



President Wayburn at Redwood Creek (see page two)

Sierra Club Bulletin

MAY 1968



President's Message

A Reaffirmation of Purpose

This month the Sierra Club reaches the ripe age of 76. This is a mellow time of life for many organizations as well as people—a time to rest on laurels and reap the rewards of past labors.

But not for us. The Sierra Club has never been busier, more deeply involved, or more vigorous. We have three new Board members notable for their youth as well as their ability. We continue in the throes of tremendous growth: our membership is now 63,000, and increasing at the rate of 1,200 applicants a month. We continue to gain on the conservation front: the past year has seen our three specific major projects move measurably closer to achievement. Most importantly, we are reaching people as never before with our conservation message: from the halls of Congress to Main Street, there is a growing understanding of what we are fighting for.

All 63,000 of us can look back on the past year with a good feeling of accomplishment and pride. At the same time, we must look forward with new purpose and new dedication to the year ahead.

It does not promise to be an easy year.

The Internal Revenue Service decision to withdraw our tax-deductible status (now being appealed) has cost us dearly in large contributions. We find ourselves in lean times at a period when we need more financial resources at our command to carry forward the club's work. That work grows ever more urgent.

For a long time we have known that we could not save the mountains without their valleys and their rivers. It is becoming clearer all the time that we cannot save the mountains without their lowlands—and the air above them. More and more, we are involved with the critical fight for man's total environment, with assuring a livable and beautiful planet for people to occupy now and later. And we are very late in joining the battle.

The North Cascades, Redwoods, Hawaii, Alaska, the Hudson River, the problems of world population, air and water pollution—they may seem a far cry from the small piece of earth that is the Sierra Nevada we originally joined forces to save. But they are all part of the battle ahead. In the pursuit of our stated purpose "to explore, enjoy and preserve the . . . scenic resources of the United States," they are now, and very much, all our business.

The year ahead will not be easy. But it can be one of our most significant years. As John Paul Jones said, we have not yet begun to fight.

—EDGAR WAYBURN

P.S. A week before this Bulletin went to press, I sent out a special appeal for funds. The response in this short time has been generous and gratifying. It will help greatly to accomplish the tasks before us. To all of you who contributed, my deepest thanks. —E.W.

... TO EXPLORE, ENJOY, AND PROTECT THE NATION'S SCENIC RESOURCES ...

FRONT COVER: President Wayburn watches as a helicopter chartered by the club airlifts members of the House Interior Committee into the heart of Emerald Mile, on Redwood Creek, during field hearings on a redwood national park (see p. 12). The picture is by D. Karl Hoppe of the Humboldt Times-Standard.

Table listing contents: PRESIDENT'S MESSAGE (Edgar Wayburn, 2), NEWS (3), BOARD MEETING, MAY 4-5 (5), BIG THICKET (Orrin Bonney, 7), REDWOOD FIELD HEARINGS (John Flannery, 12), THE NORTHERN ROCKIES (George Wallerstein, 13), UNKNOWN AGENT AT SKULL VALLEY (W. Lloyd Tupling, 17), NATURAL BEAUTY AND THE LAW (David Sive, 18), BOOK REVIEWS (21), LETTERS TO THE EDITOR (22)

THE SIERRA CLUB,* founded in 1892, has devoted itself to the study and protection of national scenic resources, particularly those of mountain regions. Participation is invited in the program to enjoy and preserve wilderness, wildlife, forests, and streams.

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NEWS OF CONSERVATION AND THE CLUB

House Interior Committee holds final redwoods hearing

Final hearings on the redwood national park bills before the House Interior Committee were held in Washington, D. C., May 20 and 21. These final sessions were devoted exclusively to testimony from representatives of the Departments of Interior and Agriculture, one spokesman from each of the four lumber companies with holdings in the prospective parkland area, and one spokesman from each of the national conservation organizations. Following the hearings, the House Committee will formulate its version of a redwood national park bill which will then come before the House for a vote.

President to propose 26 additions to National Wilderness System

President Johnson plans to propose 26 additions to the National Wilderness System during the coming year. The areas to be considered by Congress for designation are as follows by state: Arizona—Mt. Baldy, Pine Mountain, Petrified Forest, and Sycamore Canyon; California—Desolation, Lassen Volcanic, Lava Beds, Pinnacles, and Ventana; Colorado—Flattops; Florida—Cedar Keys, Island Bay, Passage Key, and Pelican Island; Georgia—Okefenokee; Idaho—Craters of the Moon; Maine—Edmunds and Birch Islands; Massachusetts—Monomoy; Michigan—Huron and Michigan Islands and Seney; Montana—Spanish Peak; New Jersey—Great Swamp; Oklahoma—Wichita Mountains; Wisconsin—Wisconsin Islands.

Study team appointed to draft master plan for Sequoia and Kings Canyon

A seven-man study team has been appointed to draft a new master plan for Sequoia and Kings Canyon national parks in California. "The master plan will consider the relationship of the parks to the surrounding region and how best to preserve the natural resources of the two parks," George B. Hartzog, Jr., director of the National Park Service, said. Traffic patterns, water and air pollution control programs, visitor accommodations, and the impact of visitor use on the natural resources of the parks will be among the areas studied by the master plan team. According to the Department of the Interior, a public meeting will be held to receive comments and suggestions before any plan on the parks is completed.

Bill to refinance Land and Water Conservation Fund crippled in Senate

S. 1401, a bill to refinance the Land and Water Conservation Fund, received two crippling amendments in Senate action during the last week in April. As reported out of the Senate Interior Committee, the bill called for earmarking federal receipts from the Outer Continental Shelf Lands Act to the Fund for a five-year period. In recent action the Senate approved (1) the Ellender Amendment which eliminated earmarking of revenues from the Outer Continental Shelf and (2) the Williams Amendment which reduced the program to three years. As S. 1401 now reads, the bill has a three-year authorization with an annual ceiling of \$200 million dollars. All of the money would have to come from appropriations which in the past have proved difficult to obtain. Refinancing the Land and Water Conservation Fund is a prerequisite to add-

ing new parks such as the proposed redwood national park to the National Park System. The amount, sources of revenue, and duration of funding for the Land and Water Conservation Fund are of grave concern to conservationists. (See March 1968 issue of the Bulletin.)

Legislation introduced for national power plant siting plan

Sen. Edward Kennedy, D-Mass., and three co-sponsors introduced a bill amending the Federal Power Act to provide for a national power plant siting study and a national power plant siting plan. Under the bill, the Federal Power Commission would develop both siting standards and the national siting plan. In introducing the bill, Sen. Kennedy said, "There is a growing criticism of the thermal pollution propensities of generating stations. Without doubt, certain bodies of water may be proscribed as locations for nuclear plants. Increasing concern regarding aesthetic aspects of utility equipment encourage careful consideration of the siting of the nuclear power plants."

Supreme Court curbs mining claims in national forests

In an 8 to 0 decision the United States Supreme Court upheld a Department of the Interior ruling which forbids the mining of quartzite stone on 720 acres of San Bernardino National Forest in California. Justice Hugo Black said the Court took the case because of its relevance to public land use. According to the decision, public lands are available to miners only if the land has valuable mineral deposits, and quartzite was termed a common mineral.

Minaret Summit road again before the California Assembly

Hearings before the California Assembly's Transportation and Commerce Committee on A.B. 1191, a bill which would authorize the Minaret Summit road across the Central Sierra, got underway April 30. The same Fresno commercial interests that failed in backing a similar bill last spring continue to press for a trans-Sierra road leading east from Fresno in order to obtain allegedly cheaper charges for goods shipped east. To make this year's bill more palatable, a clause authorizing the route as a possible toll road has been added. The Sierra Club has long opposed the route because it would cut through a portion of the Sierra and across the John Muir Trail. Other opposition centers on the cost of construction, the exorbitant cost of snow removal, and the pressing need for road monies elsewhere. Termed "a road from nowhere to nowhere," estimated usage has been set at 230 cars per day with the costs of construction estimated at \$125 million and of maintenance at \$1.3 million per year. For details on cost, route, and the controversial history of the proposed Minaret Summit road see the Sept.-Oct. 1966 and March 1967 Bulletin issues.

June 1, 1968 *Ascent* available

The 1968 issue of *Ascent*, the Sierra Club mountaineering journal, is now on press and will be available by June 1, 1968, reports L. M. LeBon, promotions manager. Features of the forthcoming issue include an article on climbing the west face of El Capitan, discussion of the new climbing regulations at Grand Tetons National Park, and an article on climbing techniques on ice, plus a 1968 "accident" report. Cost per copy is \$2.50. Orders are being accepted at *Ascent*, Sierra Club, 1050 Mills Tower, San Francisco, California 94104.

Loma Prieta stages a grass roots success

Loma Prieta Chapter of the Sierra Club waged a vigorous two-week campaign to raise \$19,000, the amount needed to save a 380-acre inholding in California's Big Basin Redwood State Park from private development. The privately held acreage was priced at \$127,000, but the State of California, with only \$108,000 to contribute, was \$19,000 short. Loma Prieta Chapter opened its fund raising drive on April 14, racing against the May 1 purchase deadline. On May 2 Claude Look, chapter spokesman, announced that the contributions—over 2000 of them—totalled \$1000 more than the \$19,000 needed to make up the difference between the cost of the land and the money available in state funds.

Ansel Adams receives Interior Department's Conservation Service Award

Ansel Adams, Sierra Club Director and well-known California photographer, author, and artist, received the Department of the Interior's highest honor for a non-employee, the Conservation Service Award. The ceremony was held April 16 in the office of Secretary of the Interior Stewart L. Udall. Later in the day the Washington Group of the Sierra Club's Atlantic Chapter held a reception in honor of Mr. Adams. The citation, presented to Adams by Secretary Udall, read in part, "Outstanding among your manifold accomplishments has been your devotion to a creative and artistic perception of the unlimited and varied beauty expressed by nature in the world about you, especially as it is displayed in those scenically indescribable areas, our national parks. . . . Through your creative work, you have conveyed to the multitudes the vital importance of conserving our resources for future generations. . . ." Adams, who conducts a photographic workshop for students at Yosemite National Park, has exhibited his outstanding views of Yosemite and other national parks in one-man shows in principal cities throughout the world.

BOARD MEETING AND ANNUAL BANQUET

THE BOARD OF DIRECTORS met May 4-5 in Los Angeles with the following Directors present: Ansel Adams, Phillip Berry, Paul Brooks, Lewis Clark, Frederick Eissler, Patrick Goldsworthy, Richard Leonard, Martin Litton, Luna Leopold, Eliot Porter, Richard Sill, William Siri, and Edgar Wayburn. The unavoidable absences of Directors Laurence Moss and John Oakes were excused.

The Board elected officers of the club for the following year. Re-elected to the positions they had held the year before were Dr. Edgar Wayburn (President) and William Siri (Treasurer). Newly elected officers are Paul Brooks (Vice-President), Phillip Berry (Secretary), and Patrick Goldsworthy (Fifth Officer). These officers constitute the Executive Committee, which acts for the Board of Directors between meetings of the Board.

Walter A. Starr (President 1941-43, and Honorary President since 1964) was re-elected Honorary President. Charlotte Mauk, who served as a Director from 1943 until she declined renomination this year, was elected an Honorary Vice-Presi-

dent. Other Honorary Vice-Presidents and the years in which they were originally elected are Robert G. Sproul (1933), Horace M. Albright (1937), Newton B. Drury (1942), Randall Henderson (1947), Francis P. Farquhar (1951), Phil S. Bernays (1953), Harold E. Crowe (1960), and Harold C. Bradley (1961).

PROPOSED VOYAGEURS NATIONAL PARK

On the recommendation of the North Star (Minnesota) Group of the Great Lakes Chapter, and of the Great Lakes and John Muir Chapters, the Board supported the establishment of a Voyageurs National Park on the Kabetogama Peninsula and adjacent lands and waters of northern Minnesota.

ENVIRONMENTAL QUALITY ACT

The Board resolved that "The Sierra Club supports establishment of a Presidential Council on Environmental Quality, and authorization for the Secretary of the Interior to conduct

ecological research." (A bill designed to achieve these objectives, S. 2805, had been introduced by Senators Henry Jackson and Thomas Kuchel.)

PROPOSED SALEM-CHURCH DAM

The Board resolved that "Because an area of significant natural value is found along the Rappahannock and Rapidan rivers in northern Virginia, the Sierra Club believes these rivers should be kept in their present free-flowing condition. Consequently, the club opposes construction of the Salem-Church dam, which would destroy the natural, scenic values of the area."

SAN FRANCISCO BAY

The Board advocated establishment of a permanent regional agency to control bay fill and insure the preservation of San Francisco Bay. (A temporary agency, the Bay Conservation and Development Commission, will be disbanded when it has made its final report to the state legislature.)

OLYMPIC NATIONAL PARK

The Board passed the following resolution: "The Sierra Club urges that Olympic National Park be enlarged to include the strip of coast and related upland between the present northern boundary of the park and the southern boundary of the Makah Indian Reservation."

HELLS CANYON AND THE SNAKE RIVER

The Board resolved as follows: "The Sierra Club proposes that the 120-mile reach of the Snake River between the low Hells Canyon Dam and Asotin, Washington, be protected by designation as a National River where dams will not be built and the natural character of the canyon will be protected. This last major, free-flowing stretch of the river should be kept free of dams and, along with adjacent wildlands, should be given firm national designation and protection."

TOPOCK GORGE AND THE LOWER COLORADO

The Board further resolved that "Because of the important natural values of the Lower Colorado River, the Sierra Club urges that dredging in Topock Gorge be confined to the 1.7 miles presently being dredged and that affected parties and the states be adequately consulted before any further plans are made respecting the river."

PICO BLANCO

The Board urged the State of California and the federal government to use all appropriate means to prevent the planned quarrying of limestone from the summit of Pico Blanco, which dominates the back country south of Carmel in Monterey County.

PROPOSED DOS RIOS DAM

Because of the drastic effects it would have on the natural values of the Eel River basin, the Board opposed construction of the proposed Dos Rios dam on the Middle Fork of the Eel. The dam would be one part of California's gigantic North

Coast Water Development Plan, whose primary purpose is to divert water from the northern part of the state to Southern California.

SENATOR KUCHEL ADDRESSES ANNUAL BANQUET

The Sierra Club Annual Banquet, hosted by the Angeles Chapter, was held the evening of May 4 in conjunction with the Board meeting. Senator Thomas Kuchel was the banquet speaker. The core of his message is contained in this excerpt:

"Americans must ask themselves whether urban blight and ugliness is an essential way of life. Is it really necessary to have smog-filled air? Must our lakes and rivers be clogged with algae and debris? Are jet noise and thermal pollution inescapable facts of life? Must highways and parking lots continue to swallow up our surroundings?

"Conservation should mean fighting for more neighborhood parks. It should mean an end to bad local zoning, and more and better open-space legislation. It should mean guarding against threats to the air and water in our cities, and more attention to the aesthetic aspects of housing. An effort must be made to understand what the ever stronger detergents and excessive carbon dioxide emission are doing to our environment.

"There is a crying need for action. You have the vehicle to move into this void without forsaking your basic commitment to wilderness preservation. . . ."

SPECIAL ACHIEVEMENT AWARDS

A feature of the Annual Banquet was the presentation of Special Achievement Awards to George Alderson (who "has done much to continue and strengthen the work of the Sierra Club in the nation's capital"), Peter Hearst (for "energetic and forward-looking . . . leadership of the Sierra Club Council"), William Losh ("a wise and helpful participant in councils of Sierra Club leaders and other conservationists"), and Richard Searle (for helping develop the Angeles Chapter from "a far-flung and fragmented chapter into a unified and harmonious whole").

COLBY AWARD TO H. STEWART KIMBALL

The Third Annual William E. Colby Award was presented at the banquet to H. Stewart Kimball, Chairman since 1951 of the Outing Committee. The citation read "In grateful recognition of his continuing contributions as Chairman of the Outing Committee; in admiration of the quality of leadership with which he inspires in others the imagination, responsibility, and devotion to carry on a successfully expanding program of outings; in appreciation of what the outings mean in heightened concern for the natural scenic resources of our country and our world. . . . His achievement has carried forward the work of William E. Colby in fostering more general appreciation of the need for wildlands in America's future."

The next meeting of the Board will be held in early September, probably in the mountains. Details will be published when available. —Ed.



Baldcypress swamp. National Park Service photo.

The Biological Crossroads of North America

BIG THICKET

by Orrin H. Bonney

NEAR THE GREAT POPULATION CENTERS of Dallas, Houston, and the Beaumont-Orange-Port Arthur complex of East Texas is Big Thicket. Once a sweeping expanse of about 3.5 million luxuriantly forested acres, Big Thicket has been whittled down to less than one-tenth its former size. But the 300,000 remaining acres contain great beauty and habitats that are ecologically unique.

The beauty of Big Thicket is elusive. Travelers who look at forest skimming past their car windows are likely to ask, "But where is Big Thicket?" The Thicket's special beauties are not for the motorist, only for walkers who penetrate its dense woods to see the breathtaking loveliness of ferns growing from the moss of gnarled tree trunks, the unbelievable green solitude of duckweed-matted bayous, tree-encircled

meadows resplendent with wildflowers, magnificent magnolia groves, azaleas exploding with color, luminous beech forests, eerie cypress swamps.

Big Thicket is unparalleled in the richness and diversity of its plant life. Sometimes called the "biological crossroads of North America," its 60-inch annual rainfall and gulf climate make the Thicket a lapping-over point of subtropical and temperate vegetation, found nowhere else in the United States. A National Park Service study states that "the forest contains elements common to the Florida Everglades, the Okefenokee Swamp, the Appalachian region, the Piedmont forests, and the open woodlands of the coastal plains." Large areas resemble tropical jungles in the Mexican states of Tamaulipas and Vera Cruz. Big Thicket's ecologic complex encompasses eight plant communities—upland, savannah,

beech-magnolia, baygall, palmetto-baldcypress-hardwood, bog, streambank, and flood-plain forest—with intermediate gradations.

At least 21 varieties of wild orchids and 25 ferns grow in the area, and four of America's five insect-eating plants. "Mr. Big Thicket," Lance Rosier, has spent a lifetime here; he calls it a matchless area for the study of fungi, mosses, and algae. A study of fungi and algae would doubtless disclose many species that hitherto have been unclassified and unnamed.

Several species of trees have reached their finest development in Big Thicket, and champion-sized trees continue to be discovered: the world's largest American holly, eastern red cedar, Chinese tallow, sycamore, red bay, yaupon, black hickory, sparkleberry, sweetleaf, and two-wing silverbell. The world's tallest cypress tree towered undiscovered in Trinity River bottomlands until a year or two ago.

For reasons still unknown, Big Thicket is a "region of critical species changes." As Dr. D. S. Correll, noted botanist of the Texas Research Foundation, has pointed out, Appalachia flora grow in Big Thicket, the flowers coming in a direct line from Tennessee. As each species reaches the western extreme of its range in East Texas, it tends to differ from its more easterly cousins. "The variations are often so great that the plant has to be segregated as a distinct species," says Dr. Correll.

At least 300 bird species make Big Thicket their home, year-round; countless migratory birds visit the area, which lies on the dividing line between the great flyway of the Mississippi Valley and the migration route that curves along the gulf coast.

The ivory-billed woodpecker, gaudily plumed and larger than a crow, ranged through southern forests in the past. With the gradual passing of vast, virgin hardwood stands that were its home, this regal bird was thought to be extinct. But a number of ivory-bills—estimates range from seven to ten—have been observed in the Neches River bottomlands of Big Thicket. Preservation of the area would be justified on this basis alone.

Hunters have roved Big Thicket since Indians paddled across the waters of the "Big Woods," as they called it, in search of once-abundant game. (Enforcement of game laws reached the area in 1964; poaching and hunting out of season are still a way of life there.) Bear and panther are rarely seen now, but smaller game animals are well represented. Reptiles and amphibians—ranging in size from alligators to tiny worm snakes—add to the interest of the region.



Supreme Court Justice William O. Douglas takes notes as Lance Rosier talks about the Big Thicket country he knows so well. Photo by Will Thompson.

Man stands beneath an American beech, which, at the extreme southwestern limits of its range in the U.S., is a majestic dominant of the Big Thicket forest type. National Park Service photo.



Archaeologists haven't studied Big Thicket yet, but nearby studies indicate that artifacts from all four eras represented in Texas will be found there—the Paleo-American, Archaic, Neo-American, and Historical. Early Indians in the area were the Akokisa and the Bidai. The Coushatta Indians (then the Alabama) came west in about 1800 and settled in Big Thicket. They still remain there, on the only Indian reservation in Texas.

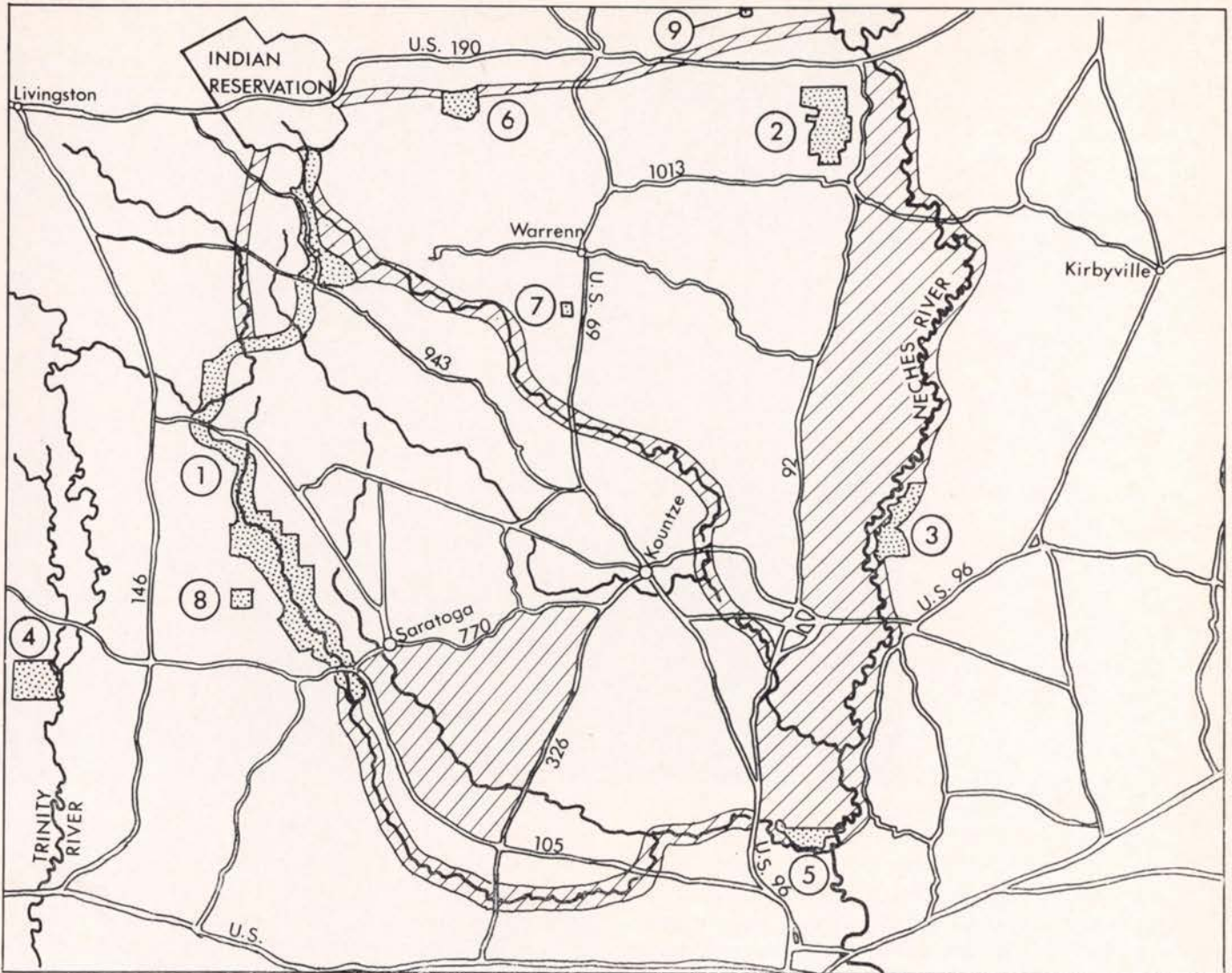
Until the 1820's, the Thicket wilderness was inviolate. Historic trails—such as the Old San Antonio Road, the Atascosita-Opelousas Trail, and the Contraband Trail—bypassed the “impenetrable wood” with its luxuriant undergrowth, unfordable streams, and bogs. But in the 1820's, the wilderness was penetrated from the north by Anglo-American settlers who moved in by way of flatboats, keel boats, and rafts. Farm settlements mushroomed along streams to form towns like Jasper (1824) and Woodville and Hillister (1830). Old men in dying crossroad towns will still tell you stories of epic bear hunts, of bawdy sawmill days, of hiding Civil War deserters, runaway slaves, and other fugitives.

Economic development of Big Thicket began on a small scale during the 1850's, when logs were floated down the Sabine and Neches rivers to three sawmills. In 1876 a narrow-gauge railroad, with an eventual 250 miles of tram offshoots,

launched the lumbering industry into the big time and doomed the western Thicket wilderness. Railroad builders took another giant step in 1896, positioning their rights of way to facilitate plundering of Big Thicket's unspoiled eastern half. Their lines slashed through the Great Woods, with sawmill towns strung along them like beads on a necklace. Moving out—lock, stock, and railroad tracks—when the accessible and marketable timber was gone from an area, lumber companies left denuded chaos and disintegrating sawmill towns behind them. The turn of the century saw a sustained assault on Big Thicket resources that did not end until practically all of the virgin pine forests had been reduced to cut-over woodlands.

Most of its wilderness was raped decades ago, but Big Thicket has remarkable recuperative powers. Stumps decayed, and dense undergrowth recaptured the sites of old sawmill towns. And fortunately, there are areas that axe and machine have never reached.

Today, the last 300,000 acres of Big Thicket are under renewed attack. The entire acreage is privately owned, most of it by five lumber companies. Lumbermen, pipeline companies, and real estate promoters are racing to carve up Big Thicket at the dismaying rate of 50 acres a day. But growing numbers of Texans—keenly aware of their state's lack of



public land, its dwindling natural areas, its mere 106 miles of trails—are becoming seriously concerned at last. More and more of them are realizing that it's now or never if significant parts of Big Thicket's last 300,000 acres are to be preserved for the people of Texas and the nation.

Battle lines were drawn when the Texas conservationist and statesman, Senator Ralph Yarborough, introduced in 1967 a bill to establish a Big Thicket National Park of 75,000 acres: S. 4. While the National Park Service has made no final recommendations, its preliminary study of 1965 envisioned a nine-unit national monument of 35,000 acres built on a "string of pearls" concept.

(1) The Big Thicket Profile Unit, 18,180 acres, which is in the heart of the original Thicket and contains a representative selection of almost every kind of land and vegetation to be found in the area.

(2) The Beech Creek Unit, 6,100 acres, with its virgin beech forest.

(3) The Neches Bottom Unit, 3,040 acres.

(4) The Tanner Bayou Unit, 4,800 acres, on the Trinity River.

(5) The Beaumont Unit, 1,700 acres, containing an entirely untouched cypress swamp.

(6) The Little Cypress Creek Unit, 860 acres.

(7) The Hickory Creek Savannah, 220 acres, which contains an unusually lush growth of insect-eating plants.

(8) The Loblolly Unit, 550 acres, which contains the largest (and almost the last) stand of virgin pine in the state of Texas.

(9) Clear Fork Bog, 50 acres.

The Lone Star Chapter of the Sierra Club has studied the 35,000-acre "string of pearls" plan, and believes it is too small and too fragmented to preserve Big Thicket's special values. Accordingly, the chapter recommends the following changes and additions:

- The Big Thicket Profile Unit should be extended south-

Proposed Big Thicket National Monument, in East Texas. Numbered areas (dotted shading) are units included in the preliminary, "string of pearls" proposal of the National Park Service; units are identified by number in the text. Cross-hatched areas (diagonal shading) are additions and connecting corridors recommended by the Lone Star Chapter, also described in the text. The map is by Julie Cannon

ward and eastward down both sides of Pine Island Bayou to its confluence with the Neches River. No "motorized nature road" should cut this strip, as has been suggested. The extension would protect Pine Island Bayou from the proposed Pine Island Bayou Water Management Program, a drainage project that would undoubtedly upset the ecology of Big Thicket.*

- The Neches Bottom Unit should be expanded to include most of the wildlands and forest along the Neches between highway U.S. 190 and the confluence of Pine Island Bayou. The almost extinct ivory-billed woodpecker has been seen here, and the Neches is a fine river for canoeing.
- A Village Creek Unit should be added, protecting both sides of Village Creek between the Big Thicket Profile Unit and the Neches Bottom Unit.

*The water management program has been advocated by an agency of the U.S. Department of Agriculture: Southeast Texas Resource Conservation and Development. The agency's goal is "full development of the area's resources," which includes the harvesting of mature timber, the thinning out of overstocked stands, and the destruction of all sorts of vegetation "to reduce competition" for timber-producing pines.

- A substantial area south and east of Saratoga, bounded by highways 770, 326, and 105, should be added. Here the larger wildlife species, such as black bear, puma, and red wolf, may survive.

- Major units should be connected by corridors at least a half mile wide, with a hiking trail along each corridor but without new public roads.

Such additions would form a greenbelt of about 100,000 acres through which wildlife and people could move along a continuous circuit of more than 100 miles.

Conservationists worry that lumber companies may strip every acre of ground they own within the proposed boundaries of Big Thicket National Monument to make it worthless for preservation. Already, the Beech Creek Unit has been compromised; and we hear of plans to bulldoze the Loblolly Unit and plant it in cottonwoods for pulp. A well-known lumber executive was heard saying this: "The Big Thicket? In four years there won't be any Big Thicket!"

This dire prediction could come true unless the preservation of North America's "biological crossroads" is recognized as a national issue. The Sierra Club's national Board of Directors has recognized it as such, resolving that: "The Sierra Club supports establishment of a Big Thicket National Monument in East Texas of no less than 100,000 acres. Among other units the Monument should preserve a portion of Village Creek and a substantial portion of the Neches River bottom. All of the units should be maintained essentially in a roadless condition."

Orrin Bonney, author of Guide to the Wyoming Mountains and Wilderness Areas, is a resident of Houston and Chairman of the Sierra Club's Lone Star Chapter.

TO REMEDY AN OMISSION IN THE SIERRA CLUB HANDBOOK . . .

Our attention has been called to the unfortunate omission of Article XXIV of the Bylaws from the Sierra Club Handbook (Volume 52 Number 11 of the *Sierra Club Bulletin*, dated

December 1967). The omitted bylaw is printed below for the benefit of any members who may wish to paste it at the bottom of page 63 of their Handbooks.

ARTICLE XXIV.—*Amendments to By-Laws*

SECTION 1. These by-laws are fundamental, and shall not be altered, amended, suspended, or repealed, in whole or in part, except by a two-thirds vote of all the ballots cast at any annual or special election, which ballots shall be so printed as to enable the members voting to express their wish as to the adoption or rejection of any proposed amendment or alteration. Such proposed amendment or alteration must be printed in full, and mailed to each member with his ballot, and shall only be submitted to a vote of the club when presented in the manner indicated in Article XXII.

FIELD HEARINGS ON A REDWOOD NATIONAL PARK

by John Flannery

BLEND ELOQUENCE, emotion, bias, blarney, farce, and fact. Sprinkle well with congressmen, local politicians, bureaucrats, industry representatives, loggers, students, concerned citizens, and curiosity seekers. Spice with plan and counter-plan. Top with an ounce of surprise and a few gallons of high octane flight fuel, and you have Redwood National Park Hearings Flambé.

Crescent City hosted the first two days of the April 16-18 field hearings in California. The spacious fairgrounds building was two-thirds filled when Wayne N. Aspinall, Chairman of the House Interior Committee, and Roy A. Taylor, Chairman of the House Subcommittee on National Parks and Recreation, opened the hearings. The remaining seats were taken an hour later when loggers, released as a group by their companies, dramatically filed in. Attired in faded denims, staggled pants, caulked boots, red galluses, and hard hats, they sat solemnly throughout a good portion of the afternoon's hearings.

Highlights of the testimony included a statement from Governor Ronald Reagan offering to make some redwood state parks available to help form a national park. The governor's statement, presented by California Resources Agency Administrator Norman Livermore, said in part, "... we can work together to help create a truly meaningful and magnificent redwood national park that can be passed on to posterity as a shining beacon of untrammled natural beauty."

Sierra Club President Edgar Wayburn asked for a 90,000-acre redwood national park in Redwood Creek. Instead of animosity, quiet interest blanketed the hall—possibly indicative of the local populace's having become reconciled to the inevitability of a redwood national park.

Sierra Club Director Martin Litton, testifying as an individual, challenged the committee to "see the Sierra Club proposal for the redwood national park

on foot—as only one other congressman has." He was referring to Congressman Paul McCloskey, who, just that day, had made an extensive hike through the Redwood Creek area.

Testimony seemed well-balanced pro and con throughout the afternoon with a slight edge on the side of conservation during the statements given by individuals, which followed those of industry and organizations.

Subcommittee Chairman Taylor continually put witnesses on the spot by cutting to the core of the hearing purpose. "Do you favor a park, and, if so, what kind of park?" His fairness and that of Committee Chairman Aspinall extended to both sides, and in particular to young people testifying for the first time. Both men instilled in the college-age witnesses the need to back up each statement with fact, and both expressed appreciation that the young people of America care about conservation matters.

That evening the Sierra Club brought together a group of congressmen, conservationists, and timber people to see the club's Academy Award winning film, *The Redwoods*. The film obviously distressed one timber operator who left in the middle; those who stayed were both complimentary and critical. (Since the California hearings, foresters, multiple users, and government organizations have shown the film numerous times.)

On the second day of the hearings the committee's schedule included a tour of the proposed redwood park areas, but planned stops in virgin redwood groves on Lost Man, Skunk Cabbage, and Lower Redwood Creek were deleted, as was Fern Canyon. The tour consisted of a visit to Arcata Redwood Company headquarters plus a whirlwind tour of dusty roads past beautifully staged roadside logging, equipment repair, men doing countless jobs, an almost constant flow of trucks rolling busily by, and dusty views of clear cuts.

At a lunch stop, Congressman John P.

Saylor expressed interest in seeing the Emerald Mile and possibly hiking out. When the group arrived on Georgia-Pacific buses at the Tallest Trees Grove, a Sierra Club helicopter was waiting for them. Congressman Saylor, followed later by Congressmen Morris K. Udall, John V. Tunney, William F. Ryan and James A. McClure, was air-lifted into the Emerald Mile. Others wished to make the trip, but time and gasoline were limited. With guides Dave Van de Mark, President of the Committee for a Redwood National Park, and Dr. Wayburn, the five congressmen hiked through the beautiful two-mile stretch, viewed the Georgia-Pacific bulldozing adjacent to and in the Redwood Creek area, and returned both awed and disgusted.

The third and last day of field hearings was held in Eureka. Here the anger of the congressmen who had visited the Emerald Mile was expressed by intensive questioning directed at William Moshofsky, assistant to the president of Georgia-Pacific. The following is from the account of reporter Douglas Dempster of the *Sacramento Bee*.

"I came here with an open mind and a desire to learn about this great controversy," began Udall in replying to Moshofsky's opposition to the Senate version of the park and to the Sierra Club's larger 90,000-acre version.

He said one of the moving experiences of his life was to see "these magnificent redwood groves."

But he added he was "shocked" at the road cut into the Emerald Mile, adding that Georgia-Pacific apparently would have no "misgivings or compunction" about cutting that area.

"I recognize the need for timber," he said, "but was that (road) operation essential to your total operation?"

"We have to proceed with an over-all program on our land," replied the company representative. "All we did was

Continued on page 21



BARBARA LILLEY: *In search of new vistas a party of six Americans have made what is thought to be the first recorded ascent*

of Mt. Churchill in the Canadian Rockies. Shown at the summit are Rich Gnagy and Mike McNicholas.

The Northern Rockies:

A Frontier for Mountaineers

by George Wallerstein

FOR THOSE WHO REMEMBER the mountaineering adventures described in older issues of the *Sierra Club Bulletin*, something seems to be lacking in the Sierra trips of the 1960's. While new passes and canyons were still being discovered in the 1920's and first ascents of major peaks were being made in the thirties, one now meets old friends on what used to be new passes, and there is hardly time to read all the names in the register atop a remote summit. Though there are still a few areas in the Sierra far enough from the Muir Trail, the western roads, and the eastern passes, it is almost essential to visit one of the more remote ranges of North America to recapture the spirit of discovery that came so easily in the Sierra only a few decades ago.

Within Canada are vast areas that have been only partly explored and where only the highest peaks have been climbed. There are places, of course, such as those around Yoho, Banff, Jasper, Rodgers Pass, etc. which can be eliminated as over populated. But, for several years a group of peaks lying far to the north of the well-known Rockies had attracted my attention. Apparently, these summits were first sighted during World War II since the only three peaks having names are Mounts Roosevelt, Churchill, and Stalin. The peaks rise west of Fort Nelson and can be seen from the Alaska Highway where the road swings out of the prairies to cross the Rockies and enter the watershed of the Yukon. Surprisingly, I could find no record of ascents of Roosevelt, Churchill, or



GEORGE WALLERSTEIN: *Easy third class climbing brought the six mountaineers to the top of a 9,100 foot summit. From there*

they looked out on snowy ridges, alpine glaciers, and an abundance of unclimbed peaks.

numerous other peaks in the area, even though the area appeared to be accessible by plane and sufficiently dry so that the forest would be penetrable on foot without excessive brush.

In preparation for a three week trip into this section of the Canadian Rockies, my wife Marcia and I flew to Fort Nelson and started gathering local intelligence. It seemed that a mining operation was underway and a cat-road had been built from Toad River Lodge on the Alaska Highway up the Racing River to a mine on Churchill Creek. An airstrip had also been built at the mine. This allowed us to change our plans which had originally called for a landing at Tuchodi Lake and a walk of about 90 miles past Mts. Churchill and Roosevelt to the highway. We were soon joined at Fort Nelson by Barbara Lilley, Rich Gnagy, Alex McDermott, and Mike McNicholas, and, on the afternoon of their arrival, we were all flown to the mining strip by Bob Veale of Northern Air Services.

An old prospector at Fort Nelson, Ollie Low, had told us that the easiest route up Mt. Roosevelt would be via the

West Ridge, and so we set out with four days food for a high camp south of Mt. Roosevelt from which the West Ridge would be accessible. Ollie was right, and, after following a small glacier, passing through an icy gap, and walking over another snowfield, we reached a ridge which could be climbed without roping up. It took another 25 minutes to reach the east peak, which appeared to have exactly the same altitude as the west summit; neither summit had a cairn, so we prob-

One of the club's purposes (conservation) tends to eclipse its other purposes (exploration and enjoyment of scenic resources) in the competition for space in the SCB. We expect the SCB to remain a conservation journal, primarily. But the strength of our conservation convictions derives from members' personal explorations of the kind of land we need to conserve, and from their enjoyment of it. Without detracting from the SCB's conservation coverage, we hope to publish more accounts like this one about the exploration and enjoyment of scenic wildlands. —Ed.

ably were making a first ascent. By 4:30 p.m. we were back at our high camp in a rainstorm. On the next day we returned to the mining camp as thunder rumbled about the peaks.

The miners very kindly gave us a ride to their cabin at Delano Creek where we spent a rainy day before packing up Delano Creek for an attempt on an unnamed peak marked as 9,381 feet on the Tuchodi Lakes Quadrangle map. After a late, wet start we were soaked from bashing through dwarf juniper on the opposite side of the stream. Finally, we crossed the stream and worked our way over a low pass to the north side of Peak 9,381. Although our route had appeared reasonable from the air, it was evidently a mistake, and we took the east ridge which we followed until the climbing began to get difficult. By then it was 4 p.m. Snow showers were increasing in intensity, and the hard part of the climb was about to begin. A unanimous vote started us back to camp, which we reached in a rather sodden condition. The following day was spent slogging down Delano Creek to the cabin from which the miners took us back to their main camp.

It was now time for our main trek. The route would take us up Churchill Creek, over two passes to reach the west side of Mt. Churchill, down one fork and up another branch of the Gataga River, and, finally, over a pass to Tuchodi Lake.

To reduce the loads, we hired the miners' helicopter to plant two food caches, one at the end of the first day's walk and the other on the pass west of Mt. Churchill that we later named Marmot Meadows.

Our first camp was a delightful spot on a bench with grass and bushes at an altitude of about 5,500 feet. From it we could reach two peaks of about 9,000 feet. After the usual rainy night we crossed the pass to the west and walked up a substantial glacier—probably the largest in the area—that originated on the northern slopes of our peak. It was easy enough to get onto the northwest ridge where we roped up for combined snow and third class rock that led to the summit at about 8,900 feet. The view was extensive and showed the large number of unclimbed peaks within 25 miles.

On the other side of camp was a peak of about 9,100 feet which we visited the next day. A small glacier led to the east ridge which rose in small steps of metamorphosed sediments to a snowy summit. The climbing was easy third class as each step was surmounted at its weakest point, and we roped up only for the snowy ridge near the top. Again, the view from the top revealed numerous peaks that we would have to reserve for future parties.

It was time to leave our first camp, cross the pass to the

GEORGE WALLERSTEIN: *From this high camp in the Canadian Rockies, the climbers ascended two 9,000-foot peaks; one to the*

east and the other to the west of the camp. The camp itself was at an altitude of 5,500 feet.





BARBARA LILLEY: *At the top of a nearly 9,000-foot high peak to the east of their first high camp, the climbers sighted Mt.*

Churchill, center of picture. This summit was the challenge that had brought them to the Canadian Rockies.

west, and enter the Gataga drainage. We had a couple of bad hours in the brush as we ascended the stream that led to the pass we called Marmot Meadows and our second food cache. We were now at the base of Mt. Churchill, which appeared to be the hardest climb in the area and is certainly second only to Mt. Roosevelt in altitude. Our food cache was a little too high, and we were thus above the bushes and beyond all firewood. We had to cook on stoves and hope that the wind wouldn't start howling through the pass. We made an early start for Churchill in anticipation of roped climbing, but, surprisingly, the slabs of the northwest ridge were at just the angle to allow free climbing all the way to the summit. By 11 a.m. we were on top to enjoy an hour of sunshine and some new views to the south. The afternoon was spent washing in the icy stream by those who could take it.

We then picked up eight days food and all our gear for the hike south and then east toward Tuchodi Lake. The first day ended at a roaring tributary that absolutely defied crossing. We made camp in anticipation of a long walk the next day upstream to where the stream would be braided and crossable. But it was early August and the nights were getting both longer and colder; so, by next morning we felt that the stream would be fordable at its junction with the Gataga if a rope were used for balance against the current. One by one we crossed, wet to the waist in 33° water, but we were safe and our packs dry. After a short battle with brush the valley opened out and we made rapid (2 mph) progress to the southeast.

In mid-afternoon we came upon a surprising sight. The entire valley was blocked by debris from an enormous landslide that had dammed the stream and wiped out all vegetation across its entire width. We must have taken nearly an hour to cross the loose rocks and earth. On the upper end

were several stands of dead trees that had evidently been drowned in the muddy lake which had temporarily formed behind the landslide. Later a packer told us that the slide had happened in the spring of 1964, possibly at the time of the Good Friday earthquake. It took us another half day to reach a camp at 5,500 feet below the pass leading to Tuchodi Lake.

From our last high camp we had planned to climb a peak six miles to the northeast which was somewhat higher than 9,500 feet. After a rainy night it snowed in the early morning, and we didn't leave camp until 8:30 a.m. It was probably a mistake to try to reach the distant peak, since the snow showers continued on and off, but we followed a large stagnant icefield to its crest and climbed a small nob of 8,500 feet. The main peak was too far away, and by now it was too late and snowy to ascend an attractive 9,000-foot peak closer to camp. We returned to camp for another wet night and broke camp in the morning.

A sheep trail led across the pass and down a rocky ravine on the east side. By evening we were below 4,000 feet. A cold rain fell that night, and in the morning fresh snow lay on all the ridges above 5,000 feet. The last day was spent walking down to Tuchodi Lake where we were picked up on schedule by Steve Villers of Northern Air Services.

The remarkable thing is that our trip was not difficult, and the cost, in both dollars and time, would permit many persons to undertake such an adventure. Furthermore, we did not come staggering out of the mountains in need of a week's rest. We returned to the city with a feeling of refreshment and exhilaration. The variety of terrain and weather, combined with the challenge of crossing unvisited country to a remote rendezvous, added a feeling of accomplishment that cannot be experienced in our usual lives.

UNKNOWN AGENT AT SKULL VALLEY

by W. Lloyd Tupling

At 5:30 p.m., March 13, 1968, a high-speed U. S. Air Force plane, flying at an altitude of 150 feet, sprayed 320 gallons of persistent nerve gas from its two tanks over a carefully marked grid at Dugway Proving Grounds in Utah.

Its heading was 315° true. Wind direction at altitude of flight was 210°; speed was 19.4 miles per hour. Scattered cumulus clouds were in the area.

About two hours later the wind shifted to the west, and scattered rain showers developed.

The next day sheep in flocks in Skull Valley and Rush Valley, east of the test site, began dying. Symptoms were depression of cholinesterase level and deterioration of central nervous system. (Cholinesterase is an enzyme which controls interaction between the nervous system and bodily functions. Absence of cholinesterase results in muscular contraction which affects respiratory and circulatory system activity.) Eventually 6,400 sheep perished.

On March 21 Senator Frank E. Moss of Utah asked the Department of the Army to conduct a thorough investigation into the incident. On March 25, Brig. Gen. William W. Stone, Army Materiel Command, issued a statement saying, "We do not know whether or not the Dugway tests were responsible for the death of the sheep."

"In these areas we have taken, and are still taking, hundreds of samples of soil, water, snow, and vegetation looking for traces of the agent we were testing," he said. "Outside the general area of the test grid itself, we have found no traces whatsoever of our agent. In the areas where the largest sheep kills have occurred we and others have found some depression of the cholinesterase level in both live and dead sheep and also in some cattle. This observation is to be expected in any animal or human exposed to an organophosphorus compound. Compounds of this type also include a number of insecticides. Here too we do not at this point have any evidence that insecticides have been used in the affected area," he stated.

"Although we already have a mass of information, the picture is not clear. We and many others are working literally day and night until we find the answer to what happened," he said.

Sheep tissue, forage, and snow were taken from the Skull Valley area to be tested in laboratories of the Department of Agriculture at Ames, Iowa, and the Public Health Service at Atlanta, Georgia. On April 10 Senator Moss announced that comparative tests by the two laboratories showed that an unknown agent present in the specimens taken from the Skull Valley Area matched the nerve gas which was sprayed from the airplane during the test.

On April 18 Senator Moss said the report filed by Gen. Stone disclosed: "It can be postulated that any very small particles of agent remaining airborne could have been transported into the areas in Skull Valley and Rush Valley where sheep were later affected. There were scattered cumulus clouds in the general area at the time of the test and scattered rain showers developed during early evening. One of the rain showers could have washed this airborne agent out of the air and deposited it on vegetation and the ground."

Senator Moss said the Army still does not admit guilt for causing the death of the sheep. But, "they have taken some significant steps in that direction by admitting for the first time that the wind could have blown the agent into the area where the sheep died. I have repeatedly stated my belief that the Army was guilty and that they would be better off admitting it and getting this issue cleared up," he said.

The military construction bill pending before Congress contains an allocation of \$285,000 for a feasibility study on alternate means of disposing of chemical wastes at the Rocky Mountain Arsenal near Denver. Use of the 12,000-foot injection disposal well was halted in 1966 after studies indicated a statistical correlation between volumes of waste injected into the well and the frequency of earthquakes in the Denver area. A Denver geologist, David M. Evans, announced in November, 1965, that in the previous 44 months a total of 150 million gallons of waste was injected and a total of 710 earthquakes or microtremors was recorded. Prior to 1962 Denver had been subjected to one earthquake of note, although seismic events were indicated in adjacent areas. The new study will include investigation of means for salvaging the disposal facility.

NATURAL BEAUTY AND THE LAW

by David Sive

THE PRESENT PROCEEDINGS before the Federal Power Commission involving Storm King Mountain, *In the Matter of Consolidated Edison Company of New York, Inc.*, Project No. 2338, quite likely constitute the broadest and deepest consideration of the nature and place of natural beauty in any legal proceedings to date.

The basis of the "beauty issue," as it has been referred to by the Hearing Examiner and attorneys in the proceedings, is contained in large part in one sentence—by now perhaps classical—in the opinion of the Court of Appeals reversing the original grant of a license to Consolidated Edison to construct the Storm King pumped storage reservoir. After pointing out the errors of the Commission in its grant of the license to Consolidated Edison and requiring new proceedings to receive additional evidence, the Court described the ultimate questions to be examined in the renewed proceedings. The renewed proceedings must, it said: ". . . include as a basic concern the preservation of natural beauty and of national historic shrines, keeping in mind that, in our affluent society, the cost of a project is only one of several factors to be considered."

The intervenors opposed to the project, primarily the Scenic Hudson Preservation Conference and the Sierra Club, rely upon this statement of principle as no less than the beginning of the adoption of a philosophy to which Thoreau pointed more than a century ago as part of our developing law of natural resources. Thoreau stated it in this fashion: "Most of the luxuries and many of the so-called comforts of life are not only not indispensable, but positive hindrances to the elevation of mankind."

It may well be that the society of Thoreau was not "affluent." Ours certainly is, in that, by applying to our social and economic organization some small fraction of the intelligence we apply to going to the moon, we certainly can provide every person with not only the necessities but some of the comforts of life. Both Thoreau and the Court of Appeals hold that, beyond those necessities and, shall we say, necessary comforts, we must make a choice and that perhaps the choice should at least sometimes be to elevate rather than fatten mankind.

The mandate of the Court of Appeals was interpreted by the Scenic Hudson and Sierra Club attorneys to require a presentation to the Federal Power Commission Hearing Examiner of a sophisticated analysis of the nature and degrees of scenic beauty. The attorneys' position has been that scenic

beauty can be objectively analyzed and degrees of scenic beauty can be stated. This point is made at the beginning of the principal brief submitted to the Hearing Examiner by attorneys for the Sierra Club:

The Court's direction as to the nature of the renewed proceedings requires an appraisal and analysis of the scenic beauty and of the place in history of Storm King Mountain and the surrounding area, for only by such an appraisal and analysis can the "basic concern" of "the preservation of natural beauty and of national historic shrines" be properly considered alongside the "cost of [the] project." . . .

The cost of the project and its overall economic benefit, if any, as compared to the cost of the alternatives, can be measured quantitatively. That measurement of the overall economic benefit, if there be any, is the subject of another section of this Brief. The beauty of the Mountain cannot, of course, be measured with precision. Beauty in a landscape, like that in music or art, is to some extent, subjective. There nevertheless are standards and experts, and natural beauty can be the subject of analysis, with sufficient definiteness to distinguish that which is worthy of preservation.

The Court of Appeals requires this. It was held that we may not sacrifice a great scenic asset for an insignificant or doubtful economic gain. On the other hand, of course, we cannot, even "in our affluent society," sacrifice important goods or services, be they necessities or luxuries, willy-nilly, each time that some individual or group is called upon to sacrifice its favorite view of its favorite landscape.

A vital question of the renewed hearings, therefore, was "How beautiful is Storm King?"

Both Scenic Hudson and the Sierra Club did produce the testimony of several experts on scenic beauty, including Professor Charles W. Eliot, II, of Harvard; Charles Callison, Executive Vice President of the National Audubon Society; Dr. Vincent Scully, Professor of Art History at Yale; and David Brower, Executive Director of the Sierra Club. All of them testified that Storm King and the Hudson River at Storm King were not simply places of scenic beauty, but no less than the supreme river scenery in the eastern United States.

Mr. Callison called the Hudson at Storm King "the most beautiful stretch of river scenery in the United States." Professor Scully's description was perhaps the most lyrical:

It rises like a brown bear out of the river, a dome of living granite, swelling with animal power. It is not picturesque in the softer sense of the word but awesome, a primitive bodiment of the energies of the earth. It makes the character of wild nature physically visible in monumental form. As such



NANCY MATHEWS: *Storm King Mountain and the Hudson River.*

it strongly reminds me of some of the natural formations which mark sacred sites in Greece and signal the presence of the Gods; it recalls Lerna in Argolis, for example, where Herakles fought the Hydra, and various sites of Artemis and Aphrodite where the mother of the beasts rises savagely out of the water. While Breakneck Ridge across the river resembles the winged hill of tilted strata that looms into the Gulf of Corinth near Calydon.

Hence Storm King and Breakneck Ridge form an ideal portal for the grand stretch of the Hudson below them. The dome of one is balanced by the horns of the other; but they are both crude shapes, and appropriately so, since the urbanistic point of the Hudson in that area lies in the fact that it preserves and embodies the most savage and untrammelled characteristics of the wild at the very threshold of New York. It can still make the city dweller emotionally aware of what he most needs to know; that nature still exists, with its own laws, rhythms, and powers, separate from human desires.

The elements of the beauty of the Hudson at Storm King were analyzed also by one of the nation's leading cartographers, Richard Edes Harrison. He produced shaded maps of several rivers of eastern North America where the rivers break through the main chain of the area's most dominant feature, the Appalachian Mountains, demonstrating that of them all the Hudson is the widest and most dramatic. It is an

estuary, through which ocean-going vessels may pass to Albany, 80 miles north of the gorge. It is an American fjord.

Each of the several experts classified the Hudson at Storm King as equal in scenic beauty and magnificence to many of our national parks.

The beauty of the mountain and the surrounding area has not been seriously disputed by Consolidated Edison, although it has not accepted the analysis of degrees of scenic beauty. The company's principal point has been that the project would not mar the beauty of the mountain because from most angles at most seasons of the year it would, they say, not be seen, the main project works being placed underground in the revised plans announced just before the resumption of the hearings. Scenic Hudson and the Sierra Club disputed this company claim. The issue of the precise visibility of the project works was the subject of many hundreds of pages of conflicting testimony.

The claims of Scenic Hudson and the Sierra Club that the construction of the project and of the attendant facilities, particularly a visitors' information building and a recreational complex designed to show the project to visitors, would seriously damage the value of the mountain and the surrounding area as objects of natural beauty are not based solely,

however, upon the degree of visibility of the project works. The conservation organizations have raised an issue of the effect of the project upon the "integrity of the mountain" itself.

This point on the "integrity of the mountain" itself was made in the testimony of another of the Sierra Club witnesses, Richard Pough. He testified that the ultimate value of the scenic beauty was its impression on and in the minds of the persons who perceive it. If those who perceive the mountain and the surrounding area, although much of the project works may be camouflaged by paint, plantings, artificially roughened rocks, and other devices, understand that the mountain is subordinated to the project, the end result is appreciation and admiration of the company's engineering works and not of the works of the Creator of the mountain.

The point is summarized in the following extract from the Sierra Club's principal brief submitted to the Hearing Examiner:

It is this character and "integrity of the Mountain" (Pough, 14,786) and the surrounding areas that must be borne in mind in determining the extent to which the Project, and all that goes with it, will mar the natural beauty of Storm King and its environs. If its meaning is changed, in the eyes of those who behold it, its supreme value as a preserver and embodiment of the spirit of the New World . . . to a whole nation, particularly the vast millions in its greatest metropolitan area, is forever lost. In that event, no combination of orders of this Commission, funds of the Applicant, and skill of its eminent landscape architects, can be any more successful in putting the earth, rocks and trees of Storm King back together again, than were all the king's horses and all the king's men in the case of Humpty Dumpty. Painting concrete green cannot deceive its beholders into believing that it is the handkerchief of the Lord, or, if it can, this Commission should not, in the absence of some overwhelming economic necessity, direct such deception.

The point was alluded to in another aspect of the proceeding. During cross-examination of one of the company's landscape architects, Herbert Conover, counsel for the Club asked, "In your work, sir, that is the work of the recreational site and planning department of your firm, have you ever been commissioned or requested to determine whether a given area of any substantial size should be left alone?" Before Mr. Conover could answer, counsel for the company asked what was meant by the phrase "left alone." The answer by club counsel was, "As God made it."

In their principal brief, the attorneys for the company commented upon these references to God: "Scenic Hudson and the Sierra Club have taken the position that the project area should be 'left alone,' which counsel for the Sierra Club defined to mean 'as God made it' (45/7503). As discussed in connection with proposed finding 152-155 above, the record amply demonstrates that the project area is not now, nor has it been for many generations, 'as God made it.'"

This aspect of the issue of the nature of the mountain, if and when the project goes through, was discussed in these terms in the Club's reply brief.

The point being made was that proper planning in some areas is that they be left alone, at least as much as they can be. Mr. Conover shortly thereafter said "yes" to the question of whether he had ever determined in areas in which he worked to leave a substantial area alone (7504).

The point of counsel was not that all of Storm King Mountain or the Black Rock Forest can or should be left alone. They, as Times Square, cannot be completely restored to their condition, as "God made it." The question is whether the works of man on Storm King should be permitted to change the Mountain from something which—though not heretofore completely "left alone"—is some measure of His Glory, into the Applicant's Gadget.

Not only must the Hearing Examiner, the full commission, the Court of Appeals for the Second Circuit, and, ultimately, the Supreme Court, if appeals are taken, determine the beauty issue itself, but they must determine the significance of a place of great natural beauty in "a comprehensive plan for improving or developing" the waterway. The basic provision of the Federal Power Act governing the grant or denial of the application requires that the project: "be such as in the judgment of the commission will be best adapted to a comprehensive plan for improving or developing a waterway or waterways for the use or benefit of interstate or foreign commerce, for the improvement and utilization of water power development, and for other beneficial public uses, including recreational purposes. . . ."

It is the "law of the case" that "recreational purposes" include the preservation of natural beauty. Scenic Hudson and the Sierra Club claim that the preservation of natural beauty requires the preservation, as close to their natural state as possible, of those areas which, although not wilderness in the western sense, are nevertheless demonstrations of the power and majesty of nature. The Hudson River Highlands, in general, and Storm King Mountain, in particular, can serve that purpose. As stated by Professor Eliot: "The Highlands—today as 100 years ago—represent contact with natural forces, in contrast with urban and man-made conditions. Here, in that rugged terrain one can sense mystery and adventure, explore and discover, and experience the majesty of space and the land."

These are some of the principal points involved in the momentous case now before the Federal Power Commission involving the future of Storm King Mountain. The depth and breadth of the issues have made it a national controversy. The effects of the ultimate determination will be far-reaching upon fundamental issues of the use of our national resources.

David Sive, an attorney, has been counsel for the club in its defense of Grand Canyon and in many other legal matters. As a member of the Executive Committee of Citizens for the Hudson Valley, Vice-Chairman of the Scenic Hudson Preservation Conference, and Chairman of the Sierra Club's Atlantic Chapter, he has been a leader of the determined defense of Storm King.

Redwoods, continued from page 12
commence a road there for future cutting."

"Well," replied Udall, "I saw trees 12 to 14 feet in diameter lying there. . . ."
Democratic Rep. William F. Ryan of New York City, another who made the quick fly-in to the area, called the road a "desecration". . . .

Congressman Saylor, who had to leave just prior to the Eureka hearings, was asked by Barbara Richter, editor of *Northcoast Outdoors*, whether the Emerald Mile lived up to his expectations.

Saylor was emphatic. "Even better than I anticipated," he said. He condemned the road recently bulldozed into the Emerald Mile by the Georgia-Pacific Corporation and said, "They are cutting no pattern whatsoever."

Saylor terminated his comments with, "A company forester said there were no slides in that area. There were tons of dirt in Redwood Creek, and Bridge Creek was running yellow as Pennsylvania streams polluted with acids."

According to Sierra Club Conservation Director Michael McCloskey, the day-long hearing at Eureka, though strongly anti-park in the morning's in-

dustrial and organizational phase, wound up balanced by strong individual pro-park testimony in the afternoon.

One of the highlights of the afternoon for the conservation side was testimony by the Sierra Club's consultant forester Gordon Robinson, who pointed out that logging in the north coast area is proceeding at three and one half times the growth rate.

Again, as in Crescent City, student testimony on the need for the Sierra Club's 90,000-acre proposal for a redwood national park brought compliments from members of the House subcommittee.

Generally, it was the feeling of Sierra Club members in attendance that conservationists made progress. The fact that the redwood film has now been seen by the Park and Recreation Subcommittee members, the fact that a third of the subcommittee has now seen the heart of the Sierra Club proposal, the Emerald Mile, and the fact that a good cross section of the public testified in favor of the redwood national park advanced the cause. Meanwhile, the Sierra Club has presented further facts to the committee at its final hearings in Washington, D. C., May 20 and 21.



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Book Reviews

DESERT SOLITAIRE: A Season in the Wilderness. By Edward Abbey. Drawings by Peter Parnall. McGraw-Hill Book Company, New York. 1968. 268 pages \$5.95.

"We need wilderness whether or not we ever set foot in it. We need a refuge though we may never need to go there. . . . We need the possibility of escape as surely as we need hope; without it the life of the cities would drive all men into crime or drugs or psychoanalysis." So writes Edward Abbey in *Desert Solitaire*, a remarkable examination of the lonely beauty of the Great Basin desert country in and around Arches National Monument.

Abbey writes with the passion and guts of a possessed man. His time in the

desert as a seasonal park ranger has sent him forth like a prophet on fire with a vision: Return the wilderness to its natural state is a theme that runs throughout this book.

The push of what Abbey calls "Industrial Tourism" is turning our National and State Forests and Parks into an amusement assembly line, into a summer and winter drive-in where people see other people, where city populations compete with each other in the national pastime of gathering stickers for automobile windows, and making that old 500 miles per day.

Along with the long cry against what a thoughtless society has accomplished in a terribly short time, Abbey has brought forth in his book the incredible beauty of the desert.

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RANDOM HOUSE

One can't help wondering why *Desert Solitaire* was not included in McGraw-Hill's *American Wilderness Series*. Perhaps the general editor of that series, Justice William O. Douglas, never saw this testament in behalf of American Wilderness. Still, the important fact is that *Desert Solitaire* was written and published. This much of the sandstone monoliths, of the sidewinder in the shade of the sagebrush, of the twisted junipers

hanging on to split granite in the high country of desert mountains, has been saved in Abbey's book. But it will remain safe only as long as there are people who know what the word symbols represent, and who realize that *Desert Solitaire* is a cry of alarm that says even the harsh, dry wilderness is on the brink of extinction.

FEROL EGAN

THE IMPERIAL COLLECTION OF AUDUBON ANIMALS. By John James Audubon and the Rev. John Bachman, D.D. Edited and new text by Victor H. Cahalane. Hammond Incorporated, Maplewood, N.J., 1967. 307 pages. \$19.95 first printing, \$25 thereafter.

Although Audubon is best known for his ornithological drawings, he was equally adept at sketching the quadrupeds of North and Central America. Working with him was Dr. John Bachman, a pastor of the Lutheran Church in

Charleston, South Carolina. This partnership sprang from a chance meeting of the two men, and endured for two decades, until the death of the artist in 1851. It is told in detail by Mr. Victor Cahalane, former Assistant Director of the New York State Museum, whose editing adds to the limited information available to Bachman and Audubon nearly 145 years earlier.

Audubon brought to his drawings of animals that same sense of movement and composition which have made his bird prints world famous. Often he had to work from mounted skins and animals, their bodies preserved with rum, that had been sent to him from far away places. Some fifteen years and trips into the far West and down into Mexico were necessary before the material which went into the original drawings was ready.

Starting with the opossum, the only marsupial in this country, and underground animals such as moles and shrews, the range is complete to the inclusion of grizzlies and bison. The prints of the otters, fisher and rabbits are especially good because the viewer can almost count each individual hair. Throughout the book the left page contains the Bachman-Audubon notes while Mr. Cahalane updates and brings modern scientific knowledge of the habits of the subjects on the right-hand page, beneath the individual prints.

Fairfield Osborn, president of the New York Zoological Society, has written the foreword for the book.

LUELLA K. SAWYER

Letters

AUTHORS CHARGE "AXE JOB"

CONCERNING THE REVIEW of *Moment in the Sun: A Report on the Deteriorating Quality of the American Environment*, the axe job done on this book which is the summation of 20 years of conservation research and effort, as well as a heartbreaking book to write, deserves some sort of author response.

Of the more than 150 reviews sent us from all parts of America, there were three unfavorable reviews: one by an

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economics teacher, one by a professor of forestry under a grant from a lumber company, and this one by Tom Vale (published in the March *Bulletin*) of whom we know and infer nothing at all.

When Mr. Vale says that "this is certainly not a great book" because it "dabbles into its subjects more than it analyzes or fully explores them" let us remind him that in 250 pages you do not "explore" 20 major subjects in vast detail. Our job—and it is a unique contribution so far—was to bring together under one cover the conservation problems of this nation and to assess their total effect on the environment and on what is happening to the quality of our American way of life. Documentation which critics have called "awesome" and "incredibly competent" occupy 60 pages of end matter, surely not a "dabbling" effort.

Seven senators have written us including Senators Ribicoff and Gruening. Allan W. Eckert (*The Great Auk*) wrote Dial Press: "Surely this has to be one

of the most important books ever written. Nothing has quite so effectively made me eager to help in some way."

This is exactly what we tried to do—not write an encyclopedia. If we have lifted American thinking even a fraction of an inch, we have succeeded.

THE RIENOWS
Selkirk, N.Y.

REVIEWER REPLIES

IT WAS NOT MY INTENTION to give the Rienows' book an "axe job" but rather to indicate the general nature of the work; I think I can agree with much of what other reviewers say. My reservations about the book lie in the nature of conservation today and what is "enlightening" in the field versus what is not.

By and large, the need for documenting the existence of environmental pollution is over, and now we should address ourselves to other aspects of these problems. This might include inquiries concerning the intertwined nature of political, economic, and technological facets in

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these problems; the importance of personal attitudes in conservation controversies; and the difficulties involved in making decisions about conservation issues (i.e. what criteria can be used?). Work highlighting "conservation" as a force at work in American society and shaping the American landscape is badly needed. We must *understand* the problems now that we are convinced they exist.

TOM VALE

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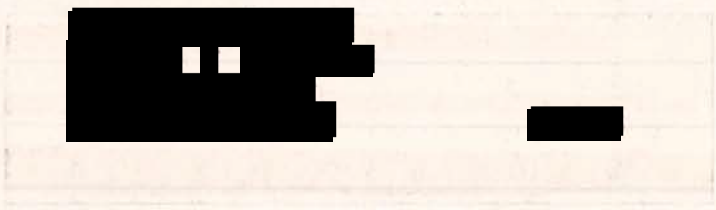
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Club's 22nd chapter formed in Southeast

With the enthusiastic support of the parent Atlantic Chapter, a new Southeast Chapter, the club's 22nd, has been formed. It includes the District of Columbia, Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Alabama, and Florida.

Bylaw amendment increases number of signatures needed on petitions to nominate candidates for election to the Board of Directors; other proposed amendments fail in April election

In the club's April election, one proposed bylaw amendment received the two-thirds majority needed for adoption. The bylaw (adopted 9,348 to 4,544) requires that petitions nominating candidates for election to the Board of Directors be signed by a number of members equal to one percent of the ballots cast in the last preceding election. (The number of ballots cast in the April election was 15,533; prior to the next election, the number of signatures required on nominating petitions is therefore 156.) Two amendments that would have increased the number of signatures required on petitions to place questions on the ballot were defeated. One, requiring a number of signatures equal to three percent of the ballots cast in the last preceding election, received a majority (7,604 to 5,546) but not the two-thirds majority required; the other, requiring a number of signatures equal to the square root of the total membership, was voted down by 4,118 to 7,707. (The existing bylaw requires 50 signatures.) An amendment concerning assistance to sponsors of petitions was defeated 2,968 to 9,427. An amendment concerning a student membership classification was defeated 3,579 to 9,535. An amendment to substitute regional councils for the Sierra Club Council was defeated 2,848 to 9,952. As reported last month, successful candidates for election to the Board of Directors were Phillip Berry, Luna Leopold, Laurence Moss, Eliot Porter, and William Siri.

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