A SPECIAL GRAND CANYON NATIONAL PARK ISSUE

NATIONAL PARKS *Magazine*

A Grand Canyon Panorama
From the Kaibab Trail

April 1962

Preface to a Special Issue

IN ASSESSING THE SERIOUSNESS OF the attacks made on the national park system or its units, conservationists have to use some judgment as to the importance of a particular issue. This is so because the units of the system are many and widespread; the schemes for their abuse or invasion flourish like weeds in a vacant lot; and the unofficial park defenders are still relatively few in proportion to the entire population.

Many of the proposals for park invasion are quite transparent, designed for the obvious benefit of an easily distinguished minority or special interest. As a rule, park authorities are able to handle such challenges without undue trouble; assistance from the conservation world is available if needed.

More serious are the schemes that can be advertised as beneficial to large segments of the population, or which can be made to appear somehow vital to the national well-being. For a few examples, there have developed in recent times pressures for opening the parks and monuments to public hunting; well forward are plans which would flood part of a national monument in connection with a vast public power project; urgent pleas have been made for establishment of the so-called multiple-use principle in the parks and monuments. The defense of the basic park idea against such plausible diversions requires the best efforts of the park authorities, the conservationists, interested scientists, and at least a substantial portion of the park-using public.

Now there are plans for dams, water diversion, or perhaps a combination of both in and around Grand Canyon National Park and Monument in connection with what has been termed the "full utilization" of the Colorado River; some of these plans offer a most serious challenge to the integrity of these great scenic and scientific reserves; by inference, to the whole park system.

It is the purpose of this special issue of *National Parks Magazine* to call the attention of as many Americans as possible to the meaning of the Grand Canyon National Park and its supporting National Monument, and to point out as clearly as possible the dangers that confront them. There is no doubt that the struggle against their despoliation will be a long and costly one; but there is no doubt, either, that the fight can be eventually won, assuming a sufficient interest on the part of the American people.

NATIONAL PARKS *Magazine*

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Paul M. Tilden, Editor

CONTENTS

Front Cover Photograph by Josef Muench

THE NATIONAL PARKS AND YOU

Few people realize that ever since the first national parks and monuments were established, various commercial interests have been trying to invade them for personal gain. The national parks and monuments were not intended for such purposes. They are established as inviolate nature sanctuaries to permanently preserve outstanding examples of the once primeval continent, with no marring of landscapes except for reasonable access by road and trail, and facilities for visitor comfort. The Association, since its founding in 1919, has worked to create an ever-growing informed public on this matter in defense of the parks.

The Board of Trustees urges you to help protect this magnificent national heritage by joining forces with the Association now. As a member you will be kept informed, through *National Parks Magazine*, on current threats and other park matters.

Dues are $5 annual, $8 supporting, $15 sustaining, $25 contributing, $150 life with no further dues, and $1000 patron with no further dues. Contributions and bequests are also needed to help carry on this park protection work. Dues in excess of $5 and contributions are deductible from your federal taxable income, and bequests are deductible for federal estate tax purposes. As an organization receiving such gifts, the Association is precluded by relevant laws and regulations from advocating or opposing legislation to any substantial extent; insofar as our authors may touch on legislation, they write as individuals. Send your check today, or write for further information, to National Parks Association, 1300 New Hampshire Ave., N.W., Washington 6, D.C.

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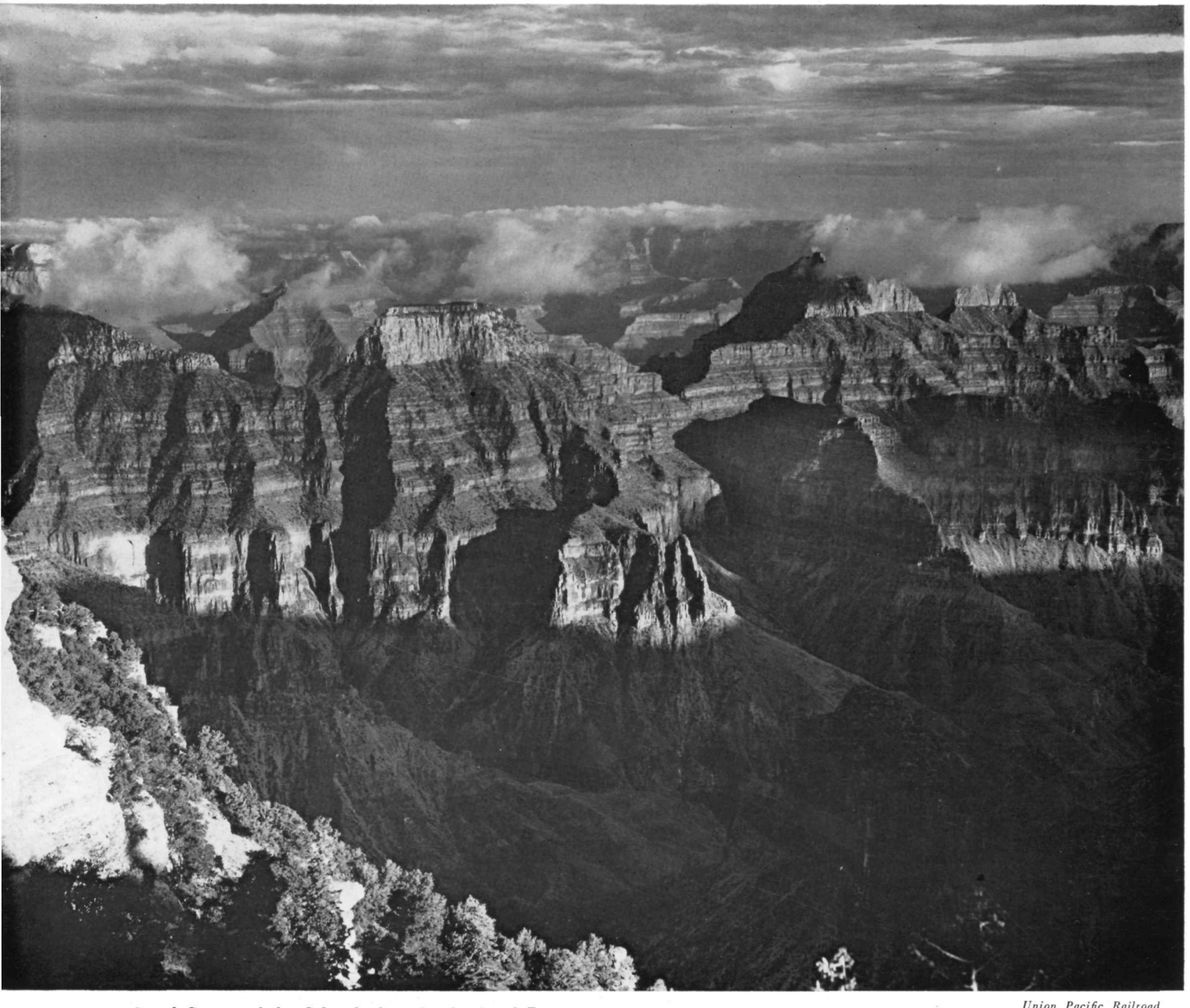


Grand Canyon of the Colorado from Bright Angel Point

Union Pacific Railroad

Interpreting the Grand Canyon

By Freeman Tilden

"Although the Grand Canyon is within the territory of the United States, it may also be regarded as a possession of mankind."—Freeman Tilden

YEAR AFTER YEAR, in the museum building at Yavapai Point, the naturalist Louis Schellback told the story of Grand Canyon National Park to groups of visitors who had the luck to fall under the spell of his interpretive charm. It is commonly thought, in the National Park Service, that the saturation point of such an audience, without the benefit of colored slides, is reached in about twenty-five minutes. At that point eyes begin to wander, and feet to shuffle nervously. It is a delicate business, this; a kind of education which must not seem to be instruction. Enough is usually too much. Yet Louis could relate the story of Grand Canyon, and of man's relation to the earth at his feet, for forty minutes and more, and at the end the people sat for a moment in meditation before they rose. There were "repeaters" who came back to hear it again.

Yes; Louis was just a teeny bit of a showman. His timing, his sudden assault upon the dramatic revelation, his pauses of humility; they were artful. But his love of effect was always under control, and he was hardly more the showman than was Thomas Henry Huxley, when that master interpreter held up a crayon of chalk before the workingmen of Norwich in England and proceeded to open the windows of the infinite to eyes that had been blind to the marvels of their daily lives. . . . Louis retired a few years ago. Fortunately, though interpreters are born, yet to some degree they can also be made.

One day at Yavapai, after the Schellback talk, a visitor came back to Louis's little office and said, "I am a teacher of geology in the Midwest. If I could do in my classroom what you have just done here, I would be the happiest man in the world."

Louis murmured his thanks. There were two things he could have told the professor, and perhaps he did. The first was, that no such intimacy with the phenomena of nature can be more than vaguely suggested in a classroom. Here, the holiday visitor, the student, the professional geologist, is in the presence of the Thing Itself. There is no substitute for this contact—this field experience. It is for this intimate contact that the National Park System was created and the integrity of its parts held to be inviolate.

The other thing Louis Schellback could have explained was, that in the task of illuminating the ultimate meanings of this classic of earth forms, he had had the assistance of a great collaborator. The collaborator was the Grand Canyon itself.

Here at Grand Canyon, you *see*, you *touch*. Yes, also you hear, for in the vast recesses of the chasm, to a receptive ear, there are confidences in overtones of silence. As for the river, that silver-yellow ribbon down there far below your position on the rim: it speaks, and with authority. You will have to go down there to discover its mood. From anywhere you stand you know the river is there, even though you cannot see it. It must be there. This is the drama of a river. The banded walls, the mountains whose tops are below you, the changing colors, the perched trees, all these are harmonious and overpowering, but they are not cause. They are effect. In the beginning there was flowing water.

* * *

It is no disparagement of the other priceless jewels of preserved beauty and wonder within the National Park System when we say that in one respect the Grand Canyon surpasses them all. With two exceptions, which are more annoying than important, Congress has set aside for the coming generations of people, for spiritual and moral stability, such a chain of unexploited wilderness exhibits as will never have a rival in man's world. If it should please Congress to acquire and preserve the picture of the Tall Grass Prairie, over which the bison and other grazing creatures were roaming in countless numbers when the white man came to the new world, our great primitive story will be well rounded out; which does not imply that other desirable spots of significance should not be added before they become doomed to merchant use.

In most of our great parks the processes of nature are observed in a variety of forms: the primeval forest, the limestone cave, the action of glaciers, vulcanism, the swamp ecology, the under-ocean life. You come to enjoy one chapter; you find there are others. But the Grand Canyon is, so to say, a specialist. Here, starkly presented, is the miracle of earth-building and earth-tearing-down in colossal scale. It has, therefore, a singular unity, or integrity. Of nature's source books, it is as nearly definitive as seems possible. It is hardly draped; all is open to the vision; so that not merely is it a paradise for the geologist, but since we can all of us be amateurs of geology, it is for us set in big type. There it is: the river, the upheaved plateau, the layers of shales and sandstones and limestones that record submergence beneath shallow seas. Is anything missing?

Oh, yes: but nothing that cannot readily be restored by the imagination. It is true that, superimposed upon what one now sees, were once more and more sedimentary layers that had a total thickness of twice the distance from the present rim to the Colorado River. But if you look south to Red Butte from El Tovar, or toward Cedar Mountain from Desert View, you restore in your mind's eye what is gone from here. And you realize that the very same forces that demolished those thousands of feet of rock are just as certainly aiming at the erosion of all you see around you. Frost and thaw, sun and chill, wind and cloud-

Freeman Tilden, traveller, lecturer, and author of numerous books, articles and short stories, was for many years a collaborator with the National Park Service. He is a resident of Warner, New Hampshire.

burst torrent, are always biting at the canyon walls, loosening the softer rocks beneath the harder ones. Sooner or later, the overhang must go crashing down, to be ground and pulverized, to join that yellowish river, and ride to the ocean. But, for these other agencies or erosion to have a chance to work, first there must have been a river. There was; there is; and so far as our short lives are concerned, there always will be. Unless. . . .

For a moment, let us forget this unpleasant word "unless."

* * *

Probably there are minor points concerning the geology of Grand Canyon, and of this watershed of the central and southern Rockies, that remain to be resolved. However, in a general way, there is acceptance of the explanation offered by Major J. W. Powell as early as the time when he successfully "conquered" the Colorado River from Green River City in Wyoming to the Grand Wash. The unskilled visitor marvels at the vastness of the canyon and wonders how a river *that* size could have done it all. Of course, it didn't; but it gave the other agencies of erosion a chance to work. The uninformed visitor, learning that he is looking around at a plateau which tilts somewhat northward, wonders how any river could ever start running across a slope, instead of down a slope, as water comes off a roof. The answer: it didn't. The Colorado laid out its course on a gently inclined landscape. The mountain building began. As the land slowly rose, the river cut more deeply. As the uplift was not uniform, currents became more swift. Sand and gravel and boulders became cutting tools when gripped by the water. Before such tools the toughest rock gives way. All the canyons of the river, from Flaming Gorge down nearly to the Gila, were carved just so. . . . How vivid to his hearers Louis Schellback used to make all this!

But, unparalleled as it is in this aspect, the Grand Canyon is more than a course in geomorphology. Much more. It is one of the world's consummate adventures in the realm of beauty. The scheme of color, the light and shadow, never at two moments duplicating themselves, long ago humbled a great painter of the wilderness like Thomas Moran; had him looking anxiously at his palette and wondering what his oils could do. As to photography, we can leave it to a master like Josef Muench, knowing that though he do his best, he will still be unsatisfied. The Canyon must be viewed at all hours of daylight: when the sun's first rays advance into its recesses—that will be the choice of some of us. Vesper is another fulfillment. At Summer high noon the lines harden and have something of the quality of the engraving upon steel.

In the region of beauty, one cannot prescribe. If beauty is not an entity that exists in nature as definitely as wind and rain, then it is in the eye and sense of the beholder, and lies in his capacity to receive. We are here on uncertain ground: all that can be said is, that no one who has seen this Canyon display has failed to record it as one of his greatest moments with the natural world.

Thirty-two years after the valiant one-armed soldier Powell floated through the Grand Canyon on this Colorado River, he looked backward upon his adventure of discovery. "The glories and the beauties of form," he said, "of color and sound, unite in the Grand Canyon—forms unrivaled even by the mountains, colors that vie with the sunsets, and sounds that scan the diapason from tempest to tinkling raindrop, from cataract to bubbling fountain." The colors and the forms had etched themselves into his memory; and the sounds were those of the River, unforgotten.

There has been no change. What Powell saw then, the visitor sees now, without the hardship of that little group of men, with an intrepid leader, who put their boats into the Colorado and challenged the uncharted.

Then, too, the Canyon offers an adventure in that strange thing we call Time. The descent from the north rim to where the river flows is just about a mile. Going down that ladder, whose rungs are the varying rocks that represent accumulations of ungraspable periods of this time element, we begin to realize the graphic felicity of the analogy of Sir James Jeans the astronomer, when he essayed to liken man's short sojourn on earth to something that can be readily comprehended. "Suppose," said Jeans, "an office building in New York City eight hundred feet high. Lay a five cent piece on the top of this building, and it would represent the entire period of human existence. Lay a thin sheet of paper on top of the nickel, and it would represent all the time of which we have any human historical record."

It is found, too, going down this ladder, that climate is not just a matter of latitude, north and south. Leave the canyon rim on a day when one is manifestly in the zone that corresponds to the border of Canada (of that time of year) and when one has reached the bank of the river, it is the climate of the Sonoran plains of Mexico. The vegetation and the organic life of the park, speaking generally, greet you according to their zone of adaptation, and will not follow you down the ladder.

Scheme for a Grand Canyon Church

There has been much talk in the recent past concerning a scheme to erect a new kind of church—a sort of human brotherhood affair with the sectarian differences subdued —upon the rim, or nearly upon the rim, of the Grand Canyon. The ambitious architect's first design indicated quite a spectacular structure; the good intentions of the sponsors need not, of course, be called in question. Discussion of religion or politics is always embarrassing where our national parks are concerned. But aside from the patent fact that Grand Canyon is not in need of a novelty, some entirely orthodox church people felt that it would be better not to read the first two chapters of Genesis at a site so close to the geological "unconformity" near the Canyon bottom, where there is the suggestion of a "missing link" in the time-ladder representing more years than in all the rocks from the Tonto platform to the rim. It now appears that the church will be built, if at all, with con-

siderable modifications in architecture and well back from the rim of the canyon.

This project is mentioned here only to point out what is perhaps the greatest of all the significances of the Grand Canyon to the Americans of today, and to those who are to follow. The Grand Canyon *itself*, in its integrity and its perfection, is a religious institution. It is the finest possible bridge between faith and science that can be found, and few of the men of science who have worked within its confines have failed to sense this connection. Dr. John Merriam, whose scientific attainments were always tinged with a faith in the purposefulness of evolution, found here that "continuity in nature" which he believed might be paralleled in the human soul. On the part of men of science there was for many years a tendency to settle for the mechanistic explanation of universe and life. Some, indeed, still hold it; but there has been rather a shift away from dogmatism; and it will be remembered that Huxley scolded the dogmatism of his brother scientists even more severely than that of the orthodox.

There is a remark of Huxley—who styled himself an agnostic, and even perhaps invented the word—which needs to be remembered. "There is a *superfluous loveliness* in nature," he said, "that defies pessimism."

Similarly, there is surely in mankind a *superfluous* capacity for beauty and understanding—entirely beyond that which is required for maintenance and perpetuation of the species—that defies pessimism. It is all very cloudy; elusive as the time-ladder of the Canyon. Yet it is sure that the Canyon, like the Redwood Grove, is a cathedral where one feels, at times, that one has been able to cross, if only so very little, the border of the finite. A familiarity with Grand Canyon can be what Williams James called a "religious experience."

"As for the river, that silver-yellow ribbon
down there far below your position on the rim:
it speaks, and with authority."

A Philip Hyde photograph

Grand Canyon, using the words of the Act which created Yellowstone National Park in 1872, is "preserved for the enjoyment of the people . . . in such manner and by such means" as will leave it "unimpaired for the enjoyment of future generations." In its perfection of wholeness it is forever. Unless. . . .

Suppose someone should say to you that there are plans afoot to despoil this masterpiece of earth's slow change, by taking from it what is clearly its most important feature —the free and meaningful river itself? Would you believe it? Would you not say, "Oh, no; there must be some mistake? Arrogant ignorance and the baseness of materialism would not go so far as that! I know that some of the Western lumbermen eye the virgin forest of Olympic with other than esthetic enthusiasm; I realize that it was a struggle to save Dinosaur from the unimaginative mind of the engineer and the developer; I confess that the future of Rainbow Bridge has become dim. But Grand Canyon! It is impossible. It is unthinkable."

Would you not say this?

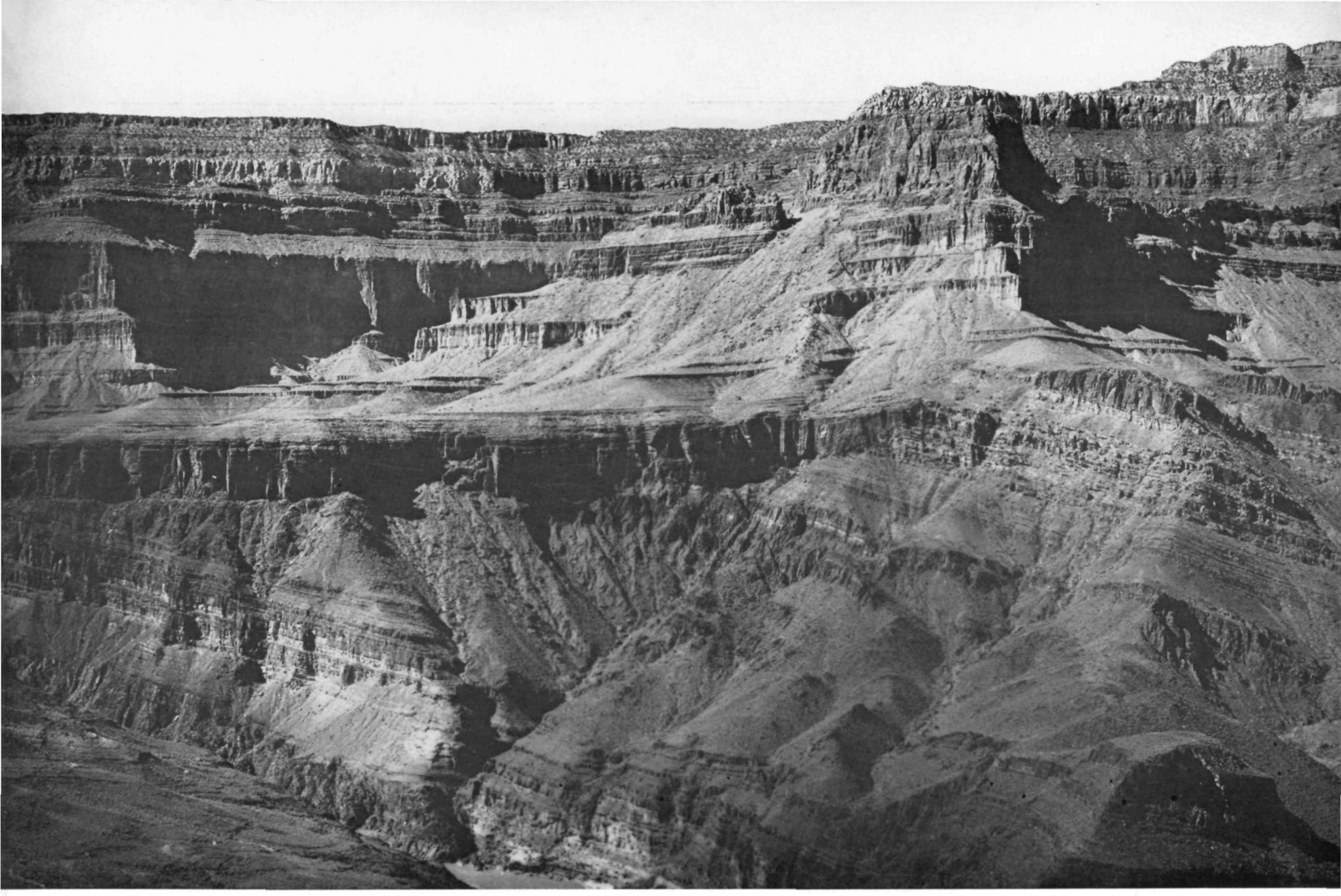
Unfortunately, it is precisely not impossible. It is not unthinkable; because it is being thought. Not only is it being thought: it is being planned. Other pages of this magazine will relate the terms of the threat. Nor is the danger restricted even to this national park alone. The fate of the whole system of cultural preserves is obviously involved. This is no Don Quixote windmill against which you may have to joust. The time to be alarmed, as every preservationist knows, is before it is too late for alarm to be of use.

* * *

Although the Grand Canyon is within the territory of the United States, it may also be regarded as a possession of mankind. Our nation has sovereignty, and has steadfastly been a wise and competent custodian, the National Park Service being the agency that protects and interprets. The acquisition of the priceless Gutenberg Bible, thus placing it beyond the reach of some greedy heir of a private owner, to put it on the auction-block, was one of the noblest acts of any parliament. Our Congress rightly esteemed this precious emblem of popular literacy to be, also, in its way, a possession of the world; and the mere knowledge that it is safe in the Library of Congress is heartening to culture everywhere. Our national parks, at least the finest of them, may be viewed in the same light. And we do, indeed, share them gladly and freely with all who may wish to visit them, with a legislative guarantee that they may be enjoyed unimpaired.

What Newton B. Drury wrote in 1951, then speaking of the whole system of national parks, may be slightly paraphrased to refer to the Colorado River, as it forms part of Grand Canyon National Park: "Surely we are not so poor that we need to destroy it, or so rich that we can afford to lose it." ■

"The huge scale and the infinite multiplication of the characteristic architectural rock forms make the scenery of the Grand Canyon seem strange and unreal, yet it is but the supreme expression of all that is most characteristic in the land sculpture of the Plateau province."—L. F. Noble



Photograph by N. W. Carkhuff, U. S. Geological Survey

A classical cross-section of the rocks underlying the Colorado Plateau in the vicinity of the Grand Canyon is seen in the photograph above, from the somber Vishnu schists of the vastly remote Archeozoic era (at river level in foreground) to the "younger" sedimentary rocks of the late Paleozoic, or ancient era. The wedge-shaped group of sedimentary rocks overlying the Vishnu schists, and separated from the strata above by an angular difference (approximately in center of the picture) is the so-called "Unkar wedge" of the Proterozoic era.

An Hourglass for Geologists

NPM Editorial Staff

To most of the many Americans who visit Grand Canyon National Park—there were some million and a quarter of them at the Canyon in 1960—the magic word is scenery; memorable scenery of colorful land sculpture in gigantic proportion. To a lesser, but yet substantial number of visitors, the mile-deep chasm of the Colorado within the park is both a scenic spectacle and a lesson in natural history; it is an hourglass for time past, a work of nature which has been called by one scientist "probably the most complete geologic revelation in the world."

We have seen, in the first of the three articles of this special Grand Canyon issue, how the gradual rise of a portion of the Colorado Plateau has enabled the Colorado River to perform that which is seemingly unnatural—to trench deeply across the side of a structural dome rather than to merely flow around it. At first glance, it would seem that the rules of running water had somehow been suspended during the excavation of the Grand Canyon. But actually, the Colorado merely provides a vast-scale example, as it courses the five-hundred-mile length of its canyon, of the geologist's "superposed" stream—one which has transected its underlying rock formations to keep erosional

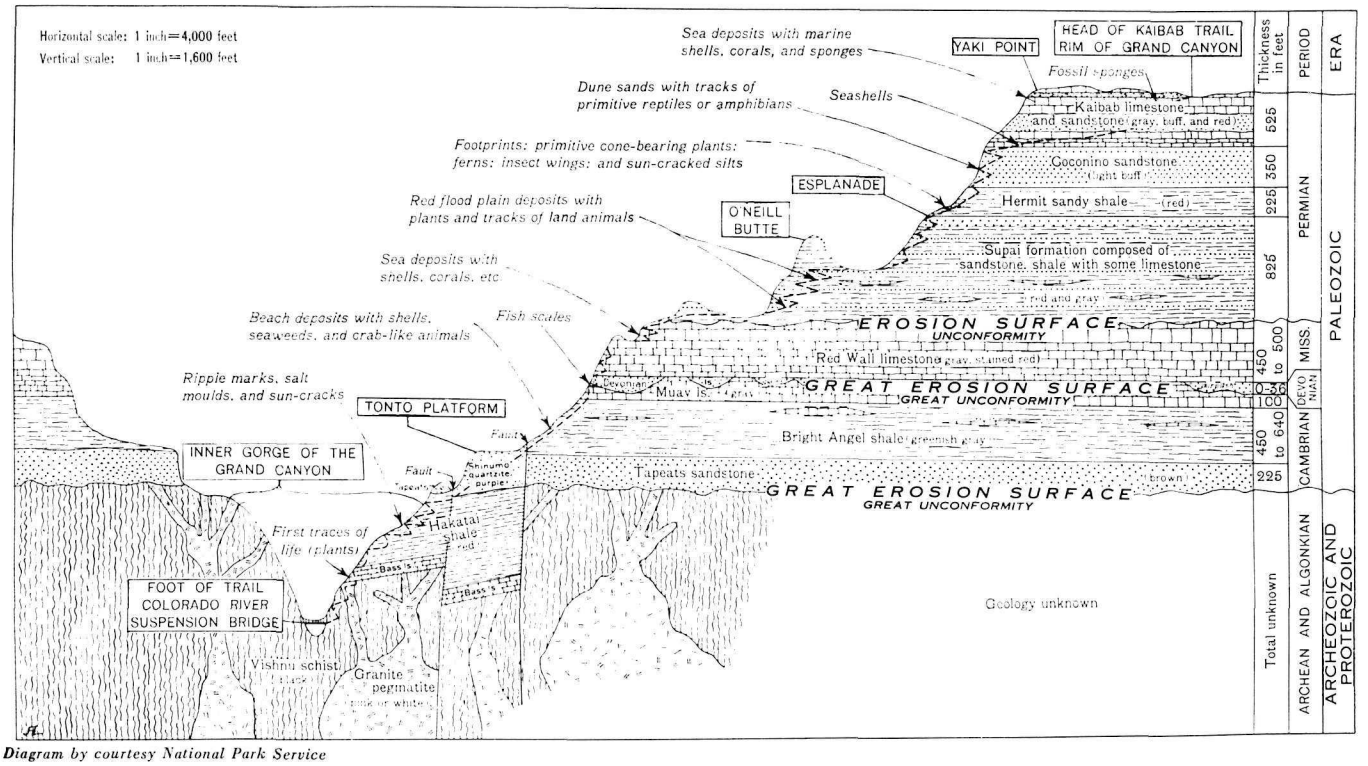


Diagram by courtesy National Park Service

A geologic cross-section from a point on the south rim of the Grand Canyon to the suspension bridge in the inner gorge, showing the position, age, character and thickness of the different rock formations. The cross-section follows approximately the location of the Kaibab Trail, which is indicated by the broken line. (Note: the names "Archean" and "Algonkian" under column headed "Period" will not be found in some geology textbooks, which omit periods prior to those of the Paleozoic era).

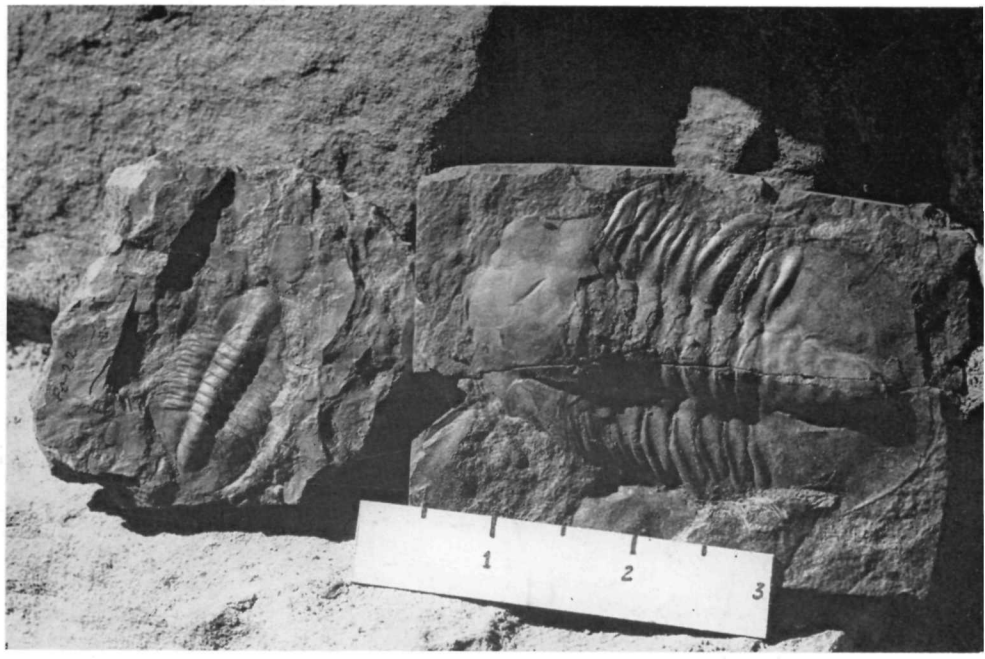
pace with a slow rise of the land across which it flows.

At the bottom of the great trench of the Colorado, and within the national park, the river has rasped deeply into the foundation rock of the Grand Canyon region to create what is popularly called the Granite Gorge. The rocks of the gorge are not, in truth, essentially granite, although great enough quantities of this latter rock have been intruded into them in places to perhaps justify the name. The basement rocks of the Grand Canyon region are somber-hued crystalline schists and gneisses that originated at a time so remote in earth history as to make their message one for conjecture and inference rather than for accurate interpretation of the times and conditions that spawned them. They, and the wedge-shaped group of sedimentary rocks that lie in places directly above the schists—mentioned later—are to many geologists the most fascinating rocks of the canyon; they are, at the same time, the most vulnerable to flooding should plans for dams in the park ever materialize.

The dark schists and gneisses, collectively known as the Vishnu schist, stand in a near-vertical posture at the base of the canyon's grand column of rocks; the Vishnu schists may once, it is believed, have been similar in nature to the sedimentary strata that now lie directly above. Chemical analysis and the petrographic microscope seem to suggest that most, at least, of these ancient rocks were also first deposited as sediments on the floor of a sea. As to the question of whether that sea of remote times may have contained the simple beginnings of life on earth, the contorted Vishnu schists have so far told us nothing; their story only seems to say that after deposition and consolidation into rock, the sediments of the Vishnu were involved in a great disturbance of the earth's crust—great enough to possibly create a mountain range, and severe enough to mash, fold, and recrystallize all mineral constituents. Then time, in endless amount, smoothed and beveled the surface of the dark rocks; and a sea again crept across the region to begin the deposition of a new series of sediments.

We cannot even guess at the length of time represented by the erosional break, or unconformity, above the Vishnu schists and gneisses; the break in continuity is represented only by a smoothly undulating line that presents itself clearly to the eyes of the professional and lay visitor alike. We can only infer that the great unconformity at the summit of the Granite Gorge signifies the passage of millions—perhaps many tens of millions—of years. It is interesting to note in this connection that the great Charles Darwin (who was not himself a geologist) remarked in 1859 that, in his opinion, "probably more of geologic time is represented by breaks than by beds." Modern geologists feel that Darwin's keen observation was very likely correct.

In a number of places within the Grand Canyon National Park the Vishnu schists are overlain by colorful sedimentary beds that seem to form a series of great wedges, individual strata of which slope gently away toward the northeast. These wedges represent the roots of a great fault-block mountain system—which was probably similar in nature to the modern fault-block



George A. Grant, National Park Service

As the visitor to Grand Canyon National Park ascends the walls of the great trench of the Colorado River, the life of past time becomes increasingly complex, as shown by fossil remains. At the right are two species of marine arthropods of the extinct group Trilobita, from the Bright Angel shale.

A slab of Supai sandstone below the Yaki Trail, east of O'Neill Butte in Grand Canyon National Park, preserves the fossil tracks of an unidentified animal which "passed that way" during the Permian period of the Paleozoic era, millions of years ago.

ranges of Nevada's mountain-and-basin topography. As reconstructed from visible "bits and pieces," the total thickness of the beds which were involved in the making of this mountain chain exceeds twelve thousand feet. These mountains, too, succumbed to the slow forces of running water and chemical solution, to leave the region again a plain boasting nothing more spectacular than an occasional monadnock of resistant quartz-rock. And again the sea came in, to commence depositing the rocks of the series of horizontal strata that are now so prominent in the upper walls of the Grand Canyon. Here, again, in the climb from the canyon depths, the visitor crosses the evidence of another great hiatus—another unconformity with its implications of lost ages. Above the break lie the horizontal rocks of the Paleozoic era—the ancient era, if we will. Below are the rocks of the Proterozoic, a grand era in itself; and below these, the mangled record of another immense span of time—the Archeozoic.

From the upper parts of the wedge-shaped rocks below this second break—the separation between the Proterozoic and the Paleozoic—have come the first identifiable traces of life in the walls of the Grand Canyon: tell-tale concentric laminations in limy beds that are almost certainly the remains of algae colonies; the silica spicules of sponges—lowly forms of life, to be sure, and, as one geologist has remarked, "not an impressive array to represent the life record of more than half the history of the earth."

But above the great time-lapse that separates the horizontal Paleozoic rocks from those below is the fossil record of life of a more advanced nature: impressions of corals and fucus; trilobites; the trails of worm-like creatures; the shells of brachiopods, mollusc-like animals related to the clams and oysters.

Within the colorful horizontal Paleozoic rocks themselves there are several further unconformities, each marking other long periods of erosion; and as the visitor moves up into the strata of the last third of the canyon wall, traces of land animals, insects, reptiles and amphibians indicate the increasing complexity of the life of succeeding geological periods.

Thus unfolds, in brief, the past history of our earth as the visitor to Grand Canyon National Park climbs, if even in the imagination, the long vertical mile from the dark bed of the Colorado River into the time that was then to come. The American people have set aside a portion of the great canyon and its river to preserve its story for their own enjoyment and for their instruction in one of the vital branches of natural science. The picture must, indeed, be studied piecemeal; but it must be finally viewed as a whole. The destruction or alteration of any of its parts will inevitably be reflected as a deliberate distortion of one of nature's grandest lessons. ■

Campaign for the Grand Canyon

By Anthony Wayne Smith

By early April, springtime will have returned, this year as throughout countless ages in the past, to the Grand Canyon of the Colorado. The high mesas and shoulders will be newly green again, and the big river in the depths will stir to the first rumors of snow-melt in the distant Rockies.

This year may be one of the last remaining years of the old, wild life of the Colorado River through the Canyon; the march of the big dams and reservoirs, the gigantic diversions of water out of the Canyon; the inroads of urban-industrial civilization from beyond the Canyon, may soon be irretrievably under way unless conservationists vow to stop them.

In the city of Washington, far from the Canyon, hearings before the Examiner of the Federal Power Commission in the Marble Canyon Case draw toward a close. These proceedings originated with an application by the Arizona Power Authority to build a giant dam for generation of hydroelectric power upstream from the northeastern boundary of Grand Canyon National Park. The Examiner's findings and recommendations should be submitted to the Commission sometime next fall; the Commission's decision should be issued by June of 1963. Barring judicial review, preparations for construction might begin soon afterward.

Before the Examiner makes his recommendations, the Supreme Court of the United States will in all probability have decided *Arizona v. California.* In that case, a Master appointed by the Court has recommended a considerable increase in the allotment of water to Arizona beyond previous allotments under the Colorado River Compact. If the Court accepts the recommendations of the Master, increased diversions of water from the river in the Grand Canyon region into Central Arizona will be the order of the day, and additional proposals for dams for power and irrigation will undoubtedly be stimulated.

If the Marble Canyon Dam is to be built, as presently planned by Arizona, either under Federal Power Commission license or by the Reclamation Bureau, it should not, standing alone, do great harm to the Grand Canyon, for this dam will return the entire flow of the river into the Canyon.

But the City of Los Angeles has argued in this case that some ninety-two percent of the water of the river should be diverted at Marble Canyon Dam and tunneled forty-two miles through the mountains for the generation of hydropower near the confluence of Kanab Creek with the river, down below most of the park. In addition to the generating plant, there would be another reservoir on Kanab Creek wherein water from Marble Canyon would be stored for use in times of peak demand at the plant. The main diversion tunnel would pass under a portion of the park; there might be an opening or adit into the tunnel inside the park, and access roads and construction facilities within the park; the generating plant would be within sight of summer visitors viewing the Canyon from the south rim; and the flow of the river would be reduced throughout the year to an insignificant trickle through the park.

The Federal Power Act prohibits the Commission from granting a license for the construction of any dam, reservoir, or conduit within any national park or monument without specific Congressional authorization. The established national policy for the protection of parks and monuments, embodied in many special and general laws, including the National Parks Act, likewise prohibits such construction. The administrative policy of the Department of the Interior, as formulated by former Secretaries Krug and Chapman, would have prevented the Bureau of Reclamation from so much as even studying the possibilities of such construction. Witnesses for Los Angeles have made it abundantly clear, however, that the city plans to press for legislation in Congress for the construction of the Kanab

Anthony Wayne Smith is well-known to readers of this magazine as the executive secretary and general counsel of the National Parks Association. Now and again, however, Mr. Smith takes up the pen to express his own views on issues in the conservation field.

project by the Bureau of Reclamation.

Alone among all conservation organizations, the National Parks Association has intervened in the Marble Canyon case. It has sought to present the position of the National Park Service and park defenders generally. It subpoenaed Park Service Director Conrad L. Wirth as a witness in December, 1961, and the essential facts of the case as seen by the Service, including the past protective policy of the Department of the Interior, have been fully spread on the record. It will submit its brief to the Examiner this April, and later on will brief and argue the case before the Commission itself.

FOR A NUMBER OF YEARS, the National Park Service has had plans for enlargement of Grand Canyon Park to include the area within which the Kanab Creek powerhouse and reservoir would lie. Most of these lands are within the Kaibab National Forest, and the Forest Service has assented to the transfer.

Not until Director Wirth took the stand in the Marble Canyon Case, under subpoena of the Association, was it possible for the Service to make these plans public. The influence of the Bureau of Reclamation within the Department of the Interior had previously been strong enough to prevent such publication. This is a situation which should be rectified, so that the public can judge for itself the merits of all Park Service plans.

There can be little doubt that most conservationists will support any sound legislation which may be introduced for the enlargement of the park. That no license can issue for the Kanab diversion as matters now stand, without new legislation, is clear enough; but that it could not issue if the powerhouse and auxiliary reservoir sites were added to the park, without such legislation, is doubly clear. Park status for the area might also confer some protection against developmental pressures originating in Congress.

LET US ASSUME, as seems possible, that Arizona fights its way across all the barriers, and in due course, beginning a year, or two, or three from now, begins construction at Marble Canyon and completes it.

There is a difference of opinion among experts as to whether the Kanab Creek diversion could thereafter be added to Marble Canyon, sacrificing installed generating power at Marble Canyon, at a satisfactory cost-benefit ratio. Construction of Arizona's Marble Canyon dam might preclude construction of the Kanab diversion; it would, in any case, meet some of the asserted power needs of the immediate region and thus mitigate present pressures for power development.

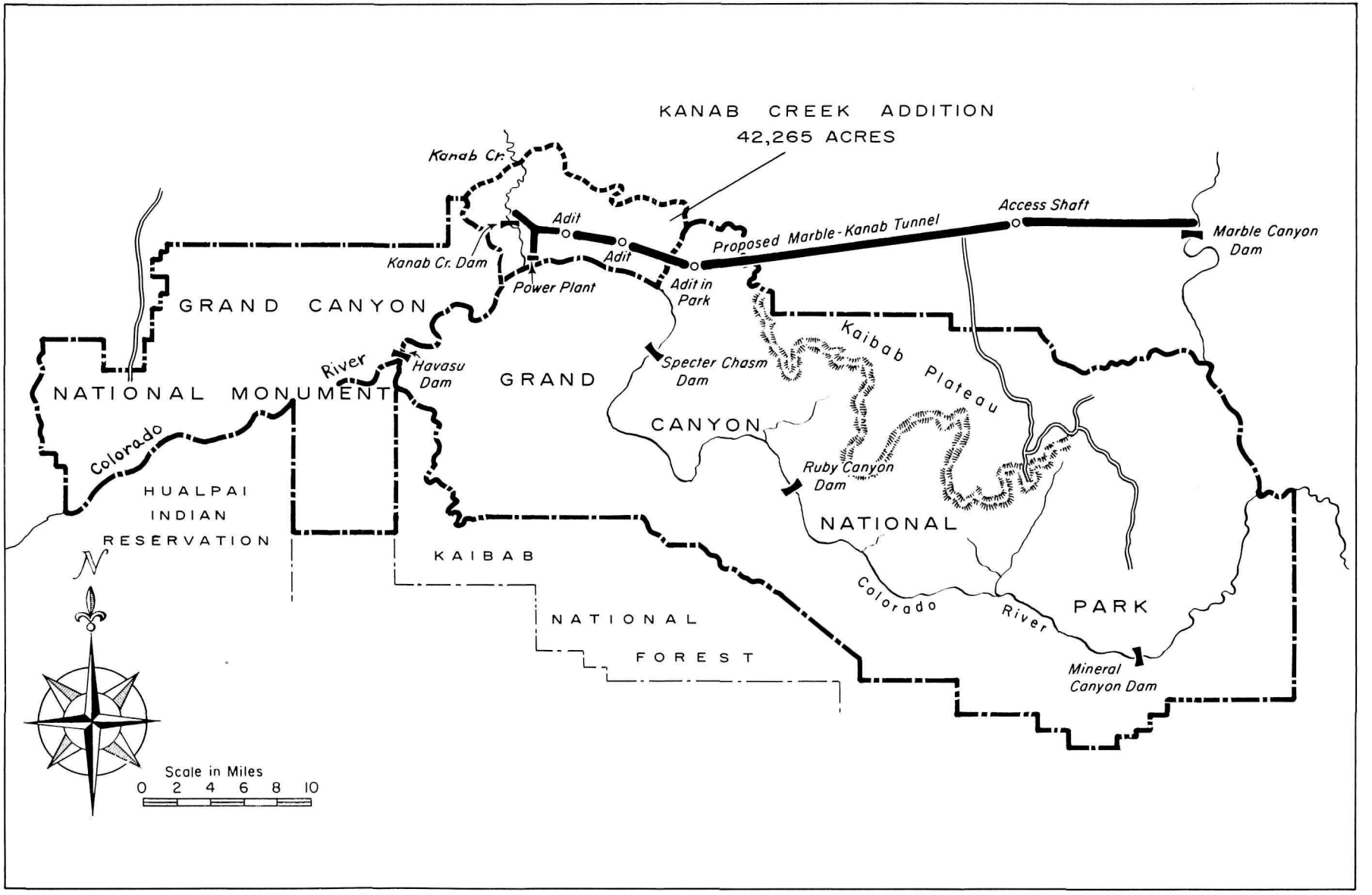
But construction at Marble Canyon will afford no protection against—and indeed may well facilitate—similar dams down through the canyon within the park itself. Authority to license such dams could conceivably be conferred on the Commission by Congress; more probably, Congress might authorize construction by the Bureau of Reclamation. The Federal Power Commission staff has identified four such possible projects inside the park: Mineral Canyon, Ruby Canyon, Specter Chasm, and Havasu Dams; together they constitute the so-called Multiple Dam Plan.

Any dams within the park would violate the established national policy for the protection of our national parks and monuments completely, the policy of the National Parks Act, and the purposes of the protective clauses of the Federal Power Act. The reservoirs would submerge invaluable geological scientific materials; would stain the brilliant canyon walls with the mud of their draw-downs; would destroy the primeval quality of the river in the park, its exemplification of the power of nature which created the canyon through vast ages of time; would destroy the impression of untouched nature which the canyon gives, and substitute a display such as we have in abundance elsewhere of the works of civilization.

BELOW THE PARK, additional major dams are proposed. Applications are pending before the Commission by both Arizona and Los Angeles. Various versions of these developments have been presented, some of which would back reservoir water through the park, others only through the monument, which stretches a long distance along the north bank of the river below the park. In none of these cases would the Commission have power to issue a license without action by Congress, but hearings might set the stage for such action.

A Philip Hyde photograph

"This may be one of the last remaining years of the old, wild life of the Colorado River through the Canyon . . ."



Drawn for National Parks Magazine by Federal Graphics

Shown in map above are locations of various water developments that have been proposed for Colorado River in or adjacent to Grand Canyon Park and Monument. Under one proposal a Marble Canyon dam on the Colorado above park (upper right on map) would supply water by way of long tunnel (solid line) to power plant at mouth of Kanab Creek, or to storage reservoir behind dam on Kanab Creek, according to power demand. Part of tunnel would pass under parklands, and an adit, or access shaft to tunnel, would lie within park. The Kanab Creek dam, power plant, and possibly two other adits would lie within proposed 42,000-acre Kanab Creek addition to park. Shown are damsites in park which are possibilities under so-called Multiple Dam Plan. There are also schemes for dams on river below preservations, some of which would back water into monument, park, or both.

Because one of the important sites below the park would be at Bridge Canyon, these proceedings can be referred to as the Bridge Canyon Case. It is quiescent at the moment, because both Arizona and Los Angeles have been concentrating their attention on Marble Canyon. If Los Angeles were to be frustrated at Kanab Creek, it would almost certainly focus its efforts on Bridge Canyon; and Arizona, particularly if the Supreme Court granted it more water, might well do likewise. All the development forces of the Southwest might then converge on the Grand Canyon and destroy it.

THERE ARE SOME further dangers. Granted again a Supreme Court decision favorable to Arizona, even more water than presently allocated may be diverted from the river into Central Arizona, upstream or downstream from the park. If diverted from upstream, the flow might come from Marble Canyon reservoir; the Commission might consider that it had authority to grant a supplemental license for this purpose, compatible with continued power production at the dam; this would reduce the flow of the river through the park, but not nearly to the extent of the Kanab Creek diversion.

Diversions from the Bridge Canyon area, even if the dams were located below the park and monument, would be drawn from reservoirs which would invade the park or monument, or both. The reclamation aspects of all these big projects may prove even more dangerous to the park than the hydropower aspects.

THE POWER COMMISSION requested the views of the Secretary of the Interior in the Marble Canyon case. Assistant Secretary Holum recommended, in response, that no license be issued for the Marble Canyon project pending the Supreme Court decision, and stated that the proper standard of management should be the complete and full utilization of the waters of the river, and their maximum development for all purposes, by which he meant both power and irrigation.

This is an unfortunate reversal of the position taken by former Interior Secretaries Krug and Chapman in years gone by, as revealed by the National Parks Association in the Marble Canyon Case, prohibiting the Bureau of Reclamation from so much as conducting surveys of the possibility of works which would impair the park.

Equally regrettable was the recent review study of the Kanab Creek project by the Bureau of Reclamation, paid for by the City of Los Angeles, a party to the Marble Canyon case, purporting to update investigations made prior to the Krug-Chapman rulings.

IN THE GENERAL perspective of the American economy, the hydropower and reclamation projects contemplated for the Grand Canyon region are basically unsound.

The electric energy produced will be relatively expensive, considering the long distances over which transmission to the West Coast must be effected.

Against the national background, even if all the remaining major power potentials of our American rivers could be harnessed, they would supply but a small part of our needs; for the most part, we must continue to rely on coal, oil, atomic energy—if waste disposal problems can be solved—and possibly on sun power, the possibilities of which should be explored vigorously.

With respect to reclamation, the big dams are either out of date or premature. Major national policies are in deep conflict here; the Bureau of Reclamation is bringing vast new croplands into cultivation while the Department of Agriculture spends billions to take surplus crops off the market and estimates that about 50 million acres of cropland must be shifted to other uses by 1980.

Obviously, the time has long passed when a rational case could be made for the destruction of America's scientific and scenic resources, such as those at the Grand Canyon, for unnecessary hydropower and more surplus cropland.

IT SEEMS IMPROBABLE that the American people will stand aside and permit the ruthless forces of so-called development to destroy the Grand Canyon, famous throughout the world, the objective of countless summer pilgrimages.

There may be a few portions of some big rivers left in America which can and should be developed for substantial additional electric power production and irrigation. But there are some places, also, which should be protected just as they are, without development; the Grand Canyon of the Colorado is one of these places. Here we can tolerate but one standard of management: the protection of the Canyon and the geological and scenic wonders it contains in their natural condition for the enjoyment and inspiration of present and future generations of men from the ends of the earth.

Granted the principle, however, if the Colorado is to be effectively defended, the devoted labors of countless Americans will be required. The National Parks Association will continue its participation in the Marble Canyon Case; if the Bridge Canyon Case is reactivated, the Association will seek to intervene, and other conservation organizations will be invited to do likewise. The Association will also intervene in any other case affecting the Canyon which may come before the Commission.

When it comes to legislation, either to authorize licenses for projects affecting the park, or for construction by the Bureau of Reclamation, the specialized legislative organizations of the conservation movement, as, for example, the Citizens Committee on Natural Resources, can be counted on to move into action.

Basic to the entire strategy of defense will be the education of the nation as to the crude facts of the impending assault on the Canyon; as to the forces behind the attack; as to the means of defense; as to the step-by-step developments; as to the basic philosophies of public policy involved; here again the Association must discharge very heavy responsibilities.

Such is the long-range strategy of the Campaign for the defense of the Grand Canyon. At issue, perhaps, are some deep-seated questions of our national values: whether we intend as a nation to be guided by standards keyed entirely to commodity production, and poorly planned, pressure-influenced production, at that, like uneconomic hydropower and surplus crops, or whether standards of a rational economy and the protection of reserves of beauty and knowledge like those at Grand Canyon, as representing key values in our culture, will control. ■

Your National Parks Association at Work

NPA Opposes Motor Scooter Use in National Forests

A problem of increasing concern to many conservationists and conservation organizations across the nation is that of the use of motor scooters on public lands under jurisdiction of the United States Forest Service, other than lands classified as wilderness, wild or primitive areas.

During the past year National Parks Association Executive Secretary Anthony Wayne Smith has held correspondence with the Forest Service in connection with the advisability of allowing motor-scooter travel in the national forests, except upon established roads. The Forest Service has taken the position to date that, barring "unreasonable damage" to trails or forests, there is no particular need for prohibiting motorized travel. Secretary Smith has not agreed to this position; his letter of January 24, 1962 to the Chief of the Forest Service, Dr. Richard E. McArdle, sums up the attitude of the Association in regard to the issue.

DEAR DR. MCARDLE:

This Association was gratified by the passage of the Multiple-Use Act because we felt that it confirmed the pre-existing authority of the United States Forest Service to manage the national forests expressly for purposes of outdoor recreation, wildlife restoration, and scenic and wilderness protection.

In our judgment, the national forests of this country, like the national parks, have an essential contribution to make to the American way of life in preserving some measure of natural outdoor conditions. These areas offer an opportunity for the average man to get away from the artificial and mechanized life of our big cities. But both the national forests and the national parks are endangered by one or another form of invasion by mechanized equipment; such invasion will impair them for certain of their essential purposes, including the natural outdoor experience.

It was with these thoughts in mind that I wrote to you on June 29, 1961, protesting against the use of motor scooters on the trails in the Gifford Pinchot National Forest and inquiring about such use elsewhere in the national forest system.

I received a reply from Mr. John Sieker, Director of the Division of Recreation and Land Uses, on July 7, to which I replied on August 4, and I had a reply on September 21, followed by a conference.

The gist of the exchange, so far as Mr. Sieker was concerned, was that the Forest Service is operating under a statement of policy which purports to recognize cross-country motor vehicle travel off the roads as a permissible form of outdoor recreation in the national forests; we are aware of the additional regulation or policy permitting regional foresters, on recommendation of forest supervisors, to close areas of the national forests against cross-country motor travel if they find that damage is being done to the physical natural resources.

These regulations or policy statements, as we understand it, are applicable to all cross-country motor travel off established roads; for the moment, however, this Association and its cooperating organizations concerned with the problem would like to address themselves specifically to the motor scooter question. Our objections turn around the use of motor scooters anywhere off established roads, including established trails, and without regard to whether the area is within any special reservation such as a wilderness or primitive area.

We wish to urge upon you that you re-examine and reconsider this policy and establish a general policy for all national forests prohibiting such use of motor scooters.

In the first place, we do not think that a regulation based on a finding of damage is enforceable. It requires intensive surveillance by your supervisors and the expenditure of much time and effort on a problem which should not be allowed to arise.

In the second place, protection is extended only to the physical natural resources; it does not appear to include damage to the natural environment, the quietude and solitude of the forests, and the genuine forest experience; for this reason alone, the policy would be inadequate.

In the third place, it subjects your supervisors and regional foresters to the intense pressure of motorized recreationists, of the kind which can best be resisted by the Chief of the Forest Service and not by his subordinates.

In our industrialized and urbanized civilization, people find themselves confronted with unnatural and often intolerable pressures from the very machines which in so many ways serve such excellent purposes; there is a great need to get away from the confusion, the artificiality, and among other things, the noise and fumes of motors. Many people go to the national forests for precisely this purpose, but are more and more encountering the same conditions which they try to escape in the cities. This is essentially a new situation which has arisen only in the last few years, and requires, in our opinion, a re-examination of the fundamental objectives which guide the management of our national reservations, and increased vigilance for the protection of their essential qualities.

In brief, we would urge upon you that your regulations read in substance that this use of motor scooters anywhere in the national forests off the established Forest Service roads is prohibited. We would appreciate an opportunity to meet with you personally to state our position in greater detail at your convenience.

ANTHONY WAYNE SMITH,
Executive Secretary

Subcommittee Hears Testimony on Indiana Lakeshore Bill

During the latter part of February the Subcommittee on Public Lands of the Committee on Interior and Insular Affairs of the Senate heard public testimony on a bill by Senator Paul H. Douglas of Illinois—for himself and six other senators—to create an Indiana Dunes National Lakeshore.

The bill *(S. 1797)* is a revision of a bill introduced by Senator Douglas in the first session of the 87th Congress under the same number. Several boundary changes have been made in the new bill, which now contemplates acquisition of some 9000 acres of dunelands as compared with about 8000 under the original proposal.

In the revised legislation, the Lakeshore would include nearly all of the proposed Burns Ditch Harbor site. It would exclude from the park most of the town of Porter Beach, inclusion of which was called for in the original bill; provisions affecting the rights of owners of improved property within the Lakeshore have been revised and liberalized in the second version of *S. 1797*.

Testifying in regard to the new bill, upon invitation, was Mr. Anthony Wayne Smith, executive secretary of the National Parks Association. Mr. Smith told the subcommittee that, in his opinion, the revised bill was an exemplary one in respect to lands proposed for Federal acquisition; that the opportunity to establish a recreational, scenic and scientific preserve at Indiana Dunes for both the people of the Greater Chicago area and the nation at large should be taken while it still exists; and that the combination of the proposed Lakeshore areas with existing Indiana Dunes State Park and the already established good-quality residential areas would comprise an integrated region in which the primary assets of a natural environment would be protected.

First World Conference on National Parks Scheduled for June 30-July 6 in Seattle

To Discuss Prospects for International Understanding of Park Movement

An event of prime importance in the field of preservation and conservation will occur during early summer of 1962 when, in Seattle, Washington, the First World Conference on National Parks convenes June 30th. The sessions of the Conference will continue through July 6th, after which it is hoped that foreign participants in the sessions will take advantage of a contemplated field trip to certain American national parks.

The First World Conference on National Parks is sponsored by the International Union for Conservation of Nature and Natural Resources—permanent headquarters of which are at Morges, Switzerland—to provide an opportunity for a discussion of the prospects for effective international understanding and encouragement of the national parks movement on a world-wide basis. The theme of the conference: National Parks Are of International Significance to All United Nations Countries. Governments of all United Nations member countries, those belonging to the U.N. Specialized Agencies, and governments of territories listed in the U. N.'s *List of National Parks and Equivalent Reserves* have each been invited to send two delegates to the Conference. Conservation organizations have been invited to send one accredited observer each; in attendance for the National Parks Association will be Executive Secretary Anthony Wayne Smith.

Five principal topics will come under discussion. They will be: (1) Purposes, principles, and policies of national parks and preserves. (2) Scientific, economic, and cultural values of national parks and reserves. (3) Optimum use of national parks and reserves. (4) Administration of national parks and reserves; and (5) International coordination of national park and reserve programs.

This important conference is the outgrowth of a proposal made at the 1958 Sixth General Assembly of the IUCN in Athens, by Dr. Tsuyoshi Tamura of Japan; a resolution calling for such a conference was adopted at the Seventh General Assembly held in Poland during 1960.

Joint hosts for the United States will be the National Park Service and the Natural Resources Council; chairman of the United States steering committee is Dr. Harold J. Coolidge, executive director of the Pacific Science Board of the National Academy of Sciences-National Research Council, and trustee of the National Parks Association.

Delegates to the Conference will have an opportunity to visit the Century 21 Exposition that is being held in Seattle during the months April-October, and to view the many science exhibits there. Also of special interest at the Century 21 Exposition, which is supplying facilities for the Conference, will be a special display by the National Park Service.

PRINCIPLES OF RESOURCE CONSERVATION POLICY, WITH SOME APPLICATIONS TO SOIL AND WATER RESOURCES. By the Committee on Soil and Water Conservation of the Agricultural Board of the National Academy of Sciences. Washington, D. C. 1961. 53 pages.

Based upon an introductory statement that the "Committee holds the view that a unifying concept and a framework amenable to analysis are needed to evaluate research and policy in resource development," construction of the framework is attempted in this report by a group which has had experience "in the fields of soil science, engineering, plant science, hydrology, and economics."

Following an initial chapter on the "Nature and Objectives of Conservation," a structure is proposed as "An Analytical Framework for Appraising Conservation Programs." Subsequent chapters, in order, are "Physical Economic and Institutional Interrelationships in Resource Conservation," "Problems in Achieving Soil and Water Conservation," and "Recommendations for Research, Education, and Policy."

This discussion is a healthy effort to present concepts and definitions of conservation terms, to indicate interrelations among natural and social factors, to emphasize the dynamic nature of the field ranging from the effects of technology to the preferences and choices of individuals and society, and to indicate the vital importance of objectivity in research and in policy decision as well as the necessity of competent and unbiased education in discerning facts and in implementing action.

The booklet requires alert and understanding reading. Although excellent illustrations are interspersed there are occasions when the usage is not clear. For instance, is the term "productivity" used as a rate in contrast to "production," or "productive potential"? (page 4). In instances, as on page 5, it would have been clearer had the authors stated rather than implied that political decision-making is needed in some final decisions with respect to alternative uses. Because of this avoidance, the discussion of the allocation of conservation funds, on page 15, lacks a working base. This is particularly surprising in view of the discussion of the "Failure to Protect Public Interest," pages 38-41. Editing might have simplified uncertain sentences, including "Conservation is an investment which maintains, enhances, or reduces the rate of deterioration of the potential productivity of storable flow and renewable fund resources." Final criticism applies to the charts on page 10, where an experienced interpreter can follow the concepts of two- and three-dimensional graphs, but a novitiate would require a more adequate identification of symbols as introduced and a careful scaling and differentiation when static and time graphs are compared. The descriptions of "minimum production expense" and of "conservation expenditures" are awkward and questionable (page 11).

It is encouraging to observe the emphasis upon benefits that cannot be measured in physical productivity or the market demand and price, but require recognition as social or esthetic values.

—J.H.C.

ANIMAL ECOLOGY. By W. H. Dowdeswell. A paperback in the Science Library Series of Harper Torchbooks. Harper & Brothers, New York. 1961. 209 pages, illustrated, with bibliography. $1.50.

Within the past few years, the word "ecology" has become a prominent one in the field of biology as denoting the branch of science that deals with the relationships between plants and animals of a particular area or special environment. We hear of preservations being established to preserve typical plant or animal communities; the biologist who specializes in studying such communities is an ecologist.

As an introduction to the field of ecology, which is in truth an immensely broad one, this volume will carry the casual reader quite as far as he will probably wish to go; he will not, in any case, fail to be fascinated by the complexity of community life in the animated world. Despite the need for liberal use of the precise words and phrases of a branch of science, the volume is not dull; on the contrary, it is well and interestingly written, with a short glossary which helps the non-technical reader over the rougher spots. The text is illustrated with both line and halftone cuts; the quality of the latter, whatever the original merit of the photographs, is far from impressive.

—P.M.T.

GUARDIANS OF THE YOSEMITE: A Story of the First Rangers. By John W. Bingaman, P.O. Box 95, Palm Desert, California. 1961. 123 pages in paper cover, illustrated. $2.50.

Mr. Bingaman, a Park Service ranger in Yosemite from 1921 to 1956 (and now retired from the Service) has compiled a valuable and interesting volume of personal experiences, biography, and historic events in that national park.

A PICTURE TOUR OF HISTORIC HARPERS FERRY: Yesterday and Today. By Marlin E. Fenical, 3192 Key Boulevard, Arlington 1, Virginia. 1961. 32 pages in self-cover, illustrated. 50¢ from above address.

Not a tour guide, but an interesting effort to point up the historical significance of this West Virginia-Maryland Civil War site.

1001 QUESTIONS ANSWERED ABOUT INSECTS. By Alexander B. Klots and Elsie B. Klots. Dodd, Mead & Co., 432 Park Avenue South, New York City 16. 1961. 260 pages with index and bibliography. Illustrated $6.00.

Latest addition to this publisher's "1001 Questions Answered" series by two outstanding American naturalists.

Letters to the Editor

Reader Reaction To the Grand Canyon Menace

I am deeply disturbed to hear *(National Parks Magazine*, January, 1962) that there are various proposals for the development of hydroelectric power on the Colorado River at Grand Canyon which would be a terrible danger for your Grand Canyon National Park and Monument. I know them, and because they are of outstanding beauty and grandeur, of highest scientific interest and value, they must be defended not alone by the National Park Service and the National Parks Association and the American people, but by the whole world!

This creation of nature belongs to all nations and therefore, I think, that scientists and men of conservation of all countries have to protest against this ruthless project.

PROF. DR. O. KRAUS
Munich, Germany

* * *

We read with amazement in the January issue about the attempts to use the Grand Canyon area for commercial purposes.

We wish to add our two voices to the protests against this "callous and ruthless" attempt. Our national parks are part of our American heritage and need to be protected to the fullest. . . .

MR. AND MRS. D. S. ABELL
Batavia, New York

* * *

I read with dismay your editorial in the January issue, "The Attack on Grand Canyon," and wish to add my word of strong protest to this threat. The national parks should be held inviolate as sacred trusts for the American people, both now and in the future. One cannot help asking why those who are devoted to conservation have to be continually battling to preserve the parks. Is not the fact that these areas *are* national parks sufficient to protect them from commercial or industrial encroachment and despoliation? One feels very helpless when confronted by these huge power authorities, the Army Engineers, and the pressure on Grand Canyon coming from Los Angeles. . . .

ALICE F. HOWLAND
Milton, Massachusetts

● The above letters are representative of the mail inspired by January's editorial on the menacing proposals for "maximum development" of Colorado River waters for hydropower and irrigation purposes.

The struggle at Grand Canyon, now in its initial phases, will be a long one. This magazine will keep its readers constantly informed by editorial and news report concerning the progress of the battle. *—Editor*

On the Pressing Need For "Neatniks"

I have enjoyed so many happy hours in our national parks and monuments that I want to add my bit to their preservation.

I would like to relate something that we found in the ranger station at Bandelier National Monument in New Mexico. One of the staff had taken a display case and labeled it: "Exotic Plants—Not Native To This Area But Found In Profusion." He had then placed three pieces of tissue paper in the window and given them a botanical name; a beer can with a botanical name; and a cigarette carton, also with a botanical name, and so on. It was clever and to the point. . . .

CLARE NICHOLS
San Francisco, California

* * *

My copy of *National Parks Magazine* is enjoyed by two friends who are nature enthusiasts, and then goes to the library at East Junior High School in our city where, the librarian says, it is eagerly read. I thoroughly enjoy it myself.

"A Park Full of Neatniks" was an article I was sure you would be interested in seeing. . . .

DORIS E. HUDSON
Colorado Springs, Colorado

● Enclosed with Miss Hudson's letter was a copy of an article by Thurman C. Warner, information service supervisor of School District 11 in Colorado Springs, which appeared in *The Colorado School Journal* for November, 1961. Supervisor Warner details a nature study trip to Palmer Park, east of the city, by some 1500 fourth-graders of the city schools on which, in addition to their plant, animal and rock studies, the youngsters were urged to give thought to the proper use of their public parks and recreation facilities. For the occasion, the city Parks and Recreation Department coined the word "neatnik," and passed out ribbons emblazoned with the word as a means for spreading the thought among other children as well as enhancing the prestige of the wearer. This is good work.*—Editor*

George Catlin's Early Plea For a Prairie Park

In Dr. E. Raymond Hall's fine article on "The Prairie National Park" *(NPM*, February) he says: "Thirty years ago Professor Victor E. Shelford of ecological renown was pleading for the preservation of an adequate sample of the Great North American Prairie . . ."

So was George Catlin over *one hundred years* ago. The following quotation appears on page 397 of Volume I of his book *Letters and Notes on the Manners, Customs, and Condition of the North American Indians*—2 Vols., Phila., 1857.

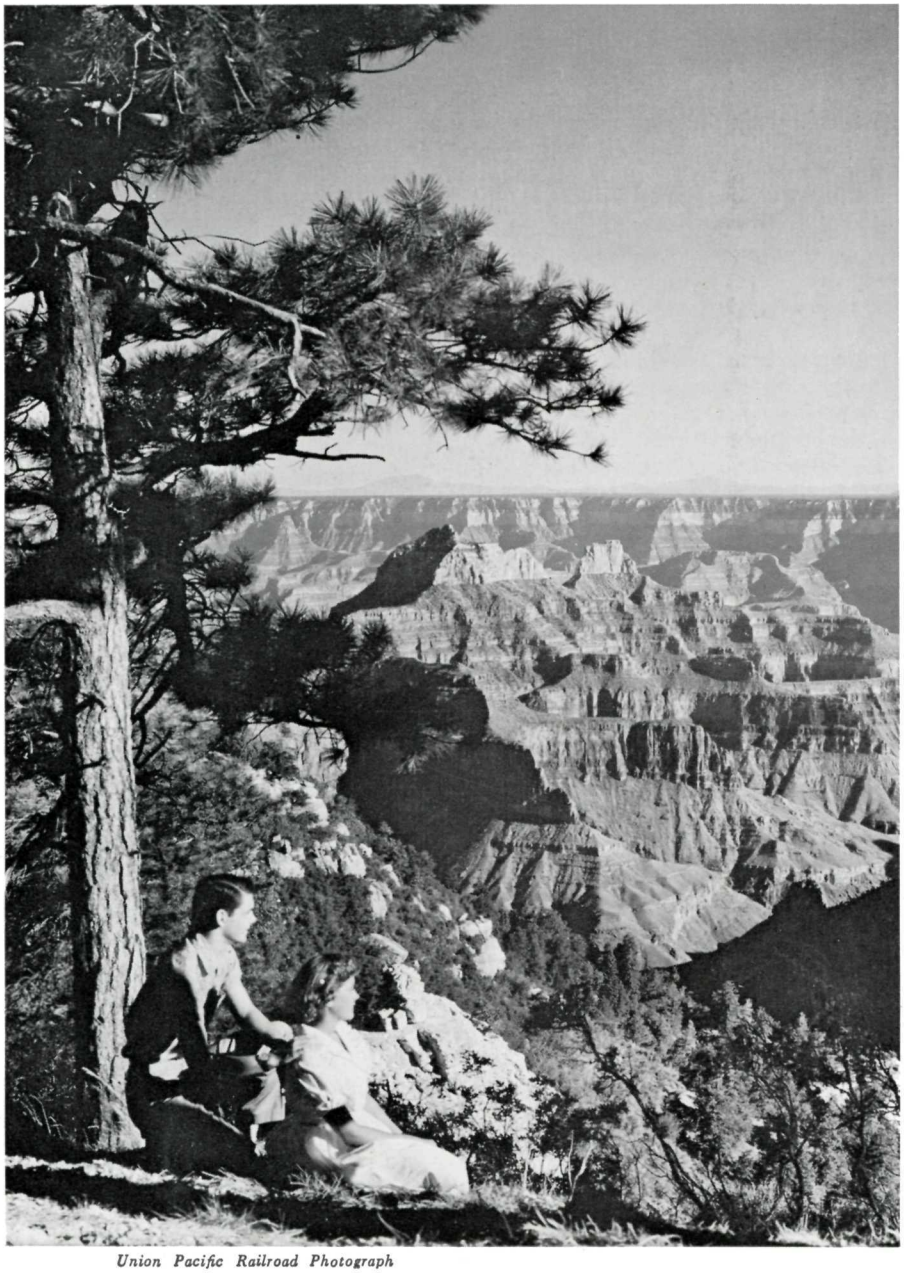
"This strip of country, which extends from the province of Mexico to Lake Winnipeg on the North is almost one entire plain of grass, which is, and ever must be, useless to cultivating man * * *

And what a splendid contemplation too, when one (who has travelled these realms, and can duly appreciate them) imagines them as they might in future be seen, (by some great protecting policy of government) preserved in their pristine beauty and wildness, in a magnificent park, where the world could see for ages to come, the native Indian in his classic attire, galloping his wild horse with sinewy bow, and shield and lance, amid the fleeting herds of elks and buffaloes. What a beautiful and thrilling specimen for America to preserve and hold up to the view of her refined citizens and the world, in future ages! A nation's Park, containing man and beast, in all the wildness and freshness of their nature's beauty!"

GEORGE F. EMERY
Assistant Superintendent
Colonial National Historical Park
Yorktown, Virginia

● We are indebted to Assistant Superintendent Emery for calling attention to the earliest plea, so far as we know, for a Prairie National Park. George Catlin, the remarkable artist-naturalist of earlier America, achieved fame mostly for his paintings of the American (and South American) Indians and their ways of life; yet his diaries were also spiced with acute observations on the natural history of the lands through which he traveled. A recent volume which contains many such observations, done in Catlin's most delightful and readable style, is Marvin C. Ross' GEORGE CATLIN: Episodes From *Life Among the Indians* and *Last Rambles*, printed in 1959 by the University of Oklahoma Press.

—Editor



Union Pacific Railroad Photograph

You Can Help!

DEFEND GRAND CANYON NATIONAL PARK!

against

the March of the Big Dams!

and in the defense of the entire NATIONAL PARK SYSTEM!

► by contributing to the general funds of the NATIONAL PARKS ASSOCIATION over and above your regular membership dues. Your contribution is deductible for Federal income tax purposes.

► by getting one new member for the Association this month.

► by presenting a friend with a gift membership.

► by renewing your membership promptly when you get your annual notice.

► by raising your membership to a higher bracket.

► by writing to the Honorable Stewart L. Udall, Secretary of the Interior, Washington 25, D.C., and telling him you want the Grand Canyon of the Colorado protected.

Membership in the Association includes a subscription to the monthly *National Parks Magazine;* an envelope for contributions and subscriptions is provided for your convenience between pages 10 and 11 of this issue.

National Parks Association
National Parks Magazine

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