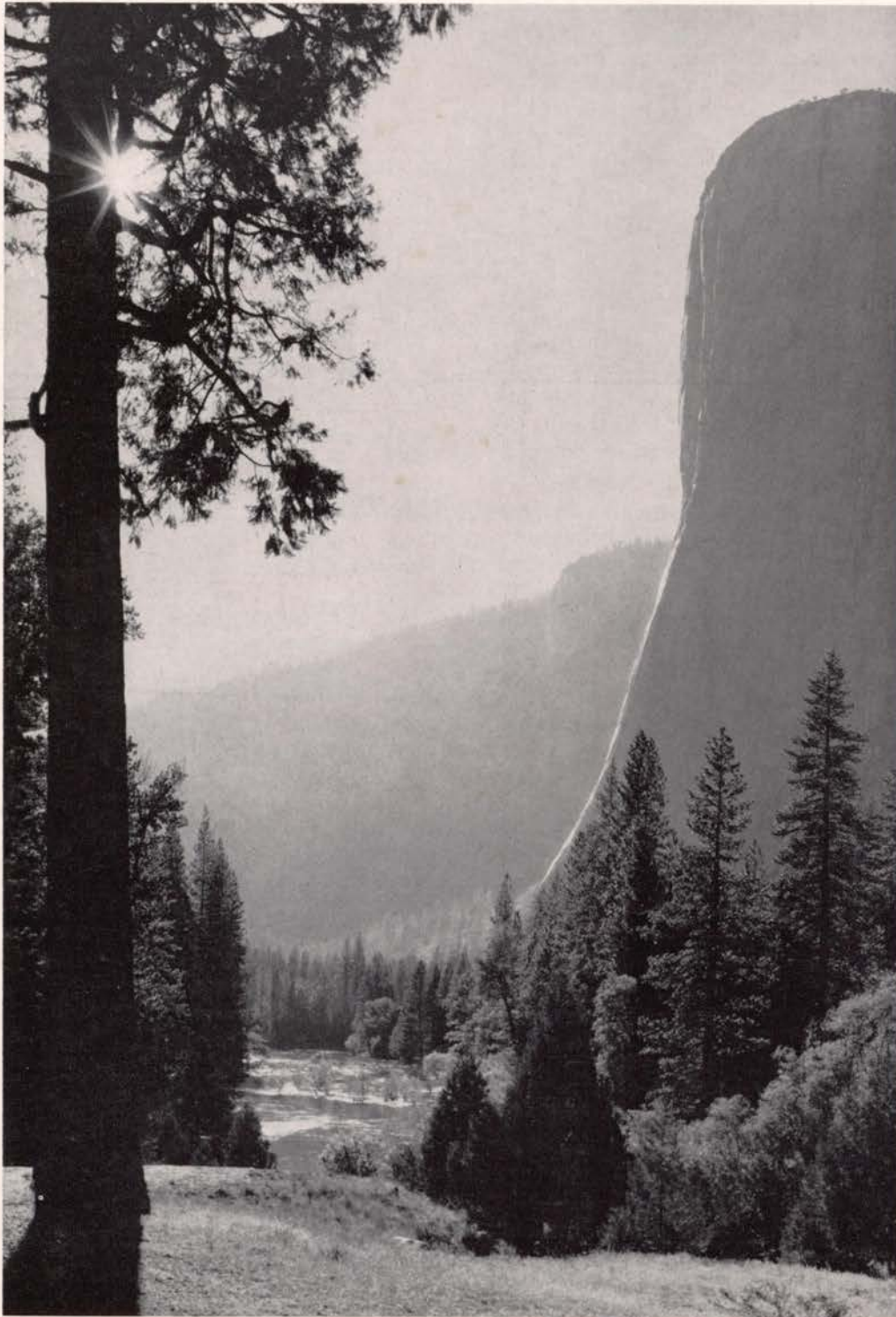


SIERRA CLUB BULLETIN

March 1965



“ . . . One seems to be
in a majestic domed
pavilion in which
a grand play
is being enacted
with scenery and
music and incense . . . ”

—JOHN MUIR
*My First Summer
in the Sierra*

A Curious Brand of Illogic

P. T. Reilly is one of the few men who were thoroughly familiar with Glen Canyon ("The Place No One Knew") before it was inundated. In August 1964, he returned to see how the canyon had been affected by the rising waters of "Lake Powell," the reservoir created behind Glen Canyon Dam.

In the article on the next two pages, Reilly reports that huge volumes of sand and stone are slipping into the reservoir, reducing its storage capacity and life expectancy. (Even without such catastrophic slippages the reservoir would be doomed to die, choked with silt, within a few generations.) Combined with the fact that the amount of water being lost through percolation is one and two-thirds times as great as the Bureau of Reclamation predicted, this makes the irreparable loss of Glen Canyon seem more inexcusably senseless than ever. And Reilly suggests that similar geological conditions might cause massive dislocations and water losses at Bridge Canyon and Marble Gorge, where the Bureau fondly hopes to build dams within Grand Canyon itself. The danger will certainly be denied, but events at Lake Powell are only the latest of a long succession that cast doubt on the Bureau's infallibility.

Dam building is the Bureau's *raison d'être*, and its zeal to discover reasons against building a dam is conspicuous by its absence. Whether or not reservoirs in Bridge Canyon and Marble Gorge would be susceptible to exactly the same kind of damage as that occurring at Lake Powell, the fact remains that the Bureau is *always* prone to exaggerate the potential benefits and discount the potential dangers of *any* dam project *anywhere*.

As Reilly and most readers of the *Bulletin* would certainly agree, the question is not whether Bridge Canyon and Marble Gorge dams ought to be built a mile or two further up- or downstream. The question is, do dams belong in Grand Canyon at all? Reilly's article suggests that those who are inclined to take the dams' desirability on faith would still do well to view with skepticism the Bureau of Reclamation's assurances of their feasibility.

Proposed dams in Grand Canyon are part of the Southwest Water Plan. Some of the high-cost power they generated would be used to pump water into central Arizona, the rest would be sold to utility companies (as standby "peak power") to make the Water Plan appear self supporting. It cannot be repeated too often that the dams are not needed for either purpose; alternative power sources and financing methods are available, and have more to recommend them.

Coal-fired generating plants would use a fuel that is plentiful in the region, would leave Grand Canyon National Park inviolate. They would not waste enough water to supply several major cities, as the dams would through evaporation and seepage. To include water-wasting dams—unnecessarily—in a plan to bring more water to an arid land is a curious brand of illogic. There is no water to spare. And there is only one Grand Canyon.

The unquiet crisis that has arisen over the Bureau of Reclamation's dam proposals could end with the building of those dams. Such a precedent could mark the beginning of a full scale effort by developers, private and governmental, to invade other national parks and reserved areas. How this crisis is resolved depends finally on those citizens who find in such places as the Grand Canyon experiences that can be found nowhere else. A letter to President Johnson from such citizens can help. Especially a letter that politely insists on a reply that is not just a statement from the bureau that would build the dams, but an unprejudiced appraisal of the Southwest Water Plan. Senators and congressmen can also help to protect the Grand Canyon, and can tell their constituents when hearings on the many bills for Grand Canyon dams will be held.



Sierra Club Bulletin

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

Cover: The face of El Capitan, Yosemite Valley, Yosemite National Park. Photograph by Nathan Zabarsky.

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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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Some Recent Observations On Glen Canyon

By P. T. Reilly

RECENT NEWS RELEASES provide the significant information that as much as 25% of the water in the Glen Canyon reservoir appears "to be percolating into the porous Navajo sandstone. This is substantially higher than the 15% factor allowed for such 'bank storage' by the Bureau of Reclamation."

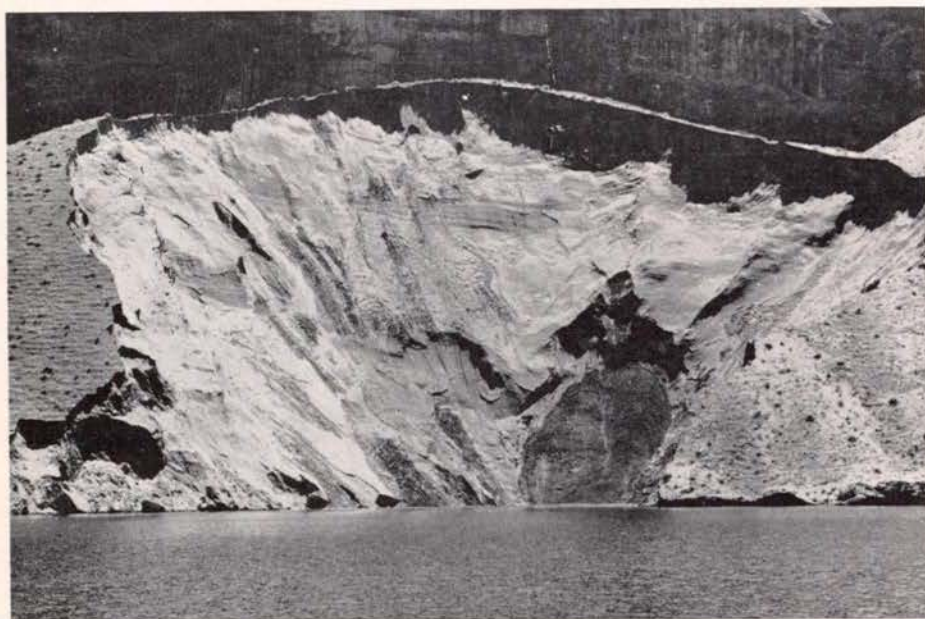
While I do not question the amount of the water loss, the quoted statement is misleading, does not state the full case, and does not evaluate consequences. The situation is more serious and deserves a more thorough examination. The true condition of this reservoir site should be made known and this knowledge should be considered by those who would repeat the blunder at Marble Gorge and Bridge Canyon.

In August of 1964, two companions and I traveled by boat from Glen Canyon Dam, through Glen and Narrow Canyons into the lower end of Cataract Canyon. We entered many of the inundated tributaries and returned to Wahweap for the round trip. I took sev-

eral hundred photos and kept an accurate log en route. The pictures and the log record the changing environment from the viewpoint of one who is familiar with the geology of the region. The level of Lake Powell rose approximately three feet while we were on the reservoir, so it is possible to use the actual surface of the water as a datum plane and to note whether the strata were dipping or rising at given mile-points. It was easy to recognize the stratum at the edge of the reservoir. Since the sequence and approximate thickness of the strata are known, along with the elevations of the mean river level before inundation, it is possible to know exactly the nature of the sides of the reservoir and to relate observed physical change to a particular stratum at a given place.

In Glen Canyon the Colorado River has become entrenched in formations of sandstone, shale, and conglomerate. A particular series of these has been named the Glen Canyon Group because it is

here that it is typically exposed. At least one member of this group is in sight from nearly every place in the canyon. The group overlies the Triassic Chinle formation and underlies the Carmel formation, which is of middle and late Jurassic age. Glen Canyon begins in the Cutler formation of Permian age at the Dirty Devil River, courses through a series of undulating ripples called synclinal — and anticlinal — folds, and ends at Lees Ferry where the Permian again appears, this time in the form of the Kaibab limestone. It is these folds that have given Glen Canyon its character, for the vertical movement they caused brought formations of different hardness and susceptibility to weathering into contact with the river. In general, the canyon is wide when the soft formations (such as the Organ Rock, Moenkopi and Chinle shales) are at river level. The canyon is comparatively narrow and the walls are sheer when the river flows through the harder formations (such as the Moenave) near the



Sand, deposited thousands of years before the Egyptian pyramids were built, slips gently beneath the surface of the Powell Reservoir to displace valuable water storage space. Photographs for this article are by the author.



The Chinle shale underlying the talus pictured here has absorbed water and sagged into what was once the river channel. The talus then slipped downward, leaving a jagged bleached scar to mark its former crest. This photo illustrates just part of such extensive slippage taking place between Long Canyon and the Rincon in Glen Canyon.

end of Glen Canyon. The most durable members of the Glen Canyon Group are composed of fine grains of quartz sand bonded with weak calcareous cement. The weaker members are the thick multi-colored Chinle shale and the thin-bedded Moenkopi shale. Both of these formations dissolve readily in water. Both formations form the sides of Glen Canyon for many miles. Once they become saturated with water they sag, sapping the overlying formation and causing it to disintegrate at an accelerated rate through spallation.

When water-saturated shales sag from their usual form of a talus slope, they fill in the bottom of the reservoir, causing it to become shallower and less efficient. This bulk displaces valuable water storage space and causes the same volume of water to spread out over a greater area, thereby exposing a greater surface to evaporation.

Another result of introducing water into a weak, highly absorbent stratum is a process that geologists call "flowage." This is well illustrated by a natural condition in the vicinity of the confluence of the Green and Colorado Rivers. There the Colorado has cut downward and water has been introduced into a

thick stratum of gypsum and shale. Unequal pressures of the overlying formations (Hermosa, Rico, and Cutler) have allowed faulting to occur when the underlying formation became plastic. This faulting has taken place along joints and has resulted in a spectacular graben area. Great blocks of stone have moved down in that area to leave natural sunken alleys with vertical sides.

THERE IS NO QUESTION but that removal by sagging of Glen Canyon's soft shales will accelerate spallation of the harder sandstones. Thus the reservoir will become shallower and wider.

In Glen Canyon, the weak Chinle and Moenkopi shales contact the present reservoir, or will contact it shortly when the water rises, from mile 90 to the mouth of the Dirty Devil, mile 169.5. In this area, talus slopes have slumped down into the previous river channel, leaving jagged white scars to mark their former crests.

There are several areas in Glen Canyon where great sand dunes rise high against the canyon walls. Today the reservoir is undercutting these dunes, and sand that can be measured by the

cubic acre is slipping into the reservoir.

In addition to these processes, all of which make the reservoir wider and shallower, there is another important factor working against the efficiency of Glen Canyon Dam. That factor is the effect of water on the Moenave sandstone, in which the dam is built, and on the Navajo sandstone that overlies it. They are both as durable as many sandstones when dry, but they become friable when saturated and can be crumbled by hand. Perhaps more important, however, they are both also very porous. The news report mentioned above referred to the unexpected high loss of reservoir water through percolation of that water into the Navajo sandstone. But that loss is just beginning, for to date very little of the Navajo sandstone has come into contact with the reservoir.

This situation would be repeated if the Marble Gorge and Bridge Canyon dams were built.

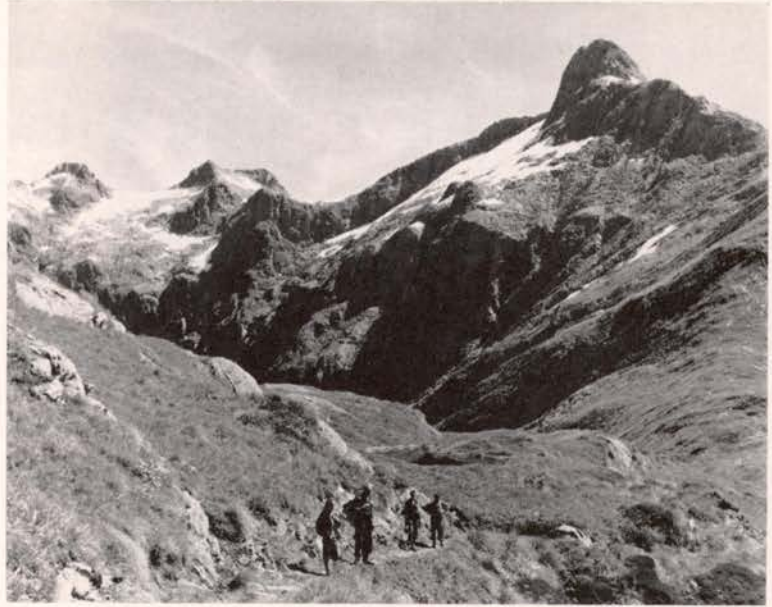
In Marble Gorge the weak Hermit shale rises about four and one-half miles below Lees Ferry. It is at river level to Soap Creek, mile 11. The Hermit shale rises gradually but is within reach of even a partially full reservoir behind a low dam for another ten miles, which brings the danger area to mile 21. Marble Gorge Dam has been proposed to be built at mile 39.5. Underlying the Hermit is the Supai formation and the Redwall. The first-named has several beds of soft shale that would have a high rate of absorption, and the latter is very porous because of anastomotic tubes and caves which follow the northeasterly dip of the strata. Thus it would appear that Marble Gorge is not a good site for a reservoir.

Upstream from the Bridge Canyon site there are many miles where the Colorado flows between banks of Bright Angel shale, another weak rock with characteristics of high water absorbency and rapid sagging. Some of these slopes have surface coatings of lava, but these are neither thick enough nor evenly enough spread to seal a reservoir effectively.

It appears that fundamental data pertinent to the selection of any dam and reservoir site have been ignored by the dam-builders at Glen Canyon. Recognition of these blunders made by the pork barrel spenders in Glen Canyon could prevent their repetition at Marble Gorge and Bridge Canyon. ■

*Mount Hart and peaks of the
Nicholson Mountains
on New Zealand's
South Island*

A Trip to the Mountains of New Zealand



The program of trips to the mountain ranges of foreign countries, introduced by the club's 1964 outing to South America, will continue in 1966 with a winter trip to New Zealand and a summer trip to the Alps. This preview of the New Zealand trip will be followed, in the April *Bulletin*, by an article on the trip to the Alps.

Leaving the West Coast by jet plane on January 29, we'll fly over some of the world's longest air routes directly to

Auckland on the North Island of New Zealand. There we will visit Tongariro National Park, the geothermal areas of Wairakei and Rotorua and its Maori village, native forest areas, and lakes Rotomahana and Tarawera.

After a day in Wellington to meet with some of the New Zealand conservation leaders, we'll fly to Queenstown in the South Island for two weeks of camping, hiking, knapsacking, or climbing in the

Southern Alps, a region of beautiful lakes, alpine peaks, and some of the most interesting and exciting hiking trails in the world. Camps near Lakes Manapoui, Te Anau, and Wakatipu will be the bases from which to reach the wilderness of Fjordland National Park.

We will also spend a few days in Mount Cook National Park to see Mount Cook, New Zealand's highest peak, and mighty Tasman glacier.

On the fourth week we will spend two days in Fiji, and then wing across the South Pacific to see Tahiti and Moorea, where we hope to camp out under tropic skies for a few days before our departure for home on February 27.

Activities will be tailored to the abilities of our members, with emphasis on one-day hikes and several-day knapsack trips and climbs for those who are able and come equipped. Local guides will be hired for hikes and climbs. We also intend to secure the services of New Zealand naturalists to acquaint us with their flora and fauna as well as their conservation problems. We will be in some of the world's greatest fishing country.

Cost of the outing, including all expenses except personal ones, will be about \$500 per person, plus round-trip air fare from your home terminal to Auckland, New Zealand. A deposit of \$100 per person, \$85 of it refundable to December 15, 1965, will hold your place on the outing, which is expected to fill up quickly. Write to Al Schmitz, leader, c/o Sierra Club, 1050 Mills Tower, San Francisco 94104.



*This vista from
Mount Wakefield,
South Island, shows
New Zealand's
second highest mountain,
Mount Sefton, and the
Mueller Glacier.
Photographs by the
National Publicity Studios,
Wellington, New Zealand*

President Johnson's Message On Natural Beauty

"Our conservation must be not just the classic conservation of protection and development, but a creative conservation of restoration and innovation. Its concern is not with nature alone, but with the total relation between man and the world around him. Its object is not just man's welfare but the dignity of man's spirit."

For centuries Americans have drawn strength and inspiration from the beauty of our country. It would be a neglectful generation indeed, indifferent alike to the judgment of history and the command of principle, which failed to preserve and extend such a heritage for its descendants.

Yet the storm of modern change is threatening to blight and diminish in a few decades what has been cherished and protected for generations.

A growing population is swallowing up areas of natural beauty with its demands for living space, and is placing increased demand on our overburdened areas of recreation and pleasure.

The increasing tempo of urbanization and growth is already depriving many Americans of the right to live in decent surroundings. More of our people are crowding into cities and being cut off from nature. Cities themselves reach out into the countryside, destroying streams and trees and meadows as they go. A modern highway may wipe out the equivalent of a fifty acre park with every mile. And people move out from the city to get closer to nature only to find that nature has moved farther from them.

The modern technology, which has added much to our lives, can also have a darker side. Its uncontrolled waste products are menacing the world we live in, our enjoyment and our health. The air we breathe, our water, our soil and wildlife, are being blighted by the poisons and chemicals which are the by-products of technology and industry. The skeletons of discarded cars litter the countryside. The same society which receives the rewards of technology, must,

as a co-operating whole, take responsibility for control.

To deal with these new problems will require a new conservation. We must not only protect the countryside and save it from destruction, we must restore what has been destroyed and salvage the beauty and charm of our cities. Our conservation must be not just the classic conservation of protection and development, but a creative conservation of restoration and innovation. Its concern is not with nature alone, but with the total relation between man and the world around him. Its object is not just man's welfare but the dignity of man's spirit.

In this conservation the protection and enhancement of man's opportunity to be in contact with beauty must play a major role.

This means that beauty must not be just a holiday treat, but a part of our daily life. It means not just easy physical access, but equal social access for rich and poor, Negro and white, city dweller and farmer.

Beauty is not an easy thing to measure. It does not show up in the gross national product, in a weekly pay check, or in profit and loss statements. But these things are not ends in themselves. They are a road to satisfaction and pleasure and the good life. Beauty makes its own direct contribution to these final ends. Therefore it is one of the most important components of our true national income, not to be left out simply because statisticians cannot calculate its worth.

And some things we do know. Association with beauty can enlarge man's imagination and revive his spirit. Ugli-

ness can demean the people who live amidst it. What a citizen sees every day is his America. If it is attractive it adds to the quality of his life. If it is ugly it can degrade his existence.

Beauty has other immediate values. It adds to safety whether removing direct dangers to health or making highways less monotonous and dangerous. We also know that those who live in blighted and squalid conditions are more susceptible to anxieties and mental disease.

Ugliness is costly. It can be expensive to clean a soot smeared building, or to build new areas of recreation when the old landscape could have been preserved far more cheaply.

Certainly no one would hazard a national definition of beauty. But we do know that nature is nearly always beautiful. We do, for the most part, know what is ugly. And we can introduce, into all our planning, our programs, our building and our growth, a conscious and active concern for the values of beauty. If we do this then we can be successful in preserving a beautiful America.

There is much the federal government can do, through a range of specific programs, and as a force for public education. But a beautiful America will require the effort of government at every level, of business, and of private groups. Above all it will require the concern and action of individual citizens, alert to danger, determined to improve the quality of their surroundings, resisting blight, demanding and building beauty for themselves and their children.

I am hopeful that we can summon such a national effort. For we have not

chosen to have an ugly America. We have been careless, and often neglectful. But now that the danger is clear and the hour is late this people can place themselves in the path of a tide of blight which is often irreversible and always destructive.

The Congress and the Executive branch have each produced conservation giants in the past. During the 88th Congress it was legislative-executive teamwork that brought progress. It is this same kind of partnership that will ensure our continued progress.

In that spirit as a beginning and stimulus I make the following proposals:

The Cities

Thomas Jefferson wrote that communities "should be planned with an eye to the effect made upon the human spirit by being continually surrounded with a maximum of beauty."

We have often sadly neglected this advice in the modern American city. Yet this is where most of our people live. It is where the character of our young is formed. It is where American civilization will be increasingly concentrated in years to come.

Such a challenge will not be met with a few more parks or playgrounds. It requires attention to the architecture of building, the structure of our roads, preservation of historical buildings and monuments, careful planning of new suburbs. A concern for the enhancement of beauty must infuse every aspect of the growth and development of metropolitan areas. It must be a principal responsibility of local government, supported by active and concerned citizens.

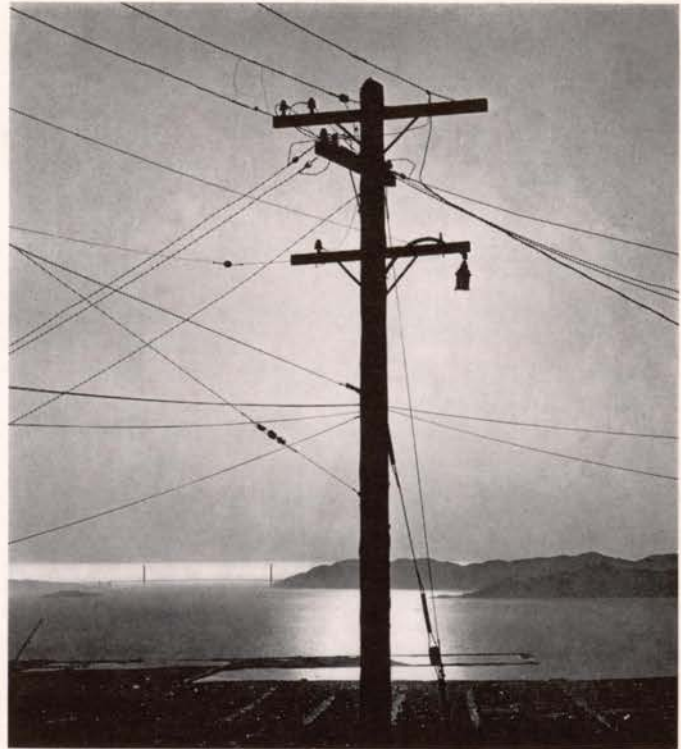
Federal assistance can be a valuable stimulus and help to such local efforts.

I have recommended a community extension program which will bring the resources of the university to focus on problems of the community just as they have long been concerned with our rural areas. Among other things, this program will help provide training and technical assistance to aid in making our communities more attractive and vital. In addition, under the Housing Act of 1964, grants will be made to States for training of local governmental employees needed for community development. I am recommending a 1965 supplemental appropriation to implement this program.

We now have two programs which can be of special help in creating areas of

"A concern for the enhancement of beauty must infuse every aspect of the growth and development of metropolitan areas."

Photograph of San Francisco Bay and the Golden Gate Bridge by Rondal Partridge



recreation and beauty for our metropolitan area population: the Open Space Land Program, and the Land and Water Conservation Fund.

I have already proposed full funding of the Land and Water Conservation Fund, and directed the Secretary of the Interior to give priority attention to serving the needs of our growing urban population.

The primary purpose of the Open Space Program has been to help acquire and assure open spaces in urban areas. I propose a series of new matching grants for improving the natural beauty of urban open space.

The Open Space Program should be adequately financed, and broadened by permitting grants to be made to help city governments acquire and clear areas to create small parks, squares, pedestrian malls and playgrounds.

In addition I will request authority in this program for a matching program to cities for landscaping, installation of outdoor lights and benches, creating attractive cityscapes along roads and in business areas, and for other beautification purposes.

Our city parks have not, in many cases, realized their full potential as sources of pleasure and play. I recommend on a matching basis a series of federal demonstration projects in city

parks to use the best thought and action to show how the appearance of these parks can better serve the people of our towns and metropolitan areas.

All of these programs should be operated on the same matching formula to avoid unnecessary competition among programs and increase the possibility of co-operative effort. I will propose such a standard formula.

In a future message on the cities I will recommend other changes in our housing programs designed to strengthen the sense of community of which natural beauty is an important component.

In almost every part of the country citizens are rallying to save landmarks of beauty and history. The government must also do its share to assist these local efforts which have an important national purpose. We will encourage and support the National Trust for Historic Preservation in the United States, chartered by Congress in 1949. I shall propose legislation to authorize supplementary grants to help local authorities acquire, develop and manage private properties for such purposes.

The Registry of National Historic Landmarks is a fine federal program with virtually no federal cost. I recommend its work and the new wave of interest it has evoked in historical preservation.

The Countryside

Our present system of parks, seashores and recreation areas—monuments to the dedication and labor of far-sighted men—do not meet the needs of a growing population.

The full funding of the Land and Water Conservation Fund will be an important step in making this a Parks-for-America decade.

I propose to use this fund to acquire lands needed to establish:

- Assateague Island National Seashore, Maryland-Virginia
- Tocks Island National Recreation Area, New Jersey-Pennsylvania
- Cape Lookout National Seashore, North Carolina
- Sleeping Bear Dunes National Lakeshore, Michigan
- Indiana Dunes National Lakeshore, Indiana
- Oregon Dunes National Seashore, Oregon
- Great Basin National Park, Nevada
- Guadalupe Mountains National Park, Texas
- Spruce Knob, Seneca Rocks National Recreation Area, West Virginia
- Bighorn Canyon National Recreation Area, Montana-Wyoming

—Flaming Gorge National Recreation Area, Utah-Wyoming.

—Whiskeytown-Shasta-Trinity National Recreation Area, California.

In addition, I have requested the Secretary of Interior, working with interested groups, to conduct a study on the desirability of establishing a Redwood National Park in California.

I will also recommend that we add prime outdoor recreation areas to our National Forest system, particularly in the populous East; and proceed on schedule with studies required to define and enlarge the Wilderness System established by the 88th Congress. We will also continue progress on our refuge system for migratory waterfowl.

Faulty strip and surface mining practices have left ugly scars which mar the beauty of the landscape in many of our States. I urge your strong support of the nationwide strip and surface mining study provided by the Appalachian Regional legislation, which will furnish the factual basis for a fair and reasonable approach to the correction of these past errors.

I am asking the Secretary of Agriculture to work with State and local organizations in developing a co-operative

program for improving the beauty of the privately owned rural lands which comprise three-fourths of the Nation's area. Much can be done within existing Department of Agriculture programs without adding to cost.

The 28 million acres of land presently held and used by our Armed Services is an important part of our public estate. Many thousands of these acres will soon become surplus to military needs. Much of this land has great potential for outdoor recreation, wildlife, and conservation uses consistent with military requirements. This potential must be realized through the fullest application of multiple-use principles. To this end I have directed the Secretaries of Defense and Interior to conduct a "conservation inventory" of all surplus lands.

Highways

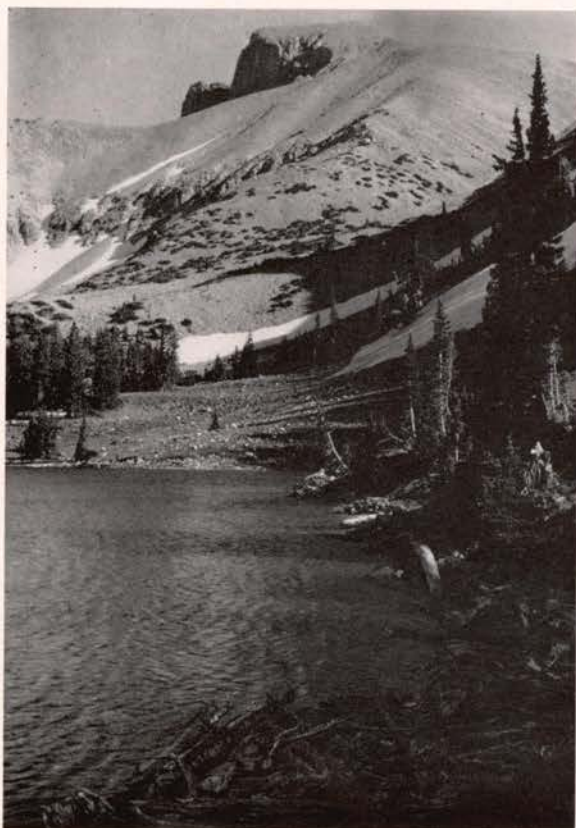
More than any country ours is an automobile society. For most Americans the automobile is a principal instrument of transportation, work, daily activity, recreation and pleasure. By making our roads highways to the enjoyment of nature and beauty we can greatly enrich the life of nearly all our people in city and countryside alike.

Our task is two-fold. First, to ensure that roads themselves are not destructive of nature and natural beauty. Second, to make our roads ways to recreation and pleasure.

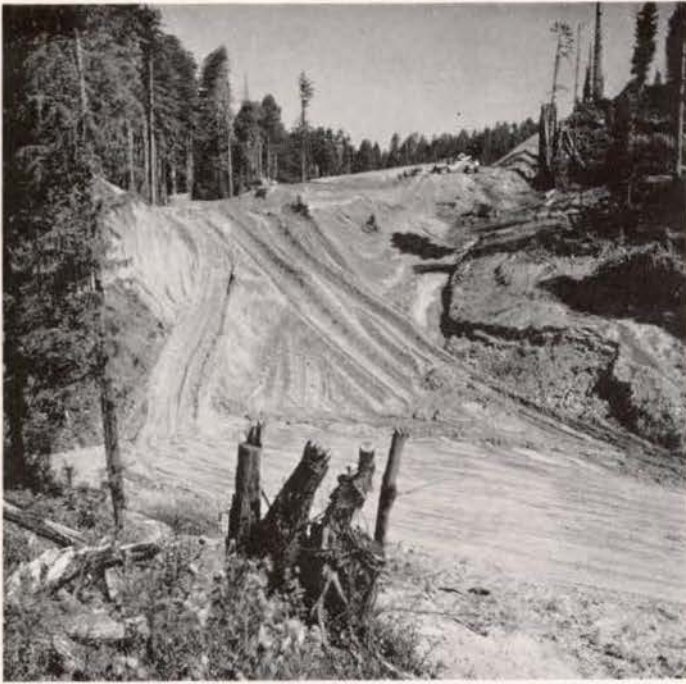
I have asked the Secretary of Commerce to take a series of steps designed to meet this objective. This includes requiring landscaping on all federal interstate primary and urban highways, encouraging the construction of rest and recreation areas along highways, and the preservation of natural beauty adjacent to highway rights-of-way.

Our present highway law permits the use of up to 3% of all federal-aid funds to be used without matching for the preservation of natural beauty. This authority has not been used for the purpose intended by Congress. I will take steps, including recommended legislation if necessary, to make sure these funds are, in fact, used to enhance beauty along our highway system. This will dedicate substantial resources to this purpose.

I will also recommend that a portion of the funds now used for secondary roads be set aside in order to provide access to areas of rest and recreation and scenic beauty along our nation's



Wheeler Peak and Stella Lake shoreline in the proposed Great Basin National Park, Nevada National Forest, Nevada. Photograph by Philip Hyde



This road construction at the northern boundary of Prairie Creek Redwoods State Park is for the approach road that prepares the way for a freeway. It is aimed toward Gold Bluffs Beach, a routing strongly opposed by conservationists.

roads, and for rerouting or construction of highways for scenic or parkway purposes.

The Recreation Advisory Council is now completing a study of the role which scenic roads and parkways should play in meeting our highway and recreation needs. After receiving the report, I will make appropriate recommendations.

The authority for the existing program of outdoor advertising control expires on June 30, 1965, and its provisions have not been effective in achieving the desired goal. Accordingly, I will recommend legislation to ensure effective control of billboards along our highways.

In addition, we need urgently to work towards the elimination or screening of unsightly, beauty-destroying junkyards and auto graveyards along our highways. To this end, I will also recommend necessary legislation to achieve effective control, including Federal assistance in appropriate cases where necessary.

I hope that, at all levels of government, our planners and builders will remember that highway beautification is more than a matter of planting trees or setting aside scenic areas. The roads themselves must reflect, in location and design, increased respect for the natural and social integrity and unity of the landscape and communities through which they pass.

Rivers

Those who first settled this continent found much to marvel at. Nothing was

a greater source of wonder and amazement than the power and majesty of American rivers. They occupy a central place in myth and legend, folklore and literature.

They were our first highways, and some remain among the most important. We have had to control their ravages, harness their power, and use their water to help make whole regions prosper.

Yet even this seemingly indestructible natural resource is in danger.

Through our pollution control programs we can do much to restore our rivers. We will continue to conserve the water and power for tomorrow's needs with well-planned reservoirs and power dams. But the time has also come to identify and preserve free flowing stretches of our great scenic rivers before growth and development make the beauty of the unspoiled waterway a memory.

To this end I will shortly send to the Congress a bill to establish a National Wild Rivers System.

The Potomac

The river rich in history and memory which flows by our nation's capital should serve as a model of scenic and recreation values for the entire country. To meet this objective I am asking the Secretary of the Interior to review the Potomac River basin development plan now under review by the Chief of Army Engineers, and to work with the affected States and local governments, the Dis-

trict of Columbia and interested federal agencies to prepare a program for my consideration. A program must be devised which will:

- a. Clean up the river and keep it clean, so it can be used for boating, swimming and fishing.
- b. Protect its natural beauties by the acquisition of scenic easements, zoning or other measures.
- c. Provide adequate recreational facilities, and
- d. Complete the presently authorized George Washington Memorial Parkway on both banks.

I hope action here will stimulate and inspire similar efforts by States and local governments on other urban rivers and waterfronts such as the Hudson in New York. They are potentially the greatest single source of pleasure for those who live in most of our metropolitan areas.

Trails

The forgotten outdoorsmen of today are those who like to walk, hike, ride horseback or bicycle. For them we must have trails as well as highways. Nor should motor vehicles be permitted to tyrannize the more leisurely human traffic.

Old and young alike can participate. Our doctors recommend and encourage such activity for fitness and fun.

I am requesting, therefore, that the Secretary of the Interior work with his colleagues in the federal government and with state and local leaders and recommend to me a co-operative program to encourage a national system of trails, building up the more than hundred thousand miles of trails in our National Forests and Parks.

There are many new and exciting trail projects underway across the land. In Arizona, a county has arranged for miles of irrigation canal banks to be used by riders and hikers. In Illinois, an abandoned railroad right of way is being developed as a "Prairie Path." In Mexico, utility rights of way are used as public trails.

As with so much of our quest for beauty and quality, each community has opportunities for action. We can and should have an abundance of trails for walking, cycling and horseback riding, in and close to our cities. In the back country we need to copy the great Appalachian Trail in all parts of America, and to make full use of rights of way and other public paths. ■



Ansel Adams

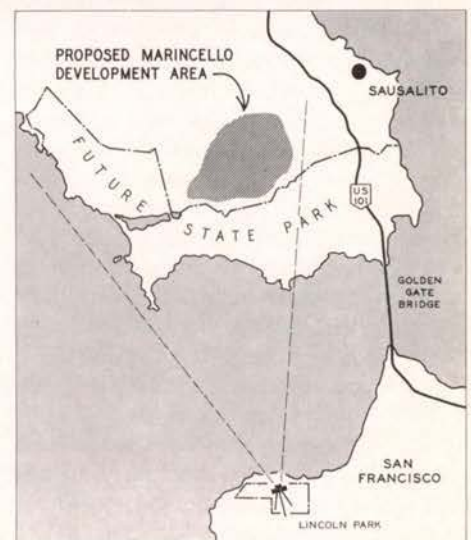
A High-Rise Threat To The Golden Gate

THE GOLDEN GATE is one of the most splendid entryways to a continent. And one of the most splendid views of it, with the hills of Marin County beyond, is the lovely vista from Lincoln Park in San Francisco.

Ansel Adams' photograph of the Golden Gate was taken within a stone's throw of the Palace of the Legion of Honor, which counted 312,404 visitors last year, and within a few yards of an overlook on

San Francisco's 49-mile Scenic Drive, where millions of visitors per year park to admire the view. But the Golden Gate, a national treasure, is threatened by commercial developers.

The Frouge Corporation, based in Bridgeport, Connecticut, now proposes to build a planned community named Marincello (with fifty 16-story towers) that would intrude upon this world-famous scene. The development would



Map by Alan Macdonald shows approximate field of view of Ansel Adams' photograph and the location of Marincello's site.

pre-empt for all time unspoiled land that logically should be included in Marin Headlands State Park, which is soon to be created out of adjacent coastlands occupied by surplus Army installations.

Local residents, spearheaded by the Committee to Save the Golden Gate, oppose Marinello not only as an esthetic intrusion and a pre-emptor of parklands, but on many other grounds as well. It would encourage random development in a county that is still unprotected by a master plan. Already serious traffic problems would be aggravated. An ill-conceived plan for a coastline super-highway would probably be resurrected. Access roads would leave scars on the difficult terrain. "We know that there are ways of meeting some of our objections," says the Committee to Save the Golden Gate, "but we do not believe there is any way of meeting them all."

Peter Whitney, a club member and sparkplug of the opposition to Marinello, telegraphed the White House to express his concern. The matter was referred to the Department of the Interior, and Under Secretary John Carver's response to Mr. Whitney's letter read (in part):

"From your telegram . . . it would appear that many of the buildings proposed to be erected would be visible from several vantage points in San Francisco. However, Mr. Thomas Frouge, Chairman of the Board of the Corporation, has advised us that only a few of the buildings would be visible from any point in San Francisco.

"A fact sheet issued by the Frouge Corporation, characterizing the Marinello site as a 'bowl,' states that it is invisible from other Marin communities and from all but the extreme northwestern edge of San Francisco. The fact sheet speaks of a 'large, resort-type hotel, that will occupy the 'crest of a hill marking Marinello's highest elevation,' adding that this building 'will be virtually the only landmark visible from Marin County and San Francisco points.'

"By reference to topographic maps, we have attempted to analyze these conflicting conclusions concerning the effect of the proposed development upon the scenic view from San Francisco. Our analysis indicated that a great deal of the Marinello property, at ground level, can be seen from ground level at a selected point in San Francisco. . . .

"From the available information, we

conclude that the proposed development does pose a threat to the integrity of the scenic view across the Golden Gate . . .

"Your telegram also refers to the impact of the Marinello development on State parks in the vicinity. . . . We have information, in the form of a copy of a letter of January 27, from Mr. Edward F. Dolder, Chief of the State Division of Beaches and Parks, to Assemblyman William T. Bagley, of the State Legislature, that the Division has worked closely with Frouge Corporation, and is well aware of the Marinello development plan. Mr. Dolder's letter states, regarding the development: 'While ideally, some of their land would fit into the park unit, it does not seem practical for us to consider acquisition of the lands.' . . . We must conclude that the officials in charge of the State park program have determined that the program in the vicinity can proceed satisfactorily without regard to the Marinello project. . . .

[Many local conservationists had thought that the Marinello site was part of the military reservations adjacent to it, and that it would be acquired by the Division of Beaches and Parks when the military declared it surplus. Mr. Dolder, referred to in Under Secretary Carver's letter, has been succeeded as Chief of the Division of Beaches and Parks by Charles DeTurk.—Ed.]

"After considering all the facts available to us, we have concluded that the situation as it now exists affords no basis for action at this time by the Department of the Interior toward the objective you seek. We have, however, written to Mr. Frouge pointing out that it is within the Corporation's province to locate structures on the property and regulate their height so that the integrity of the Golden Gate view may be retained. We have expressed to Mr. Frouge our hope that the Corporation will carefully re-examine its plan and assure that such a course is followed."

For a large proportion of the club membership, the threat to the Golden Gate strikes closer to home than other conservation issues. But as *The New York Times* editorialized on January 31, it is not essentially a local issue:

"In Marin County, Calif., just north of San Francisco, a controversy is under way in which all Americans have a stake.

"Real estate developers are proposing to build a cluster of tall apartment houses and light industrial plants along

the ridge which forms the skyline above the Golden Gate Bridge. Californians who realize that these steep wooded hills, now green and undeveloped, are a priceless and irreplaceable heritage of beauty are rallying to oppose this project.

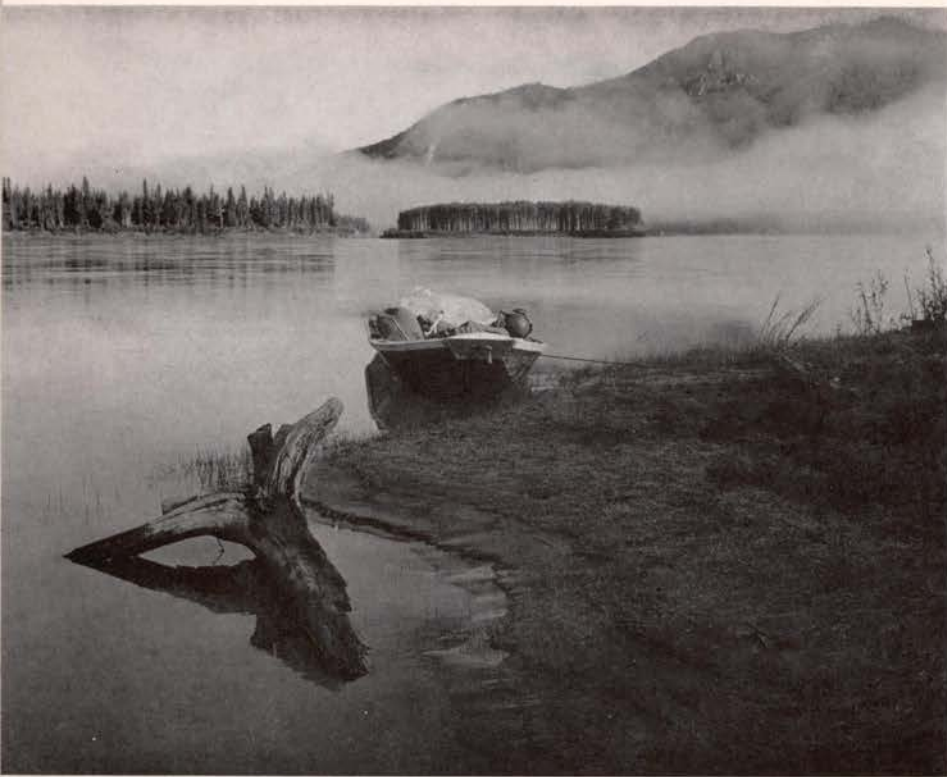
"New Yorkers can readily understand their concern. We lost a similar battle here three years ago to prevent the erection of a succession of 30-story apartment houses atop the Palisades.

"The 'developers' won, and New York—and all civilized people everywhere—lost one of the most beautiful river views in existence. That was the southwesterly view of the George Washington Bridge and the Palisade skyline from just below the toll station on the Henry Hudson Parkway—a vista of bridge, river and cliffs unforgettable to anyone who bothered to look. Now that view is hopelessly marred by the row of huge apartment houses standing like so many squat, ugly robots jabbing into the sky just under the great gentle arc of the bridge as it stretches across the river.

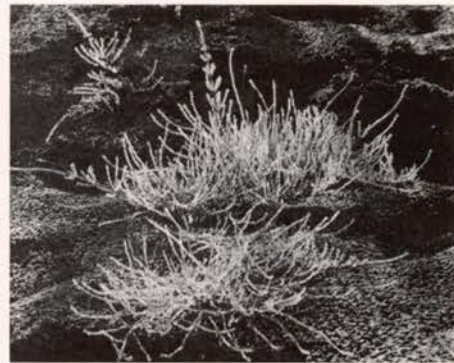
"San Francisco Bay, the Golden Gate Bridge and the magnificent, breathtaking views of the sea, sky and green hills belong—as do the Palisades—to everyone. The destruction of this panorama to make money for land speculators and builders would be another unforgivable desecration. It would be all the more tragic since the old Army forts below this private property are about to be transformed into state parks.

"Meanwhile, the unrestrained filling of marsh, tidal and submerged lands has raised a serious threat to the future existence of the bay itself. A committee of the California Legislature notes that in the last hundred years filling has shrunk the bay from 568 square miles to less than 325. It warns: 'If this process continues in the absence of a responsible plan, in another generation the bay will cease to exist as a major element of the San Francisco Bay Region.'

"On the officials of Marin County, Gov. Edmund Brown and the California Legislature rests major responsibility for action to preserve intact the sparkling waters of San Francisco Bay and the beauty of the surrounding skyline, which for so long have been part of the American Legend." (Reprinted by permission. © 1965 by *The New York Times Company*.) ■



Yukon River near Circle, Alaska



Dew on horsetail

Photographs by Philip Hyde

Yukon River, 12 miles below Eagle, Alaska



Philip Hyde's photographs for this article illustrate those wilderness qualities of the Yukon Flats that would be lost if the Rampart Dam project is approved. In the vastness of these Flats, millions of waterfowl, and thousands of fish and other kinds of wildlife find an incomparable habitat. It is the proposed dam's damaging effects on fish and wildlife that led the United States Fish and Wildlife Service regional directors in Juneau, Alaska, to recommend that the dam not be built.

The Ramparts We Watch

By Ginny Hill Wood

The following article first appeared in Alaska Review, published by Alaska Methodist University. It is reprinted here with the permission of the Review and the author. Miss Wood, a long-time resident of Alaska, currently lives in College. She is a member of the Alaska Conservation Society and has written a number of articles on Alaskan conservation issues.

ROBERT FROST HAS SAID that "what makes a nation in the beginning is a good piece of geography." To which might be added that what becomes of that nation—or state, in this case—is to a large extent dependent upon what its people do with that geography. At present there is a proposal to alter a sizable piece of Alaskan geography, the results of which are certain to have a far reaching impact, for better or for worse, on this new state. The project is known as the Rampart Dam.

Whether or not turbines on the Yukon River fed by an impoundment larger than Lake Erie will someday produce 3 mill power and solve the state's economic problems is as yet a matter of conjecture. Already, however, the emotional heat generated on the subject has produced almost as much steam as the statehood issue did—and just about as little light.

The project, first investigated by the Corps of Engineers, who routinely consider any potential power site for possible development, fired the imagination of Senator Ernest Gruening, former Territorial Governor of Alaska. His zeal for its realization has sparked an Alaska citizens promotional group known as Yukon Power for America (YPA). Their crusade to get Rampart approved by Congress this year and in the construction stage as soon as possible is a combination of the fervor of an evangelist, the Big Sell of Madison Avenue, the dedication of a revolutionist, and the anticipation of a small boy expecting Santa to bring him the Big Present for Christmas.

Up in the gallery is another group, not so well organized or financed, who by their lack of applause, critical questions, and occasional outright booing make it known that Rampart Dam, to their way of thinking, is not the best of all possible solutions for the best of all possible Alaskas. They are collectively classified as "Conservationists" by the Rampart proponents, whether or not their interests are in pintails, power, or pocket-books. The pro-Ramparters would like to simplify the issue by making it one of ducks vs. bucks—preserving Alaska only for its wildlife or developing an economy for its people's future.

If the issue could be distilled down to keeping Alaska in an unspoiled state of nature on one hand or producing cheap kilowatts for a prosperous Alaskan economy on the other, the Thoreaus would find few takers for their Walden. Not many of even the most ardent conservationists would honestly choose a Coleman light and outhouse standard of living on a permanent basis. But what if Rampart Dam will make profound adverse changes on the environment of the Yukon River basin from the Canadian border to the Bering Sea? And what if the basin's fish, fowl, and furbearers, and the lives of the resident natives who depend on these wildlife resources, are also adversely affected by the dam and yet the dam does not produce kilowatts that attract industry to Alaska? Then the positions of the impractical, emotional idealists and the farsighted, pragmatic, realists are reversed. Is the choice only between Walden or Wall Street, poverty or plenty—or is there an alternative that might give us the best of Wall Street and "The Wilderness?"

On paper, especially in the literature being distributed by YPA the project looks like this: A dam 530 feet high and 4,700 feet across the Rampart Canyon on the Yukon River, 100 miles northwest of Fairbanks, will create, in an estimated 20 years from the start of construction, a reservoir of 6,946,000 acres (a lake larger

than Lake Erie) producing 5 million kilowatts at a cost to the Federal Government (the taxpayer) of \$2 billion. This cheap power, "lower than any other projected power plant in the United States," says the brightly colored YPA folder, *The Rampart Story*, "will place at America's disposal . . . the wealth and resources of a land one-fifth the size of the entire continental USA."

Rampart, it is claimed, will provide "the key to unlocking Alaska's long buried treasures. The reservoir . . . will open to mineral and timber development a sprawling land area, barren, virtually inaccessible, and offering no foreseeable opportunity for development. [The] recreational potential of the 280 mile long lake is unlimited: fresh water boating and sailing, hunting lodges and fish camps on scenic shorelines; marinas, docks, and float facilities—all accessible by rail, highway, and air."

But the major claim made for Rampart is that its 3 mill power would attract industry to Alaska, creating a larger population and jobs, and an economy to replace the one of goldmining, fishing (both now greatly diminished), and military spending that has supported Alaska since World War II.

"The building of power-using industries will employ workers at an increasing rate even while construction of the dam itself proceeds and tapers off. Thus Rampart will boost Alaska's economy without the drawback of the temporary boom the state has previously experienced. New workers with their families would more than double the population." The cheap power, according to the promoters, would also lower the cost of living to householders and local consumers; and if for any reason this energy cannot be sold in Alaska, it can be transmitted over long-distance lines to the southern states, thirsty for power.

All that needs to be added to this blueprint for Utopia is—"and so they built the Rampart Dam, and all the Alaskans lived happily ever after." But such a



*Aerial photograph
of Rampart damsite*

blueprint discounts the major facts of life in Alaska's geography and commercial situation: the climate, the distance from markets and sources of supply, and the high cost of labor.

The basic bible for Rampart enthusiasts is the so-called D & R report, *The Market for Rampart Power*, which is the result of a study made for the Corps of Engineers by the private firm, the Development and Resources Corporation. This is not the final feasibility report. That report was released on February 11 under the auspices of the Bureau of Reclamation, which is charged with investigating the project on a much broader scope. Its three volumes, running to one thousand pages, contained a variety of studies that should give (but not necessarily) a much more valid basis upon which to pass judgment. The Corps of Engineers and the Bureau of Reclamation are dedicated to the building of dams per se, and asking either agency to appraise the validity of its own reports is akin to expecting objectivity from the tobacco industry on the effects to health of smoking. The final decision on whether or not to build the dam will be up to Congress, whose judgment will be influenced by politics as well as by facts.

The conclusions of the D & R report are based on several assumptions, among them that Rampart power will attract industry to Alaska, especially the electro-processing industries, as well as stimulate local economic activity. The report assumes that other costs to these industries will be competitive; that there will be a continuing high level of employment and business activity in the other 49 states;

that technology in the major power-using industries will develop along lines generally recognized as economically feasible for the future; and that transportation costs to and from Alaska will be of the same order of magnitude as other Pacific rates for sea-borne, air, and rail traffic.

However, the report also states, "To the extent that the validity of any of the assumptions may need to be confirmed or tested, in connection with continuing considerations of the desirability of moving ahead with Rampart, specific investigations would be required for that purpose." Perhaps, then, those who question Rampart may be permitted to do so without being considered subversive, or at best, "fuzzy thinkers."

THOSE TAKING A LONGER LOOK at Rampart reason this way. The aluminum processing plants and other industries go where there are markets, raw materials, cheap labor, or cheap power. Rampart can hope to compete with only one of these variables to tip the scales. And Rampart can offer 3 mill power only if all the power is sold and the cost of building the dam does not increase substantially above that now estimated.

Currently the huge Kittimat project in British Columbia does not have customers for all its power, despite the price and the location at tide water. Aluminum processing plants at present are locating at sources of cheap labor and near markets in Texas and the Midwest, and at the bauxite sites abroad, not necessarily where there is cheap hydro power. In calculating the economic climate for indus-

try, the D & R report postulates that wages and salaries in Alaska will be only 15% higher than those in the rest of the states. Present wages are considerably higher than that 15%. Will Rampart reduce the distance to markets or cut the cost of transporting commodities to Alaska that cause the higher living and labor costs?

Selling power to the lower states as an alternative raises two questions. Can technical difficulties now present in long distance power transmission be solved so that the cost will be competitive with huge power projects now being developed in Canada much closer to the population centers of the continental states? And if Rampart can compete in this respect, what will sending power over a highly automated federal transmission system to the lower states do to better the economy of Alaskans?

The \$2 billion price tag is based on present estimates of construction costs. If one of the basic assumptions is that there will be an increasing level of prosperity in our economy and therefore, an increasing demand for power, will not the cost of materials and labor also continue to rise? And the cost of mitigating wildlife losses and compensation to natives for loss of land and livelihood are not included in this figure.

What of other sources of energy by 1986 when Rampart might be completed, such as thermal power that can be produced cheaply from coal, oil, or natural gas; or nuclear power that may well be safe and as cheap by then? Nor is the Yukon River a perpetual energy source for Rampart. The dam will have a limited life of 50 to 100 years until the impoundment area silts up.

How much would Rampart power reduce the electricity bill of the household? Three mills is a magic term, but this is the cost at the damsite. Seventy-five percent of the bill a domestic consumer pays goes for distribution and administration costs that will not be lower for Rampart power than for any other power.

Recreation? Watersports? Does one hear much about aquatic recreation on Great Slave Lake, which lies at a comparable location geographically and climatically? Not with ice that lasts until mid-summer, and winds that whip up waves as large as on the Great Lakes. Scenic beaches? Not with muddy, stump-strewn, fluctuating shorelines caused by power draw-downs.

And what about the ducks—and the mink, the muskrat, the moose, beaver and salmon, plus 2,000 indigenous natives whose lives revolve around these resources? Rampart promoters, none of them biologists, have dismissed this with, “who ever heard of a duck drowning?” on the assumption that if a little water is good for waterfowl, a lot is much better. They point to the increase in ducks at other impoundment areas such as at the Grand Coulee damsite, an originally arid region that had no aquatic life before the dam was built, then compare it to the pond-studded Yukon flats. These flats now contribute a significant portion of waterfowl to the nation’s flyways. Wildlife, they state, will move to other places in the vast Alaska wilderness as the waters slowly rise. Fish ladders or other mechanical contraptions will insure the salmon runs. All of these statements reveal a total misunderstanding of the ecological facts of nature, and are as ludicrous as if biologists told the engineers that the logical place to build a dam was across the widest part of the Yukon flats.

An area has a carrying capacity of just so many animals for reasons of food, cover, and competition. Any area to which the Rampart-displaced wildlife could relocate would already be inhabited to a near maximum density for the balance of nature. Man can create an optimum habitat artificially to increase the carrying capacity of a relatively small area, but even if possible, we can hardly afford to manage an area large enough to absorb this much more wildlife.

Fisheries biologists agree that no artificial means have ever been successful

to get salmon over high dams. In addition to the obstacle of the dam, there are other factors involved, including lack of current in the lake necessary for spawning Pacific salmon, loss of spawning grounds in the impoundment area, and damage to fingerlings returning over the dam if they did hatch.

The Yukon River basin is a rich habitat for furbearers because the periodic natural flooding by the river renews the sloughs and ponds adjacent to its banks. Waterfowl, aquatic wildlife, and moose thrive around the edge of small lakes and ponds. It is the amount of “edge,” not the area of water that is important. Thus not only the impoundment area, but habitats down-stream from the dam would be affected.

BUT PERHAPS THE GREATEST THREAT of Rampart is that it becomes a blueprint for the kind of Alaska to which its citizens choose to dedicate themselves. Should this effort be an all-our-eggs-in-one-basket type of endeavor; a go-for-broke king sized panacea to the exclusion of less spectacular home grown projects that are more in keeping with our immediate needs and special situation? Like a Devil’s Canyon dam, for instance. This site is handy to the Alaska Railroad, is half way between Fairbanks and Anchorage, and could furnish all the power needs of these two largest Alaskan communities and the area in between six years after the start of construction. This dam endangers little wildlife and no fish or human habitat. It would inundate 68,000 acres in a

steep canyon instead of 6,946,000 on a plain. Of course the price of kilowatts produced is 6 mills instead of three, but at a fraction of the cost of Rampart with no gamble on its being sold. (One wit has remarked, “that’s the trouble with Devil’s Canyon dam, it doesn’t cost enough.”)

What kind of an Alaska do those of us who choose to make it our home really want? For those seeking a way of life, not just the quick buck, is not the real goal that of bringing quality to our living—quality that is measured not only in creature comforts and an adequate paycheck, but also in that uniqueness and setting that Alaska offers because it is still under-developed? Do we really want to make Alaska over in the image of Los Angeles, or Peoria?

Perhaps this was best expressed by Robert Weeden in the *Alaska Conservation News Bulletin* when he wrote: “How much should Alaska grow, and in what direction? Should we dedicate ourselves to the increase in numbers and nearness of neighbors and the rate at which we exchange money? Can we decide upon a point of diminishing returns, beyond which the addition of a thousand people only means the sacrifice of some personal liberty or inward ease? If so, there is always Calcutta or Pittsburgh. They say we have to have industry to get more people. I don’t believe it. All we need is an Alaska as little changed by human activity as possible, and a host of recreation seekers from the south will provide a big part of our livelihood. Wisely-managed natural resources could do the rest.”

Maybe we Alaskans will have to pay the price of a lower standard of living than is found in Suburbia in order to enjoy a higher standard of life. But the price may be a bargain. For Alaska’s most valuable resource, even in terms of the market place, may not be water power and an industrial potential, but space—spectacularly beautiful space that is not all filled up with people and industry as is so much of the rest of the world. We may realize that our security is based not on a government subsidy or outside investments, but on our own resourcefulness in learning to live in harmony with our environment, on the fellowship of those who share that life with us, and on those qualities of the spirit that are lessened as the wide open spaces diminish. ■



*Yukon River at
Eagle, Alaska*

*Hippopotamus playing in a river
in Nairobi Royal National
Park, Kenya*

Wildlife Conservation

By F. Fraser Darling



This paper on some ethical and technical problems of wildlife conservation is reprinted with the permission of the Conservation Foundation, for which the paper was originally written. Dr. Darling is vice-president of the foundation.

WHEN THE MAN in the street reads of officially authorized slaughters of seals and elks and elephants, just when a changing ethos is apparent in the western nations towards caring for wild animals and setting aside places where they may live in peace, he may well scratch his head and wonder if biologists have gone wild or have misled him flagrantly.

One of the most significant changes in the outlook of natural history in recent years has been apprehension of the fact that animals and plants do not live alone; they exist in their environment, which is not merely physical or climatic, but biotic and social. I say apprehend, because we cannot say as yet that we comprehend. To gain understanding of the complex relationship of organisms to each other and between members of

the same species and group is part of the aim of the science of ecology. Conservation of wild life today centers primarily on maintenance of the habitat as a satisfying living place for the animals and plants within it.

We tend to imagine a golden age or state of nature in which checks and balances operated more or less perfectly to maintain a *status quo* of beautiful variety. Broadly there have been and are such situations, but nature is nevertheless dynamic and change occurs. Mankind may be a member species of a biological community of animals and plants, especially if he is a primitive hunter-foodgatherer being denied the luxury of developed gregariousness. Man is not necessarily vile, but in these days he does make biological communities unstable. He, and all other creatures, are to some extent co-operating in maintenance of some habitats, though in general there is no consciousness of co-operation. Evolution is a story of this unconscious co-operation as much as of competition. Survival of the fittest may be in capacity to co-operate as well as to elbow a way through.

Civilized man, impinging on the vast wilderness of the planet, increasing his own numbers and bearing mercilessly on some of the plant and animal associations of the world has, within the last century, begun to question the morality and the wisdom of utter subjugation of wilderness and its denizens. The increasing tempo of destruction has brought us now to an acute awareness, in which I believe the vast majority of us suffers morally and emotionally. Orthodox religion offers us curiously little comfort or guidance. Our greatest response so far, a right and honourable one, has been to establish sanctuaries and reserves. Sanctuaries were the immediate uncritical emotional response, thinking in terms of saving beautiful animals, and we also wished to save beautiful wild scenery. It was from this point that the national park movement grew in the United States. A more scientific and critical response, but none the less moral, has been the establishment of Wildlife Refuges in the United States, and National Nature Reserves in the United Kingdom under the care and management of the Nature Conservancy. Such areas have been chosen on scientific criteria and are under management.

Sanctuaries for particular species, and the earlier national parks of the world, were the first move, and no one doubted their efficacy; but understanding of population dynamics and habitat conservation was almost nonexistent. It is only now that we find inviolable sanctuaries are not the answer to per-



*White rhino
in Hluhluwe,
Zululand, Union
of South Africa.
Photographs for
this article
are by C. A. W.
Guggisberg.*

petuation of a species or a biological community, and that management of a reserve in which species and habitats are to be perpetuated is a task of much technical difficulty.

How disturbing it has been to establish a national park of some thousands of square miles in wilderness country and then find it is too small to be left to take its own course! This is what has happened in the first national park in the world, Yellowstone, Wyoming, established in 1872, and about 3200 square miles in extent. (Indeed, it is to the United States that the world owes the generous idea of such places.) The wolf has been wiped out because this remarkable animal cannot be tolerated in ranching country; coyotes persist and are not harried in the park but they migrate northwards into Montana and are shot or poisoned. Cougars or pumas also move out and are lost; and though Yellowstone has a good population of grizzly bears, some of them move down northwards and become trophies. The herds of wapiti, called elk in Wyoming, did not move great distances beyond the park boundaries and, in the absence of sufficient checks, increased much beyond the carrying capacity of the land. I was there in 1950, taking special note of the deterioration of the range, particularly of the aspen groves. Since then, the population of elk has been approximately halved and I examined the range again this summer. There is some immediate repair, but remembering those groves of aspen I was shocked to find many of them gone, a consequence irreparable in a century or more.

There was a highly emotional battle in the United States between firm upholders of the idea of sanctuary and the National Park Service, which had to deal with the problem, advised by wild-life managers who are as devoted to animals as their opponents, but who have studied carrying capacity and composition of the habitat in detail and realize that the welfare of the species is more important than the survival of individuals; further, the fate of the elk is not the only matter at stake: the whole biological community and the habitats of each member species are concerned.

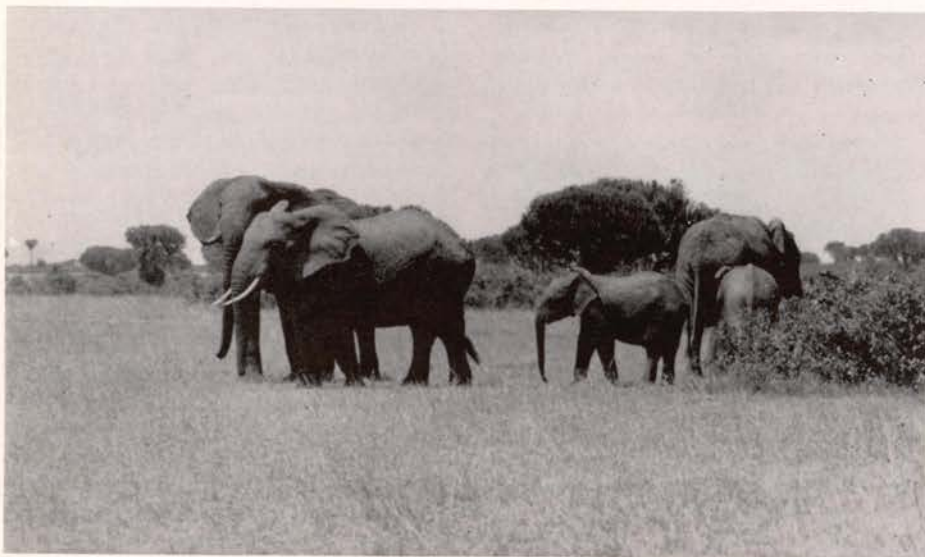
Fifteen years ago, and until five years ago, I was active in urging a reduction in the numbers of red deer in Scotland, an attitude which many people could not understand in someone supposed to be an upholder of conservation. The Red Deer Commission is now in operation and some reduction is being

made. The immediate benefit may be to farmers whose land lies within the winter spill-over of the deer forests, but those of us who see the age-classes of the deer stocks getting better proportioned know that the red deer are also benefiting directly from the pruning.

The staggering build-up of the elephant population in the Tsavo National Park in Kenya and eastwards from there, has resulted in severe punishment of the habitat over several thousand square miles. The elephants are having a thin time, but they are better off than some other animals, notably the rhinoceros, which do not or cannot move out. I saw some of the 200 or more rhinoceros which starved to death three years ago and it was an altogether upsetting experience. Our early uncritical generous notion of sanctuary had not been good enough. Man is constricting the range of the elephant in Africa and the areas being left to this great, wise, lovable creature must be managed for its benefit by studying population in relation to carrying capacity and condition of the habitat. The tragedy in the Tsavo Park is imminent also in the Murchison Falls Park in Uganda. Those of us who truly love the elephant and who are deeply concerned for its survival, should be ready to reduce the population in certain areas in ways which are going to hurt us emotionally. It would be unthinkable to harass large migrating groups in the dry season, killing some adults and making the herds hysterical. We must be prepared to work in the wet season when family groups are small and to extirpate completely a family group so that disturbance is minimal and none lives to tell the tale, for, of course, elephants are able to communicate factually as well as we can, and I cannot see that their suffering is less than ours.

The task is easier with less intelligent and more phlegmatic animals like the hippopotamus. These animals damaged their habitat so severely in the Queen Elizabeth National Park in Uganda that the notion of sanctuary had to be laid aside. After a considerable initial reduction, an annual removal of 500 hippopotamus is now attempted. Rehabilitation of the riverside habitat has been fairly rapid.

The Commissioners of the River Tweed asked me to study the grey seal problem (as they saw it) in 1939-40, in relation to the salmon fishery. There were then 300-400 seals on the Farne Islands, Northumberland, as against 80 earlier in the century.



*Elephant herd in
Katwe, Uganda*

I saw the grey seals catching and eating salmon in the river mouth off the end of the Berwick breakwater, but the fishermen did not mind this toll so much as damage to the nets and to fish in the nets. Such damage also occurs far up the east coast of Scotland. It is unfortunate that the Farnes colony of seals, depending on the island beaches for breeding, should be so near this famous salmon river. It would be quite foolish to suggest that the seals subsist principally on the salmon; this fish must represent a very small fraction of their diet, but if the colony of seals is to be allowed complete sanctuary, which it had not enjoyed for thousands of years until this century, the increasing population is certainly going to effect a larger gross damage. The present population of seals runs into some thousands because man voluntarily ceased to be a predator on them, and quite apart from the open question of whether man as a rival predator on the salmon has any right thereby to reduce the number of seals, it is pertinent to enquire into the welfare of the seals multiplying fast on a limited nursery ground. I advised in 1940 that the seals hunting the mouth of the Tweed at the time of the fish runs should be hunted actively by the Commissioners' staff, but that there was no justification for reduction on the Farne Islands. Nor was there justification; but there is, probably, now. The removal of 350 seal calves in 1963 will not have endangered the stock and the action may well have helped it. I have visited several of the largest seal nurseries off the Scottish coasts and have been sad at the conditions apparent when there is overcrowding. Calves are crushed, many get ophthalmia and there is undue fighting among the cows. There is certainly an optimum density which is desirable, but optimum density is not maximum density.

Briefly Noted

Support for Redwoods National Park

Sierra Club members will be interested in a new group in the North Coast counties of California. It is Citizens for a Redwoods National Park. The group supports the establishment of a national park in the vicinity of Prairie Creek State Park and Redwood Creek containing no less than 25,000 acres of virgin redwoods.

This group was officially organized in early February. It is soliciting membership throughout the country. Membership classes are: General \$5, Contributing \$15, and Sponsor \$25. The organization's address is: P.O. Box 713, Arcata, Calif.

Student Conservation Program

Based on the success of the past few summers, the Student Conservation Program will offer increased program opportunities this summer for well qualified young men and women. The program is supported by private funds in co-operation with the National Park Service. High school age boys interested in this training-work program can apply

for positions in Olympic and Greak Smoky Mountains national parks. There are opportunities for college and graduate students, men and women, in Acadia, Grand Teton, and Zion national parks and in Cedar Breaks National Monument.

A grant of \$750 will be offered to a graduate student interested in doing an independent study in Acadia National Park while working toward an advanced degree.

During the program's nine years, over 320 students from all parts of this country and abroad have been participants. Application forms and further information about the program can be obtained from: The Student Conservation Association, Inc., Sagamore Hill National Historic Site, Mtd. Rt., Box 304, Oyster Bay, New York 11771.

Trail Bikes and the Court

Last summer, within the Idaho Primitive Area of Boise National Forest, three men rode motor bikes down a trail to the Middle Fork of the Salmon River.

Here again, a more effective reduction of population could be made by killing half as many gravid cows as the calves killed in 1963, but it would be much harder work, possibly more disturbing to the stock, and harder on our feelings, which are not adjusted to the idea of killing mothers-to-be of a species we desire so earnestly to conserve. Some years ago, observing the tendency of American white-tailed deer, and to a lesser extent Scottish red deer, to "yard" or hang about one area in winter, I had the idea that some disturbance was good for closely gregarious animals. Wolves prevent "yarding" in deer and thereby help to conserve habitat. Man, in the absence of wolves, must accept the task of conscious management. I now feel that a limited amount of disturbance of the grey seals will do no harm to them as a stock because they will spread their breeding over more of the possible sites, rather than overcrowding on a few.

We are faced with an ethical problem as well as the scientific and technical one, and it would be cowardly to ignore it and deceive ourselves by holding inflexibly to the idea of sanctuary. We cannot be Jains stooping and peering before each step lest we crush worm or beetle, because we know our feet must crush smaller life than our eyes can see, yet we should be ready to admit that animals exist in their own right and not by our permission. Surely it is no lack of respect for life, but high courage, to face the necessity of killing in order to conserve when the situation is so contrived that the creatures cannot be allowed their total ancient ranges? The educational task towards general acceptance of such a view is immense, involving a scholarly philosophical discipline in getting our minds clearer. The technical task is to learn how to implement it with least suffering to individuals killed and to the species' collective memory. ■

They were apprehended by local Forest Service officials and brought to trial. The defendants alleged that the Secretary of Agriculture was without authority to prohibit motor vehicles in Primitive Areas. But the United States District Court for Idaho, Southern Section, did not see it that way. It found them guilty of violating Secretary of Agriculture Regulation U-2a and fined the defendants \$100 each.

To our knowledge this is the first case in which the validity of Regulation U-2a has been tested in federal court.

Sleeping Bags Can Be Dangerous

According to a story in the *Laundry and Dry Cleaning Journal* that came to us by way of the *Appalachia Bulletin*, sleeping bags, parkas, and similar articles that have been dry-cleaned can be dangerous unless aired before use. A person whose face remains for some time close to an article of clothing that has just been dry-cleaned can become seriously ill from inhaling dry-cleaning agents that are normally safe.

Letters

Amendment One and "the need for ordered change"

Editors:

A significant proposal for a change in the Sierra Club Bylaws is to be voted on at the next club election. This is *Amendment 1*, which would limit the continuous service of a Director to three terms—a total of nine years. There are other details in the Amendment, but this is the effect. I am in favor of this Amendment. I hope it will receive the wide discussion it deserves.

A great strength of the Sierra Club is its member-direction. This direction is exercised through an elected Board of Directors and officers chosen from this Board. Continuity on this Board is important. I think no one can responsibly argue that it is not. But on the Board of Directors we also need people with new ideas, fresh from contacts and participation with the rank and file of Club membership. This means we need a continual supply of new blood—in other words, turnover—on the Board.

Two questions must be answered: (1) Does our present method of electing Directors effectively provide the turnover we need; and (2) If the answer to the first question is "no," is the remedy offered by the Amendment less desirable than the disease of stagnation?

I think the answer to the first question is "no." For many years we have had a cadre of "regulars" on the Board. For the most part, these Directors have contributed unstintingly of their time and energy; their contributions to the Club are beyond measure. But there is another side to the coin. We have been notably *unsuccessful* in getting a significant number of new Directors elected to the Board and then re-elected for the one or two additional terms necessary for them to gain experience and make their full contributions to the Club. Yet this state of affairs is to be expected. Few members today can know the Directors, much less the other candidates. This gives to the older Directors an advantage that continues to grow as the club's membership grows. For coming onto the Board when the membership of the club was under 10,000 and largely in Northern California, these Directors continue to have the support of their contemporary members who got to know them personally at a time in the club's history when such personal contact was relatively common. And, I might add, at a time when the club was, at least in size and geographical scope, a far different organization from the Sierra Club of 1965. Any election under such circumstances is no

real measure of the worth of the candidate; it is, for the majority of voters, an election of the most easily recognized "names."

Now we must answer the second question. Would the cure be worse than the disease? I think it clearly would *not* be worse. First of all, the Amendment still permits nine consecutive years on the Board. Following one year's "leave," a valued Director could be renominated and could be elected for three more three-year terms. And also remember that there are many responsible positions—committee chairmanships and special assignments, for example—where experienced people not on the Board can be effective in the work of the Club. In the meantime, the ordered change provided by this Amendment will permit rotation of membership on the Board and the election and growth of those competent new people we so greatly need.

The Executive Committee of the San Francisco Bay Chapter voted overwhelmingly in favor of Amendment No. 1 at its February 8, 1965, meeting. I hope the membership of the Sierra Club will do likewise.

ROBERT P. HOWELL
San Rafael, California

More Information Wanted

Editors:

I have been interested in the stand which the Sierra Club takes on population control.

As early as last November, I wrote the Board of Directors suggesting that it would be extremely helpful if we could know the views on that issue of the candidates for Director in this year's election. No results.

More recently, as soon as I saw that the nominating committee had been selected, I went into action, hoping to get candidates' views published—perhaps as letters to the *Bulletin*. I was too late.



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I think Sierra Club members are intelligent enough to deserve a little information on candidates' views on issues. I've always found it frustrating to be asked to decide whether a snowshoer or a rock climber would make a better board member.

ED LEEPER
Berkeley, California

Thanks from a Senator

Dear Mr. Brower:

Thank you very much for the copy of "In Wildness Is the Preservation of the World."

The country simply cannot calculate the impact of the good works which the Sierra Club has fostered through the years.

I have treasured "The Place No One Knew" and I have lent it to artists and friends and both Mrs. Clark and I have enjoyed it deeply ourselves. We are equally happy to have this beautiful book.

SENATOR JOSEPH S. CLARK (Pa.)
Washington, D.C.

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Book Reviews

THE HISTORY OF PHOTOGRAPHY (revised and enlarged edition). By Beaumont Newhall. 120 illustrations. 216 pages. Museum of Modern Art, New York City, 1964. (First published in 1937.) \$12.50.

After almost 30 years association with Beaumont Newhall I may have a certain strain on my objectivity in relation to this book. I have followed Newhall since 1936 in his dedicated efforts in the cause of creative photography and its historical perspectives, and I have participated with him in many events—some of which are milestones in the progress of the art.

Newhall is primarily an art historian. He graduated *summa cum laude* from Harvard in 1930; had extensive experience in the arts and art history, and became Librarian of the Museum of Modern Art

in 1935. While in this position he developed a deep interest in photography, and in 1937 he published the first edition of *The History of Photography*. His work and enthusiasm led to the founding of the Department of Photography of the Museum of Modern Art in 1940 (with David McAlpin as chairman, the reviewer as vice-chairman, and Newhall as curator).

Due to political and administrative developments within the Museum of Modern Art, Newhall's position there became superfluous. In 1948 he left the museum to take the position of Curator of George Eastman House in Rochester, New York. He became Director in 1958.

Newhall's great talents and organizational abilities transformed George Eastman House from a drab museum of relics into the top institution of its kind in the world—where both the past and present (and perhaps the future) of photography are presented in extraordinarily revealing ways. The development of George Eastman House has paced the development of the *History* through several revised editions. It is, without doubt, the most complete and balanced account of the development of the bright new art and has been received over the years with wide acclaim. It has also established Beaumont Newhall as the leading historian of photography.

Most photographic literature succeeds in merely perpetuating both facts and myths, and for illustration relies largely on the best known and most easily available images. Newhall has made fresh explorations into the rich past and many of the most exciting pictures in this book are reproduced for the first time. The tremendous and sudden growth of public interest in photography as the various techniques were developed is clearly described. The first important technique—the Daguerreotype—within a few years following its invention supported a large profession. Then when “wet” plates and collodian and albumen papers were invented duplication was possible and not only portraiture, but the photography of things and places became commonplace. With the appearance of roll film, photography became a popular pastime. The invention of Kodachrome and other color films gave a tremendous stimulation to

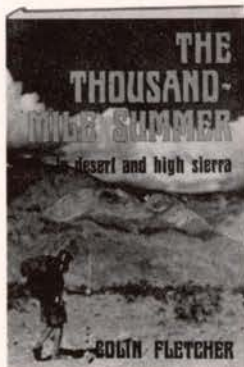
public interest as well as offering a vast expansion of professional applications. The recent remarkable invention—the Polaroid Land process, first in black and white and then in direct color, has brought the making of images within the capabilities of everyone.

Many histories and compilations of photography rely largely on certain clichés of picture selection: General Grant standing before his tent, “The Steerage,” by Stieglitz, or the “Portrait of J. P. Morgan” by Steichen. In Newhall's *History* we find some of these old favorites (and they are really as fundamental to photography as the Acropolis is to architecture), but we find as well many other master-works, hitherto rarely—or never—published.

The selection of photographs leads one to question deeply the basic esthetic and expressive qualities of the medium. At what point does representation and documentation yield to truly creative expression? How can one define the magic moment of awareness that transcends the most exact and informative “mirror” of reality? That moment is displayed in such glowing images as the *Portrait of Georgia O'Keeffe* by Stieglitz, *The White Fence* by Paul Strand, the marvelous images of rocks, shells and sand dunes of Edward Weston, the *Migrant Mother* by Dorothea Lange, and *The Thread Maker* by Eugene Smith. The portraits of David Octavius Hill (in the 1840's), the portrait of *Sir John Herschell* by Julia Margaret Cameron (in 1867), the astonishing *Grand Prix of the Automobile Club of France* by Lartigue (1912), and the *Ritual Branch* by Minor White (1958) clearly show that the creative and moving esthetic qualities of the medium are not only recent developments.

Newhall has achieved a rewarding balance of subject and statement and furthermore has suggested some future trends in highly subjective expression and in the appropriate combination of image and word (as Nancy Newhall so brilliantly accomplished in *This Is the American Earth*). Such combination is a dangerous area, for the results can rapidly degenerate into pure *schmaltz*. Important concepts of photographs as *equivalents* or *metaphors* are described in the chapter, Recent Trends.

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Newhall implies that while subjectivity and the intuitional processes are essential to art, they can also reveal a bottomless pit. Photography may be the one art medium of our time that, through its inevitable association with reality, may secure the stability of human expression and communication.

ANSEL ADAMS

FOLLOWING THE FRONTIER WITH F. J. HAYNES. *By Freeman Tilden. 244 illustrations. 406 pages. Alfred A. Knopf, New York, 1964. \$12.95.*

This handsome volume details in word and pictures the career of one of the great pioneers of photography, who left to us by his art a panoramic view of the early West. F. Jay Haynes literally followed the working frontier, first from a tiny shop in Moorhead, Minnesota, later from his Palace Studio Car, which pulled in on many a newly laid railroad spur in the Dakotas and Montana territories of the 1870's and '80's. Sodbusters in their "boughten clothes," miners in the heyday of Deadwood, freighters and bull teams, cowboys working cattle on the range—all these were among his subjects.

Haynes' photographs, 244 of which are reproduced in this volume, bring to life the rough hustle and bustle of the West's false-fronted and ambitious towns. His camera captured scenes of railroad building, mining, homesteading, riverboating, hunting, or entertaining the bowler-hatted tenderfeet from the East.

Haynes became official photographer for the Northern Pacific Railroad and the newly established Yellowstone National Park. He also became the first concessionaire in the Park, operating a fleet of stagecoaches to bring visitors from the railhead to the wonders of Yellowstone. He photographed a presidential camping trip to the Park and survived a hazardous skiing and snowshoe expedition to explore its winter wilderness. The tepee-surrounded trading posts, the stage stations, the tollhouses, the army forts (and their braided or baggy-kneed personnel) all became part of Haynes' photographic records. Haynes also became famous for his gallery of Indian portraits, some of the finest of which are included in the book.



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Mr. Tilden's style is unpretentious and lively, and succeeds in recreating the atmosphere of those old days. He also succeeds in delineating the interesting personality of F. Jay Haynes, a bold, hardy, confident man who lugged his heavy cameras and equipment by spring-wagon, horseback, pack mule and shank's mare to photograph the wild mountains and valleys with an artist's eye for scenic beauty and an entrepreneur's eye for human enterprise.

An appendix gives technical information on Haynes' equipment for the reader who is interested in the development of the art of photography.

FRANÇOIS G. LEYDET

THE NATURAL GEOGRAPHY OF PLANTS. By Henry A. Gleason and Arthur Cronquist. 208 illustrations. 420 pages. Columbia University Press, New York City, 1964. \$10.00.

The interest of this book is revealed by a quotation from its introduction that is printed on the dust cover. After describing the beauties of autumn foliage as seen by a traffic jam of motorists on an afternoon drive in New Hampshire, the authors comment as follows: ". . . probably not more than one out of ten of those spectators had any idea what kind of trees they were looking at. If those same people had driven west from Washington a few weeks later, they would have seen a similar display on the slopes of the Blue Ridge, only in bronze and crimson, and again probably only one out of ten would have wondered why the colors were so different.

"It is to this one person out of ten that our book is addressed; to those who enjoy the landscape but also like to meditate on it, to ask themselves questions about it, to try to understand it, and hopefully to arrive at some conclusions about it."

To such people this book is a "must buy," particularly if they either live in the eastern half of our country, or visit there frequently. The book will not help one to identify trees or any other plants. It will be useful and interesting only to those who can already recognize the different kinds of trees and a few of the more well-known and interesting species of flowers, or who are interested

in doing so. In their style of writing the authors use simple language, both common and scientific names of plants, and a minimum of technical terms, all of which are defined when first used. They nevertheless refrain from the sentimental exuberance and strained attempts at poetic expression that so often disfigure "popularizations" of some branch of natural science.

The book will be of particular interest to those who are trying to understand why plants grow where they do, and how they got there. Each chapter, and almost every paragraph, contains a suggested explanation for phenomena that the authors have observed, and many times they suggest additional observations that might be made, or experiments that could be performed to test their theories. This reviewer, who has for forty years been deeply interested in exactly the problems about which Drs. Gleason and Cronquist write and who has visited many of the scenes that they describe, can vouch for the reasonableness and conservatism of their explanations. In a field that is notorious for being one of the most controversial

within the broader area of natural history, and subject to extreme, "far-out" hypotheses and speculations, Drs. Gleason and Cronquist can be highly commended for having given the layman a balanced presentation that probably represents the thinking of the majority of botanists interested in the field. (Maybe this is only a fancy way of saying that I agree with them!) The book is splendidly illustrated by more than 200 excellent photographs selected by Dr. Cronquist from a variety of sources, but chiefly from the United States Forest Service.

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Unfortunately, the book is of limited value to those whose lives are spent between the Pacific Ocean and the east side of the Sierra Nevada. Its senior author, Dr. H. A. Gleason, now emeritus and living in Berkeley, wrote most of the book while on the staff of the New York Botanical Garden. His account is based almost entirely upon the personal observations he made during extensive excursions through the eastern states, and the conclusions that he has drawn from them. Dr. Arthur Cronquist, who is currently on the staff of the New York Botanical Garden, is responsible for a well-balanced chapter on plant evolution and for the final long chapter on the vegetation of North America, north of Mexico. A westerner himself, he has done much to reduce the emphasis upon the eastern half of our country, but, nevertheless, tells us a good deal more about the Pacific Northwest, his native home, than about California. If this book receives the attention that it deserves, perhaps someone will undertake to write a similar one about the natural geography of the plants of California, which in some ways are more interesting

than those of all of the other states combined, with the possible exception of Hawaii. With a book like that of Drs. Gleason and Cronquist to guide him, the layman should be able to learn how to share some of the excitement and delight that botanists experience when they find a rare plant in an unexpected place.

G. LEDYARD STEBBINS

HOME IS THE DESERT. By Ann Woodin. Illustrated. 247 pages. The Macmillan Company, New York, 1964. \$5.95

The idea of living under the same roof with a bobcat that insists "on sleeping with the baby," or with a snake who is "little . . . cute . . . friendly . . . and . . . bites all the time," is unthinkable to most people. But this is not unusual in the Woodin household where, for example, the sight of a king snake poking his head out of a shirt pocket at the dinner table is as common as a cat sleeping on a sofa.

Ann Woodin lives with her husband—the Director of the Arizona-Sonora Desert Museum—their four sons, and a menage of pets just outside the city of

Tucson. She has written a vivid account of life on the desert, blending a thorough knowledge of the area's ecology, a sense of the changing beauty of the desert and amusing anecdotes.

What impresses the reader is the Woodin family's total lack of fear of the desert and desert life and their acceptance of nature's impartiality. "Aren't you afraid to live out there, with all those things around that sting and bite?" ask friends of the Woodins. This book answers with an emphatic NO. What the Woodins do fear, however, are the housing tracts spreading out from Tucson toward the area where they live. How much longer, Mrs. Woodin wonders, will the opportunity remain for children and adults alike to reap the benefits provided by such areas essentially untampered by man.


SUSANA COX

A GUIDE TO BIRD WATCHING. By Joseph J. Hickey. 296 pages. Natural History Library—Anchor Books edition published in co-operation with The American Museum of Natural History by Doubleday & Co. Inc., Garden City, New York, 1963. Paperback. \$1.25.

This "How To" book of bird watching tells both beginner and advanced student alike how to increase their knowledge and enjoyment of the art of bird study. This recent Natural History Library paperback edition adds up-to-date references to the original 1943 publication, but otherwise is basically a reprinting of a highly readable classic in the lively aspects of ornithology. Dr. Hickey's work is not intended as a substitute for the guides to field identification, but rather aims to stimulate the reader to go beyond the mere identification and listing stage.

After an introductory chapter on how to begin bird study, Dr. Hickey tells of the lure of migration watching ("a branch of natural history in which scientific research is still fun"), the adventures in bird counting, the exploration of bird distribution, and the romance of bird banding. Students of bird study will find great value in his appendices covering bird tracks, results of breeding-bird censuses, suggestions for life history studies, and an annotated list of more than 100 ornithological publications.

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Washington Office Report

By William Zimmerman, Jr.

Boundary Waters Canoe Area

In January, 1965, Secretary of Agriculture Freeman announced a decision on the recommendations of a special committee that he had appointed to review the management of the Boundary Waters Canoe Area in the Superior National Forest in Minnesota. Since the decision was announced it has had little notice by conservationists, but has been ferociously attacked by local special interests. Mail reaching the Secretary's office has been almost entirely condemnatory. Conservationists and others concerned with the public interest have failed woefully to express their approval. Out of every hundred letters not more than five or ten have commended the Secretary. The members of Congress from the state of Minnesota, particularly Representative John A. Blatnik, one of the outstanding friends of conservation in the Congress, have also been abused and made to feel the heat. These officials deserve public support and recognition after the fact, as well as pressure before they act.

Recommendations approved by the Secretary included many points that cannot be detailed here. The local storms were caused by three points: (1) about 150,000 acres are to be withdrawn from commercial timber harvest and added to the zone of "no-cutting"; (2) another 100,000 acres will be added gradually as soon as existing timber sale contracts and other factors will permit; (3) the Department of Agriculture will refuse its consent, required by existing law, for mining and mineral leasing except in a national emergency. The Secretary's decision will place within the "no-cutting area" about 90% of the water surface in the Boundary Waters Canoe Area.

Northern Cascades

The joint committee to study the Northern Cascades has been inactive because of the illness of the chairman, Director Crafts of the Bureau of Outdoor Recreation. The members of the committee have evidently sworn each other to secrecy, but the long delay in concluding its work makes it clear that a unanimous report, such as emerged from the study of the Boundary Waters Canoe Area, is most unlikely. Meanwhile, cutting of timber, under previously approved contracts, is continuing in areas that almost certainly should be included in a park if one is to be established. The Forest Service is also continuing its studies with a view to establishing part of the North Cascades Primitive Area as a Wilderness Area.

Redwoods Park

Secretary Freeman's forthright decision on the issues in the Boundary Waters Canoe Area is in contrast to the confusion that seems to exist about the proposed Redwoods National Park. Nearly a year ago, on June 25, 1964, President Johnson held a conference at the White House—"a historic meeting," the *Bulletin* called it. In the statement issued

in the President's name at that time was this sentence: "I have directed Secretary Udall to prepare a plan for a redwoods national park and to have it ready for presentation to the Congress next January." In the President's widely lauded messages on the natural beauty of our country appears this statement: ". . . I have requested the Secretary of the Interior, working with interested groups, to conduct a study on the desirability of establishing a Redwood National Park in California." At the present moment, according to high Interior Department officials, the Department is waiting for the comments of "the industry" on the park proposal, and further, the Department seems inclined to include in its recommendations for a park only the Mill Creek area.

Condors

Preservation of the condors is still in doubt. The full report of the Audubon Society's study team will soon be released. Meanwhile, the Bureau of Reclamation is making a feasibility study of the Sespe Project, which includes the Topatopa Dam, at a cost of about \$100,000. Completion of the feasibility study, which is sure to be favorable, will make it more difficult for the Secretary of the Interior to reconcile the opposing views of the Bureau of Reclamation and the Fish and Wildlife Service.

Legislation

Clearly it is too early in the 89th Congress to make sound forecasts as to which bills will be enacted. Most of those that are likely to receive early attention were before the 88th Congress. Among these are bills to establish the Oregon Dunes National Seashore, the Indiana Dunes National Lakeshore, and the Sleeping Bear Dunes National Lakeshore. The bills to establish the Assateague Island National Seashore (S. 20, H.R. 2071, H.R. 4426) have strong administration support, as do also the bills for Tocks Island National Recreation Area (S. 36, H.R. 89). The Tocks Island proposal has strong support from the Congressional delegations from New York, Pennsylvania, and New Jersey. The bill to save Upper Priest Lake in Idaho (S. 435) has already passed the Senate, and is likely to be approved by the House this year. Less sure are the bills by Senator Frank Church (S. 913) and Representative Compton I. White, Jr. (H.R. 4821) to create the Sawtooth Wilderness National Park. The administration has submitted its Wild Rivers bill and is expected shortly to offer a national trails bill. If the administration support is strong, these will probably become law. Probably most controversial of all are the Colorado Basin Project bills (S. 1019 by Senator Thomas Kuchel, H.R. 4671 by Representative Udall, and many other House bills). My guess is that this project will not receive Congressional approval at the present session.