

NATIONAL PARKS *Magazine*



Mabry Mill: Blue Ridge Parkway
Virginia and North Carolina

July 1962

The Editorial Page

An Event of World-Wide Significance

WE SALUTE THE FIRST WORLD CONFERENCE on National Parks, opening July 2 in Seattle. The long list of representatives attending from approximately sixty-five countries attests the keen interest of diverse peoples all over the globe in the national park idea.

We shall be happy on behalf of the United States to share our century-old experience in park protection and management with others newly embarking on park programs, and will be eager to learn from them everything they can tell us about their own unique experiences.

Matters of high importance for human culture are involved: the retention and enlargement of a measure of beauty and spaciousness in the outdoor environment as the natural setting of a prosperous industrial society; the preservation of many species of plants and animals threatened with extinction; great possibilities for wholesome outdoor recreation and relaxation for an increasingly urban civilization.

In all these fields, and many more, the great national parks of the United States and the other participating countries play an important role as permanent models from which good plans in resources management can be made. And in themselves, they constitute irreplaceable wealth which must be protected in perpetuity.

It is a wholesome sign for modern civilization, immersed as it is in gadgetry, terrestrial and celestial, that this meeting should be held at this time, concerned with the conservation of the natural environment for human life. —A.W.S.

Rebellion Against the Engineers

THE CORPS OF ENGINEERS HAS DEIGNED to grant the public little advance information about its \$500 million program for the Potomac River Basin. Some sixteen major reservoirs have been proposed, and over 400 smaller structures. The excuse is that Washington needs water, but many experts believe that water purification methods are bound to supplant impoundments before the program of the Corps can even be considered by Congress.

The advance information was released for purposes of hearings held throughout the Valley. The information given, however, was inadequate for the public to participate effectively in the hearings. Only because of a sharp public demand was any significant information released; such procedures lend themselves to show-

trial operations and are highly objectionable.

Once the public learned of the vast destruction which these unnecessary structures would wreak throughout the Valley, there was an up-welling of resistance which turned the so-called hearings into mass protest meetings in all four States affected and in the District of Columbia.

The time has come for a completely new look at the river basin operations in which the Corps of Engineers is engaged. Agencies like the Corps, essentially mechanical in their functions, are not fit for planning work. The Potomac Basin program, considering the enormous opposition it has aroused, may serve to touch off a movement for complete reorganization. There is a growing conviction that the technical agencies should be subordinated to a planning body on which the biological and social sciences and the broad interest of our society as a whole should have the controlling authority.

—A.W.S.

The Coming Problem of Space Contamination

UNIMPRESSIONABLE INDEED WOULD BE the person who feels no sense of admiration for the ingenuity of our space-age scientists and technicians, who can almost at will fling rockets into geocentric orbit and into space.

The current steady stream of outbound missiles is providing science with some new insights into a hitherto scantily known region; it is providing the public some diversion from a thoroughly chaotic mundane situation; it has served notice, if any were needed, that this nation will not settle for a back seat in scientific competition with the international Joneses.

The burgeoning age of space exploration has nonetheless brought its own problems, at least one of which has fallen directly into the laps of the conservationists. This is the matter of space pollution. Having polluted the waters of our streams and rivers with all manner of filth, and our soils with all manner of potent insecticides (the long-term effects of which are presently unknown), it would appear that we are about to undertake the large-scale pollution of our skies with both the unavoidable debris of rocketry and the exotic matter of experiments which may seem to many to be neither important nor desirable.

A calculated step in the direction of space pollution, it would appear, was the attempted launching, in 1961, of myriad copper needles—some 350 millions of

them—into an orbit about 2100 miles above the earth. The needles were to form a reflective belt for the long-distance transmission of radio signals. (It has also been suggested that such a belt of copper needles—more scientifically called dipoles—might be useful in greatly extending the range of American television coverage. The reader will have to draw his own conclusions as to the value of copper needles for that purpose.)

That the 1961 launching, the first of a contemplated series under the name of Project West Ford, was not successful, is beside the point; before these words reach print the Air Force under the direction of the Massachusetts Institute of Technology, may have launched another and similar batch of needles, with more perhaps to follow.

Public reaction to Project West Ford has been by no means wholly favorable. The scheme evoked a storm of criticism, first of all, from professional and amateur astronomers both in this country and abroad. These people saw the cutting edge of one of their keenest instruments for probing space—the radiotelescope—being dulled by West Ford and similar experiments. They also saw in the orbiting band of needles the possibility of confusion to their more orthodox instruments.

“Such belts,” said one observer, “would reflect and scatter both radio and light waves, thereby brightening the night sky and affecting all sorts of astronomical measurements.”

To the present, there has not been much discussion of the esthetic implications of experiments like West Ford, and the many West Fords that will come in the future if not inhibited by consideration of the public welfare. It is worth noting that there are already plans afoot for a system of nearly a hundred balloons of the Echo type; and it has been predicted that by the year 1970 as many as 5000 man-made objects will have been placed in orbit around the earth, to the disfigurement of the skies.

The matter of unnecessary space-contamination and wanton disfigurement of the skies is one which conservationists should obviously consider sooner rather than later; although the subject is an unfamiliar one, conservationists need not sit idly by and agree with one another, and with Shakespeare, that “beauty provoketh thieves sooner than gold.” Projects as destructive to the natural environment as West Ford should be roundly protested to the proper authority. Persons desiring to do so may write the chairman of the National Aeronautics and Space Administration, Mr. James E. Webb, and state their views. The address is Washington 25, D. C. —P.M.T.

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Paul M. Tilden, Editor

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Front Cover Photograph by Merle L. Cornett

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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KENYA SANCTUARY

Poaching is a menace to the mammals of a great African park

By Jacqueline de Burgh

UNDER THE LEE OF A WOODED HILL fifteen minutes' drive from Nairobi, the capital of Kenya Colony, on the great Athi Plains, lies the Nairobi National Park in all its wild beauty. To the south, the giant snowcapped mountain, Kilimanjaro, heaves its huge bulk to the sky, its snow tinged with pink and gold as the sun rises or sinks. Away to the southeast are the Mua Hills and Mt. Donyo Sabuk, the "hill of the buffalo." To the west lie the Ngong Hills, the Masai name for "the sleeping woman," guarding the Rift

Valley which runs from the Holy Land to the Zambezi. Running east of the Ngong is Wilson's Aerodrome, where Kenya's first air service was started some thirty-two years ago. The hillside is in the purlieus of the park, and from its plateau a visitor may survey and wonder at the majesty of the scene around and below him.

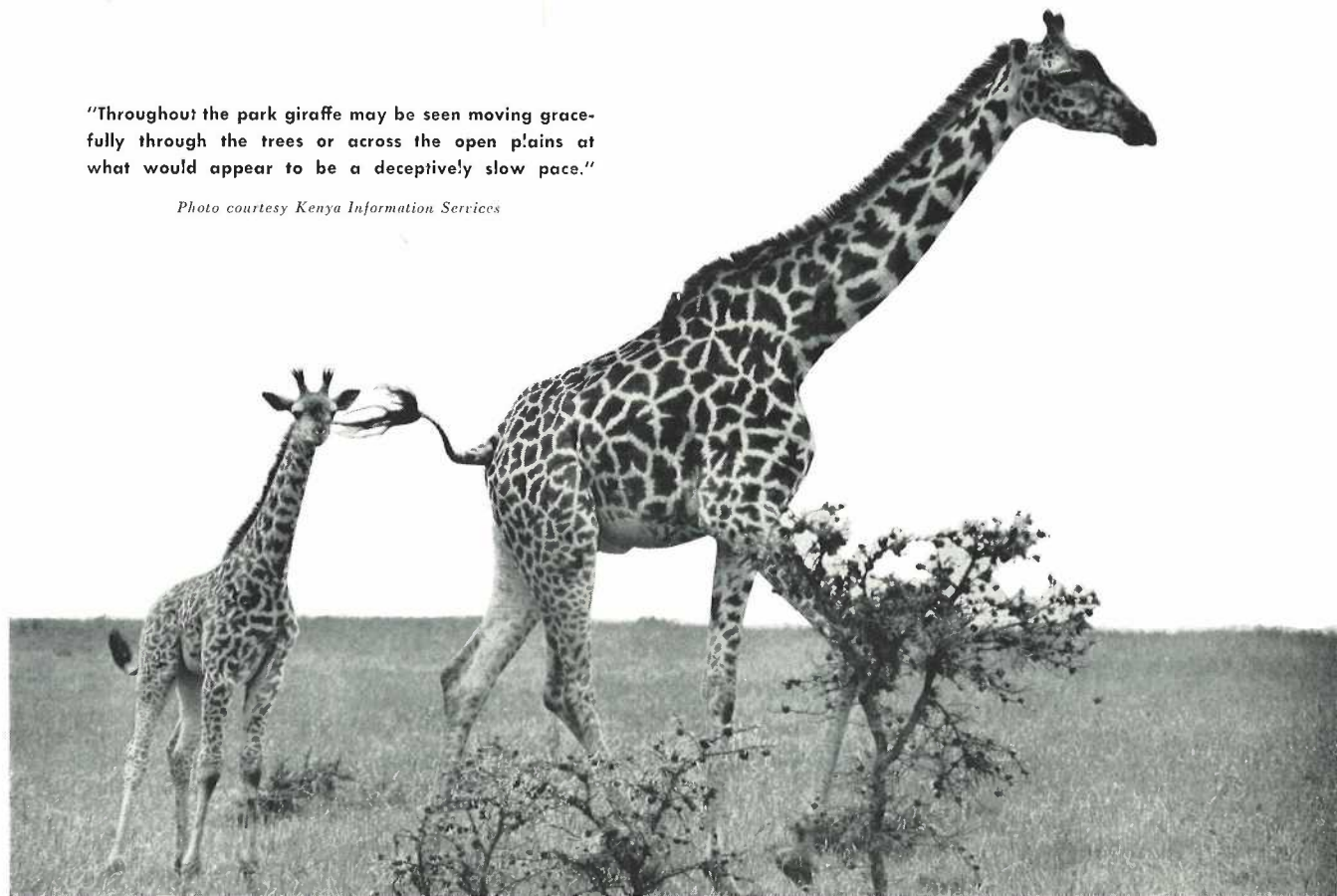
Across the golden pastures roam herds of giraffe, zebra, wildebeeste, and many species of antelope; and, of course, the lion, with its followers, the hyena and the jackal. Wild pig, wart-

hog and many beautiful birds that are peculiar to the veldt may also be seen, not forgetting those shyer creatures, the leopard and the cheetah. Here is peace, and sanctuary from guns: the poachers' poisoned arrows and wire snares, and all the cruelty that goes with them; and, hopefully, from encroaching civilization.

Fourteen years ago I and my family had the good fortune to live on the edge of this park; and we found ourselves becoming completely absorbed in its wildlife. At this time the national

"Throughout the park giraffe may be seen moving gracefully through the trees or across the open plains at what would appear to be a deceptively slow pace."

Photo courtesy Kenya Information Services



park was just being formed, and the only access road to our home was through it. It was also the main road for the Magadi Soda Lake Company, about eighty miles away in the Rift Valley. Some three years later the construction of a new road and wire fences around the park had been completed, and the park animals were prevented from straying into the land of the poachers.

During the two years that we lived close by, we came to know every inch of the park, and the wildlife in it; and at one time or another we walked over practically the whole area of some twenty square miles. It was on one such excursion that I met the park's game warden; and, on being asked to give an account of myself, had to confess that I was collecting some wild plants that I had seen. For a moment I thought he would explode—and he did, but with laughter. However, I had strict instructions never to do it again without his permission, when he would see that I had proper escort. That encounter took part in the very early days of our arrival and I learned, rapidly, how very necessary that escort was.

One evening a few weeks later, we went to a location known as "Lone Tree" to watch a pride of seventeen lions. They were mostly lionesses and their cubs; but with them were two stately males sunning themselves a little apart from the family. Surrounding the group were about a hundred cars. The lions were a magnificent sight, and the cubs frolicked like kittens. Suddenly, to our horror, we saw an African soldier walking through the line of cars in the direction of the lions. Before he could be warned, the foremost lioness had sprung at him. The soldier had the presence of mind to throw his greatcoat, which he was carrying, over the lioness's face while the game warden's car raced in between them and picked the soldier up. It was a narrow escape. The lioness carried the great coat back to her cubs, who immediately started a game with it, tearing it to shreds. Seven lions had to be shot that year, as they had turned maneaters; and the laws of the park were tightened. It was prohibited to get out of an automobile, except at certain places where there were game scouts to escort and protect visitors.

The drive to our house from the main road (Lion's Corner) was a mile long. A family of wild pigs lived about halfway up the drive, and we used to see them regularly—mother, father, and little ones. When we met, it was always a case of mother saying: "Up periscopes! You don't want to be seen hobnobbing with those nasty, smelly motor cars," and up would go all their tails, mother leading, children following, with father bringing up the rear, all in single file. On one occasion we watched the mother take her children

was about ten yards, and the waterbuck was about six yards from the leopard. As we appeared they both stared at us with surprise, and then the waterbuck, realizing that this was the moment to escape, made off. The leopard, with a look of complete and utter disgust, sauntered to the side of the road and glared balefully at us as I drove the car slowly past!

The sanctuary also has its tragedies. A lioness and her four cubs had decided one evening to raid a nearby farm and its cattle. To get to the farm



One of the prime mammalian attractions of Nairobi Park is its population of lions which, until regulations were tightened, presented a visitor safety problem. Above, a male African lion and a lioness (partly shown at left) relax within the park.

Photo by J. B. Alexander, Nyeri, Kenya

off, hide them safely, and then make a large detour back to inspect us. She came up quite close, but in the end decided that we were not the sort her family should know, and so departed.

That same evening I was being given a lesson on how to drive through game at a speed of approximately ten miles an hour. We had driven through a very lovely gorge and had just topped a rise, to be met with the superb sight of a young leopard about to spring on the back of a large waterbuck. Imprudently, perhaps, I stopped the car. The distance between us and the leopard

they had to pass fairly near our house, and over the new road that was then being constructed. The farmer was understandably infuriated, as this was not the group's first raid; he decided, on this occasion, to take the law into his own hands—with grim results. The game warden, in the meantime, had been warned by his game scouts, and went immediately to the vicinity to check the lions and drive them back to the park. The scene that met his eyes on arrival was appalling. Three of the cubs had been shot dead, the lioness wounded; the fourth cub made good its



Kenya Information Services photograph

Wildebeeste, or gnu, of the blue-faced variety wander Nairobi National Park in large numbers. Above, a group of mammals with their young.

The park provides a sanctuary for the ostrich, largest of living birds, which may stand six to eight feet high and attain a weight of 300 pounds. The specimen at the right is a male.



Kenya Information Services photograph

escape. Had the farmer informed the game warden of this intention, as is customary, this disaster might have been avoided.

As it was, the game warden was faced with three dead cubs and the tracking of the wounded lioness—a difficult and dangerous job—and the anxiety of having a wounded animal in a populated area. She was found, a week later, within a quarter of a mile of our home in bad condition, her neck swollen to a grotesque size where the bullet had passed through. It was some weeks before she was fully recovered and able once more to fend for herself. During that time, the game warden had to get food and water to

her. This was something of a tricky job, as the vicinity was not easy to get at, and the lioness did not appreciate the warden's good intentions, growling and snarling when the meat and water was lowered to the ground from the truck. This performance went on at regular intervals until the day came when she was no longer there.

During that period an event occurred

involving two huge lions, mentioned previously, named Romulus and Remus. Romulus was a large, black-maned lion, and Remus was tawny. These two were always together, and could often be seen sitting to take advantage of the evening sun. The boundary on one side of the park ran along the Mombasa Road, and across the road were a number of cattle farms.

Romulus and Remus were wont, at times, to poach these farms, causing havoc among the cattle and heavy losses to the farmers. One evening a farmer, on hearing a commotion outside, picked up his gun and powerful electric torch and went to investigate. Across the road, just out of the boundary of the park, he saw a lion devouring—as he thought—one of his cattle; and in anger he shot it. His regrets were deep when he discovered that the shot lion was Romulus, and that the lion's kill was a wildebeeste.

Such are the tragedies that occur from time to time. Remus was never seen again after that, and with the great loss of his friend must have decided to take his sorrows to new hunting grounds.

Pleasures of the Park

The boundary on the south side of the park is safeguarded by the Athi River, and it is here that visitors are allowed out of their cars to stroll leisurely along the river's edge to the hippo pools. It was one of our greatest pleasures to sit by these hippo pools in the cool of the evening to watch the great beasts gamboling in the river. Sitting there on a fallen log under the big fever trees, listening to the birds calling to one another and observing the little green river monkeys chattering or scolding in the branches, one could watch these great river horses leave the water for their grazing grounds, with their fat, pink babies at their heels.

The baboons of the park have always commanded a large audience, and they have come to expect one. As soon as a car arrives, they troop out to greet it; and as it comes to a halt they climb onto the hood, roof and anywhere else they can find to sit, waiting for tidbits (giving of which, incidentally, is against the laws of the park), and keeping up a continuous conversation among themselves. When they think a bigger and better car has arrived, they promptly leave the first car to see what they can get from the second. If they find that nothing is forthcoming, they then return to the first car, hurling insults over their shoulders or showing contempt by walking away in dignified silence.

Throughout the park giraffe may be seen moving gracefully through the trees or across the open plains at what



J. B. Alexander, Nyeri, Kenya

When a car arrives in Nairobi Park, a delegation of baboons will be on hand to greet it and to panhandle its occupants for tidbits. The feeding of these friendly mammalian mendicants by park visitors is prohibited by regulation.

would appear to be a deceptively slow pace. But at this speed they can cover many miles in a surprisingly short time. They are very often to be found on the edge of the road nibbling at the succulent new leaves of the thornbush; as a car of people draws up to admire them, they meditatively gaze down with never a blink of their long eyelashes. When in a playful or affectionate mood they entwine their long necks around one another until they appear hopelessly entangled. Curiously enough, the giraffe appears to have no vocal cords, and as far as is known no one has ever heard them make a sound. However, for protection they have a very powerful and vicious kick.

Of all the animals of the park the wildebeeste might be classed as the most ridiculous. The Africans always call it "the mad one." In the cool of the day the wildebeeste will suddenly kick up its heels and career around in circles, sometimes enticing a whole herd to follow suit. On other occasions it will suddenly have a mock battle with one of its fellows, charging and butting; then, just as suddenly, tire of the sport and return to grazing. In the early mornings, pilots taking off from Wilson's Aerodrome formerly had to taxi the full length of the runway and back again in order to drive off the wildebeeste; and then, turning for take-off, find that the mammals had followed and were standing about gazing at the plane. The procedure would then

have to be repeated; in fact, the thing became a game with the wildebeeste, one capable of delaying an aircraft for half an hour or more. With the construction of wire fences the "mad ones" cannot get in now; but they still range along inside the fence to see what is going on.

Wherever the visitor goes in the park, he sees large herds of kongoni, or hartebeeste; Thompson's gazelle, Grant's gazelle, waterbuck and many other mammals, as well as a rich assortment of birds and plants. Nairobi National Park is well worth a visit from the traveller who has a few days, or even a few hours, to spend in Nairobi; for in the park they will find the true Africa.

Poaching Is a Problem

Years have passed since we lived on the edge of the park, and we have only recently returned to live at Wilson's Aerodrome; but our interest in the park has never flagged. During the intervening years, poaching has taken a heavy toll upon the animals of this country, and though the handful of men who are devoting their lives to the protection of Kenya wildlife are combating poaching in every way possible, it is necessary to say that poachers, urged on by those who fatten on the illegal disposal of ivory, horn, and dried meat, have now extended their activities into Nairobi National Park. ■

The National Parks of Mexico

By Glen W. Taplin

NORTH AMERICANS IN CONSTANTLY increasing numbers are discovering the great wealth of pleasure and knowledge to be obtained in observing Mexico's interesting cities, beautiful beaches, the constantly varying vistas of her countryside, and the thrill that comes in viewing the archeological discoveries that are constantly being made, and which promise to make Mexico as fertile and important in this field as Egypt and the countries of the Near East. It is gratifying to know that Mexico is not only interested in her past, but is taking steps to assure that many of her natural beauties, resources and points of interest are being preserved for the enjoyment and education of this and future generations.

One of the leaders in the effort to have areas of outstanding interest, im-

portance or beauty set aside as public domain is—to use his official title—Ingeniero (Engineer) Daniel F. Galicia, Chief of the Department of National Parks. Sr. Galicia is one of the few old-timers still in the department; his government service goes back to the days before there was a National Park Service in Mexico, and he is a rich source of information concerning the early days of the organization.

An effort was made, in 1898, under the dictatorship of Porfirio Díaz, to preserve a certain area of oyamel (a species of coniferous tree) situated in a countryside of surpassing beauty. This tract, known as El Chico—located not far from Pachuca, the capital city of the State of Hidalgo—contains some 4600 acres. Due to the nature of the times, and the objections of certain

mercenary interests, the reserve was not known as a national park and interest in such preservations waned to the extent that no further starts were made for nearly twenty years.

Students of Mexican history will recall that the dictatorship of Díaz was overthrown in the Second Mexican Revolution, beginning in 1910. After a period of continual unrest and often fierce fighting, the country entered a period of comparative stability with the adoption of the Constitution of 1917 under the new constitutional president, Venustiano Carranza. Certain clauses in the new constitution made it possible for the conservationists to think again of a national park system. Article 27 made the national government the theoretical owner of all natural resources, both above and be-

low the ground, with power to lease to individuals; the government did not permanently lose title to such property. Thus it came about that a second start was made when President Carranza proclaimed the second national park, still not known as such, on December 5, 1917.

This locale, known as the Desierto de los Leones (Deserted Place of the Lions) is situated about twenty miles from Mexico City and contains some 4800 acres. In this park thought was given not only to the natural beauty of the place but to history as well; the main point of interest is an ancient Carmelite convent, built in 1606, but since abandoned. Over the years—due to its proximity to Mexico City and the continuing interest of the people in their national heritage—the park is one of the most visited at present. The old convent has been repaired and refurbished where necessary—the underground chambers are especially interesting—but the appearance and atmosphere of the place is essentially the same as it must have been 350 years ago.

Parks Officially Mentioned

It was not until 1926, in a decree signed by President Plutarco Elías Calles, that national parks were mentioned officially. The protagonists of a national park system moved more slowly this time in establishing a solid base for future operations, making necessary agreements and compromises with conflicting interests and having basic principles incorporated in national laws. The time came when park people felt confident enough to publicly proclaim their intention of converting into national parks all the sites in Mexico that seemed to warrant such protection.

The results of this careful planning became apparent in 1935. At the Pan-American Union conference held that year, Mexico was able to anticipate an agreement approved by the Union, in the sense of recommending to the member countries "the reservation of zones that contain natural beauties, archeological sites and historic relics, declaring them national parks and giving them all the facilities of access and comfort that are necessary to make them become known to visitors."

With the approval of the interna-

tional assembly of Pan-American countries behind them, the conservationists felt it was time to go ahead with the actual creation of national parks as such. In November, 1935, in a decree signed by President Lázaro Cárdenas, a tract embracing some 63,000 acres and containing the snow-capped peaks of Popocatepetl and Ixtaccihuatl was made a national park. These peaks are literally outstanding, having altitudes of 17,887 feet and 17,343 feet respectively; being some sixty miles from Mexico City, they dominate the landscape all the way to Puebla. The fine hand of Sr. Galicia may be seen at work in this area; he is, among other things, an ardent mountain climber, and he has tried to make this park a center for alpinists.

Mountain Preservations

Some of Mexico's other snow-capped peaks have been set aside in national parks reserves. Mt. Orizaba (Citlaltepec), Mexico's highest peak at 18,700 feet, is located on the Puebla-Vera Cruz boundary, twenty miles northwest of the city of Orizaba. The Nevado de Toluca (Zinantecatl) at 15,016 feet can be seen from Toluca, capital of the State of Mexico, and part of the way into Mexico City along Highway 15.

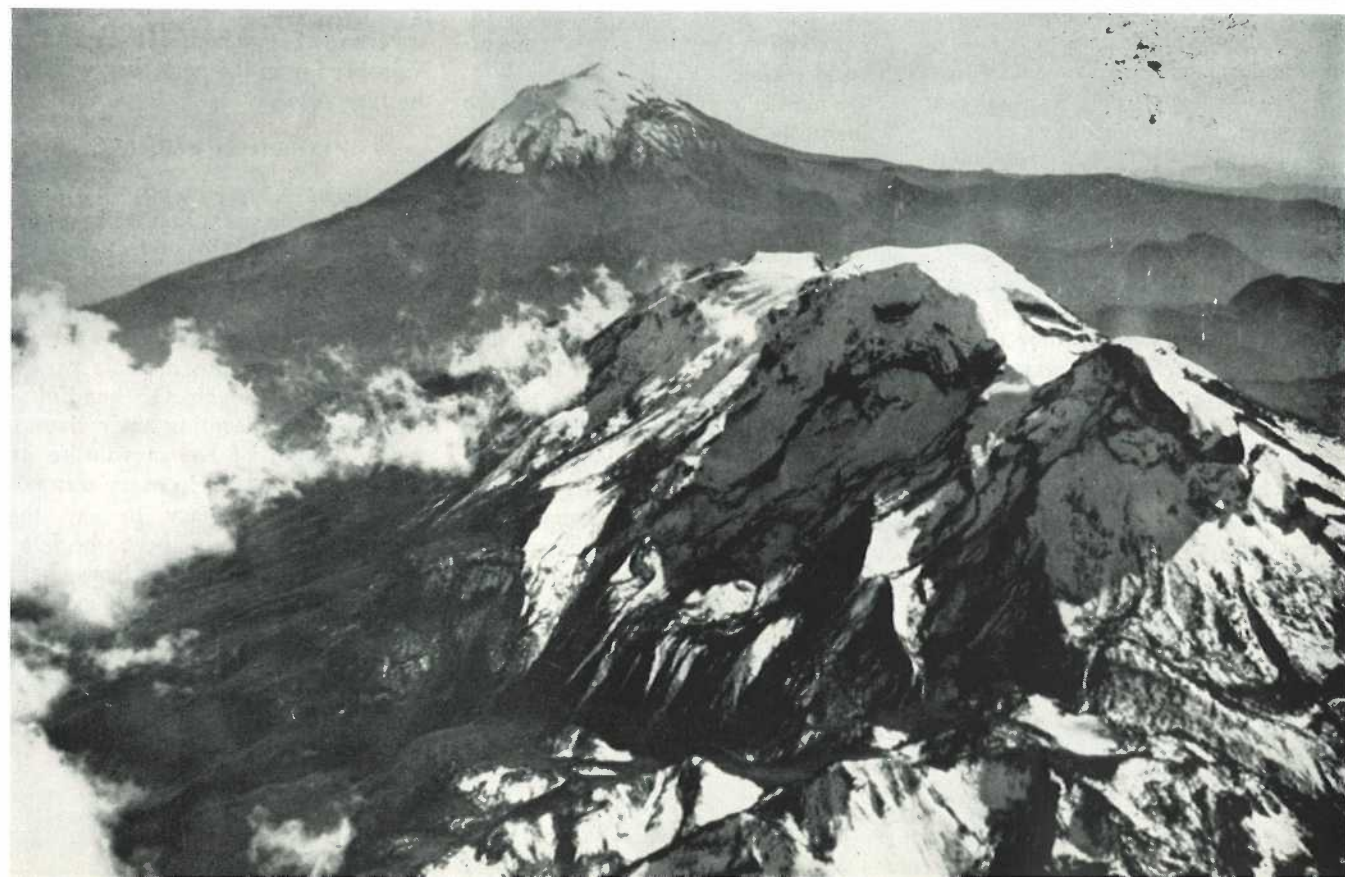
The Volcan de Colima, like Popocatepetl, is an active volcano; its smoke-plume is constantly in view as the traveler approaches Colima along the scenic highway into the capital city of the State of Colima. The Pico de Tancitaro, rising to an elevation of 12,605 feet, is located about twenty miles west of the city of Uruapan, in Michoacán state, and not far from Paracutín, the famous volcano that grew from a farmer's cornfield not many years ago.

Due to their very impressiveness, snow-covered mountain peaks naturally assume a star rôle in any landscape. However, many mountain ranges of lesser height, but of a beauty calculated to thrill the traveler, are also preserved. Parks with names as picturesque as the country they describe are found in nearly every State of Mexico. Thus, for one whose interests tend toward superb mountain country, a visit to one or more of the following parks will more than fulfill a taste for rugged scenery:

Cofre de Perote (Nauhcampatepetl) twenty miles west of Jalapa, capital city of Vera Cruz State. One of the highest ranges in the Sierra Madre Oriental, scene of battles against the French during the intervention of that

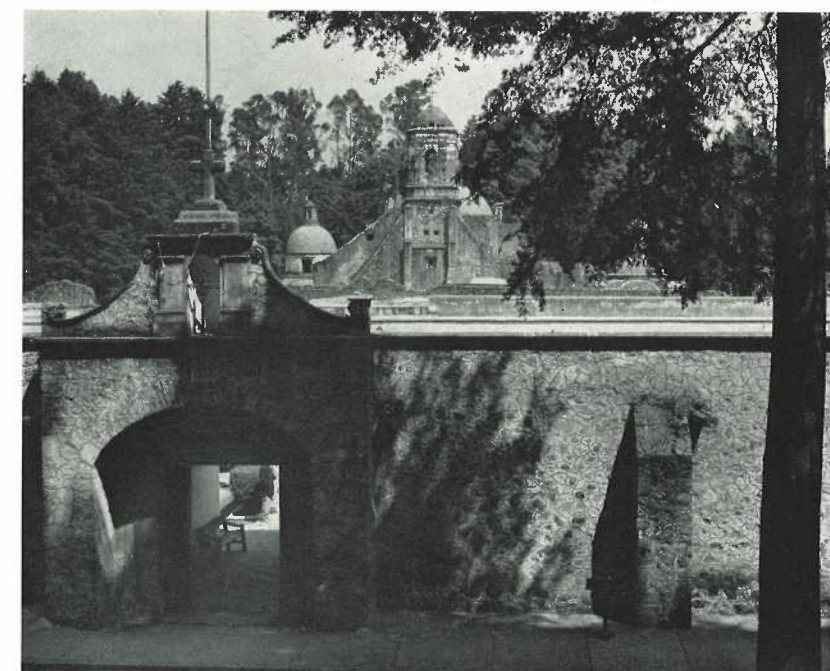
Included in a unit of the Mexican park system are the snowcapped peaks of Popocatepetl (in background) and Ixtaccihuatl (in foreground), both of which reach altitudes of more than 17,000 feet some sixty miles from Mexico City.

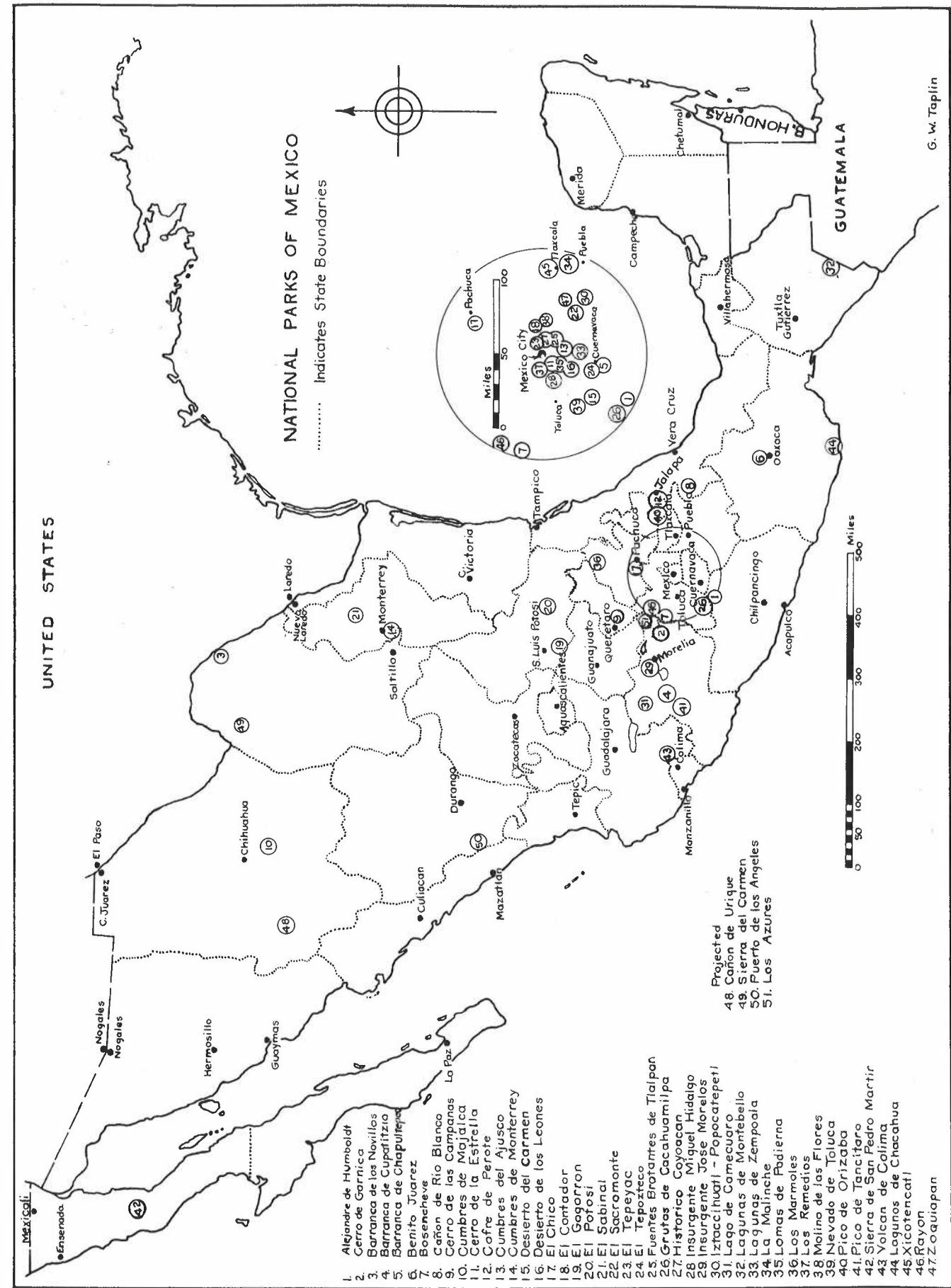
Photograph by courtesy Mexican Tourist Bureau



Desierto de los Leones Park, some twenty miles from Mexico City, preserves an old Carmelite convent (built in 1606) and 4800 acres of surrounding land.

Photograph by the Author





country (Napoleon III and Emperor Maximilian) in the 1860's.

Cumbres del Ajusco, in the Federal District, 25 miles from Mexico City off the Mexico-Cuernavaca highway. Contains a small extinct volcano, Xitle, of pre-historic importance.

Mexico's Largest Park

Cumbres de Monterrey, near Monterrey, Nuevo León. By far the largest national park, containing some 626,250 acres. Great mountain ranges that form part of the Sierra Madre Oriental, and which are the source of the Rio Santa Catarina; also many beautiful cascades and canyons.

Grutas de Cacahuamilpa, near Taxco, Guerrero. A mountainous region of great geological interest, this park contains caverns of surpassing beauty, complete with stalactites and stalagmites. The caverns were accidentally discovered in 1835.

In spite of the extreme aridity of much of the country, there are many places where the rainfall is conducive to the growth of forests and the formation of quiet, peaceful lakes. For those whose tastes run more to this kind of scenery, the following parks should be noted:

Barranca de Chapultepec, near the lovely city of Cuernavaca, Morelos. The park contains tropical vegetation, springs forming part of the source of the Río Balsas; and clear streams and flowers most of the year.

El Contador, near Texcoco, twenty-eight miles east of Mexico City. Contains ancient ahuehuete (Mexican cypress) said to have been planted by the thoroughly enlightened and highly civilized Texcocan monarch, the Poet Ing Netzahualcōyotl, ally of the Aztecs before Cortés arrived in Mexico.

Insurgente Miguel Hidalgo y Costilla, named for the father of Mexican independence, located on the Mexico-Toluca highway, twenty-two miles from Mexico City. A monument marks the site of a decisive battle fought here October 30, 1810.

Lagunas de Montebello, in Chiapas State, almost to the Guatemala border. This park is difficult to reach, a jeep being recommended for the last forty miles of dirt road after leaving the Pan-American Highway at Comitán, Chiapas. The park is a favorite of Sr.

Galicia, containing as it does fifty-nine lakes of different colors, surrounded by a profusion of tropical growth, including species of orchids. It is Mexico's newest, reaching park status in December, 1959.

Of the greatest interest to scholars from all over the world are Mexico's constant archeological discoveries. The care of the important sites, together with the excavation, classification and display of artifacts, is properly a function of the National Institute of Anthropology and History, under the Secretary of Education. However, many of the parks have within their boundaries sites of archeological or historic interest in addition to being areas of beauty or recreation. In addition to the Desierto de los Leones already mentioned, the following parks contain such attractions:

Cerro de la Estrella, in the suburb of Ixtapalapa, Federal District, about seven and a half miles southeast of the Valley of Mexico; this place is important for the study of pre-Conquest cultures, particularly of the Aztec civilization.

Other Archeological Sites

El Tepozteco, in the municipality of Tepoztlan, eleven miles from Cuernavaca, a place not only of scenic beauty but the site of pre-Conquest pyramids.

Historico Coyoacán, reached by urban buses from Mexico City, said to be the first town founded by Cortés in Mexico.

Los Remedios, in the municipality of Naucalpan, thirteen and a half miles northwest of Mexico City, off the Mexico-Querétaro highway. Features an ancient aqueduct with unusual towers, also a shrine dedicated to the Virgin of Los Remedio. A marvelous view of Mexico City.

Molino de Flores, in the municipality of Texcoco, twenty-eight miles east of Mexico City. Has ruins of the baths of King Netzahualcōyotl.

The administration of the national park system in Mexico comes under the Secretary of Interior, as in the United States. A Sub-Secretary of Forest Resources and Game is the next step in the hierarchy, and then, under a General Director of Protection and Reforestation, comes the Department of National Parks. The Congress makes the forest laws, which are implemented

by presidential decrees; a national park can be so declared without further action by Congress. A National Parks Commission is responsible for conservation, administration and advice to the President concerning actions in respect to national parks. A forest authority is responsible for the forests in the national parks, and issues permits for cutting; the money collected from the sale of timber or other permissible gainful activities is put back into the park system.

Competition for Funds

Under the humanitarian program of social uplift now in progress under President Lopez Mateos, there is great demand and need for more and better schools, housing, sanitary facilities, roads and other innumerable projects that contribute toward a better living. With so many demands on the public treasury, the park system is rather far down on the list, and the appropriations allocated are likely to be considerably less than asked for—a circumstance not unfamiliar to park planners in the United States.

In spite of a limited budget, work is going forward toward adding more units to the forty-seven national parks now in existence. There are at the present time four areas in various necessary preliminary stages of development which must precede the proclamation of a national park. Ing. Galicia is particularly enthusiastic about the place known as the Cañon de Urique, or Barranca del Cobre. It will be located in the great bend of the Rio Urique in the southwestern section of Chihuahua State. He explains that this area contains canyons deeper than Arizona's Grand Canyon, and as much as ten kilometers (six miles) from rim to rim.

The foregoing description of some of the national parks of Mexico is necessarily incomplete because of space limitations. A complete list, with a brief description of each park and directions as to how to reach it, may be obtained from: Departamento de Parques Nacionales, Tercer Piso, Aquiles Serdán No. 28, Mexico, D.F., Mexico.

Since the literature received will probably be written in Spanish, it is advisable to have an English-Spanish dictionary at hand if one is not familiar with that language.

State Protected Areas (Zapovednik) in the U. S. S. R.

By S. V. Kirikov

Translated by William O. Pruitt, Jr

An excerpt from SOVIET GEOGRAPHY: SURVEY AND PROBLEMS, edited by E. P. Gerasimov and others. Geography Publications State Printing House, Moscow, 1960.

THE WORD "ZAPOVEDNIK" HAS BEEN in the Russian language for a long time. In olden days this word was employed in a sense which, as it pertained to public use of certain areas, signified prohibition.

In the Seventeenth Century it meant, for example, "forbidden" forests adjacent to areas open to lumbering, and it implied extreme protection; thus, in the ruling of the Belgorod Governor-Envoy from Moscow in 1665: "In Belgorod, everyone liable to State Service, and all inhabitants, are ordered on pain of death, *not to cut trees, nor peel bark, nor cut paths, nor enter, nor clear fields, in the forbidden forests of Belgorod.*" (Proceedings, Meeting in the library and archives of the Russian Imperial Archeological Expedition, Academy of Sciences, IV, 1836, p. 274.) (*Italics my own—S. K.*)

It is also a fact that the Polish king and the Russian tsar (or their nearest relatives) had special restricted hunting estates (Belovezhskaya Forest, Kubanskaya "Hunting Resort"), where one could not hunt without royal permission. With the aim of conserving favorable conditions for game animals and birds, the cutting or clearing of forests for cultivated fields or hay fields, or for any other purpose, was forbidden in such preserves.

From these examples it may be seen that "prohibited areas" possessed, in earlier days, a practical purpose, the aim of which was neither scientific investigation of nature nor outdoor recreation. Nowadays the word "zapovednik" is based on a much deeper understanding of the peoples' needs. The meaning of the word becomes clearer if we learn how the Peoples' Protected Areas appeared and how governmental policy concerning them evolved. (In other lands they are called peoples' or national parks).

During the past century many prominent men felt that

the unreasoning, shortsighted consumption of natural wealth (which has only recently become painfully evident) leaves wastelands and bogs in place of taiga forests; devastated pastures and a ruin of sand in place of steppes; great networks of eroded fields and sand deposits (instead of) fruitful layers of earth in the forest-steppes; rivers as poisoned, stagnant waterholes; and so forth.

Shortly after a series of poor harvests that resulted, in 1891, in a terrible famine which enveloped almost the entire southeastern European part of our country, scientists under the direction of V. V. Dokuchaev attacked the question of the nature of a change in the steppe zone to a region of dry soil and pasture-land, to ascertain if man actually knew the correct economy for the zone.

At that time V. V. Dokuchaev had already declared that, in order to accurately understand the nature of the steppes, it was necessary to withdraw and preserve for all time areas of protected steppe (Chebotareva, 1949).

A Definitive Preservation Proposal

Later, at the 12th Congress of Naturalists in Moscow—the session at the end of 1909—Academician E. P. Borodin, one of the first energetic workers for protection of nature in our country, read a paper on the need for creation, by the Russian Geographical Society, of a Central Committee on Nature Protection to gain the backing of scientific agencies such as the Academy of Sciences, Peterburskoe Society of Naturalists, Free Economy Society, Forestry Society and others, as well as the support of governmental departments (Central Administration for Agrarian Law and Agriculture, Forestry Department, and others). Another fundamental point included in this report was the need for creating special protected regions in our country.

By this it was understood that the regions were to be extensive, typifying a particular natural region, withdrawn from economic use, and preserved in a natural condition undisturbed by man for a very long or a "perpetual" period of time. The proposal by E. P. Borodin was supported and approved by G. V. Visotski and many other participants in the Congress. In the botanical-geographical subsection it was brought up and passed with the acknowledgment that the creation of State Protected Areas was a matter of first importance.

Among those regions considered of first importance was the ecotone (floral transition zone) between steppe and forest-steppe (Starobelskii, Khrenobskii, Streletskii, Bes-sarabskii, Kodri, Golbaya Valley and several others), where nature had been exposed most to change at the hands of man.

"The steppe question is a peculiarly Russian problem; meanwhile steppe (areas), especially virgin steppe, are in danger of soon being lost entirely," wrote E. P. Borodin in 1914. Soon after, the idea of the necessity for establishing State Protected Areas was acknowledged by the government of the day. At that time, too, the decline of the sable trade was of great significance to the economy of Siberia and in the existence of its people; and to aid in the restoration of this valuable species, not only was hunting of sable forbidden, but a short time before the revolution (1916) the Barguzinskii Sable Preserve was created—in the modern sense of the word "preserve."

First State Protected Areas Established

It would be more accurate to say, however, that the idea of protection of nature and the need for State Protected Areas really came to life after the October Revolution. In 1919, the Astrakhan State Protected Area was established; in 1920, the Ilmenski State Protected Area. In September, 1921, V. I. Lenin signed a law (decree) "For the protection of natural memorials, gardens and parks," contributing fundamentally to the further progress of State Protected Areas. For continuity in establishing State Protected Areas, it was necessary to establish legal authority; this was done in 1924 by the highest legislative establishment of our country—The Presidium of the Central Executive Committee of the Soviet Republic. State Protected Areas were defined as "parcels of land forever subject to complete protection, which land will not be subject to economic use." (Shaposhnikov and Borisov, 1958; p. 97.) This definition was the result of the above-mentioned law "for protection of natural memorials, gardens and parks," wherein the inviolate protection of nature was assured.

At the present time in our country the creation of a great number of State Protected Areas, and numerous protected spots (see supplement following text) goes on, and the Soviet Union seriously considers itself as one of the most progressive countries in the world in this respect. State Protected Areas are distributed throughout various natural zones and mountain regions.

The opinion has been voiced (Lavrenko *et al.*, 1958)—and it is undoubtedly true—that many protected areas, distributed over one mountain system or one natural region should be united into one large State Protected Area. In

all probability, in the next few years a whole series of large State Protected Areas will be established.

Why should the idea of State Protected Areas have appeared as a living thought, to receive acceptance by almost all nations?

This question is closely connected with others, especially as to the nature of protected areas and what they should include.

For the Enjoyment of Those to Come

Undoubtedly one of the greatest purposes of State Protected Areas is the perpetual preservation of natural conditions in large areas that are typical of the various natural regions of our country; to preserve them as public or national treasures for all, in order that generations following us will be able to see a feather-grass steppe with all its creatures; turpentine forests, and pine forests, and taiga, and mountains. State Protected Areas will also be the long-term basis for the outdoor recreation of the population.

In "A Long-term Plan for a Network of State Protected Areas in the U.S.S.R." (Lavrenko *et al.*, 1958), it was pointed out that it was of utmost importance to preserve in State Protected Areas large numbers of species of plants and animals characteristic of environmental types (forest, steppe, desert, lake basins, and so forth). Practical knowledge concerning the great majority of plants and animals is lacking. Our generation deplores the fact that our ancestors, through greedy pillaging, destroyed the sea cow and the aurochs (*Hydrodamalis stelleri*, sea cow, in the Bering Sea, and *Bos primigenius*, the aurochs, or ancestor of domesticated cattle—*Transl. note*). The generation following us will judge our achievements severely if we do not preserve steppe regions of a size sufficient for all the requirements of their animals and plants; for among the threatened steppe animals and plants there may be found species of one or the other no less valuable than the sea cow. Their value may be entirely unknown to us because they are known only superficially; and to completely destroy these barely-known species would undoubtedly bring about great ecological and esthetic damage. It is necessary to preserve all endangered species in some numbers.

In the creation of State Protected Areas, there is another goal of no less importance. Nature preserves are not only places for careful conservation, but also for study. Many processes and phenomena which may be studied in such preserves occur in places where they exert powerful influences on man's economic interests. In order to learn the natural laws governing such processes and phenomena, it is necessary to have control areas where scientific investigations may be conducted under natural conditions, undisturbed by man. Such control areas are possible only in State Protected Areas. Research, one of the fundamental conditions of which is comparative investigation under protected and ordinary conditions, makes possible a determination of the direction in which a distant change in nature is proceeding, and consequently of the rejection or change in direction of man's economic activity if it seems likely to bring on waste or destruction of natural wealth.

Long-term investigations in permanent areas not subject to man's activities are indispensable, and the information

gathered from such investigations indicates the direction in which long-term cyclical changes in the nature of steppes, forests, deserts and tundra are headed. Investigations of such phenomena, initiated in State Protected Areas, bear on various problems. These problems arise because it is often difficult to discern natural changes which are closely linked to man's activities.

On State Protected Areas cyclical changes in nature are shown accurately and clearly. The scientific value of State Protected Areas is so great that they have been termed "chronicles of nature" by the scientific workers of diverse disciplines—meteorology, hydrology, botany, zoology, and so forth. The great scientific value of investigations within protected areas lies, of course, in the accumulation of many years of careful observations.

State Protected Areas, as has been shown (Lavrenko *et al.*, 1958) necessarily play a fundamental role in long-term stationary investigations of natural complexes and

natural processes. On this level, in the State Protected Areas of the Soviet Union, great attention has been focused on investigations of the ecology of animals and plants under different geographic conditions. The majority of such investigations are on economically important mammals and birds such as beaver, sable, forest marten, wild ungulates, grouse, waterfowl, and many others.

Scientific research in State Protected Areas is carried on not only by the staffs of the Areas themselves but also by visiting collaborators of the Academies of Science, universities, and institutions.

Most Union Republics have separate administrations which plan and direct scientific work in State Protected Areas. The results of scientific research are published in works on State Protected Areas and in publications such as those of the Academy of Science of the U.S.S.R. and Union academies, and in the "Journal Series" of universities.

State Protected Areas of the U. S. S. R. (As of September 1, 1959)

Name of Protected Area or Small Protected Spot	Where Located	Union Republic	Area in Acres (Converted from hectares by translator)
	Natural Zone or Mtn. Range		
Desert Zone			
ASTRAKHAN	Seaside-delta region, semidesert	RSFSR	136,806
GASANKULINSKI	Seaside region, desert	Turkmen	172,159
BARSA-KELMESKI	Typical desert	Kazakhstan	48,906
REPETEYSKI	Southern sandstone desert	Turkmen	45,906
BADKHIZSKI	Southern desert	Turkmen	172,900
Steppe Zone			
CHERNOMORSKI	Seaside region, dry typical feathergrass steppe	Ukraine	29,640
ASKANINSKI PROTECTED SPOT	Dry typical feather-grass steppe	"	1,235
STONY MOUNT	Spot of stony steppe	"	879
STRELITSKAYA STEPPE	Zone of mixed feather-grass steppe	"	1,246
KHOMUTOBSKAYA STEPPE	Zone of mixed feather-grass steppe	"	2,529
KURGALDZHINSKI	Northern part of zone of wormwood feathergrass steppe	Kazakhstan	37,050
Forest-Steppe			
MIKHAELOVSKAYA VIRGIN REGION	Spot of mixed feathergrass steppe	Ukraine	498
CENTRAL CHERNOZEM	Small region of mixed feathergrass-forest	RSFSR	10,374
VORONEZHSKI	Forests and pine forests, in southern forest-steppe	"	76,076
KHOPERSKI	Floodplain of Khopra Riv. with holly and black-alder forests	"	39,520
MORDOVSKI	Pine forests in mixed pine-broadleaved forest, in northern forest-steppe	"	74,347
Forest Zone			
Subzone of mixed conifer and broadleaved forest			
MATSALY	Eastern European region of subzone of mixed conifer and conifer-broadleaved forest	Estonia	145,236
NIGULA	same	"	7,410
VIDUMEYE	same	"	1,605
VAIKA	same	"	86
KEMERN	same	Latvia	115,349
SLITERE	Eastern European region of subzone of mixed conifer-broadleaved forest	"	19,414
MORISTSALA	same	"	2,062
GRINI	same	"	1,729
GREBI	same	"	3,309
KHUVINTAS	same	Lithuania	7,410
BEREZINSKI	same	Byelorussia	165,490

PRIOKSKO-TERRASNI OKSII	same	RSFSR	11,930
MATURE CEDAR	same	"	54,340
SUDZUKHNSKI	Far Eastern region of subzone of conifer-broadleaved forest	"	37,297
SUPUTINSKI	same	"	427,310
SIKHOTA-ALIN	same	"	39,273
		"	228,921
Taiga Subzone			
LAPLAND	Northern taiga with spots of rocky tundra	"	391,001
KANDALAKSHSKI	Seaside region in northern taiga, with tundra areas	"	50,141
KIVACHI	Typical taiga	"	25,478
PECHORO-ILICHSKI	Typical taiga	"	1,478,601
DARVINSKI	Southern taiga and coastline of Fishing Reservoir	"	411,502
STOLBI	Central Siberian pine and pine-larch forest	"	116,090
BARGUZINSKI	Transbaikal mountain larch and dark coniferous forest	"	613,004
Urals			
BASHKIRSKI	Mountain pine and broad-leaved forest	"	197,847
ILMENSKI		"	
MINEROLOGICAL DENEZHKIN KAMEN	Pine and Lake in eastern foothills of Urals	"	74,100
	Dense mountain taiga and fellfields	"	89,167
Caucasus			
DILIZHANSKI	Northern slope of Little Caucasus with forests of Georgian oak, beech, and parklike thin forest and mountain meadows	Armenia	70,488
GARNINSKI	Saraibulakski Mountains and Khosrov forest; mountain steppe	"	36,706
BARTASSKI	Transcaucasian broadleaved forest	"	20,199
LAGODEZHSKI	Spur of southern slopes of Glavnovo Caucasus Mtns.	Georgia	32,851
RITSINSKI	Southern slopes of Glavnovo Caucasus Mtns. with conifer and broadleaved forests	"	39,342
BORZHOMSKI	Mountain oak, beech and conifer forest	"	33,592
ADZHAMETSKI FOREST	Extensive forest of Imeritinski oak, <i>Zelkova crenata</i>	"	11,739
GUMISTINSKI FOREST	Extensive forest of Caucasian fir, Eastern spruce, chestnut	"	6,777
KINBRITSKI		"	
VASHILOVANSKI	Extensive forest of Georgian maple, cedar, pomegranate	"	14,820
SAGURAMSKI	Vegetation of Kilkhidskovo region	"	12,350
PROTECTED SPOT OF PONTIAN OAK	Forest of Pontian oak	"	3,458
PITSUNDSKAYA GROVE	Grove of Pitsundskaya pine	"	741
SATAPLISKI PROTECTED SPOT		"	741
MAROAMDZHVARSKI PROTECTED SPOT		"	2,017
KOLKHIDSKII PROTECTED SPOT		"	1,235
BATSARSKI	Yew grove	"	7,538
ZAHATALSKI	Southern slope of eastern part of Caucasus Mtns.	Azerbaijan	60,391
GEKGELSKI	Northern slope of Great Caucasus	"	6,175
TURIANCHAISKI (WITH BRANCHES: SHIRVANSKI, PISTACHIO GROVE IN KARABAKHSKOI STEPPE, AYLDARSKI SPOT)	Pistachio-juniper thin forest on slopes of Bozdag Mountains	"	49,400
LENKORANSKI (GIRKANSKI)	Lenkoranski Lowland forest	"	49,400
KIZIL-AGACHSKI	Seaside region of Gulf of S. M. Kirova	"	229,710
CAUCASIAN	Northern slope of Great Caucasus; beech-conifer forest	RSFSR	621,896
TEBERDINSKI	Northern slope of Great Caucasus; pine, conifer	"	228,672
Mountains of Central Asia			
CHATALSKI	Chatalski Mtns., hardwood and juniper forest	Uzbekistan	27,170
AKSU-DZHABAGLINSKI	Spur of Talasskovo and Ugamskovo Mtns.; juniper; rocky steppes; high mountain meadows	Kazakhstan	172,900
SARI-CHILEKSKI		Kirgiziya	98,800
KEMINSKI	Kungei-Alai; forest of Shrenk spruce	"	49,400
TIGROVAYA VALLEY	Gorge in valley of Vakhsha Riv.	Tadzhikistan	101,270
ISKANDER-KUL	Lake of same name and region to west of it	"	74,100
RAMIT	Basins of Sorbo and Sardai-Meyena rivers	"	37,050
GAZIMAILIK	60 km. south of city of Stalinabad	"	37,050
CHILDUKHTARON	Basins of Obi-Surkh and Yakh-su rivers	"	37,050

TRANSLATOR'S NOTE } TOTAL 8,139,726.92 acres
 (area of U.S.S.R. = 7,877,589 square miles)

Your National Parks Association at Work

Subcommittee Hearings on Rainbow Protection Funds

During mid-May, the Subcommittee on Public Works of the Committee on Appropriations of the House of Representatives held hearings in Washington, D.C., on the question of an appropriation for protective works to prevent the intrusion of Lake Powell waters into Rainbow Bridge National Monument.

Present to testify, upon invitation, was Anthony Wayne Smith, specialist in natural resources management and executive secretary of the National Parks Association.

Mr. Smith told the subcommittee that, in his opinion, the Secretary of the Interior is obligated under the provisions of the Upper Colorado River Storage Act of 1956 to protect the monument from any such intrusion of waters. He referred the subcommittee specifically to the following clauses of the Act:

"It is the intention of Congress that no dam or reservoir constructed under the authorization of this act shall be within any national park or monument."

"The Secretary of the Interior shall take adequate measures to preclude impairment of the Rainbow Bridge National Monument."

The argument that the Bridge would not be structurally impaired by water entering the monument is not relevant to the central issue, said Mr. Smith; the real question is whether or not this National Park System unit will be afforded protection from reservoir water. A reservoir within the monument would impair it as a matter of law, he pointed out.

Mr. Smith noted that conservationists would probably be satisfied with any of the three solutions to monument protection that have been generally considered, with general preference for the third.

The three solutions are:

Reduction of the maximum level of the Glen Canyon Reservoir, behind which the waters of Lake Powell will form, below the level of Rainbow Bridge Monument, sacrificing a measure of storage and hydroelectric power head; constructing protective works at the so-called Site B on Bridge Creek, below Rainbow Bridge Monument, coupled with a diversion tunnel taking the water of Bridge Creek through the mountain into Aztec Creek; or a protective dam farther down the watershed on Aztec Creek.

Mr. Smith also reminded the subcommittee of the great sums being spent by the Bureau of Reclamation to bring new land into cultivation by irrigation at the same time that the Department of Agriculture is attempting to remove some 50 millions of acres of cropland from production. He noted that the place to trim expenditures, if trimming were necessary, is in useless irrigation of new lands and not in park protection.

"The quality and the basic objectives of our civilization are at stake in situations of this kind," Mr. Smith told the Subcommittee. "Do we intend to measure the desirability of river management projects exclusively by their tangible utilitarian benefits such as kilowatt hours of electric power and acres of irrigated land, or shall we continue to consider, as we have thus far throughout our history, the intangible values like open space and magnificent scenery?"

Senate Committee Hears Public on Recreation Bill

On May 10 and 11, the Senate Committee on Interior and Insular Affairs held public hearings on Senate Bill 3117, introduced into the second session of the 87th Congress by Senator Clinton P. Anderson of New Mexico for himself and a number of other senators to promote the coordination and development of Federal and State outdoor recreation programs and to provide financial assistance to States for outdoor recreation planning.

Among those presenting their views on the bill, upon invitation, was Anthony Wayne Smith, executive secretary of the National Parks Association, and specialist in natural resources management.

Mr. Smith indicated to the committee that Senator Anderson and the senators co-sponsoring S. 3117 were to be congratulated on their interest in outdoor recreation. The coordination of the work of the various Government agencies, both

State and Federal, having responsibilities for planning outdoor recreation has been needed for a long time, he said.

The present bill will make it possible to get started with the basic essentials of such a system of coordination in respect to inventory, evaluation, classifications, technical assistance to States and localities in planning, encouragement of regional cooperation, the sponsoring of essential research, the development of an integrated nationwide plan, the preparation and publication of studies, establishment of all-important education and interpretation programs, and the cooperation of the various Federal agencies in the work of the Bureau of Outdoor Recreation, Mr. Smith told the Committee.

The Fontana Road Problem

Over the past several years the National Parks Association has been active in opposing the so-called north shore of Fontana Lake road, which would, if built, connect the towns of Bryson City and Fontana, North Carolina. It would run along the north shore of Fontana Lake through a heavily-timbered and still-primitive region of great beauty that was incorporated into Great Smoky Mountains National Park nearly two decades ago as the result of an agreement between the National Park Service, the State of North Carolina, and Swain County in that State. Under the agreement the so-called north shore road was to have been built in exchange for the incorporation of some 44,000 acres of this land into Great Smokies Park.

Many conservationists and conservation organizations—among them the Na-

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tional Parks Association—felt that the road-for-land swap was a bad bargain to begin with, and that the land should have been acquired outright. They opposed, and still oppose, the north shore road as unnecessary and destructive, and advocate an alternative and much more feasible commercial highway around the south shore of the lake. (An editorial in this magazine for April, 1961, urged the renegotiation of the agreement between the Park Service and North Carolina and Swain County.)

In recent weeks the road issue has again become active, and on May 8 NPA Executive Secretary Anthony Wayne Smith dispatched a letter to Interior Secretary Stewart L. Udall reiterating the opposition of the Association to the north shore road, and pointing out that there are plenty of alternative roads around Fontana Reservoir to the south which could be developed to the economic benefit of the people of that region.

Further, he said in the letter, the cost of the north shore road would be a fantastic waste of Park Service funds which are greatly needed for other purposes, and the road would destroy much fine forest country whose protection was among the purposes of the establishment of the park.

"We realize that certain purported contractual commitments may be involved," wrote Secretary Smith, "but the escape clauses are also well known, and it would seem to us that they should be utilized by the Secretary of the Interior to put an end to this ridiculous aggression of Great Smoky Mountains National Park once and for all."

On May 17, Secretary Udall responded to Mr. Smith's letter as follows:

Dear Mr. Smith:

We appreciate the interest of the National Parks Association as expressed in your letter of May 8 in opposing the construction of a traffic artery around the north shore of Fontana Reservoir in Great Smoky Mountains National Park, North Carolina.

A recent investigation of the Bureau of Public Roads and National Park Service technicians into the extreme construction difficulties that developed in building the initial increment of the Bryson to Monteith Creek Route has resulted in the recommendation that an exhaustive study of all possible alternate locations be made in the interest of reducing road costs, assuring a less hazardous route, and avoiding further irreparable damage to the landscape.

We find it advisable to reappraise the whole situation before proceeding further with this development and the National Park Service has initiated a complete and exhaustive study of all possible alternate route locations. Without doubt the merits of a road location on the south shore of Lake Fontana will be investigated.



Del Ankers Photograph

Present at an April luncheon in Washington, D.C., honoring the conservation work of Senator Wayne Morse of Oregon were, from left to right: William Zimmerman, Jr.; Dr. Spencer Smith; Senator Morse; Dr. Ira Gabrielson; Dewey Anderson; Secretary of the Interior Stewart L. Udall; C. R. "Pink" Gutermuth; and Anthony Wayne Smith.

At an April 24 luncheon in Washington, D. C., a group of prominent American conservationists presented Senator Wayne Morse with a citation for his active interest in the field of conservation. Presented by Secretary of the Interior Stewart L. Udall, the citation read: "From grateful conservationists to Senator Wayne Morse in appreciation and

recognition of his vigorous and continuing efforts to advance the wise management and preservation of our natural resources in the public interest." Among those signing the citation, but not shown in the photograph above, were Supreme Court Justice William O. Douglas and Howard Zahniser, executive secretary of the Wilderness Society.

Annual Meeting of the Association

The forty-third annual meeting of the National Parks Association took place on May 22, 1962, at the Association's headquarters, 1300 New Hampshire Avenue, N.W., in Washington, D.C.

Presiding at the meeting was Dr. Clarence Cottam, who heard the reports of officers and committees; following the business session, the officers and trustees discussed a number of current park problems.

Re-elected to one-year terms were the officers of the previous year: Dr. Clarence Cottam, director of the Welder Wildlife Foundation, of Sinton, Texas, president;

Frank E. Masland, of Carlisle, Pennsylvania, vice-president; Dr. John H. Cover, of Washington, D.C., secretary; and Donald A. McCormack, of Washington, D.C., treasurer. (A list of those elected to trusteeships in the Association will appear in the August issue of the Magazine).

Following the annual meeting, many of the trustees and the officers and staff, as well as invited guests, repaired to "Stronghold," on Sugar Loaf Mountain south of Frederick, Maryland, for an evening cookout at the invitation of the operators of the preservation.

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The Editor's Bookshelf

THE BIGHORN OF DEATH VALLEY. By Ralph E. Welles and Florence B. Welles. United States Government Printing Office, Washington 25, D.C. 1961. 242 pages in paper cover, illustrated in black and white, and with map and bibliography. \$1.50.

This volume, number six in the Department of the Interior's "Fauna of the National Parks" series, publishes the findings of the first serious ecological study of the desert or Nelson bighorn sheep, *Ovis canadensis nelsoni*. In particular, it records the findings of some eight years' intensive study of the bighorn of Death Valley National Monument by Ralph and Florence Welles, he a park naturalist and she a Park Service collaborator.

One grants that the results of a scientific investigation are properly recorded in a serious and methodical manner; and yet this volume contains more than a hint of the fascinating human story which is largely submerged under facts and figures. Here was a year-around study conducted under climatic conditions as severe as any to be found on earth, in a rough and hostile terrain. It may be suspected that the investigators Welles could, opportunity allowing, co-author a fascinating volume of personal experience based on their study of the Death Valley bighorn. We hope they do.

—P. M. T.

TREASURY OF WORLD SCIENCE. Edited by Dagobert D. Runes, with an introduction by Wernher Von Braun. Philosophical Library, Inc., 15 East 40th Street, New York City. 978 pages in hard cover, illustrated in black and white. \$15.00.

This is an anthology of the important writings of men who have pioneered in science, from Archimedes, Hippocrates,

Agricola and Copernicus to men of the twentieth century. Some of the basic discussions presented are heavy going for the layman; others are largely philosophical. All share a certain facility of expression—in a number of cases a real elegance—which has hallmarked the writings of many top-flight scientists over the ages.

VOLCANOES OF THE NATIONAL PARKS IN HAWAII. By Gordon A. MacDonald and Douglass H. Hubbard. 2nd Edition. Hawaii Natural History Association, P.O. Box 456, Kahului, Maui, Hawaii. 1961. 40 pages in paper cover. Illustrated in color and black and white. 60¢ postpaid.

A guidebook to the history and geology of the currently active volcanoes of the Hawaiian Islands, with glossary, bibliography, maps, charts, and some rather spectacular photographs of volcanoes in action. A must for the visitor who cares to make his trip through the Hawaiian volcanic parks something more than a scenic tour.

COMMON SEASHORE LIFE OF THE PACIFIC NORTHWEST. By Lynwood Smith. The Naturegraph Company, Healdsburg, California. 1962. 66 pages in paper cover, illustrated in color and black and white. \$1.75. (Cloth library edition, \$3.75).

"There is more living and dying on the little strip of wet land which is uncovered at low tide than in any similar-sized area in the world," says Lynwood Smith, formerly instructor in biology at Olympic College, Bremerton, Washington. This little volume lists the beach animals to be found on the salt-water shorelines of the Pacific Northwest, and describes them in some detail by word and sketch.

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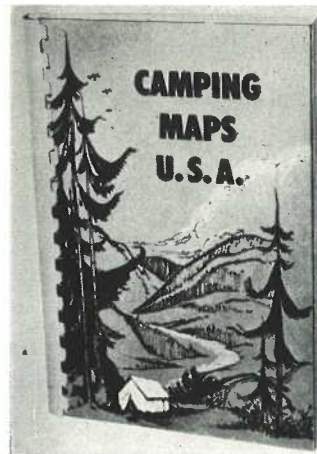
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News Briefs from the Conservation World

Interior Department Awards Presented By Secretary

During the latter part of May, Secretary Stewart L. Udall presented five leading American conservationists and two private corporations with the Department of the Interior's Conservation Service Awards for 1962.

Honored for their contributions to natural resources conservation programs were former Senator Joseph C. O'Mahoney of Wyoming, who served that State for 25 years in the Senate; Percival P. Baxter, former governor of Maine who was instrumental in setting up one of the nation's greatest State preserves (see *NPM* for December, 1961: *Baxter Park, Gem of the Maine Woods*); Joseph W. Penfold, ORRRC member and conservation director of the Izaak Walton League; Don G. Fredericksen, of Gooding, Idaho; M. D. Bryant, of San Angelo, Texas; Smith Research and Development Corporation, Lewes, Delaware; and the Phillips Petroleum Company, Bartlesville, Oklahoma.

The ceremonies also included the presentation of a special plaque to Laurance S. Rockefeller, chairman of the Outdoor Recreation Resources Review Commission, for his continuing efforts in the conservation field.

Impact of Park Attendance To Be Examined

"Man and Nature in the National Parks" is the title of a study to be conducted by Dr. F. Fraser Darling, vice-president and director of research of the Conservation Foundation, conservation research organization of New York City.

A grant from the Old Dominion Foundation will enable Dr. Darling to examine

the impact of increasing national park attendance on the wildlife and vegetation of the areas by personal visits to as many national parks and monuments as possible. Also to be considered is the problem of compatibility of recreational facilities with the basic national park concept.

Whooping Crane Numbers Reduced By One

A newpage of this magazine for May announced that at that time there were forty-six whooping cranes in existence, a new high record since observations of the bird were commenced in 1938. The number must now be revised to forty-five, with the recent death of a whooper chick which had been hatched at the New Orleans zoo and which had been included in the May figure. There are now thirty-eight cranes at the Aransas Wildlife Refuge in Texas, and there are seven others in captivity.

Park Administration Congress Hears American Editor

Approximately 1000 delegates from all parts of the world gathered in London, England, on May 21 for the Second World Congress in Park Administration. One of the eleven papers presented was that of Erik L. Madisen, Jr., of Appleton, Wisconsin, editor of *Park Maintenance* magazine, national publication for those working in park administration. His topic was: "Public Relations and Park Administration." Both the written and oral portions of the Congress were presented in English, German and French, and simultaneous translation of the talks permitted an international question and answer period.

In introductory remarks, Madisen pre-

dicted that by the year 1975 the United States will have 12,000 more parks of all kinds than it has at present. Expenditures for park and recreation activities in this country will reach a record total of nearly a billion dollars in that year, he indicated.

Present trends in the United States, Madisen said, indicate that these predictions may be conservative in the light of increased Federal, State, and local emphasis on park acquisition. The present squeeze on park and recreation facilities, he said, will be eased slightly as more emphasis is placed on bringing available areas in the various systems into line with user demand.

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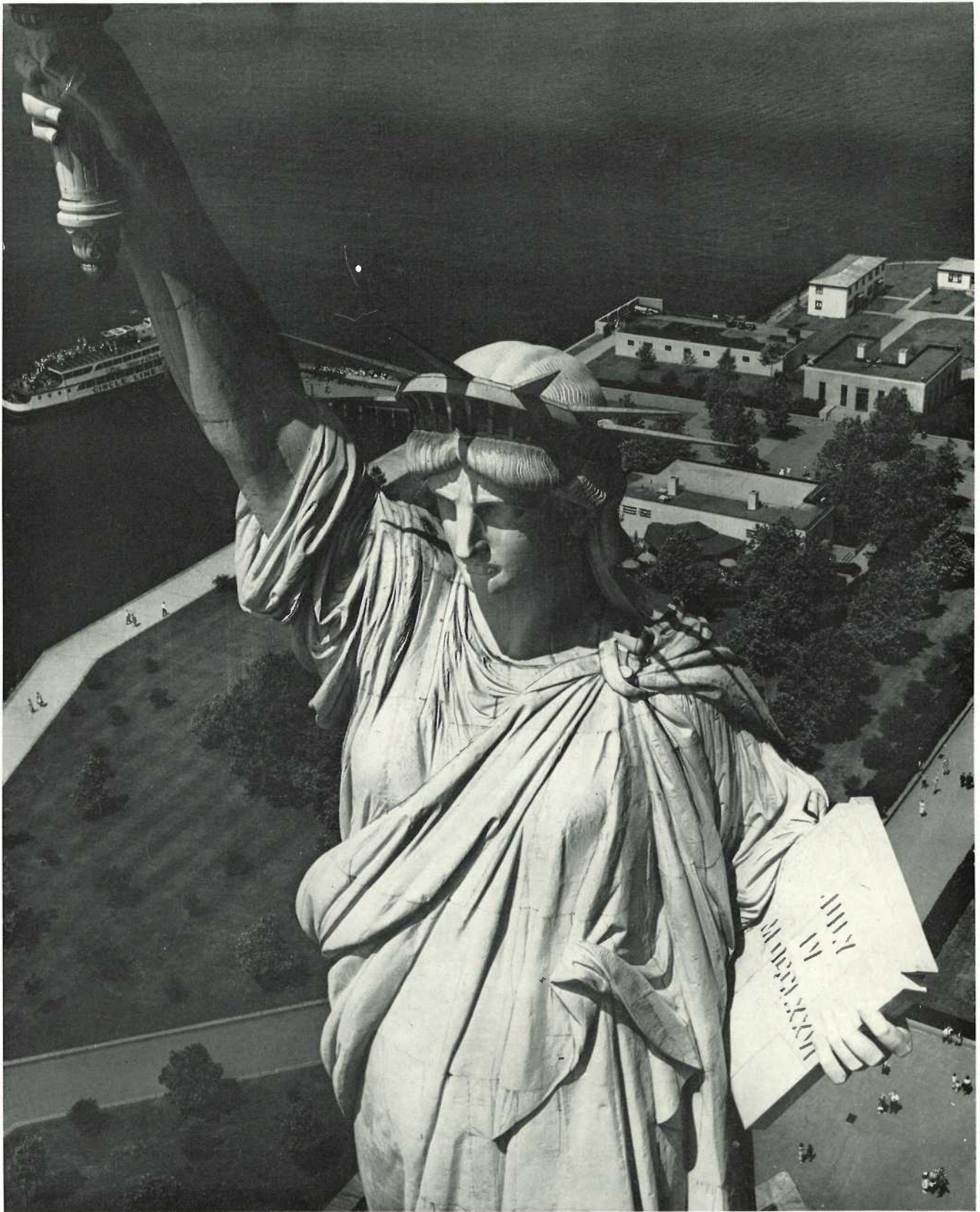
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A National Park Service Photograph

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