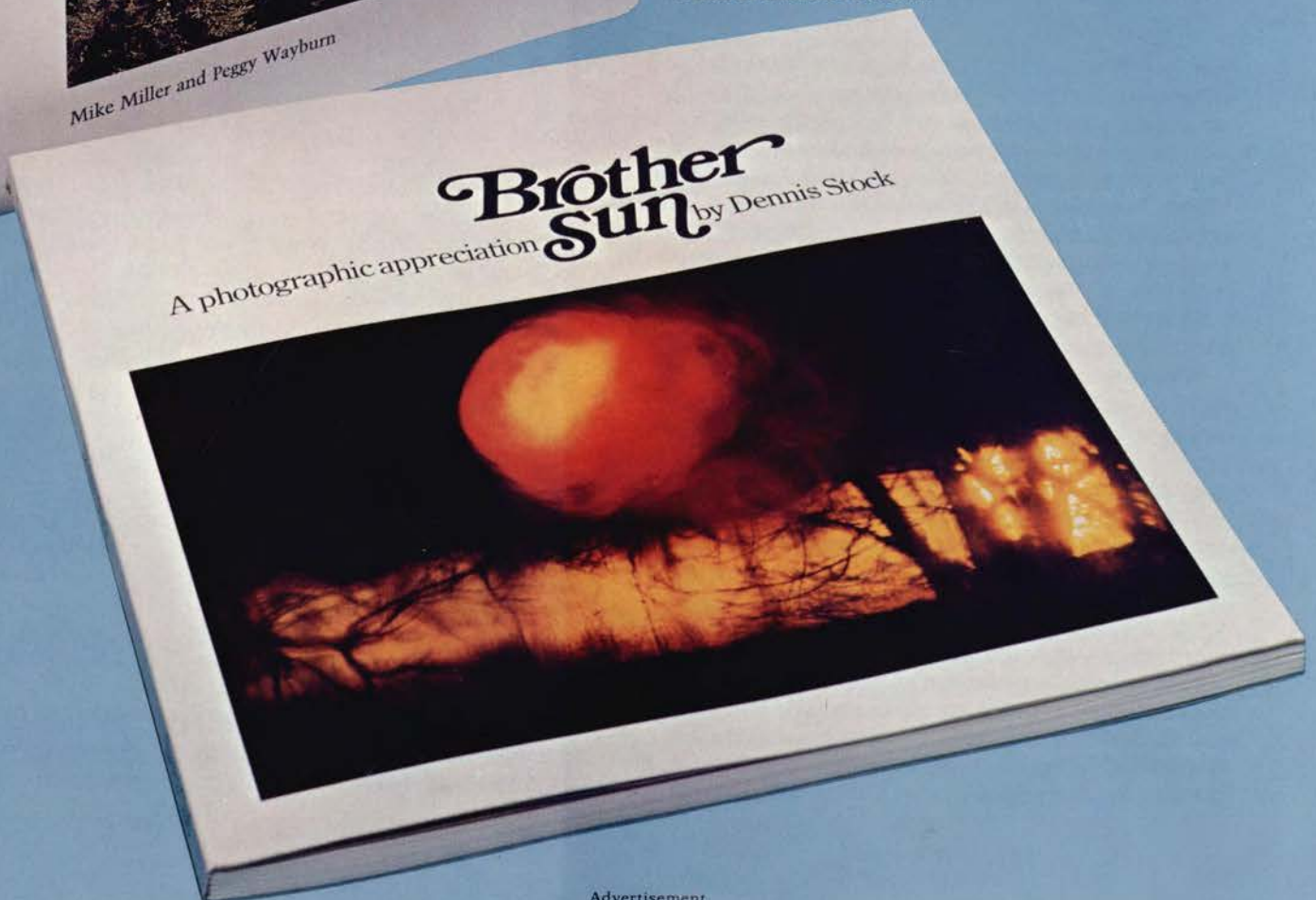
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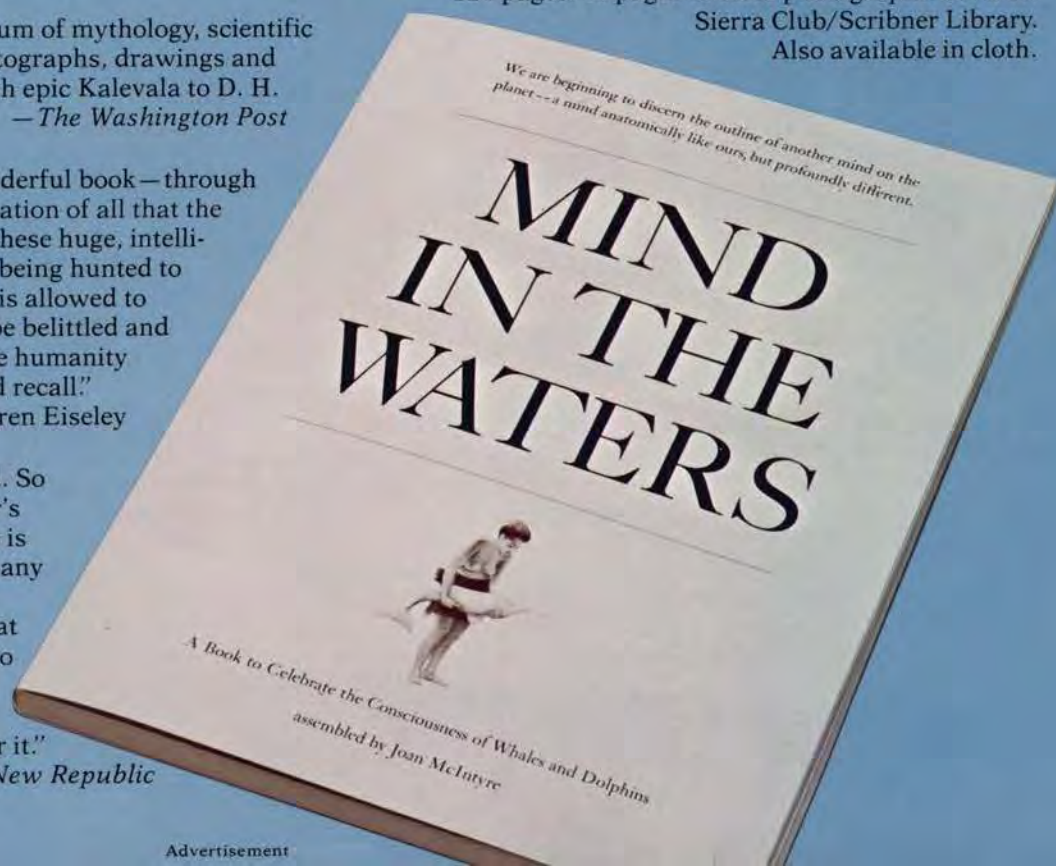
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—*The New Yorker*

Joan McIntyre is the head of Project Jonah, a group of people who are devoted to the protection and understanding of Cetaceans and to bringing about a world moratorium on the commercial killing of whales and dolphins. Royalties from the sale of this book will go to Project Jonah to be used in its campaign.

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by John G. Mitchell

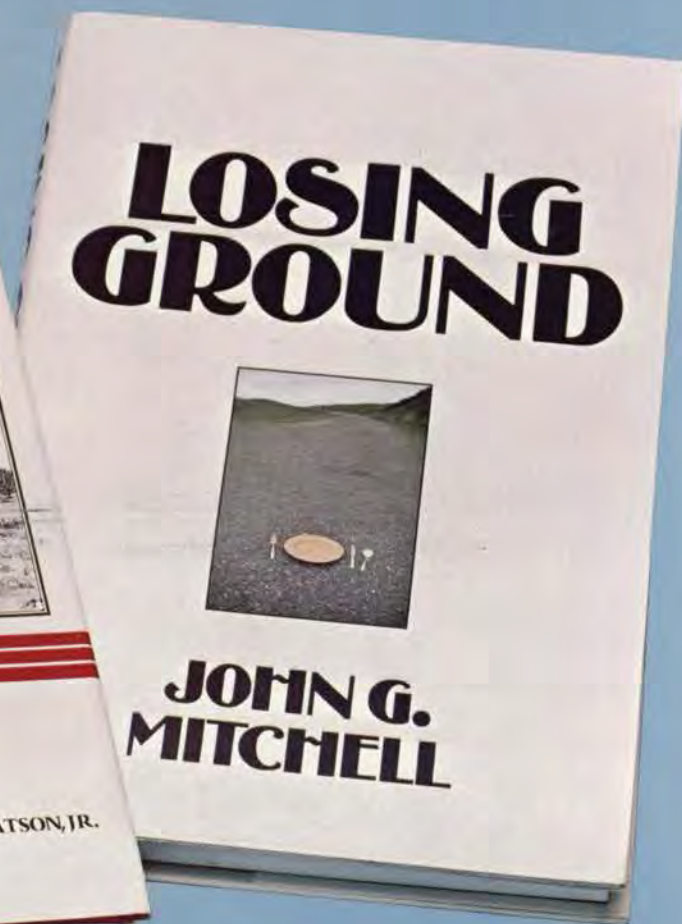
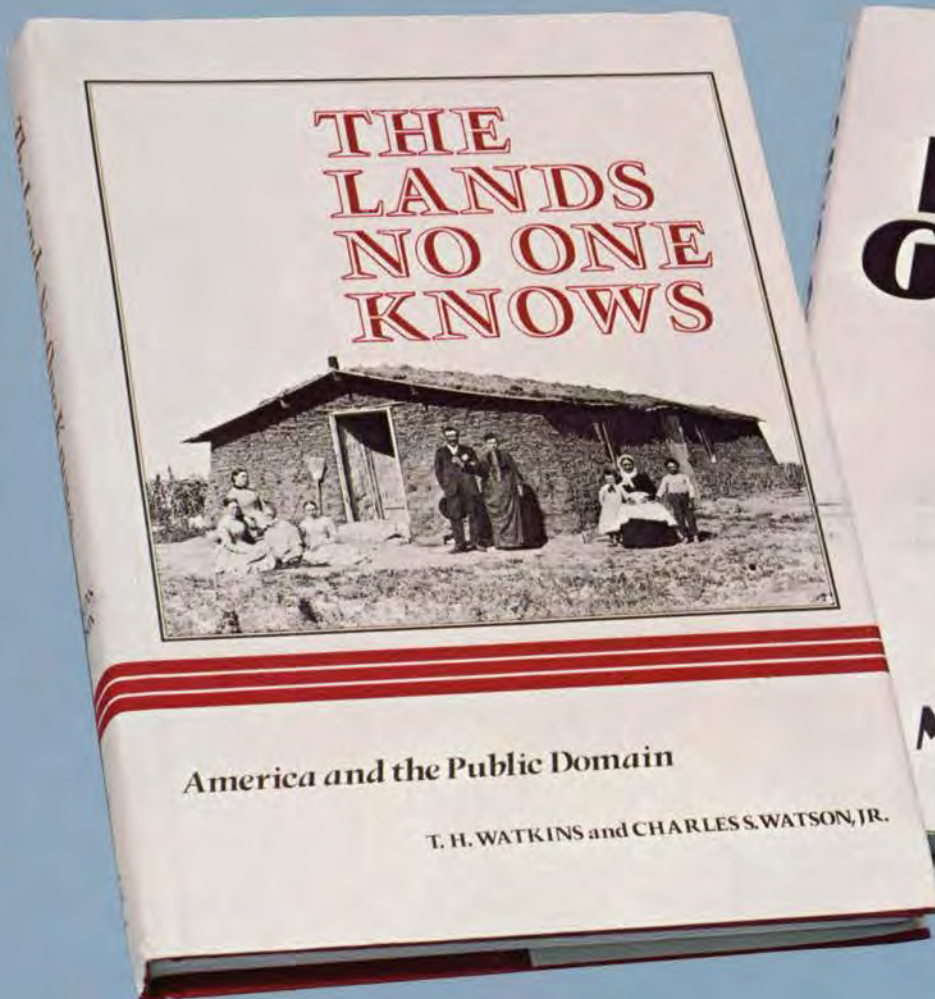
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Will Humanity Learn from Nature?

Mankind at the Turning Point, The Second Report to The Club of Rome, by Mihajlo Mesarovic and Eduard Pestel. 210 pp. New York: E. P. Dutton/Reader's Digest Press, 1974. \$4.95, paper.

IT IS GENERALLY conceded that Rachel Carson's *Silent Spring*, published in 1962, had an enduring historical influence. Many ecologists think that the so-called Club of Rome report, *The Limits to Growth*, by D. H. Meadows, *et al.*, published ten years later, will prove to be equally important historically. Both books provoked an avalanche of critical refutations. It is now clear that the opposition to *Silent Spring* was almost entirely in error, most often because the critics simply did not understand what Carson was getting at. I think the same will prove to be true of the literature critical of *The Limits to Growth*. Perhaps the best criticism to date is the so-called "Sussex Study," the *Models of Doom*, by H. S. D. Cole, *et al.* The American edition of this work (New York: Universe Books, 1973) is particularly valuable because it concludes with a response by the four authors of the book criticized, a response that neatly and effectively skewers the critics.

Comes now the "Second Report to the Club of Rome," to quote the subtitle of Mesarovic and Pestel's book. Will it be as important historically as the first? Alas, I am afraid not. This prediction is a reflection not on the quality of the book but on the fickleness of the public. To go back a bit, the first *Kinsey Report* was a runaway best-seller; but the second was "remaindered" to the tune of tens of thousands of copies. The response of the public to a new point of view is like the stock market's response to new financial data: a new idea is "discounted" (responded to) only once. The public naturally assumes that the Second Report to the Club of Rome is some sort of repeat of the first — and largely ignores it. This is a pity because the second report is

based on a finer analysis than the first, and the results are significantly closer to reality. The first "aggregated" the variables — that is, it treated population, minerals, energy, etc., on a worldwide basis. This procedure would be justified if there were no inequalities in the distribution of these variables, or if there were no barriers to the free flow of people and materials from one region to another. But such inequalities and barriers exist. Barriers have always existed, and at the moment there is no reason to think they will disappear (though they may change). In fact, it has yet to be shown that the world would be better off without barriers (though this is a question that can be put aside for the present). A barrier-less world is a pure hypothesis.

Mesarovic and Pestel accept a compartmentalized world, and repeat much of the computer analysis of the preceding study in the framework of a world divided into ten regions: North America, Western Europe, Japan (the only region including but a single nation), Eastern Europe, Latin America, North Africa and the Middle East, Main Africa, South and Southeast Asia, and Centrally Planned Asia (including China). In terms of geography, history, and current political realities, the groupings seem well chosen (though Cambodia and South Vietnam may by this time have moved from the next-to-last into the last category). Current trends clearly indicate different futures for the ten regions. To assume an aggregate common future, which some have inferred from the Meadows' study, is surely not realistic. We do not live in One World.

Mesarovic and Pestel do not, however, hold out any hope for the world if the ten regions, or individual countries, insist on pursuing their own courses in opposition to, or in whole-hearted competition with, each other. On the contrary, they say (page viii) that the peoples of the world must "embark on a path of organic growth," producing a world that is "a system of interdependent and har-



monious parts." On page 147 they give four *musts*, the first of which is this:

A world consciousness must be developed through which every individual realizes his role as a member of the world community. Famine in Tropical Africa should be considered as relevant and as disturbing to a citizen of Germany as famine in Bavaria.

Such a call for global unity is strangely at variance with the methodological analysis on page 37:

In the "one-world" or homogeneous view of the world development in which differences between various parts of the world are suppressed and one talks only about global indicators and variables, the entire system reaches its limits at one time and either collapses or not. In the world view based on diversity . . . collapse, if it occurs, would be regional rather than global, even though the entire global system would be affected. [Italics added.]

It seems to me that the latter view is far closer to the truth, and a far better guide to realistic action at the present time, than is the inspiring *must* of the first quotation. No matter how strong our humanitarian sentiments may be, the blunt fact is that ten million people dying in Bavaria is more relevant and disturbing to the citizens of Germany than the same number dying in the Sahel. Would the world be a better place to live in if distance — in space, in time, and in culture — made absolutely no difference at all to men and women?

The authors' example is a variant of the old complaint that the splinter in the finger of the little girl next door matters more than the death of a man in China. When we first hear this complaint, we may think we ought to change our ways. But suppose we did? We *could* say to the little girl, "I'm sorry, my dear, but please don't bother me about your little splinter; I must sit here and agonize over a man dying ten thousand miles away." If that were our attitude, would the world be a better place to live in? Would the problems of the world be sooner solved?

Garrett Hardin is professor of human ecology at the University of California, Santa Barbara, where he has taught since 1946. He is the author of a number of books, among them *Exploring New Ethics for Survival: the Voyage of the Spaceship Beagle*.

Or are propinquity and friendship relevant ethical facts? The common man thinks so; why do many idealistic intellectuals not agree? And, if they disagree, why don't intellectuals prove that the common man is wrong?

We sense, of course, a conflict between the instinctive — the adjective is used advisedly — the instinctive preference for those near and dear to us, and our intellectual recognition of the many ways in which events distant in space, time, and empathy can, in fact, ultimately affect our well-being. As the world fills up, the relative importance of distant interrelationships increases. That being so, there is ever more need for some sort of resolution between opposing impulses, a resolution that will make survival possible.

Survival of what? Of life, at least — the life of some, at least; of many or all, if possible. And the survival of civilization. Defining "civilization" is difficult, but for the purposes at hand we should be able to agree on a rough and ready definition so that we can get ahead with the work of trying to save for our descendants something of greater value than mere physical existence. Culture? Dignity? Decency? Benevolence? It is hard to know what word or words to put to this "something else," but mere physical survival is not enough. (In the language of mathematics, physical survival of some — but not necessarily all — human beings is a *necessary but not sufficient* condition for achieving our goal.)

If a crowded world is not to be torn apart by conflicting forces, some sort of organic organization of these forces is a necessity. But what does "organic" mean? Mesarovic and Pestel do not tell us, so we must think further about this matter. The adjective "organic" is related to the noun "organism." In the embryological development of an organism we observe one tissue after another, one organ after another, dominating the growth process — *but each only for a time*. If the liver is growing most rapidly today, tomorrow it will be the lungs; today the nervous system, tomorrow the long bones. Everyone who knows any-

thing at all about population growth knows that continued exponential growth of a population of organisms is intolerable in the long run (and not such a very long run at that). The indefinite exponential growth of a population of cells is equally intolerable. Each little organ has its exponential day. But the exponent of its growth has a negative exponent of its own; ultimately, for each tissue, a state of ZPG (zero population growth) is reached. Sometimes the negative exponent carries growth below ZPG, and the tissue disappears. The thymus gland, so large in early childhood, usually disappears before adulthood. A tissue may even have more than one "grand period" of growth — for example, the reproductive tissues which grow exponentially once during embryonic life and again during adolescence.

The organization of scores of separate growth processes in space and time is immensely complex, far beyond our certain knowledge. Were they in charge, today's scientists would not know how to orchestrate the multitude of cellular voices; but the organism "knows." The more we study the orchestration, the more we are impressed with "the wisdom of the body," to use Walter B. Cannon's pregnant phrase. Can we human beings, the inventors and elaborators of politics and political economy, discover or create a comparable wisdom of the body politic? Can we orchestrate the multitude of countervailing forces that wrack this poor body, compelling or persuading each force to mitigate its power after a time, for the sake of the whole? This is the hard question that underlies the facile appeal for the establishment of an "organic" arrangement of competitive powers in the body politic.

Perhaps a look at the problems of biological bodies may throw light on the issue. The orchestration of contrary forces is awe-inspiring when it is successful, but let us not forget how often it fails. In mammals, from a quarter to a half of the embryos started normally are aborted. About half of these are visually abnormal; no doubt many of the remainder are biochemically, though not visually, abnormal. The embryos that are aborted are ones in which the orchestration of forces went astray to such a degree that survival became impossible even in the highly protective and nurturant uterine environment. To use a musical analogy, the fertilized egg starts off life with a beautiful "score," but one not quite like that of any composition before it. Harmony and chaos are only a half-tone apart. If the new orchestration given the fertilized egg is reasonably harmonious, the embryo survives; if it is not, the embryo soon perishes. No external intelligence writes the score; the score is inherited, with variations,

from the survivors of earlier tests of existence. Harmonic variations produced by the new combination may be too extreme to permit survival. But life — mere life — is so cheap that the species is not in the least threatened by a mortality rate of twenty-five or fifty percent in the embryonic phase.

Is there any analogue of this situation in the survival of variants of the body politic? It is not obvious if there is. Perhaps in an earlier day there was. When the human species was divided into thousands of more or less equal tribes, a tribe that prospered in war because it had devised more effective communication among its members displaced less gifted tribes, thus altering the species in the direction of better language skills, which could later be used not only for integrating war activities but also for writing poetry, inventing mathematics and science — and debating about the future of the species.

But, in our time, the existence of powerful *exosomatic* adaptations such as nuclear bombs gives us good reason to doubt that a battle to the death would necessarily result in survival of the best, by any defensible definition other than a purely tautological one. How are we to harness the divergent and conflicting forces of the body politic into an organism that can survive? How can we program self-limitation into the economic and social forces needed for doing the work of the world? It is not obvious that answers to these questions exist.

Certainly the authors of the Second Report to the Club of Rome do not give us the answers. I am not even sure that they appreciate the full complexity of the problem. William James divided the thinkers of the world into hard-headed and soft-headed. The authors of this work begin bravely as hard-headed thinkers, but toward the end they lose their nerve and fall into the camp of the soft-headed, calling for more concern for our fellow men and for Nature, trying to create the One World they regard as necessary by the fiat of the word "must."

In a commentary at the end, Alexander King and Aurelio Peccei (the godfather of the Club of Rome) give two warnings from the club that merit meditation:


No fundamental redressment of the world conditions and human prospects is possible except by worldwide cooperation in a global context and with long views.

The costs, not only in economic and political terms, but in human suffering as well, which will result from delay in taking early decisions, are simply monstrous.

These two statements look suspiciously like an ultimatum. The authors seem to be saying that they won't play ball unless reforms are accomplished in-

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stantly, and in the framework of One World. I hope this is not a valid inference from their statements, for if so, they define a no-win game.

In Chapter 9, significantly entitled "The Only Feasible Solution," Mesarovic and Pestel argue that the initiation of a suitable population policy in South Asia in 1975 would reduce the number of child deaths from starvation in the period from 1975 to 2025 by half a billion, as compared with delaying the beginning of such a policy until 1990. This may be so, but is there the slightest chance that the publication of their computer curves will generate the political and social changes needed to save half a billion children? Computer-simulation competes with Freudian denial. Is there the slightest doubt what the outcome will be? In another connection, the authors quote Winston Churchill as saying, "A problem postponed is a problem half solved." This surely is the conventional wisdom of most politicians, particularly of those who owe their posts to election.

It's no good saying that mankind must reform immediately. We'll do the best we can, and that undoubtedly means learning from horrible, though not overwhelming, catastrophes. We dare not make practical solutions contingent upon worldwide cooperation. It is the better part of wisdom to use the little cooperation we can muster at the moment, protecting the cooperators from the noncooperators by suitable barriers, while we cautiously seek to enlarge the circle of cooperation. Better that some civilization be saved here and there in an imperfect world than that we stake our all on a perfect world and lose all when ideals collide with reality.

Scientists trained in the simplicity of classical engineering and economics constantly look for maximum points. The political scientist William Ophuls, surveying the almost infinitely more complex world of human politics, has remarked that "Nature abhors a maximum." We may call this *Ophul's Axiom*; it is a more general statement of the ancient wisdom that "The best is the enemy of the good." Pursuit of the unattainable "best" prevents achieving the attainable but lesser "good." The thinkers of the Club of Rome have done a real service in persuading large numbers of people that death is possible. But occasionally (as in the passages quoted above) spokesmen for the club lapse into the millennial thinking that threatens to undo the good they've wrought. Survival will be difficult enough; let us not complicate our task by making survival contingent upon the creation of One World, or insisting that the loss of life be kept at a minimum (i.e., that survival be kept at a maximum). Ophul's axiom is more powerful than good intentions. **SCB**

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Game Ranches

To the Editor:

Norman Myers has written a brilliant book on the wildlife of East Africa, *The Long African Day*. Recently, in American magazines, he has been publishing articles with a controversial slant — namely, that Africa's treasure of big game should be considered a source of food for the natives or for export so as to bring additional income. This thesis rests on shaky ground and is unpopular with African wildlife experts, and, I believe, with officials in charge of East African national parks and game reserves, and with such conservation organizations as the East African Wildlife Society of Kenya.

It is significant that Mr. Myers now works for the Food and Agriculture Organization of the United Nations (FAO), which is devoted to development of food resources for the underfed peoples of the world. While this is a noble endeavor, Mr. Myers' attitude toward African wildlife is like that of timber cutters toward wilderness — strictly utilitarian. The non-utilitarian attitude which has been the basis for the creation of Africa's magnificent national parks and game reserves, does not equate leopards with their value as furpieces. . . . In fact, passage of the endangered species act by Congress and the ban on imports of the skins of such species shows that Americans too are shying away from the utilitarian attitude

toward big game. Mr. Myers is thus working against conservation trends. . . . In doing so, he is not speaking for the governments of Kenya, Tanzania, and other countries who are doing wonders with limited financial resources to maintain their game reserves and add to them, with considerable help of outside organizations like the World Wildlife Fund.

Ranching of wild animals, which Mr. Myers promotes, has been tried on a limited scale in South Africa and Rhodesia, and its practicality has yet to be proven. The natives of Africa are not generally meat eaters. In traveling considerable distances around Malawi, Kenya, and Tanzania, one does not see much meat on sale — except in cities like Nairobi and Lilongwe, where many westerners live. The bulk of these people in the rural areas live on a subsistence basis; true, their diet is meager, but it is traditionally made up of grain and vegetables and some fruits, with little meat. Myers seems to be thinking of converting these peoples to a western-style meat diet, which is not practical.

His claim that there is an overpopulation of elephants, hippos, and buffalo, "all animals which produce a pile of high-quality protein for a single bullet" (an unfortunate phrase), may be the view of the FAO, but the presence of these animals in vast numbers is normal and natural in Africa, and nature takes care of itself. Their economic value in stimulating tourism is recognized by the African governments. Kenya, for example, has recently announced it will spend some \$170 million on developing tourism in the next four years — and tourism means game viewing. We hope these governments will ignore Mr. Myers' desire to put bullets into the heads of the leopards, buffalo, elephants, and hippos, and keep the game ranchers out.

Anthony Netboy
Jacksonville, Oregon

Norman Myers responds:

First off, Mr. Netboy finds it significant that I now work for the Food and Agriculture Organization of the United Nations. The article (*Bulletin*, June/July, 1975) was written before I joined FAO, and represents entirely my own views — not those of the organization, which I shall shortly leave after completing a one-year assignment.

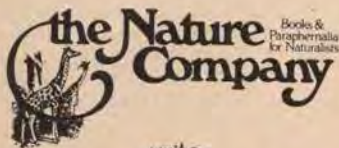
I believe that my approach is broadly in line with that of officials in charge of wildlife conservation in East Africa. The Kenya Government has given approval to several game cropping or game ranching projects; the Tanzania government to at least three; while the Uganda government of the late 1960s permitted many tons of meat from excess elephant and hippo populations in parks, and from buffalo, kob, warthog, and waterbuck outside

parks, to be sold to protein-deficient people. The Kenya government frequently refers to the appreciable economic benefits it derives through tourism; it allocates substantial funds to promotion of tourism, and to building park-feeder roads, extending airports, and other infrastructure for wildlife-based tourism. Equally, these East African governments stress that exploitation through cropping, tourism, sport hunting, and other forms of utilization is no more than a means to an end, which is to ensure the ultimate survival of significant numbers of wild animals for the permanent enjoyment of their own human communities and of the community-at-large outside East Africa. My own purpose in advocating exploitation is the same: the long-term conservation by whatever means seems appropriate in various circumstances. I do not adopt a "strictly utilitarian" approach as an objective in itself. The confusion seems to have arisen between strategy and tactics. I believe my overriding "philosophy" as regards wildlife and its intrinsic value is set out at length in my book, *The Long African Day*, to which Mr. Netboy makes kind reference and which is almost entirely devoted to nonutilitarian aspects of wildlife conservation. My article stressed exploitation as a "for-the-want-of-anything-better" approach. Findings recently released on land-use pressures along Serengeti Park's western border indicate that the human population there, already at a density of hundreds of persons to a square mile in several places, is growing at four percent per year (some immigration from congested areas farther west, near Lake Victoria). While these people harbor no malicious or destructive feelings toward wildlife, and approve of it in general terms, they can hardly be blamed if they eventually wonder whether the park should not be put to more "useful" forms of land usage.

Numerous other instances of developing pressures arise in many of the thirty-odd countries of Africa where I have travelled and discussed wildlife with government officials. The same general approach that I have advocated is to be found in the activities of many private organisations, such as the Washington-based African Wildlife Leadership Foundation, which, while promoting education and training as major planks in its platform, is investigating the possibilities for meat production from oryx and eland at its Galana Ranch operations in Kenya.

Mr. Netboy states that Africans are not generally meat eaters. True, on average they consume less than a domestic cat receives in affluent countries. This does not mean they would not eat more meat if they could get it. When wild protein was made available in Uganda, butchers came from 100 miles away to get at a

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product for which they were sure a ready market was available. I do not suggest that Africans — or anyone else — should aim at a consumption rate of 250 pounds of meat per year, which is the level that the average American recently reached. This intake is far above the amount recommended by the World Health Organization, just as the intake of the average African is far below.

The question of what constitutes "overpopulation" of elephants, hippos, and buffalo is a thorny subject. Generally speaking, there is no conclusive evidence one way or the other. I have formed my opinion on the basis of many years of observation in various areas, and it coincides with that of a majority of ecologists who have studied the problem in detail. This does not mean that anyone yet has the argument sewn up. Many areas in America contain large numbers of deer or elk; whether these are excess numbers which cause overuse of the food stocks is not yet determined once and for all, though the evidence sometimes seems pretty compelling that nature cannot always take care of itself in situations where man's disruptive practices in the environs do not leave a "natural" situation.

The wildland environments of Africa differ from those of temperate North America. The same goes for the socioeconomic environments of human communities with which wild animals must share their dwindling patches of emergent Africa. I suggest that what is unique about African wildlife needs a unique conservation approach, tailored to African conditions. ●



Robert A. Irwin

AS THE ENVIRONMENTAL movement has come of age, more and more Sierra Club chapters have joined forces with other conservation organizations to give a stronger, more effective voice to the environmentalist point of view in their respective state legislatures and governmental offices. The excitement and rallies of the first Earth Days have abated. Environmentalists now realize that attainment of the lofty goals of those remote days takes something more — hard, demanding, continuous work. Buttonholing legislators, consulting with state officials, attending hearings, digging out facts, mustering grassroots support — all call for an ongoing, concerted effort. Volunteers alone cannot possibly be expected to supply the necessary strong, sustained, day-in-day-out attention to detail. Some type of professionally staffed, permanent organization is indicated. A formal arrangement of that type has existed in California for some years. A fulltime lobbyist, John Zierold, represents the club in Sacramento, and the state's thirteen chapters all contribute toward his support. The Florida Chapter also hires its own lobbyists; for the 1975 session they were Casey Gluckman and John Scivani, both prelaw students. Usually, however, chapters join with other environmental groups and organize various forms of statewide coalitions, leagues, councils, or networks — as in New Jersey, Michigan, Minnesota, and Colorado, to name a few.

This year two more chapters joined the list, largely because a few individual members became concerned and acted.

In Illinois, Jerry Wray did just that. He acted. During the spring of 1974, Wray, a member of the Prairie Group of the Great Lakes Chapter, began thinking of taking a leave from his job at the University of Illinois so he could devote full time to some sort of environmental work. What most needed doing, he soon realized, was the organizing of a statewide environmentalist coalition with its own lobbyist in Springfield. Since the late sixties, some such attempts had been made. Each had failed. The reasons they had, Wray found,

was that (1) their base was too shallow, (2) they represented no visible, credible constituency, and (3) people were not really involved; the coalitions proved to be mere paper organizations.

Wray then began to sound out leaders of conservation and environmental groups around the state on the feasibility of an attempt to form yet another united front. By late summer he had received enough encouragement. He took his leave of absence. With the help of Mark Anderson, head of the Chicago-based Citizens for a Better Environment, the Illinois Public Action Fund was set up to raise money — which it did. More meetings were held. The support was there, and the Illinois Environmental Council (IEC) was in business. It opened its office close by the state capitol in January, 1975. Its staff of two, both registered lobbyists, consists of Judy Groves and Wray himself. Groves, who has a Master's in environmental studies, works part time. She also has been organizing the chapter's local Sangamon Valley Group. The chapter and a number of its organized groups are among the council's fifteen-member organizations. Each contributes at least \$100 a year to its support. Some 300 individual members have joined so far. They pay annual dues of \$15 and regularly receive the informative IEC NEWS, which during the legislative session comes out weekly.

After a year's effort to get it going, here's how Wray appraises the IEC's effectiveness: some legislators actively seek IEC support on various issues, and most of the others are usually available for discussions. "And all of them know that we are watching when votes are taken," says Wray, though because of the constraints of time and money, he concedes that lots of things didn't get done. He expects that in another year "we will be able to see some bigger waves."

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Continued on page 48



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News

Sierra Club Board establishes ozone policy

At their August 30-September 1 meeting at the club's Clair Tappaan Lodge in the Sierra Nevada, the board of directors adopted an official policy calling for protection of the earth's ozone layer. That policy states: The Sierra Club supports

- Such limitations on human activities as may be necessary to protect the stratospheric ozone layer which shields life on the surface of the earth from excessive solar ultraviolet radiation;

- Basic atmospheric research and continued assessment of relevant human activities in order to determine whether those activities will change the ozone concentration in the upper atmosphere;

- A moratorium on the deployment of new technologies which could damage the stratospheric ozone layer.

With respect to the use of chlorofluoromethanes (commonly called freons), non-essential uses, such as in aerosol spray cans, should be phased out expeditiously within a two-year maximum period unless the preponderance of scientific evidence shows that these substances pose no significant present or future risk to public health, safety, or the environment.

Other Board actions: Railroads, investments

The directors also adopted a policy favoring the rehabilitation of railroad roadbeds, and passed a resolution regarding environmental priorities for investment policy. They are as follows:

- The Sierra Club supports federal appropriations to rehabilitate the nation's railroad roadbeds. Such funds, which will stimulate employment, have the environmental advantage of enhancing the ability of a relatively energy-efficient mode of transportation to carry more of the nation's traffic; and

- All Sierra Club investment portfolios shall be managed with environmental protection as a goal and without investing in industries or individual companies which traditionally have been club adversaries and/or which have poor environmental records; provided, however, the club may hold, as necessary, small numbers of shares for use in gaining access to corporate information or annual meetings for distinct conservation goals.

In addition, the board adopted as a bicentennial project the protection of the American bald eagle in its present range and its restoration to its former range.

Regulations to reduce porpoise mortality proposed by NMFS

Strong regulations which could significantly reduce mortality and serious injury to porpoise incidental to tuna purse-seining operations were proposed September 8 by the National Marine Fisheries Service (NMFS). These proposed regulations include a quota on porpoise deaths for 1976 of between 50,000 and 110,000 and the opportunity for placement of an observer on every vessel to collect data and monitor compliance with regulations — two goals long sought by conservationists. A draft environmental impact statement concerning the reissuance of general permits is available from the Office of the Director, NMFS, 3300 Whitehaven Street, N.W., Washington, D.C. 20235. A public hearing is scheduled for October 9 in Washington, D.C. All concerned conservationists are urged to attend or submit their written comments by October 24 to the director supporting measures which will reduce porpoise mortality and commending NOAA Administrator Robert White and NMFS Director Robert Schoning for their intelligent actions in the face of heavy industry pressure.

Commissioners say no to Tocks Island Dam

The Delaware River Basin Commission recently voted to de-authorize the Tocks Island Dam Project, making it unlikely that the dam will be built. The commission consists of the Secretary of the Interior and the governors of those Delaware Valley states which would be affected by the dam. The governors of New York, New Jersey and Delaware voted to ask Congress not to appropriate money for construction. Pennsylvania favored the appropriation and the Interior Department abstained. The governors were apparently persuaded by intense public opposition and by a recently completed six volume study of the dam, which concluded that a reservoir at Tocks Island would be badly polluted by agricultural runoff, and that flood control, water supply and power generation could be accomplished by less environmentally destructive means.

Ford nominates Thomas Kleppe as Secretary of the Interior

President Ford announced September 9 that he will nominate Thomas S. Kleppe, now head of the Small Business Administration, to become Secretary of the Interior. Kleppe, a former mayor of Bismarck (1950-1954) and congressman from North Dakota (1966 to 1970) was termed by Representative Morris Udall of Arizona as "first and foremost a conservative Republican who has never demonstrated expertise in sensitive areas of environment and resource conservation. . . ." During his two terms in Congress, Kleppe's record on environmental matters was at best inconclusive. In the past he has reportedly possessed extensive holdings in northern plains oil concerns.

News

Logging banned in Boundary Waters Canoe Area

In a U.S. District Court decision late this summer, virtually all logging in the virgin forests of the Boundary Waters Canoe Area (BWCA) of Northern Minnesota was permanently banned. This decision was the result of a suit filed in August, 1974, by the Sierra Club and the Minnesota Public Interest Research Group, who claimed that the sale of BWCA timber violated the 1964 National Wilderness Act and the 1969 National Environmental Policy Act. Judge Miles Lord concurred, but an appeal is expected.

Port Orford cedar—an endangered species

According to club forester Gordon Robinson, the only way to save the Port Orford cedar is through wilderness designation for any roadless areas in which it is at present contained. Robinson's statement came in response to a recent announcement by the U.S. Forest Service Pacific Northwest Experiment Station that the Port Orford cedar, also known as Lawson cypress, is threatened by extinction, being exterminated by a fungus that infects succulent feeding roots and spreads in the inner bark. The disease spreads rapidly, often through contact with man and machinery, and particularly in connection with roads and road building. There is no known cure, and present knowledge indicates that once the fungus has become established at a site it is there permanently. Prevention is the only means of protection. Only those trees on high ground in remote areas may escape infection indefinitely. Port Orford cedar grows only in the coast range of southern Oregon and northern California, and is found most frequently in the high mountainous areas of the Siskiyou, Klamath, and Six Rivers National Forests.

Grizzly bear listed as threatened

The grizzly bear, formerly unprotected by federal law, was recently listed by the U.S. Fish and Wildlife Service as "threatened" under the Endangered Species Act of 1973. This action means that except for limited circumstances prescribed by regulation, it is now unlawful to kill, capture, harm, harass, import, or export a grizzly anywhere in the lower forty-eight states, or to sell any parts or products of these bears in interstate or foreign commerce. Although the Fish and Wildlife Service did not feel that the grizzly was in danger of imminent extinction, which would have provoked an "endangered" listing, the numbers of grizzlies have declined sharply, and their range has been reduced to the point where, aside from Alaskan populations, virtually all remaining grizzlies in the United States occur in three relatively small ecosystems in Montana, Wyoming, and Idaho.

Club honors leaders of the campaign to save Eastern Wilderness Areas

On behalf of the Sierra Club Board of Directors, the club's vice president and wilderness committee chairman Ted Snyder had the pleasure of presenting thirteen certificates of appreciation earlier this summer "for untiring, devoted and effective labors in the cause of wilderness preservation in the Eastern United States," culminating in the passage last December of legislation designating sixteen wilderness areas (206,988 acres) and seventeen wilderness study areas in the Eastern United States. Awards were presented to: Jerry Wray (Illinois); John Karel (Missouri); Shirley Taylor (Florida); Mary Burks (Alabama); Ray Payne (Tennessee); Sam Hayes (Pennsylvania); Helen McGinnis (Pennsylvania); Jon and Sally Soest (Virginia); Tom Deans (New Hampshire); Allen Smith (currently club controller in San Francisco, formerly of Massachusetts); Roger Marshall (Massachusetts) and Ernest Dickerman (eastern field representative of the Wilderness Society in Washington, D.C.).

Lowell Smith elected as club treasurer

On August 30, the Sierra Club Board of Directors selected Lowell Smith of Arlington, Virginia as the club's new treasurer. Smith was elected to the board in 1974, and had been active in club conservation, council, and outings programs since 1963. He has served as regional vice president for Northern California and Nevada, and is a past chairman of the California Legislative Committee.

Pesticide Control Act under attack

The most serious threat to the Federal Environmental Pesticide Control Act (FEPCA) to date was beaten back September 4, by a vote of 23 to 18, in the House Agriculture Committee. The Poage-Wampler Amendment to the 1972 law, which gave pesticide authority to the Environmental Protection Agency, would have subverted that authority by giving virtual veto power to the Department of Agriculture (USDA). Given USDA's clearly irresponsible actions while in charge of pesticide decisions prior to 1972, and its constant battle since then on behalf of special interests favoring fewer controls on pesticides, such an amendment to FEPCA would have meant the end to the more balanced approach EPA has demonstrated in its regulation of pesticides.



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tude at home has changed as well as his outlook on life.

I hate to think of what would have happened to Russell if it had not been for Mike Wertz and Project Wilderness. I have [told], and will continue to tell, others how this project, thru the Sierra Club, is doing a great job of serving the community.

—Excerpts from a letter by a San Diego mother.

One of the high points of my probation career was the "debriefing" . . . after a wilderness trip by four of our "hard guys." One of them, the most "nothing-bothers-me-I-can-handle-anything" guy said, "Boy, there was a while there I didn't think I was going to make it, BUT I DID!" The others chimed in, "Yeah, man, WE MADE IT!" Talk about feeling good! We all did. The car was so full of grins it was hard to breathe. (That particular hard guy, by the way, is now making a tremendously successful adjustment, working and saving money, and in general acting like a citizen.)

My earlier misgivings about the wilderness program have been allayed. More power to them!

—From a probation officer's memo to the supervisor of San Diego County's Community Day Treatment Centers.

We conservationists long have extolled the wilderness experience for its purifying, restorative, and other generally beneficial effects on the human spirit. We have had a hard time, though, selling that line to the average citizen. "Maybe for some long-haired mystics," he might concede, "but not for me!" Well, for a good many "less-than-average citizens," the wilderness experience has been proving itself of real practical value. It indeed has restored the spirits of a lot of discouraged, disturbed kids and recharged them with a sense of their own worth and their worth to the community.

A growing number of Sierra Club chapters and groups have been getting involved in introducing needy or otherwise "disadvantaged" youngsters to the non-macadamized world beyond the inner city by taking them on camping trips or backpacks into wilderness areas. One of those chapters, SAN DIEGO, has been running its Project Wilderness since 1971. (The Mike Wertz mentioned in the letter above is one of the project's trip leaders. The other is Wayne Vandergriff. Its director is Susan Rogers.) Because this chapter, as well as others with similar programs, has entered a new field of endeavor with great potential value — and also great risk — to the Sierra Club, it has asked that

the national club support such a program and establish guidelines for it.

Specifically, the San Diego Chapter requested the board of directors to appoint a task group on inner-city outings to develop recommendations. The directors at their meeting over the Labor Day weekend directed the Sierra Club Council to study the question and report back at the board's February meeting. If policies and guidelines can be established by then, more urban-area chapters and groups will be in a position to move swiftly and smoothly into inner-city programs by next summer. They then will have had guidance in coping with such problems as financing the program, training leaders, providing liability and medical insurance, staffing, and dealing with inner-city communities. They will benefit from the experience of all the pioneers, including the ATLANTIC CHAPTER'S New York City Group, POTOMAC'S Washington Metropolitan Group and Tidewater Group (Virginia Beach), SAN FRANCISCO BAY, HAWAII (Honolulu), and ANGELES (Los Angeles). [Editor's note: Let's hear from you "others."]

Inner-city wilderness programs not only bring the young people into the Sierra Club camp, but their parents and community leaders as well. When such rapport has been established, joint efforts at improving the urban environment may well follow — as it already has as a result of the LOMA PRIETA CHAPTER'S program in the San Jose, California, area. In carrying out its outings project, the chapter has had to work closely with all elements of the city's Chicano community. While its inner-city-outings section provides the basic backpacking gear and the leaders for the trips, it must recruit at least one inner-city co-leader for each trip. Also, funds to support the program are raised through the combined efforts of the chapter, the inner-city people, and the community at large. The money comes from direct contributions and from half of the proceeds from tickets sold in an annual drawing run by the community's nonprofit Kids to Camp, Inc. In addition to the usual weekend outings, Sierra Club National Junior Knapsack trips are offered to youths whose parents are on welfare; six went on the 1975 trips. To pay the costs, the chapter's campership committee raised funds, which were matched four times over by Kids to Camp, Inc.

In the spring of 1975, a new and broader relationship with the community was born. At a series of seminars, environmentalist leaders learned to communicate with their Chicano counterparts on problems affecting the lives of all people living in the San Jose area. As a result, an all-day conference on "Shaping a Livable Environment" was organized by the Mexican-American Community Service Agency, the League of Women Voters, and the

chapter. It met June 7 in San Jose and explored ways of preserving urban open space and agricultural land, making community and environmental resources more accessible to all people, and preserving and rebuilding established, viable inner-city communities. The mutual respect and confidence that this conference generated paid off, literally, later in the summer. The Inner City Outings (ICO) program co-chairman Emilio Garcia called it a "tremendous vote of confidence" when the ICO received a \$5,900 grant — exactly the amount it had requested — from Kids to Camp, Inc.

To some old-time members it may seem that the Sierra Club has strayed far from its original purpose: "To explore, enjoy, and preserve the forests and other natural features of the Sierra Nevada." Yet if we are concerned to save some patches of wildness anywhere from the pressures of growth and development, we will need help from all segments of society. Project Wilderness and other such inner-city programs seem to be one effective approach to enlist that aid. But it is not only wilderness that is under threat. It is the air we breathe, the water we drink, the noise and general deterioration of life's amenities we suffer; and, most elemental, the irreplaceable mineral and fuel resources that we are losing every day to blind progress. All this environmental devastation we in the Sierra Club cannot halt alone. We need friends, and we need their help. We also need to know and understand their very real, everyday concerns and problems. Through inner-city programs we may get that help. Certainly we will gain understanding. ●

The Sierra Club, Sierra Club Foundation, and Sierra Club Legal Defense Fund have benefited from bequests received from the following individuals:

To the Sierra Club: J. Sellers Bancroft, Joachim F. Berliner, Francis Bardan, Frank Buckley, Mary L. Fay, Howard F. Fletcher, Dorothy Ann Foster, Marie Graham, Marion I. Israel, Ruth Lange, Edith Laumann, Mary A. Menaglia, Charlotte Parsons, Beulah Prucha, J. Parley Smith, Payson Treat, Edna E. Wolfe.

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Winter. A world made new by snow. A time for giving: a time for remembering.

Nineteen hundred seventy-six, the Bicentennial year, is before us: behind us an almost incredible story: Indian and Colonist, trapper and farmer, gold and steam and steel: a continent so great, so rich, it was the marvel of the world.

But most of all we remember the Wilderness that was. Our continent-wide enemy, our pride, our ransacked treasury, and the greatest gift that could ever be given to a new, ambitious nation.

The wild places made us what we are. Values learned on the frontier have yet to lose their force. Even the city dweller has been marked by that memory.

Yet if the land shaped us, still more we shaped the land. We were able to master that incalculable wealth: to use it, to exploit it, and sometimes—far too often—to ruin it.

What remains, the little that remains intact, is of a value hard to overstate. What price do we put on a few square miles of wild forest? A vista of clean desert and pure air? An Alaskan tundra tracked by wolf and caribou?

There are gifts of human manufacture, made and sold. But there are other gifts, gifts that come from the past, that all of us have shared in, that have no price, that money cannot purchase or create.

And yet it takes money—money and people—to defend those gifts.

The Sierra Club is now in its 84th year. Founded when conservation was the private vision of a few, it has grown prodigiously. So have the problems it must solve, the forces with which it must contend. As the new year approaches, consider giving a membership in the Sierra Club.

Sierra Club



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Photographs by Peggy Wayburn



The Short, Sorry History of Redwood National Park



PEGGY WAYBURN

ON JULY 16, 1975, U.S. District Court Judge William T. Sweigert ruled in a case brought by the Sierra Club that the U.S. Department of the Interior had "unreasonably and arbitrarily . . . refused and neglected" to perform its duties in protecting the Redwood National Park in California from damage caused by logging on lands adjacent to the park. Sweigert ordered the department to take "reasonable" action by December 15th to gain protection for the park under terms of the National Park System Act, and especially the Redwood National Park Act, and to turn to Congress for additional funding if necessary. This decision was a vindication for conservationists, a major victory for the Sierra Club Legal Defense Fund, and a landmark in the field of environmental law as well, defining a trust concept which may set a highly useful precedent for public-lands management.

Judge Sweigert's decision also wrote another chapter in the sad, curious history of the Redwood National Park. Whether or not it will alter the course of that history, however, is another question, considering what has happened to this park in the seven years of its existence.

Here are the highlights of the sorry record:

1968

Having given away California's coastal redwoods (along with the other public lands of the West) a century earlier, Congress decides at long last to "save" them. After decades of logging, there are only fragments — totaling about 200,000 acres — left of the once great two-million-acre primeval forest. Caught between enormous public pressure to establish a Redwood National Park and an outraged timber industry, which must sell back some of its remaining forests for such a park, Congress compromises. "To preserve significant examples of the primeval coastal redwood (*Sequoia sempervirens*) forests and the streams and seashore with which they are associated for purposes of public inspiration, enjoyment, and scientific study," Congress puts together a park which is a hodgepodge of diverse areas totaling 56,205 acres in all. It includes three of California's finest state parks — Prairie Creek, Jedediah Smith, and Del Norte Redwoods — whose 28,000 acres are not included in the record \$92,000,000 purchase price authorized. It takes in a thirty-three-mile strip of beach and coast, with the Redwood Highway running through it. It contains about two-thirds of the small, superb Lost Man Creek watershed, part of the larger Redwood Creek watershed in Humboldt

County. The park's most controversial feature, however, is a seven-mile long, one-half-mile wide "worm" of primeval forest snaking up Redwood Creek to form an exceptionally vulnerable appendage to a meager, sprawling body. The reason for this curious corridor, which lies in the middle of extensive and active logging operations, is simple: it includes the little river flat where grows the tallest tree on earth, 367 feet high.

The Congress is aware, at least in part, of the precarious nature of this park design. Taking cognizance of the threat posed by logging adjacent to the park, the park act directs the Secretary of the Interior to take action "with particular attention to minimizing the siltation of the streams, damage to the timber, and assuring the preservation of the scenery within the boundaries of the National Park." Furthermore, the Congress states its intent "that clearcutting will not occur immediately around the Park." The Secretary of the Interior is therefore authorized to: (1) enlarge the boundaries of the park by adding approximately 2,000 acres at strategic places; (2) acquire a scenic corridor along specified sections of the Redwood Highway to screen unsightly, devastated, logged areas from park visitors' eyes; and (3) enter into management agreements with the timber companies logging adjacent to the park boundaries and to acquire less-than-fee interests — or an in-fee interest, if necessary — in buffer areas essential to "protect the timber, soil and streams" inside the park.

While not ideal, the powers accorded to the secretary are significant: using them, he can round out the park's 11,000 acres of previously unprotected old-growth forest to 13,000 acres, an increase of nearly twenty percent. He can also negotiate effectively with the timber industry — which intends to log right up to every park boundary — to establish adequate buffer zones. He can, in short, hold damage to the park to a minimum while new efforts are mounted to gain a more rational Redwood National Park. Conservationists who have fought long and hard for a "Pyrrhic victory" are not entirely discouraged. As soon as President Lyndon Johnson signs the Redwood National Park Act in early October, 1968, the Sierra Club importunes Interior Secretary Stewart Udall to exercise his authority promptly to enlarge the new park and give it maximum protection. . . . Mr. Udall fails to act.

1969

Endless studies of the Redwood National Park commence. A twelve-man Redwood National Park Master Planning Team is appointed to consider the park's problems and make recommendations for development: two of the team members are from the Save the Redwoods League, another from the Sierra Club.

Dr. Edward Stone of the University of California, Berkeley, heads an official study which documents what everyone already knows: the new park has major problems. It lacks watershed protection. It is situated in highly erosive and unstable terrain. ". . . the fate of critical portions of the Park lies in the hands of private landowners in the watersheds tributary to the Park." Stone recommends a substantial buffer zone and controlled cutting around the park. The next decade, he notes, will be critical to its future.

While the Park Service is studying the situation, the Bureau of Outdoor Recreation is negotiating with timber companies, Georgia Pacific (later Louisiana Pacific), Simpson, and Arcata, to acquire the lands authorized for park purchase. The Bureau of Land Management (BLM) is surveying the park boundaries. The Forest Service is evaluating its forest holdings which will be used in exchange. The industry is clearcutting the slopes of Redwood Creek.

Gordon Robinson, Sierra Club forester, responds to the Stone report by proposing specific, stringent regulations for logging in areas adjacent to the park. He declares that "clearcutting the Redwood Creek slopes is intolerable." National Park Service forester Ted Hatzimanolis rebuts Robinson: clearcutting of Redwood Creek is not intolerable, he states, if clearcut areas are no larger than fifteen acres.

In November, the National Park Service produces a new "study." Called a "Concept Paper for Proposed Buffer and Watershed Management," it rejects the Stone report, the Robinson rebuttal, the Hatzimanolis surrebuttal, and industry's practices. It proposes instead to "Continue and Expand Coordinated Management and Research Objectives Heading Toward Elimination or Control of All Potentially Destructive Inputs Within the Entire Watershed of Redwood Creek."

The Sierra Club writes Undersecretary of the Interior Russell Train that "Time is running out quickly [for the Redwood National Park] . . . once again we face legislation by chainsaw . . . the logging companies are moving in to define the character of the land before park boundary surveys are even completed." Mr. Train takes no action.

1970

Minority members of the Redwood National Park Master Plan Team urge action, but get none. The studies continue.

The Sierra Club urges the new Secretary of the Interior, Rogers Morton, to intercede for the Redwood Park. Mr. Morton does not act.

The National Park Service makes a first feeble attempt to set up a buffer management plan with one timber company, Georgia Pacific. The proposed agreement gets nowhere. Another set of

guidelines is drafted, but no action results. The Bureau of Outdoor Recreation goes on negotiating costs with the timber companies. The BLM goes on surveying. The timber companies go on cutting.

Boundaries of the national park are irrevocably defined by logging in Bridge Creek, McArthur-Elam Creek, and Lost Man Creek. Clearcutting increasingly mutilates the small, exquisite watershed of Skunk Cabbage Creek, an area of prime park potential.

1971

Frustrated by inaction in the Department of the Interior and the National Park Service, the Sierra Club calls for and gets Senate oversight hearings on the Redwood National Park. Only one witness — representing the Sierra Club — calls the situation deplorable, even desperate. The National Park Service and the Bureau of Outdoor Recreation say they have no problems. . . . No action results.

The "Preliminary Draft Master Plan" is released. It deals almost entirely in concepts for interpretation of the new park. A minority report points out the need for an optimum park, asks for ways to gain better boundaries and protection, and for strict land-use controls in adjacent areas. . . . No action is taken.

The Sierra Club legally petitions Secretary of the Interior Morton to meet his obligations to protect the Redwood Park. . . . No action results. But secretly, the National Park Service does at last offer specific suggestions to the secretary of ways to enlarge boundaries, to establish scenic corridors, and to acquire management easements as well as in-fee lands along key tributary streams. . . . The recommendations, however, are not implemented.

The Redwood National Park superintendent and the three logging companies in Redwood Creek "agree in principle" that buffer-zone management is possible. Negotiations for "harvesting guidelines" continue.

A Park Service spokesman notes that the buffer-zone issue is "extremely volatile," and that the "timber companies have been sensitive . . . to any overview that would inhibit their freedom of action on their lands."

Another 10,000 acres of primeval redwoods are liquidated in the redwood region, much of them in the Redwood Creek watershed. The old-growth redwood resource is being rapidly depleted.

Park visitors wishing to view the Tall Trees Grove must walk eight miles up Redwood Creek (and back), or trespass on lumber company property to get there.

1972

Assistant Secretary of the Interior Nathaniel Reed pays his first visit to the Redwood National Park, and appoints an interdisciplinary Redwood Task Force under Dr. Richard Curry of the Interior Department to study the situation. Members of the task force include experts in geology, geomorphology, hydrology, forestry, aquatic biology, and a representative of the Earth Satellite Corporation. The Sierra Club requests a copy of the Curry task force report.

A revised Preliminary Draft Master Plan for the Redwood Park is issued. It is virtually the same as the earlier version, but the minority report has been deleted.

Another 10,000 acres of primeval redwoods are liquidated. Park visitors continue to dodge logging trucks on roads through the park.

The photographic survey of the Redwood Creek watershed prepared by the Earth Satellite Corporation documents gravely increased damage caused by tractors, clearcutting, roads carved out of steep slopes, too-small or poorly located culverts, and year-round logging.

1973

In January, the Sierra Club sues Secretary of the Interior Morton under the Freedom of Information Act to obtain release of the Curry task force report. The court rules in the club's favor. The report con-

tains frightening information: masses of soil and debris loosed by logging are moving across the terrain and down the watercourses of the Redwood National Park. There is accelerated landslide activity and windthrow. Raised stream beds and changing stream currents, along with streamborne sediments, are undercutting banks and threatening the "unique redwood vegetation community" inside the park. The "wormlike appendage" of the park is especially threatened. Protection is impossible without strict land-use controls outside the park boundary. Ninety percent of the primeval forest in Redwood Creek has now been logged.

The Curry report recommends (1) no logging on slide-prone areas, (2) a two-year moratorium on logging within seventy-five feet of critical tributary streams, and (3) in-fee acquisition, costing \$15 million to \$16 million, of an 800-foot buffer zone. The Office of Management and Budget flatly refuses to approve release of the Curry report to the public without deleting the recommendations for in-fee acquisition.

Based on the findings in the Curry report, the Sierra Club initiates new legal action against the Secretary of the Interior to force protective action for the beleaguered park.

The park superintendent reopens negotiations with the timber industry on "harvesting guidelines," making new and major concessions. The three companies respond that, since each is different, each needs a special agreement. Negotiations continue; so does logging.

The sound of the chainsaws now whines loudly along the edge of many areas of the park. Logs so huge they must be halved to fit on truck beds keep rolling out of Redwood Creek and down the park roads. The waters of Redwood Creek are heavy and grey with sediment.

The National Park Service initiates a new study to get "hard technical data." Richard Janda of the United States Geological Survey heads the three-year study which is to monitor the park's condition and evaluate the buffer management proposals made to date.

1974

California Congressmen Phillip Burton and John Burton introduce a bill to enlarge the Redwood National Park. The House has its mind on other matters and takes no action.

All three logging companies are now operating in one place or another inside what might have been the 800-foot buffer zone: Louisiana Pacific clearcuts a forty-one-acre patch inside it.

The three sets of "harvest guidelines" proposed by the National Park Service are again being negotiated with the individual companies. The guidelines are weaker than before, shot through with

A beautiful state of nature

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Gift of the Earth

Russell D. Butcher
Foreword by George H. Ewing

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"exceptions" and "deviations." They allow for twenty-acre clearcut patches. There are no provisions for enforcement. There has been no public input into their development.

The banks along Redwood Creek at the Tall Trees Grove are being visibly undercut. One of the larger trees in the grove falls across Redwood Creek. Around the base of the world's tallest tree the silt is piling higher and higher.

California passes strict new logging regulations, which apply throughout the state.

1975

In the redwood region, inflation and the shortage of mortgage money for housing are taking their toll. The industry blames the conservationists and the Redwood Park for the region's ills. Two huge trees are felled by vandals in the Ladybird Johnson Grove.

The state of California attempts to enforce restrictive forestry requirements, then partly backs down; logging resumes full tilt, though perhaps under slightly better regulations than before. The state recommends new studies in the Redwood National Park watershed.

Congressman Phillip Burton again introduces a bill to enlarge the Redwood National Park. This one is cosponsored by fifty-one of his colleagues.

Two lumber companies sign "harvesting guideline" agreements, but must wait official confirmation in Washington, D.C. Meanwhile, the guidelines have been so weakened that they are essentially meaningless: they will allow the entire "buffer zone" to be clearcut up to park boundaries within seven years.

As a new effort to protect the park gains momentum, the timber companies logging in Redwood Creek join with AFL-CIO members to produce an expensive brochure entitled "The Industry's View." This repeats old, familiar anti-park arguments. It fails to mention the depressed housing market or the national recession, and again blames the present park for the redwood region's economic woes, present and future.

It is reliably estimated that only six or seven years supply of old-growth redwood remains to be cut, well under 100,000 acres. When this is gone, so will be the redwood industry as it presently exists.

California's leading newspapers begin to headline the news that the world's tallest tree is threatened by encroaching logging. One states that \$163 million — not \$92 million — has already been spent for the park, which may be almost literally going down the drain. Figures from the Department of the Interior put land acquisition costs at \$117,082,147.88, including interest charges.

Richard Janda, in a deposition for the Sierra Club suit, admits that he may be conducting a "post mortem" of the Red-

wood National Park rather than monitoring a study.

District Judge William T. Sweigert rules for the Sierra Club and directs the Secretary of the Interior to take "reasonable steps within a reasonable time" to protect the Redwood National Park.

The redwoods keep on falling, falling, falling. . . .

Thus the hard fact emerges that court victory or no, time has all but run out for the virgin redwoods. The great primeval forests are now nearly gone. The best chance we have to rescue the Redwood

National Park lies in passage of the Burton bill. Under the bill's terms, another 11,000 acres of primeval redwoods would be spared the axe, and the present park would be enlarged by 73,470 acres of desperately needed, although cutover, watershed terrain. With careful management, this wounded land perhaps can recover. In any case, acquisition of the watershed offers the only opportunity there will ever be to gain real protection for the Redwood National Park we have, and for a species that survived for 165 million years — until we found it. **SCB**



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opinion, the court called the state's piecemeal approach to I-93 a "classic example" of segmentation, and held that an impact statement limited only to the section north of the park was legally deficient. The court also held that the statement (EIS) was inadequate because it failed to consider alternative routes, and that "Federal participation in the preparation of the EIS was so perfunctory as to amount to a rubber stamp." Said the court:

Franconia Notch is a State Park of great natural beauty. The Flume and Basin

alone make it unique. But it is the granite ledges high on the flank of Cannon Mountain forming the profile known as the "Old Man of the Mountain" that makes Franconia Notch the site of one of the natural wonders of the world. The profile rocks are now stabilized by pins and cables. . . . The Notch has been the scene of rock slides of sizeable proportions in the immediate past. The scars of such slides are still visible. . . . It would be a crime to take even a slight risk of depriving future generations of the view of this legendary granite face so as to satisfy our present demand for speedy uninterrupted automobile travel.

The state has nevertheless elected

to press forward with its plans. VTN Consolidated, an independent engineering firm, has been retained to prepare the notch-route EIS, and may also prepare the EIS for the balance of the route to meet the court's requirements. WMEC, assisted by a different engineering firm, has been urging VTN to consider all possible alternatives, including "no-build" with, instead, minimal improvement to the existing notch road and its various bypass routes. Recognizing that further litigation and perhaps federal legislation may be necessary, several friends of the notch are now organizing a national campaign to raise funds and generate support. The reprieve for the notch is only temporary.

There is a fine sense of madness about all of this. More than eighty percent of the traffic in Franconia Notch State Park either stops there or goes through it by choice to enjoy its attractions, yet the state will irreparably damage that very park in order to make it easier to go through it. If an alternative is adopted, several miles of I-93 now in use may have been built unnecessarily. The state sees the highway as an economic boon to its impoverished northern counties, but perhaps the people of this region would benefit more if the state shifted some of its highway millions into their school system. Tourism is its number one industry, yet the state has elected a course of action which could damage, perhaps destroy, its official symbol and number-one tourist attraction.

But there is hope, too. In 1973, Stuart Avery of the Sierra Club stated "what's really needed is for someone to go up to the North Country and all over New Hampshire to see what people think about Franconia Notch. Then someone should show the people how important Franconia Notch is and how much better it would be for everyone . . . if the notch were preserved." The opponents of the notch route are now pulling together more effectively to do this, and support is growing. The increase in national environmental consciousness is beginning to be felt in the New Hampshire legislature, and highways are losing their allure.

I-93 was designed by the state to carry traffic; that is not, however, its *purpose*, but rather its *function*. Its *purpose* is to serve the people. If it avoids the notch, it still may. **SCB**



Emilio Rodriguez

You can help save Julyi Latemmoon for \$16 a month. Or you can turn the page.

Julyi Latemmoon.

Descendant of a proud people.

Her ancestors understood
man's harmony with nature.

They were master craftsmen, farmers, and hunters.

Now they are a forgotten people

to whom many promises have been made.

And few kept.

Julyi is poor but has an abundance of hope.

She needs a helping hand.

And a friend who will understand.

For \$16 a month, through Save the Children Federation, you can sponsor a child like Julyi so that she will not be forgotten. Give her the things she must have to keep her mind, body, and spirit alive. And combined with money from other sponsors, your \$16 will help Julyi and the people of her community. With a desperately needed food co-op, income-producing handicraft programs, vocational training, youth activities, clinics, and more. In simple terms, help a proud, hardworking people help themselves. For this is what Save the Children has been all about since 1932.

For you—educated, involved, and in touch with your own heart—there are many rewards. Correspond with a child. Receive a photo and progress reports. Reach out to another human being. That's how Save the Children works. But without you it can't work. So please: clip this coupon and mail it today. Now you can turn the page.

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David L. Guyer, Executive Director

SAVE THE CHILDREN FEDERATION

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groups participate throughout the study process, the interagency task force is the working level for first evaluating the river and then developing administrative options. BOR asked the task force to help compile information on the Penobscot watershed, its present uses and management. Meanwhile, the agency sent notices of the study to newspapers, local businesses, organizations, governments, and individuals throughout the state.

Public information meetings were scheduled in Bangor and also in Millinocket, a small town on the west branch of the Penobscot, headquarters of the northern division of Great Northern Paper Corporation, the principal landowner on the river.

Last summer, about 100 people assembled in Bangor for the first Penobscot public information meeting. Maurice Arnold, director of BOR's northeast regional office, explained the purpose of the Penobscot study and how citizens might be involved in the study process. Audience response was immediate. One listener pointed out that the east and west branches under study were probably not the wildest or most fragile segments of the Penobscot. Could the north and south branches be studied, too? Since BOR's planning teams generally look at an entire watershed, including the headwaters and the ridge-to-ridge area of a river corridor, the north and south branches — the headwaters of the Penobscot — also would be reviewed even though they were not specifically designated for study by Congress.

While some citizens pointed out the need to expand the scope of the study, others at the public meeting in Millinocket the following evening questioned the need for the wild-and-scenic-river protection. Speaking before some hundred listeners in the Millinocket municipal auditorium, several citizens noted that the Great Northern Paper Company had done a pretty good job of keeping the river a scenic waterway. Why would national protection be desirable? Would it mean that the government would buy Great Northern land?

Great Northern Paper Company's involvement in the north Maine Woods goes back three-quarters of a century. In 1900, Great Northern

opened its first mill on the west branch at the site known as Millinocket. Today, the company owns over two million acres of land managed as commercial forest. From the timber harvest of largely second- or third-growth spruce, fir, white pine, aspen, and birch, Great Northern produces 1,200 tons of groundwood printing paper and 1,000 tons of newsprint each day — and in the process employs over fifty percent of the area's workers. Most of Great Northern's land is open to the public for boating, fishing, hunting, and camping, although the company controls access. About 37,000 people used the property last summer for recreation — a steadily increasing number.

The Wild and Scenic Rivers System is designed to stabilize use and keep things the way they now are in the river corridor, Arnold explained at the public meeting. "We do not propose drastic alterations," he said, "but the fact that land use on the Penobscot has been compatible with river preservation up to now doesn't mean that it will always be that way. Increased use might drastically cause the river corridor to suffer."

As for which agency or organization might control land use in the river corridor, there is no set rule. While some wild and scenic rivers are predominantly owned and managed by the federal government, there may be little if any outright public land acquisition or even direct federal management.

BOR tries to propose alternatives that allow land to be managed by the agency most capable of carrying out the responsibility — state, federal, or a combination of state and local. Except where truly outstanding features of a river area require public ownership to assure their protection, or where more public access is needed, the acquisition of easements and the use of local zoning is now preferred by BOR to public land acquisition.

Yet, a discussion of how to establish a workable Penobscot management system presupposes that the river meets the criteria for the Wild and Scenic Rivers System. To make this determination, members of the Penobscot federal-state task force made preparations for a field reconnaissance trip. The planning team knew that the river and immediate boun-

daries had to be looked at as a unit, with main emphasis on the quality of the river experience. To qualify, the river and environment had to have one or more of the "outstandingly remarkable" values specified by law, and be generally free-flowing. From the outset the team knew the Penobscot was not entirely free-flowing.

The west branch "study" segment is controlled by a series of dams operated by Great Northern. The Bangor Hydro-Electric Company also operates a dam just above the east and west branch confluence. The Great Northern dams are operated for steady, continuous water flow in order to assure a constant, year-round power supply. Further, a minimum flow of 2,000 cubic feet per second at Millinocket is required by state law. On the east branch, there is one dam also operated for continuous flow.

Under the Wild and Scenic Rivers Act, dams are generally precluded on two of the three river categories: Wild River areas are primitive, inaccessible except by trail, and free-flowing; Scenic River areas are largely undeveloped but accessible by road and generally free-flowing; Recreational River areas may have developed shorelines and be accessible by road but also must not be dammed for any significant distance.

But the Wild and Scenic Rivers Act is flexible. Separate federal legislation must be enacted or, alternatively, state legislation plus approval by the Secretary of the Interior is needed for a river to be added to the system. This way, laws can be written to fit needs peculiar to any river and its surrounding community. Maine's Allagash River, for example, has three small dams yet it became a national "waterway" in the Wild and Scenic Rivers System, because the state thought it worthy of protection and the Secretary of the Interior agreed — dams notwithstanding.

Penobscot Study

With this in mind, the federal-state river study team divided into two groups for field reconnaissance: one group would canoe both the east and west branches; the other, only the west branch. Most of the team had helped conduct the public meetings in Bangor and Millinocket and had contacted local officials to learn more about the river area and any sites of special historical significance. Final



Jim Howells

arrangements were made with members of the Penobscot Paddle and Chowder Society, a regional canoe and conservation club, who guided the study teams downriver.

Just outside Millinocket one early morning in July, 1974, the west-branch study team boarded float planes piloted by Maine's forest service and flew over the vast north Maine Woods. From the air the forests appear untouched except by the spruce budworm and, once in a while, the chainsaw. The spruce budworm has long lived in the Northeast forests but only recently taken a serious toll. Many rust-brown trees are apparent victims. There are few clearcut forest sections, but selective cutting is apparent.

Overall, though, the forests are beautiful. They green the base of Mt. Katahdin and its sister peaks and stretch for miles around, cradling a smooth-flowing Penobscot broken only occasionally by curves and white-water. Chesuncook and Seboomook Lakes lie like jewels sparkling with wide-swept whitecaps. Further upstream lie the north and south branches of the Penobscot, narrower and more serpentine than the west branch.

The float planes landed on Seboomook Lake where the group met with the canoes and supplies a short dis-

tance below Seboomook Dam. The canoes were fitted with five-horsepower motors, which made lake crossings less rustic but more convenient. It took only minutes for local insects, from the half-inch moose flies to tiny "no-see-ums," to make themselves at home and accompany the group downriver.

The most recent comprehensive topographic survey of the area was made in 1958, and the planners had to record alterations to the landscape since then. Since the map survey, several state and private campsites had been built, and in one instance a former state wildlife refuge had been purchased by private owners. There are several cabins and boat docks built by local residents on lots leased to them by Great Northern. Two small villages, Chesuncook and Pittston Farm, date to the mid-1800's. There, settlers built farms and raised crops to feed the loggers, whose only other means of getting food and supplies was by transporting them upriver.

There are many reminders of the old logging drives. Log cribs half-submerged in the river once anchored log booms, but now only offer perches for the birds. Near the shore, one paddler found a huge iron chain that was used to hold log booms together. And on the shore of Chesuncook Lake lie the thousands of logs that escaped the

boom and never made the mills for processing. The log drives are over now, but it will be many years before reminders of that era disappear entirely from the west branch.

Throughout the three-day study trip, the usually unpredictable New England weather held fair and warm with cloudless skies. Overhead flew bald eagle, osprey, and tern. By the shore a cow moose sought an afternoon snack at a particularly grassy spot. And at night the skies danced with thousands of bright stars. In fact, the Penobscot couldn't have staged a finer performance for any group come to study its qualifications for inclusion in the National Wild and Scenic Rivers System.

Completing the Trips

The team judged water quality to be excellent by the sure, though not most scientific, method of drinking straight from the river with no ill effects. Previous surveys have found water quality excellent upstream. Only below Millinocket does the river suffer from wood-processing wastes. Under the Wild and Scenic Rivers Act, rivers must meet minimum water-quality standards for anticipated types of recreation, and they must supply normal aquatic habitat. Though pure, even the most upper reaches of the Penobscot are of the brownish color common to rivers rising in bogs.

The west branch is ideal for family canoeing and, on portions, for beginning paddlers. For long stretches the river flows slowly and calmly through scenic woods, but below Ripogenus Dam it affords canoeists a good test of whitewater skills and more thrilling scenery.

The Appalachian Mountain Club's *New England Canoeing Guide* says the section below "Rip" dam is "probably the most scenic stretch of the West Branch trip as Katahdin and its satellites are in constant view of the river." Just below the dam is a spectacular but impassable narrow gorge. Several miles downstream begins an exhilarating series of rapids called the "horserace." There was little time for note-taking during the whitewater stretches. More important was steering a safe course around rocks while flowing with the swift current. In the end, the group suffered minor sprains and lost a few pieces of canoe to the Penobscot.

Field reconnaissance for the west-



the prescott center

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A BICENTENNIAL AWARDS*PROGRAM

TOWARD OUR THIRD CENTURY

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1. Your view of America's future: in words, on film, or on tape.

On the occasion of the Bicentennial, Wells Fargo Bank is asking all Americans to consider the critical issues facing our nation in its third century, and to express thoughtfully and creatively their ideas and recommendations for shaping an even better future. The Smithsonian Institution will cooperate in judging the entries, which should deal with America's third century in terms of one of the following themes:

1. Individual Freedoms in our Society
2. American Arts and Culture
3. Science, Technology, Energy and the Environment
4. Family Life, Work and Leisure
5. The United States and the World

2. Categories of Entries by Individuals or Groups. (1) Essays by those under 18; (2) Essays by persons 18 or older; (3) Films or tapes by persons of any age.

3. All entries must relate to America's future and contain ideas concerning it. Any resident of the United States or its territories may enter. Written essays must be no more than 3,500 words with a maximum of three photos or illustrations, if any. Film (8mm or 16mm only) and tapes, 15 minutes maximum. Include name, age, and address. Group projects should be submitted under one name. Entries must be postmarked no later than January 31, 1976. Mail all entries or inquiries to:

"Toward our Third Century"
P. O. Box 44076
San Francisco, California 94144

Entries must be the original work of the entrant, and entrants under 18 must include the signature of a parent or guardian. Entries become the property of the sponsor, all rights reserved. For return of materials, include a stamped, self-addressed return envelope. The sponsor reserves the right to rule on all matters related to the competition. Employees of Wells Fargo Bank, the Smithsonian Institution, and agencies connected with this program, and their families, are not eligible to enter.

4. \$100,000 in Cash Awards.

Category (1): First award \$10,000; Second—\$5,000; Third—\$3,000; plus 17 Fourth awards of \$1,000 each. Category (2): First \$10,000; Second—\$5,000; Third—\$3,000; and 22 Fourth awards of \$1,000 each. Category (3): First \$10,000; Second—\$5,000; Third—\$3,000; plus 7 Fourth awards of \$1,000 each.

5. Final judging will be by a panel of nine distinguished Americans selected by the Smithsonian Institution. Judging of entries at all stages will be based primarily upon imaginativeness, creativity and effectiveness of expression. The judges will allow the widest latitude for freedom of thought and expression. Winners of the Awards will be announced nationally on July 4, 1976.

branch study team ended at Abol Falls, but the second team, which covered the entire east and west branches, continued downstream to near Medway, where the east and west branches merge. In the weeks following completion of the field trips, the teams met to discuss impressions, compare notes, and begin determining if the river qualified for national protection.

BOR held a second set of public meetings last November in Bangor, Millinocket, Portland, Augusta, and Boston to explain preliminary study findings and possible future action. The east and west branches, with the exception of one segment, were found qualified for inclusion in the National Wild and Scenic Rivers System. The fifteen-mile segment of the west branch between North Twin Station and Medway was found ineligible due to poor water quality and industrial development along the shoreline. Further, BOR tentatively classified the river as called for in the Wild and Scenic Rivers Act on the east branch, eighty-three miles qualified for Wild River designation and twenty-four miles as Scenic River. On the west branch, eighty-four miles qualified for Wild River designation, ninety-six miles as Scenic River, and twenty-five miles as Recreational River.

Some Alternatives

In July, BOR outlined proposed alternatives in a draft report on the Penobscot study that was sent to interested federal and state agencies for a forty-five-day review. Proposed alternatives included:

- 295 miles of the east and west branches, together with 164,000 acres of adjacent land, should be designated as a National Wild and Scenic River.
- the river should be state-administered and added to the National Wild and Scenic Rivers System upon application to the Secretary of the Interior by the governor of Maine.
- responsibility for land and water management should generally remain with private landowners, subject to adequate state conservation zoning and environmental regulations.

Following official review of the draft report, BOR will incorporate suggestions and changes into a final report. The Secretary of the Interior will distribute the final report to all interested federal and state agencies for a ninety-day review and comment

period as required by law. When the reviews are completed, the Secretary of the Interior will transmit the completed study and recommendations to the President. Transmittal is scheduled for 1976. The President will then forward the report to Congress. Depending on the study findings and the wishes of Congress, the second, legislative, phase of the wild-and-scenic-river process may begin.

The Penobscot's future is still months — probably years — away from final decision. But while it is in the wild-and-scenic-river "study" category, the Penobscot is afforded the same protection as all such study rivers: the Federal Power Commission cannot license water projects that would directly affect the river's qualifications for the national rivers system; no federal water-resources projects can be constructed without thorough review by concerned federal agencies and Congress; and no federal agency can fund a water-resource project that would have an adverse effect on the river's special values.

Flexibility of the Act

Jonathan Ela, Sierra Club Midwest Representative, summarized the unique flexibility of the Wild and Scenic Rivers Act at hearings on adding the Lower St. Croix River to the national system. Several years ago, Ela testified at hearings in St. Croix Falls, Wisconsin, after listening to several citizens express concern over what national designation would mean to them as riverbank property owners:

The Wild and Scenic Rivers Act is probably the ideal vehicle . . . to preserve the property owners' rights. It recognizes in the statutes, as very few factors do, the varying problems of the land (and the resource it is trying to preserve, in terms of national variations, . . . political variations, and property-owning variations. Written into the act is the flexibility whereby the . . . (Federal Government) . . . has a variety of management techniques, ranging from fee simple to simply cooperating with local governments in working out zoning ordinances whereby the river can be preserved. . . . I know of no other law which is as clearcut, which is as adequate to the task of solving a simple problem or a simple stated problem, namely, saving a resource, and which provides as many useful mechanisms for doing this.

Elizabeth Gillette, a former member of the Bulletin Staff, works for The Bureau of Outdoor Recreation.

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The great whales are being ruthlessly hunted to extinction by Japanese and Soviet whalers. Their vast whaling fleets use airplanes, helicopters, sonar and high-speed boats to chase down the terror-stricken whales. Then, grenade-tipped harpoons blow up the whales in agonizing death.

The Japanese whaling companies are owned and controlled by the great manufacturing and trading companies that produce and market the vast array of Japanese products sold in America.

For example, Nissan Motor Co., the maker of Datsun cars and trucks, has major whaling interests. Nissan and the rest of the Japanese business community have done nothing to halt the whale slaughter. The Japanese and Soviet whalers account for 85% of the annual 40,000 whale kill.

YOU CAN HELP SAVE THE WHALES BY REFUSING TO PURCHASE ANY JAPANESE AND RUSSIAN PRODUCTS UNTIL JAPAN AND THE SOVIET UNION AGREE TO STOP WHALING.

Why are whales still killed? To make petfood, fertilizer, soap, cosmetics, mink food and lubricating oil. Cheap substitutes for all these products are readily available.

More than 2,000,000 whales have been killed in the past 50 years. Species after species have been driven to commercial extinction, one step from biological extinction.

The blue whale, greatest creature on Earth, has been so overhunted that scientists believe it may be past the point of saving. The humpback, bowhead and right whales have also been driven to the brink of extinction. Now the fin and sei whales are almost gone, and the whalers are greedily eyeing the California gray whales.

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If a product says MADE IN JAPAN or MADE IN U.S.S.R. don't buy it. Support the boycott. Purchase goods made elsewhere. And tell merchants why you are boycotting Japanese and Russian products and urge them to stock goods made in other countries.

Tell your friends. The more people who act NOW, the sooner we can halt the slaughter that is driving the great whales to extinction. The fate of the great whales must be decided by all mankind, not by a greedy few. Extinction is the ultimate crime against Nature.

You can help save the whales and publicize the boycott campaign by making a TAX-DEDUCTIBLE CONTRIBUTION to the Save the Whales Campaign. If you believe in this effort, please give generously.

For a donation of \$10 or more, you will receive a beautiful four-color lithographed print (11" x 14"), suitable for framing, of the Sei Whales shown, painted by renowned marine life artist Richard Ellis.

EMPEROR HIROHITO OF JAPAN WILL BE VISITING THE U.S. DURING THE FIRST 2 WEEKS OF OCTOBER. YOU CAN EXPRESS YOUR OPPOSITION TO JAPAN'S WHALING POLICY BY WRITING TO HIROHITO. HIS ADDRESS IS: EMBASSY OF JAPAN, 2520 MASSACHUSETTS AVE. N.W., WASHINGTON, D.C. 20008.

SAYONARA WHALES

The fate of the great whales was foreseen more than a century ago by Herman Melville. The author of the whaling classic "Moby Dick" wrote: "The moot point is, whether Leviathan can long endure so wide a chase, and so remorseless a havoc; whether he must not at last be exterminated from the waters, and the last whale, like the last man, smoke his last pipe, and then himself evaporate in the final puff."

Jacques Cousteau, the famed French oceanographer, writes: "The only creatures on earth that have bigger—and maybe better—brains than humans are the Cetacea, the whales and dolphins. Perhaps they could one day tell us something important, but it is unlikely we will hear it. Because we are coldly, efficiently and economically killing them off."



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(Clair Tappaan) *Continued from inside front cover*

will leave San Francisco each Friday at 6:15 P.M. from the United States Mint at Market and Duboce streets, and will stop for passengers in Berkeley at 7 P.M. at the foot of University Avenue alongside Spenger's parking lot at Third Street and University Avenue. Arrival at the lodge is planned for about 11 P.M. Departure from Norden will be at 6 P.M., after Sunday dinner, with arrival in Berkeley about 10 P.M. and San Francisco about 10:30 P.M. There is space for skis, snowshoes, and luggage. If previous arrangements have been made through club headquarters, passengers with hand luggage (no skis) may be picked up near the freeway at Vallejo, Davis, or Sacramento. Aside from private car, this chartered bus is now the only direct transportation to Norden; the trains and Greyhound Bus no longer stop there.

Applications for the Christmas and Easter holiday weeks will be accepted after November 3, but will be held until November 28 and February 27, respectively, before being confirmed. If demand exceeds available space, the lodge will be filled by lot, and remaining applications kept on a waiting list or the money refunded or credited.

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

Hutchinson Lodge, with a capacity of 20 persons, is available during the winter to groups only, which must supply their own food. Rates are \$2.50 per day per person, with a minimum nonrefundable payment of \$20 per day due at the time the reservation is confirmed. (For weekends, minimum reservation at "Hutch" is for two days, i.e., \$40.) Preference will be given to

Sierra Club groups that make reservations a month or more in advance. All Hutchinson Lodge arrangements and reservations are made by the Clair Tappaan Lodge manager and *not* through the club office. Chapters, committees, sections, and other divisions of the Sierra Club may have reservations confirmed six months in advance in order to meet publication deadlines. For other parties, reservations will not be confirmed longer than thirty days in advance.

Memorial ski huts are primarily for the benefit of Sierra Club groups, but if space is available, they can also be used by other conservation groups. Food and supplies must be carried in to all four huts, although food may be supplied by the lodge if arrangements are made in advance. Always clear your plans through the Clair Tappaan Lodge manager. The suggested voluntary rate per person is \$1 per day, which can be paid at Clair Tappaan Lodge when checking out for the hut. The lodge manager is instructed to deny use of a hut and assistance to any group that, in his judgment, is inexperienced or lacks necessary equipment, or if the weather conditions or other factors would, in his judgment, make the trip to a hut too great a risk.

Although we love animals, please do not bring pets.

Clair Tappaan Lodge Committee



F. T. Malin

1975-1976 Winter Rates at Clair Tappaan Lodge

American plan by reservation

Weekends — Friday lodging through Sunday dinner	\$21.00
7 consecutive days (not to start with Saturday lodging)	63.00
5 weekdays — Sunday lodging through Friday dinner	45.00
5 weekdays — children under 12 except Christmas weeks	32.50
Single days — weekdays may be reserved at the Club office	10.50
Single days — children, weekdays only except at Christmas	7.50

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(WEEKENDS ONLY) January 9 through April 1
except Easter weekend

Round trip	18.00
One way	10.00
(Bus \$21 on 3-day weekends.)	

Partial reservations made only at the lodge

Lodging — available only at the lodge	5.00
Breakfast — available only at the lodge	3.00
Breakfast and lunch — available only at the lodge	4.50
Lunch alone or as first unit of stay	not available
Dinner — available only at the lodge	4.00

For members applicants, and guests

Cancellation charges to the nearest 25c

Minimum charge for cancellation of meals and lodging	\$2.50, Bus \$5.00
Cancellation with more than six days' notice	10 percent
One to six days' notice	25% meals and lodging \$6.00 bus (\$5.00 one way)
Less than 24 hours' notice — meals and lodging	\$3.50 per day
— chartered bus	\$7.00 (\$5.00 one way)
Failure to arrive or give notice of cancellation	100 percent

Reservation slips must be returned for cancellations and refunds. Make CTL reservations at the Sierra Club office, 530 Bush Street, San Francisco 94108. Send full payment, and give age and sex of each person wishing reservations, to facilitate assignment of bunks.

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

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

"I hope you never go up Mt. Rainier without Dacron® fiberfill II."

Jim Whittaker, mountaineer and first American to top Mt. Everest.



"Here in the Northwest, nothing stays dry very long. "Ours is a wet-cold environment. Furthermore, even in summer, you can expect alternate freezing and thawing any

time you get above Mt. Rainier's timber line.

"I've found that this near-freezing wetness demands a filling for sleeping bags and outerwear that, although fully saturated, can be wrung out and, like wool, still provide some insulation.

"Du Pont's Dacron* polyester fiberfill II is such a filling.

"Believe me, I'm not anti-down. In dry-cold, you can't beat down.

"Down gives you the best loft in relation to its weight and compressibility. And loft is what determines warmth.

"But down can collapse when it gets wet. It can lose its ability to insulate.

"'Dacron' fiberfill II is different. Once, as a test, I took my parka and soaked it in a stream. Then I stomped out the water and wore

the damp parka over a T-shirt in 35° weather. Within five minutes my upper body felt warm, although my legs got very cold from the dripping.

"Below freezing, the problem is less critical. You can always shake the ice out and hang your bag up to sublimate. 'Dacron' fiberfill

II responds quickly to this technique since it absorbs little moisture.

"After testing all kinds of equipment under all kinds of conditions, I've come to the following conclusion:

"Where possible, I'll carry two sets of gear. One with down for dry-cold. One with 'Dacron' fiberfill II for wet-cold.

"But if you can carry only one, I'd advise the 'Dacron'."

* * *

You'll find most manufacturers of sleeping bags offering "Dacron" fiberfill II in quality-constructed models. Usually at very affordable prices.

For a list of suppliers, and more details on the filling's advantages, write us: Du Pont, Dept. SC, Fiberfill Marketing Division, 308 E. Lancaster Ave., Wynnewood, Pa. 19096.



*Du Pont registered trademark.
Du Pont makes fibers, not sleeping bags.

