

CARLSBAD CAVERNS

N A T I O N A L P A R K

New Mexico

Carlsbad Caverns

NATIONAL PARK
NEW MEXICO

OPEN ALL YEAR

Contents

Formation of the Caverns	4
Extent of the Caverns and of Park	8
Exploration of Caverns.	9
Prehistoric Sandal Found	9
The Bat Spectacle	12
The Desert Plants	13
Weather Conditions	15

Rules and Regulations (Briefed)

FOR THE INFORMATION OF VISITORS the following is a synopsis of the rules and regulations in force in the Carlsbad Caverns National Park. Complete regulations may be seen at the office of the superintendent.

Preservation of the park.—The destruction, injury, or disturbance in any way of the trees, flowers, vegetation, rocks, mineral formations, or any animal, bird, or other life is prohibited.

Defacement by writing, carving, or otherwise, of any of the walls or other formations in the caverns is prohibited.

No canes, umbrellas, or sticks of any kind may be taken into the caverns unless permission is granted by the superintendent or one of his representatives, which permission may only be given when such cane or stick is necessary for the visitor to make the cavern trip. The tossing or throwing of rocks or other material inside the caverns is prohibited. No firearms or explosive material may be taken into the caverns.

Fees.—No person or persons shall be permitted to enter the caverns unless accompanied by National Park Service employees or guides. Competent guide service is provided for the public by the Government, for which a fee of \$1.50 shall be charged each person entering the caverns. No charges shall be made for children 16 years of age or under when accompanied by adults. An additional charge of 50 cents in each direction will be made for adults using the elevator and 25 cents for children between the ages of 5 and 12 years. Adults will be held responsible for the conduct of children whose names appear on their tickets.

The Underground Trip	15
Floodlighting of the Caverns	18
Elevator Service	21
Fees	22
Administration	24
How to Reach the Park	24
Accommodations.	26
Nearby Places of Interest	27
References	29
National Parks in Brief	30
Government Publications	31

Camping.—There are no public camps within the park area, and no overnight stop is permitted. Lunches may be eaten only in designated places, and all trash must be placed in trash cans provided for the purpose.

Especial care shall be taken that no lighted match, cigar, or cigarette is dropped in any grass, twigs, leaves, or other combustible material.

Hunting.—The park is a sanctuary for wildlife of every sort, and the hunting, killing, wounding, frightening, capturing, or attempting the capture, of any wild bird or animal is prohibited.

Cameras.—Still and motion-picture cameras may be used on the surface by amateurs for scenic views. Amateurs desiring to operate standard-size motion-picture cameras, and professional photographers must obtain a permit from the superintendent for taking interior views. No flashlight shall be taken without special authority in writing from the superintendent. During months of heaviest travel (June, July, and August) this permission, at the discretion of the superintendent, may be refused.

Dogs.—No dogs are allowed in the caverns.

Park rangers.—The rangers are here to help and advise you. When in doubt, ask a ranger.

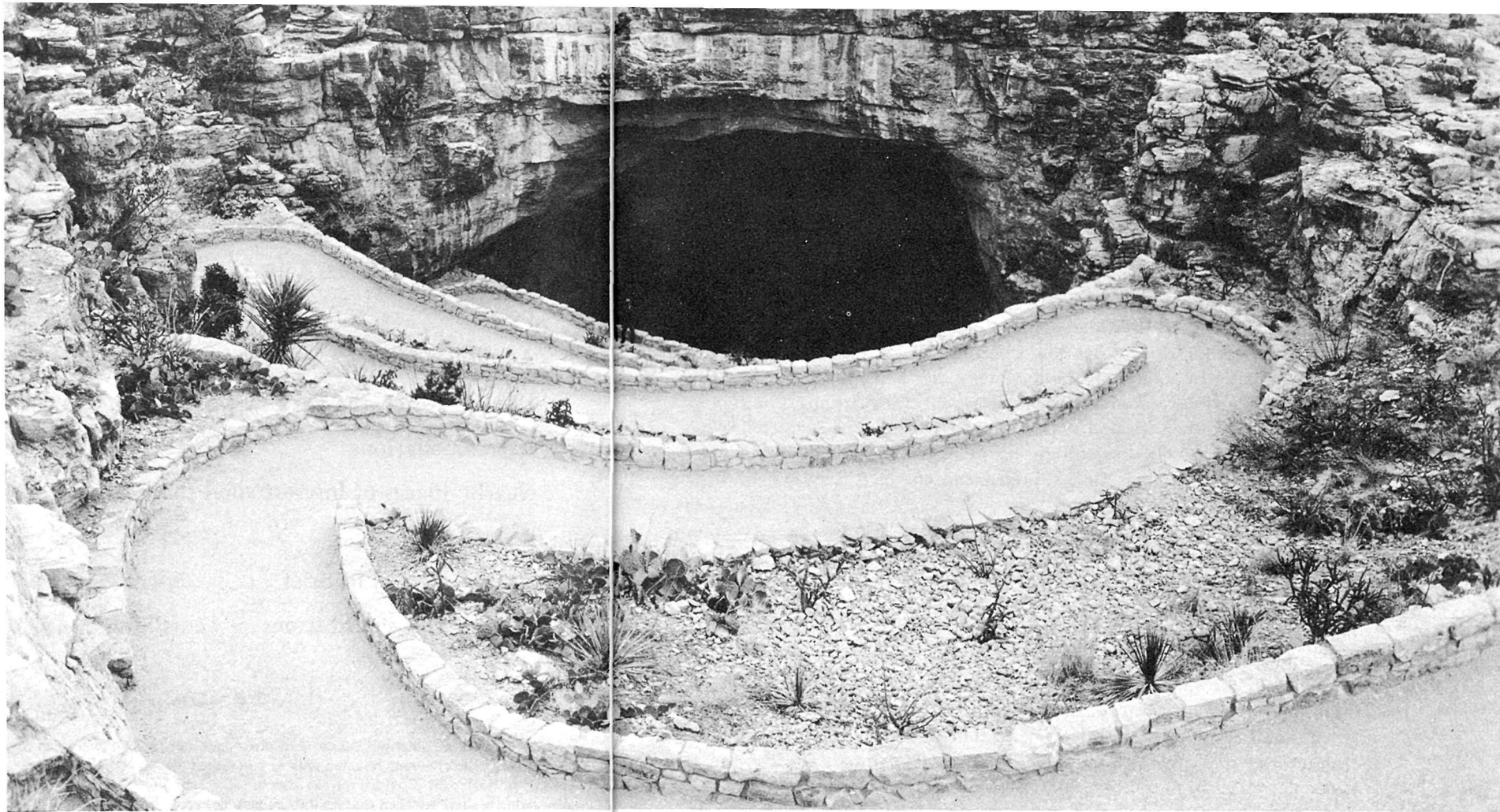


UNITED STATES DEPARTMENT OF THE
INTERIOR - - - Harold L. Ickes, Secretary

NATIONAL PARK SERVICE

Arno B. Cammerer, Director

ENTRANCE
AND TRAIL



AMONG the superb areas included in the national park system of the United States is a series of connected caverns of unusual magnificence and extent known as the Carlsbad Caverns. They are located in southeastern New Mexico, in the rugged foothills of the Guadalupe Mountains. The region is picturesque semidesert country, and its cactus vegetation is as strange and interesting to many visitors as are the caverns themselves.

The Federal Government, by proclamation of President Coolidge, on October 25, 1923, established the Carlsbad Cave National Monument. Later, by act of Congress approved May 14, 1930, the area became the Carlsbad Caverns National Park.

FORMATION OF THE CAVERNS

Carlsbad Caverns are openings made by water in a massive rock known

as the Carlsbad limestone. This limestone was formed originally in a shallow inland extension of the ocean some 200 million years ago—in the Permian period, which followed the time of greatest coal forming throughout the world. After this period the area was dry land, but it may have been resubmerged and covered by sediments at a later period.

The uplifting and folding movements that formed the Rocky Mountains also raised the Carlsbad area above sea level. The Guadalupe Mountains near Carlsbad are outliers of that great mountain system. The uplift of the region took place about the end of the “Age of Dinosaurs” (Cretaceous period)—some 60 million years ago. Since that time the streams have carved their deep gorges, the vast caverns have been hollowed in the limestone, and within them, at a still later time, the amazing decorative deposits were formed.

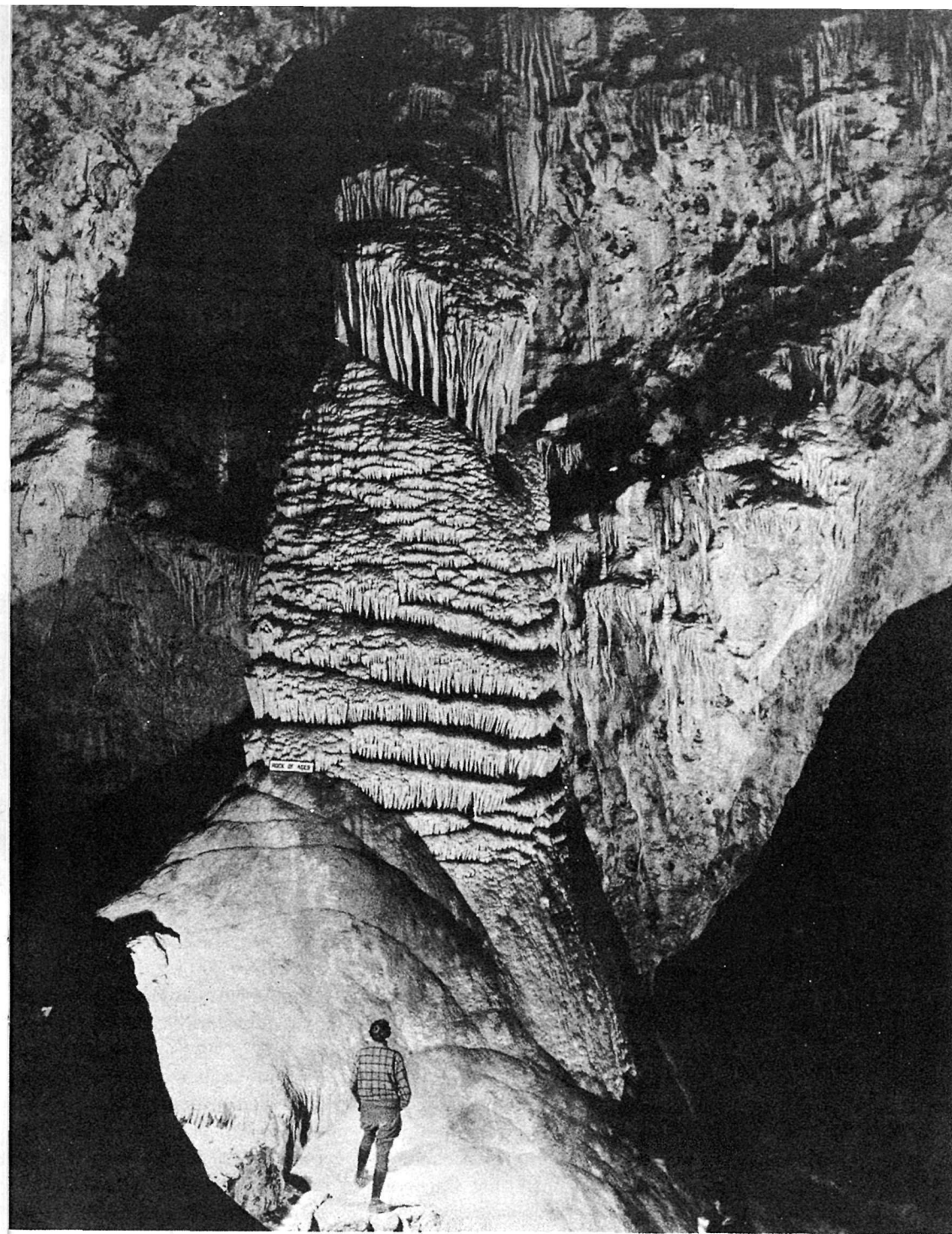
The repeated movements of the region made numerous joint cracks or fissures in the massive Carlsbad limestone, and a portion of the rain water that enters the ground has found its way along many of these crevices. The beginnings of the caverns as small crevices date from the entrance of this first percolating water.

Once water enters a limestone it begins the incessant process of removal by solution. Slowly it seeps through the crevices, removing the firm rock little by little, until eventually a series of tortuous openings are developed. Very small at first, they gradually enlarge and extend in all directions, and all are connected. More water enters with each rain and the cavities continue to enlarge by solution, rapidly when water is plentiful, slowly when it is scarce, thus opening great caves and passageways. Long, continuous corridors result when ground water is diverted along the contact of an impervious layer or follows a straight fissure or joint crack. Ultimately the water that moves through these subterranean channels flows out into the valley in the form of seepages or springs.

Some cave rooms have been formed or enlarged also by the solution of embedded salt or gypsum, which are much more soluble than limestone. The large rooms owe their size in part to the caving of rock from the sides and the roof. Such caving extends upward and in some places opens great holes at the surface. Where much water finds its way underground and sand and gravel are washed in from the surface many of the channels are deepened by the scouring action of flowing streams.

Ground water moves through deeper passages and finds lower outlets when the adjacent valleys are deepened. The small seepages that find their way into the dry caverns from above are here evaporated, and deposition takes place instead of solution and removal. During this second period of development nature converts these gray cavities into a wonderland. In the Carlsbad Caverns there are myriads of beautifully sculptured effects hanging from the ceiling. Some of these are inverted spires variously ornamented and known as stalactites; some are small delicate growths resembling plant structures. Where water enters any opening faster than it can be evaporated, part of it falls to the floor and evaporates there, gradually building up stalagmites and other masses of limestone, many of which assume grotesque shapes. Some stalactites and stalagmites have joined to form huge columns.

Less commonly irregular spiral and curiously branched and twisted forms develop; these are known as helictites. Many of the formations in all forms and positions are beautifully colored, generally in shades of tan, but tints of rose, green, and purple are also sometimes seen. This coloring results from a small amount of iron or other mineral matter in the limestone.



These ornate and fascinating forms are due to the deposition of limestone which has been carried in solution by ground water and which crystallizes upon the walls of the cave as the water evaporates or when dissolved carbon dioxide which it may contain escapes to the air. Even when most of the water finds direct entrance through sink holes into deep open passageways, a small amount still seeps through small crevices into the dry upper chambers where it evaporates and deposits its tiny load of limestone. This constant addition of small increments to the surface by the evaporation of the water in which it is dissolved is the method by which the cave formations grow.

The brilliance and translucent appearance of the formations in a cave are due to the fact that they are saturated with water. If, for any reason, the seepage of water into the cave is stopped, its appearance gradually becomes dull and the surface slowly assumes a powdered appearance. Such a dry cave is spoken of, in cave parlance, as being dead.

The immensity of the large rooms, the beauty of form, and the impenetrable stillness leave an indelible impression upon those who venture into this fairyland. The beauty, form, and color are so impressive that no explanation of the method by which the caverns develop seems adequate.

EXTENT OF THE CAVERNS AND OF PARK

Although it has been the subject of extensive explorations, the size of the Carlsbad Caverns is not yet known. Already many miles of passages and chambers have been explored, and further mileage is continually being conquered. How far the caverns extend under the Guadalupe Mountains no one knows.

Three main levels in the caverns already have been discovered, and there may be others not yet known. The first is at the 750-foot level, to which visitors are conducted. Below it is another vast subterranean apartment at 900 feet, and below that still another at 1,320 feet. None of these levels has been completely explored.

Although the underground caverns are so extensive, the surface area of Carlsbad Caverns National Park was only a little more than 700 acres until February 21, 1933, when President Hoover signed a proclamation increasing its size to 9,960 acres. Authority for this extension was granted by Congress in 1930, when it authorized the park's establishment.

Within this enlargement are many other caves, some rich in decorative deposits and others full of archeological interest in that several of them are the burial places of prehistoric inhabitants of the region.

Other evidences of prehistoric occupancy are the circular rock mescal or cooking pits and the grinding bowls found near the entrance to the caverns. Just at the entrance is an excellent example of a mescal pit.

The early Indians baked not only mescal and cactus but sometimes meats in these pits.

Early pioneer trails passed near the caverns' entrance. The Spanish conquistadors are believed to have come into the Guadalupe Mountains at Rattlesnake Springs, near the caverns, and the historic old Butterfield express trail (the first express trail across the West) crossed the route of the Spaniards at this point. Over the Butterfield Trail the Forty-niners freighted their gold from California to St. Louis, and today wagon irons, relics of old wagon trains that met with disaster at the hands of marauding bands, are sometimes unearthed.

EXPLORATION OF CAVERNS

The first white man known to have explored the caverns was Jim White, a cowboy. This was in 1901. Seeing a dark, moving column issuing from the region, he investigated and found a natural opening in the earth which led down to the caverns. The dark, smokelike column proved to be alive, a moving stream of bats from down in the darkness of the caves.

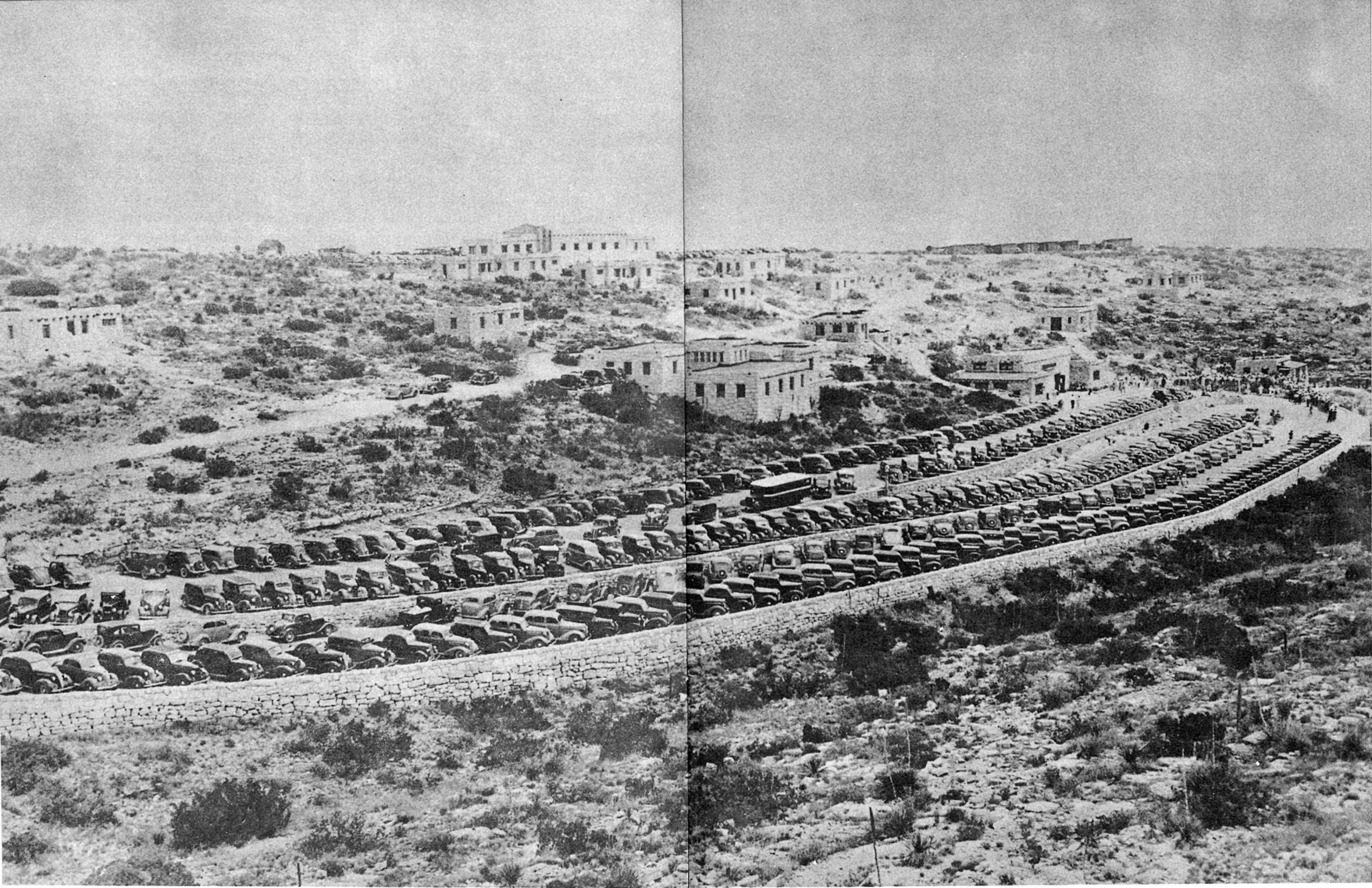
With a young Mexican boy as his only companion, Jim White made extensive explorations of the caverns, insuring success in his return by leaving behind a trail of smudge marks and strings. Many long stretches of string still remain in the less-visited portions of the caverns, mute testimony of the intrepid courage of the young cowboy whose love of adventure made him the pioneer explorer of the world's greatest caverns.

After exploring Carlsbad Caverns, Jim White never missed an opportunity to take visitors into his find and share its beauties with them. Their reports of the size and magnificence of the underground chambers finally resulted in examination of the caverns in 1923-24 by Robert Holley, of the General Land Office, and Dr. Willis T. Lee, of the Geological Survey, both of the United States Department of the Interior. These men were greatly impressed with the magnificence of the caverns. Shortly afterward Dr. Lee led the National Geographic Society expedition into them. His reports, published in the National Geographic Magazine of January 1924 and September 1925, gave the caverns national publicity.

Jim White still lives and has written a book telling of his experiences during the discovery of the Carlsbad Caverns. He may be found at noon in his booth in the underground "Lunchroom."

PREHISTORIC SANDAL FOUND

Long before the first white man entered Carlsbad Caverns, prehistoric people knew of their existence. Recent trail construction uncovered a sandal a short distance inside the entrance, which has been identified as



PARKING TERRACES AT CAVERNS ENTRANCE

Kennicott Photo

the handiwork of the Basket Makers who inhabited the region, probably before the time of Christ.

THE BAT SPECTACLE

The bat spectacle which first claimed the attention of Jim White is now one of the great attractions of the Carlsbad Caverns National Park.

Each evening at dusk, except during the winter period of hibernation, millions of bats come forth from a cavern 180 feet below the surface, flying in a spiral through the great entrance arch, and streaming off over the rim in a southerly direction, later to separate into flocks which disappear in the distance for a night's foraging. Beginning about sunset, the flight outward lasts about 3 hours. The bats return before the following dawn.

It has been estimated that 3,000,000 bats during 1 night's foray consume a little over 11½ tons of night-flying insects, such as various kinds of moths, beetles, flies, and mosquitoes.

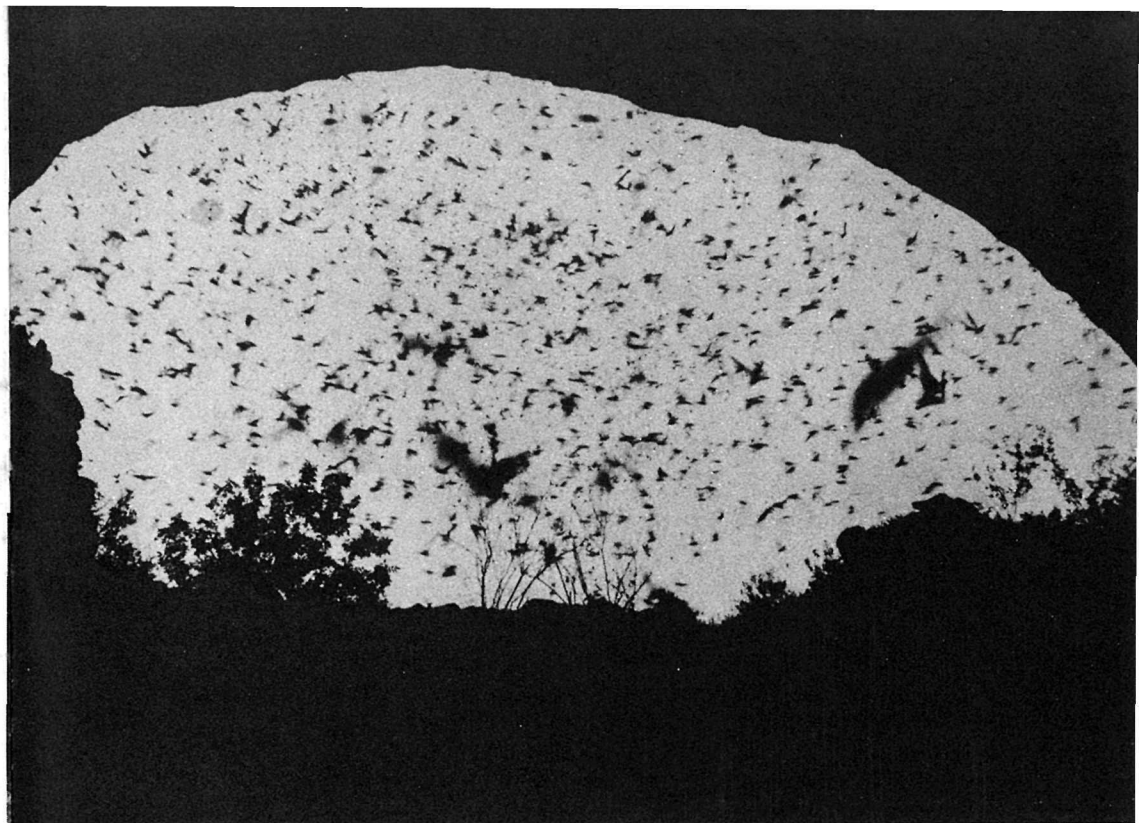
During the day the bats hang by their hind legs, heads downward, in great clusters high on the walls and ceilings of their particular portion of the caverns. From October until March they hibernate, hanging in this position and seeming almost lifeless.

There are five kinds of bats in the caverns, but by far the greater number are Mexican free-tailed bats (*Tadarida mexicana*). Their common name of free-tailed bat is descriptive of the tail, which projects about 1 inch beyond the skin that stretches between the hind legs.

During the latter part of June or early in July the young, one or two in number, are born. The newly born bat instinctively clings to the under side of the mother, and is carried about in this position even when she is flying in search of insects.

The portion of the caverns occupied by the bats is a long corridor extending a quarter of a mile eastward from the main entrance, and is not open to visitors. The presence of such large numbers of bats was responsible for the accumulation of great deposits of guano. Between 1901 and 1921, before the caverns were in Government ownership, about 100,000 tons of guano were taken out by a fertilizer company and sold to citrus growers. It is believed that this was accumulated over a period of many centuries.

In some portions of the caverns not now inhabited by bats there are guano stains, showing that formerly bats occupied these portions of it. In the Papoose Chamber, many years ago, a bat died while clinging near the top of a stalagmite, and the growth of the formation sealed the little mammal in a stony tomb.



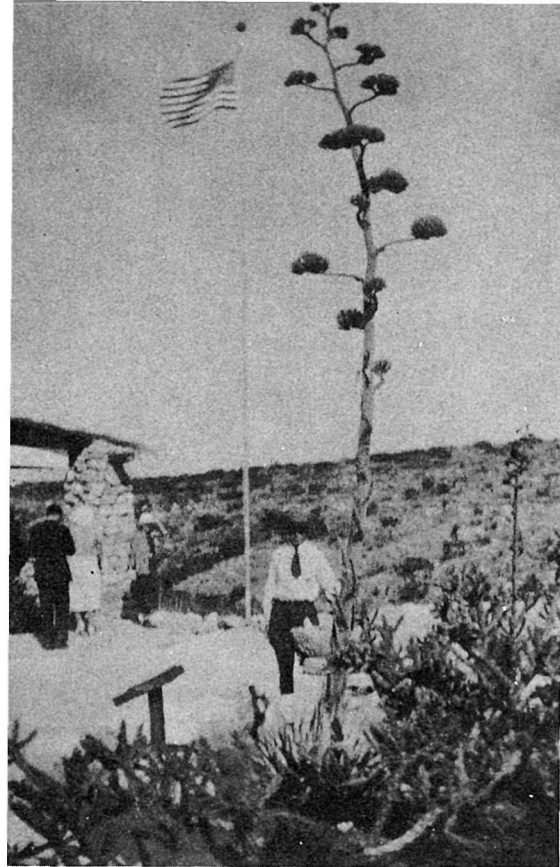
Boles photo

BAT FLIGHT AS SEEN FROM INSIDE CAVERNS ENTRANCE

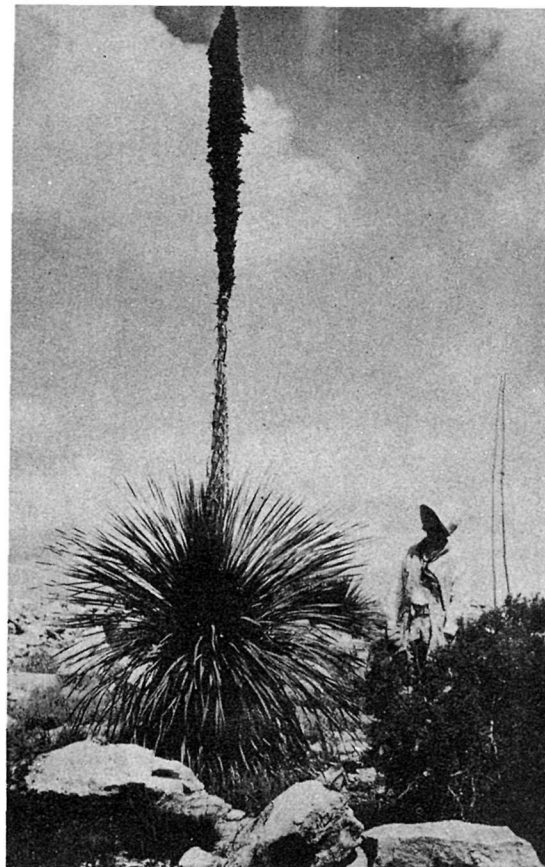
A talk on the bats by a ranger naturalist is given each evening at the caverns entrance just before the flight begins.

THE DESERT PLANTS

The region about the Carlsbad Caverns National Park contains many interesting desert plants. With an annual rainfall of only 10 inches, the little water which does fall runs off quickly, because the limestone outcrops at the surface and there is little soil to retain the water. The many peculiar forms of plants show adaptations resulting from the necessity for the retention of water, the lessening of evaporation, and the protection of the plant from being eaten. For instance, the thickened joints of the prickly-pear cactus, the spherical or cylindrical forms of other cactus varieties, and the thickened leaves of the purslanes enable all these plants to store water whenever the roots have the opportunity to absorb it. Most of the cactuses and the allthorn have lost their leaves altogether while the ocotillo sheds its small leaves during the driest part of the year, thus reducing the surface from which evaporation may take place. As a means of reducing



CENTURY PLANT



DESERT FLORA *Boles photo*

evaporation, many of the plants of the region, like the various kinds of catclaws and blue-thorn, have developed very small leaves. In other cases the leaves may have a waxy surface, as in the goat bean, or varnished surfaces, as in the creosote bush, or a hairy covering, as in the sages. Plants such as the cactuses, allthorn, blue-thorn, catclaws, ocotillo, and algireta are protected by the spines or thorns from being eaten.

The caverns visitor who comes in April or May might be fortunate enough to see many plants in full bloom, plants which flower for only a short time, go to seed, and then until the following spring give little evidence of their existence.

The following are some of the very conspicuous plants which may be seen in a few minutes' walk from the caverns entrance. The cactus garden near the ticket office contains all of the cactuses, as well as a few of the other plants of the region.

Juniper, cedar, popotillo, jointfir, Mormon tea, yucca, Spanish dagger, la palma, soapweed, palmilla, sotol, beargrass, lechuguilla, little century-

plant, little mescal, mescal, centuryplant, black walnut, hackberry, mulberry, catclaws, mesquite, goat beans, soapberry, New Mexican buckeye, blue-thorn, candle flame, devils-walkingstick, ocotillo, desertwillow, allthorn, pricklypear, cane cactus, tasajello, brown-flowered pataya, yellow-flowered pataya, devils-pincushion or strawberry cactus, claret cup, melon cactus, devils head, manco caballo, horse crippler of the Rio Grande, turks head or fishhook cactus, and button cactus.

WEATHER CONDITIONS

Carlsbad Caverns National Park is open throughout the year. Although the caverns temperature remains stationary at 56°, the surface temperature runs the gamut from nearly zero weather in winter to over 100° in summer. Therefore, clothes of ordinary weight, plus a light sweater or other wrap, are needed for the trip through the caverns at all times of the year; while on the surface, clothes should follow the season. No special clothes are needed for the caverns trip, since trails and stairways are followed the entire distance. Low-heeled shoes, however, are advisable.

THE UNDERGROUND TRIP

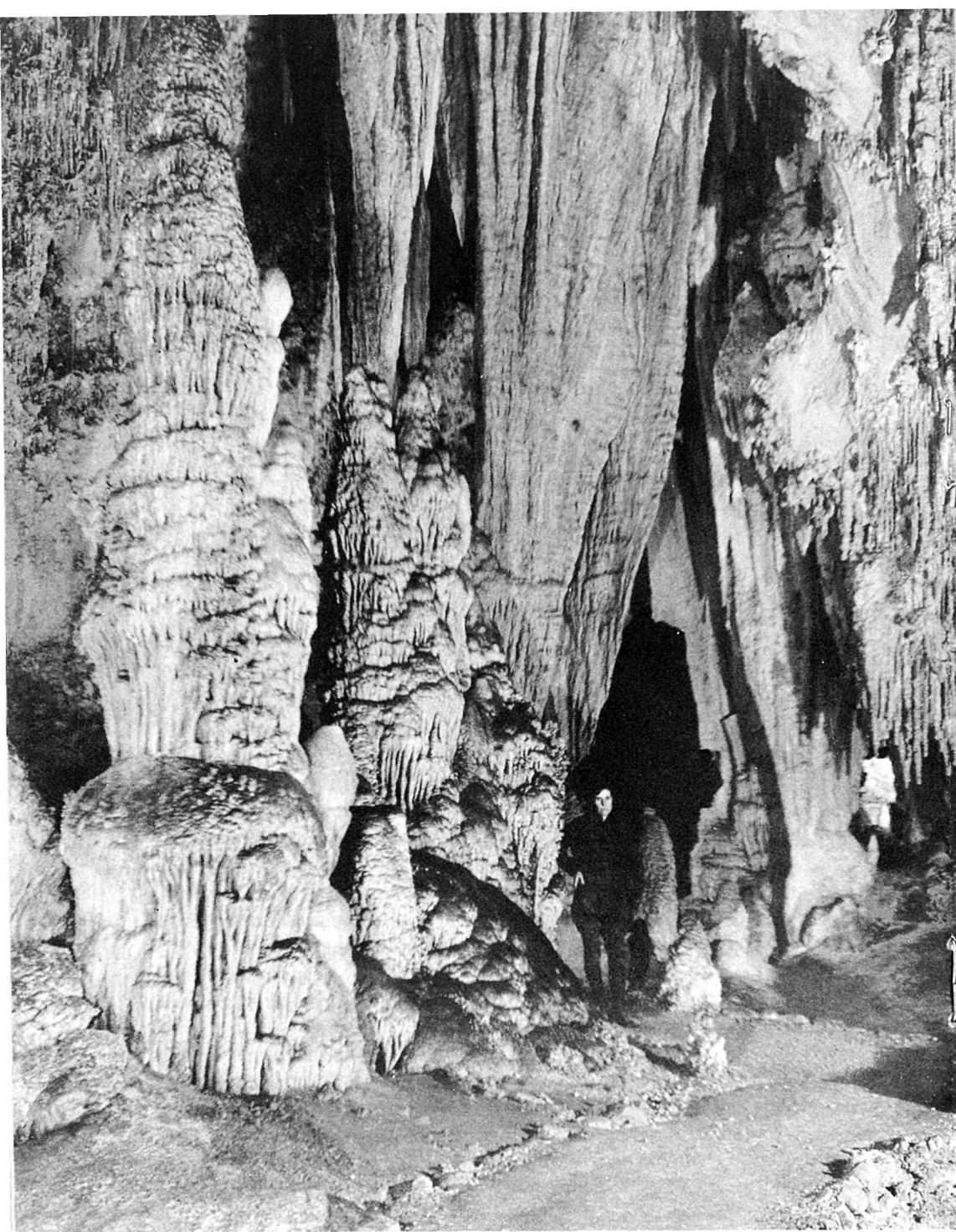
At the present time 7 miles of underground corridors and great chambers in the Carlsbad Caverns National Park are open to visitors. The entrance is through a natural arch, 90 feet wide and 40 feet high in its greatest dimensions. Leading to the entrance is an excellent trail, its many graceful curves insuring an easy grade. Until recently a series of wooden stairs, with over 700 steps, led down to the main cavern. Now the greater portion of these steps has been replaced by trails similar to those leading to the entrance arch, thus both simplifying the descent and adding to the appearance of the caverns entrance.

The main corridor of the cave, just inside the entrance, is immense, but, apart from its great size, has nothing of particular importance to offer when compared with the beauties of the chambers beyond.

The trail through the main corridor extends for almost a mile and leads to the Green Lake Room, which derives its name from a small green pool alongside the trail.

The trail then passes through a short artificial tunnel to the King's Palace, thought by many to be the most beautiful chamber in this or any other series of caverns. It is almost circular in form and is separated from the adjoining chambers by curtains and partitions of gleaming onyx.

A natural "keyhole" leads from the King's Palace to the Queen's Chamber, which is particularly famous for its "elephant ears" or draperies, some hanging straight, others draped or folded back. Some of these are so



INTERESTING FORMATIONS NEAR ENTRANCE TO QUEEN'S CHAMBER

delicate and translucent that a light placed behind them brings out faint tints of pink and tea rose. In this chamber the helictite formation is unusually interesting, the small sticklike formations interlacing in an effect resembling an impenetrable thicket of thorns.

In natural sequence comes the Papoose's Chamber, a beautiful little room which leads back to the King's Palace, whence the trail leads over a series of winding terraces to the lunchroom, at the beginning of the Big Room.

Water has been piped from the surface and is available in sanitary drinking fountains; tables and benches have been built and comfort stations installed nearby. A stop of about half an hour is made here each day for lunch.

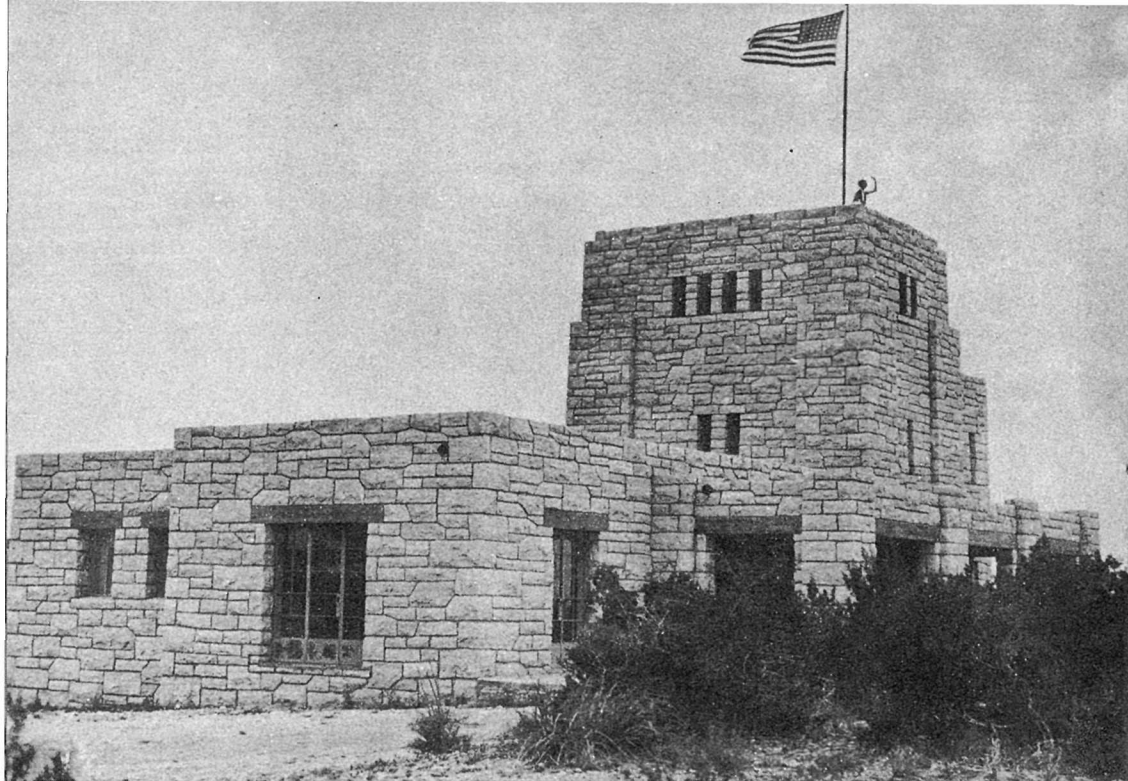
Leaving the lunchroom, the visitor enters the Big Room itself, the most impressive of the many chambers of the caverns. It is nearly 4,000 feet long and 625 feet wide, and at one place the ceiling arches 350 feet above. In this room the formations are massive as well as magnificent. The stalactites vary from almost needlelike proportions to huge chandeliers; the stalagmites are equally varied, although of different contours. Here is found Giant Dome, which bears a striking resemblance to the Leaning Tower of Pisa. Another great formation is the majestic Rock of Ages, where each day the visitors stop to hear a brief talk on the park, generally followed by the singing of "Rock of Ages." The scene is one of great impressiveness. Fountain basins lined with masses of crystalline onyx marble resembling lily pads; tall, graceful stalagmites resembling the totem poles of the Alaskan Indians; and masses reminding one of snow-banked forests add to the beauty of the scene.

From the Big Room the return trip to the surface is made in about an hour. Throughout the tour one finds fresh, changing air, with a temperature, winter and summer, that seldom varies from 56° F.

Properly to cover the 7 miles of the caverns now open to the public requires about 5 hours, with a half-hour luncheon stop. Before the regular cave trip starts, at 10:30 a. m. (mountain time), a brief talk is made by a Government official at the caverns entrance.

During the periods of heavy travel in the summer additional trips as warranted by the number of visitors are provided, usually starting an hour or two ahead of the standard 10:30 trip; however, the visitor is assured of always entering the Cavern at 10:30 as this will continue to be the time for the regular daily trip.

An elevator trip is available at 12:30 p. m. People physically unable to walk through the caverns are urged to make use of the elevator. Even though portions of the caverns are not seen on the trip, nevertheless the



ELEVATOR BUILDING

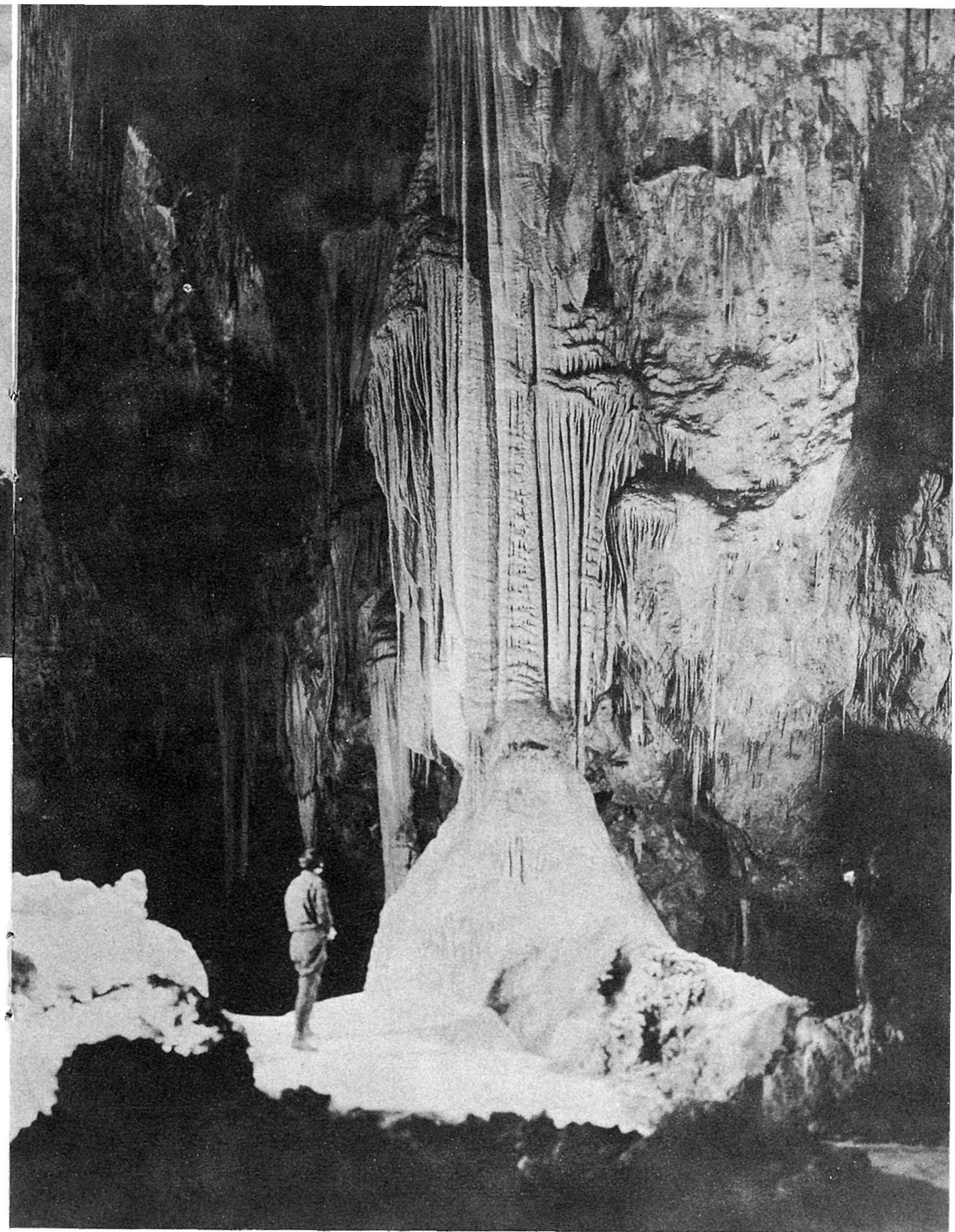
Boles photo

most impressive portion of it is viewed in the tour of the "Big Room." Park rangers conduct the party throughout the entire trip, there being 1 ranger for about every 30 people. Visitors are invited to ask questions of the rangers, who are glad to impart authentic information.

FLOODLIGHTING OF THE CAVERNS

The floodlighting of the Carlsbad Caverns is a masterpiece of electrical illumination. At no time during the underground trip does the visitor see a switch, a cable, or a floodlight. All have been artfully concealed behind rock shields, the floodlights sending their beams to the ceilings and to the formations, from which they are reflected back to the trails.

The 7 miles of trails open to visitors are divided into 24 lighting sections, controlled by a switch at each end. As a party enters a certain section the lead guide pushes a button and the lights flash on for 1,000 feet ahead. Then, after the party has passed through, the rear guide pushes another button and the lights of this section fade away as the lead guide flashes on the lights of the next 1,000-foot section ahead. During the tour of the caverns only two or three adjacent sections are illuminated at one time. Despite the fact that the lighting system is divided into sections which



Kennicott and Grant photo

ONYX DRAPES AT ENTRANCE TO HALL OF THE GIANTS

two high-speed passenger elevators, with a combined capacity of 500 persons an hour.

These are the second longest single-lift elevators in the United States, being surpassed only by those in the Empire State Building in New York City. The speed of the elevator is 800 feet per minute.

The elevators were designed with the same features for safety and comfort of passengers as are embodied in the latest installations in modern office buildings. When once in motion the elevator will automatically stop at top or bottom. Telephonic communication from the cage at all elevations may be made with the surface. The cage may be controlled from the building at the surface as well as by the operator in the cage.

While the elevator is termed an "exit elevator," it is available to everyone going on the caverns tour. Visitors, however, are encouraged to make the trip both ways on foot, as the formations take on different aspects when viewed from various angles.

Col. Thomas Burns, a centenarian, of Burkett, Tex., made the caverns trip in July 1932, just one week after celebrating his one-hundredth birthday. Colonel Burns walked the entire tour of the caverns unassisted, using the elevator only on the up-trip.

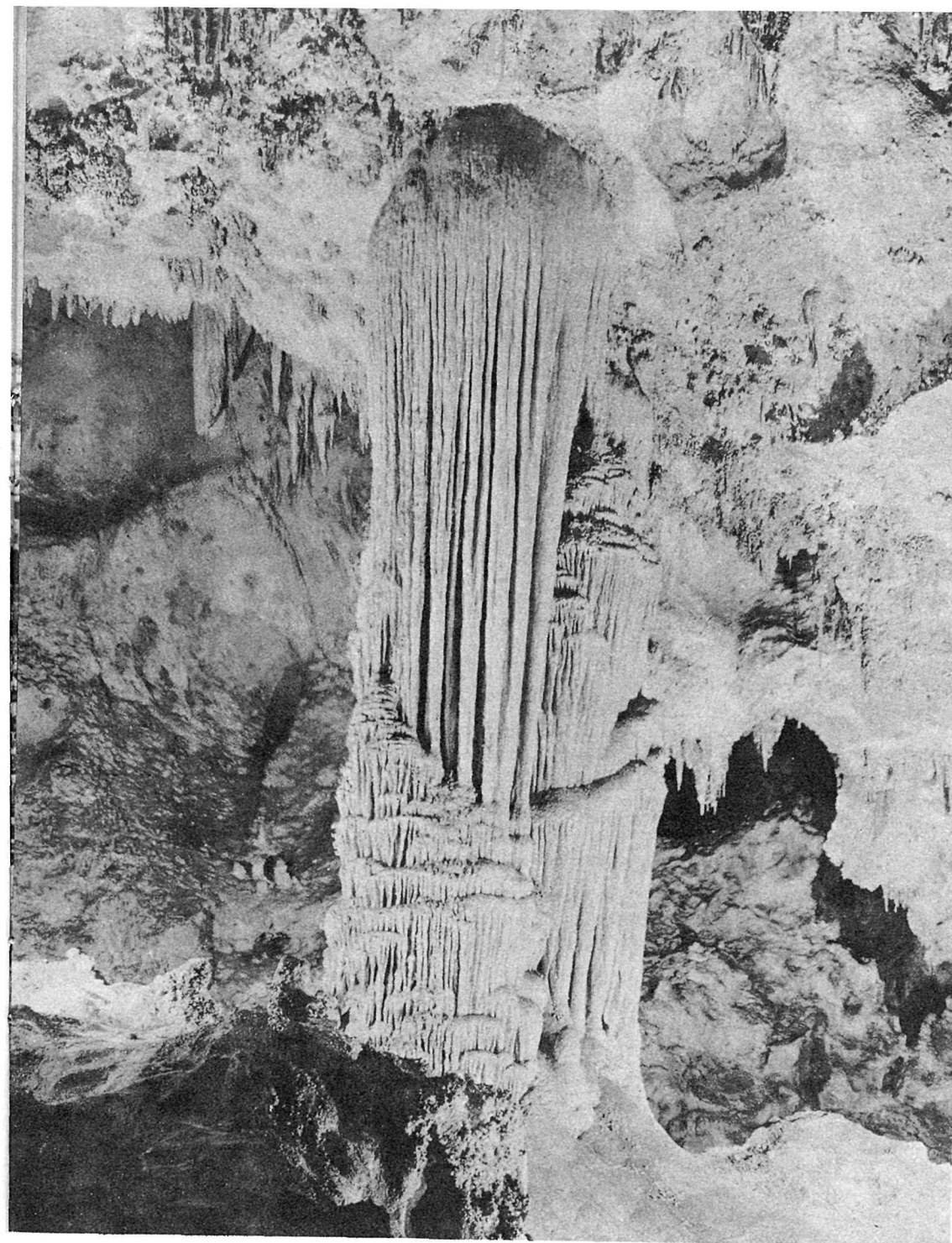
FEES

A fee of \$1.50 for guide service is charged each adult entering the caverns. No charge is made for children 16 years of age or under when accompanied by adults taking responsibility for their safety and good conduct.

A charge of 50 cents in each direction is made for each adult using the elevator. Half fare is charged for children between the ages of 5 and 12



WALNUT CANYON HIGHWAY



VEILED STATUE IN GREEN LAKE ROOM

years. No charge is made for children 5 years of age or under when accompanied by adults assuming responsibility for their safety.

ADMINISTRATION

The representative of the National Park Service in immediate charge of the Carlsbad Caverns National Park is Thomas Boles, superintendent. He maintains headquarters in the town of Carlsbad, N. Mex., 28 miles north of the caverns. He is assisted in protecting the park by a force of rangers, headed by a chief ranger, who live near the caverns entrance in a group of buildings especially designed in Pueblo Indian style.

The National Park Service maintains an information bureau at the superintendent's office in Carlsbad. Information also may be obtained at the chamber of commerce and at any of the hotels, camps, garages, or transportation offices in Carlsbad.

HOW TO REACH THE PARK

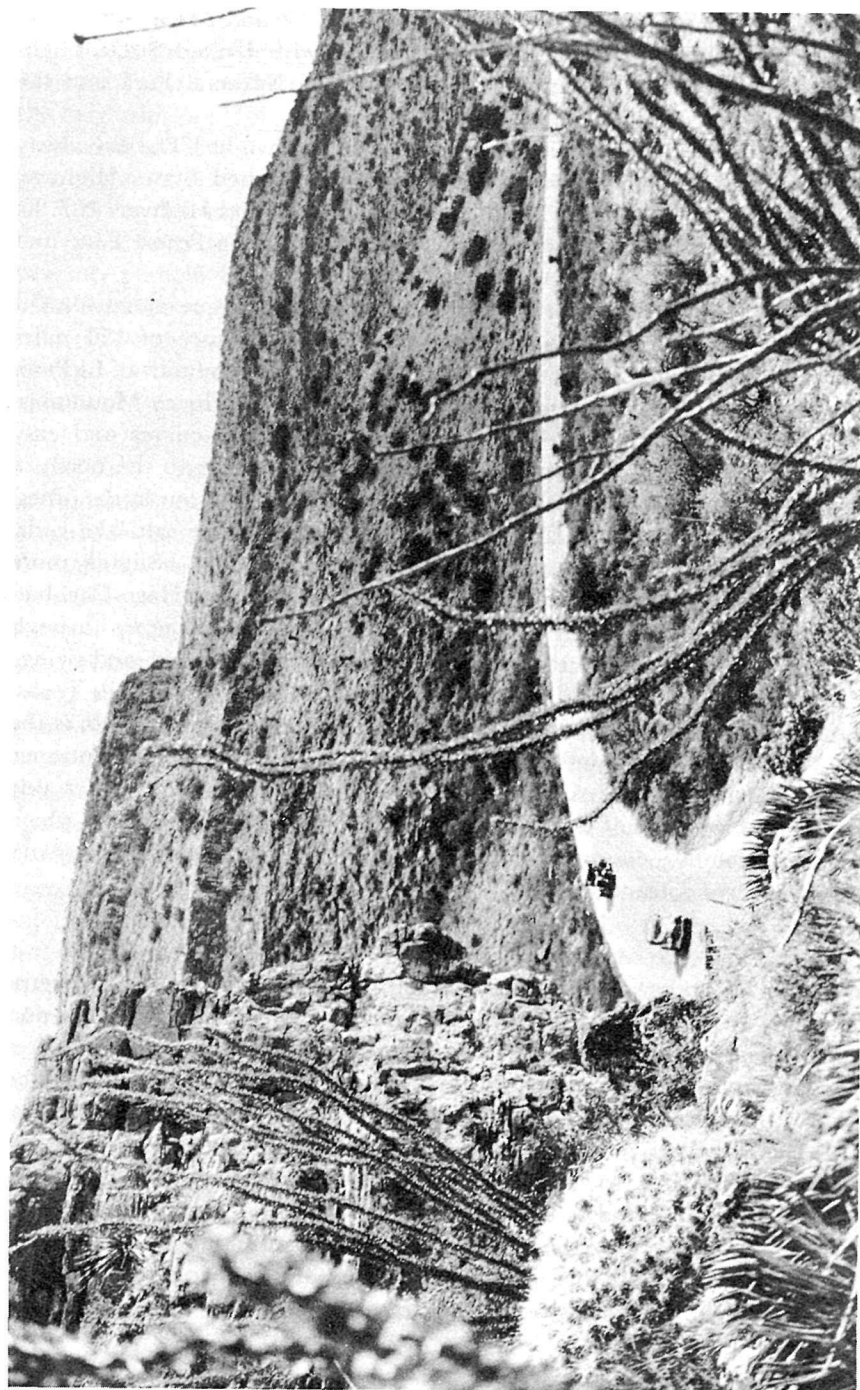
BY RAIL, AIRPLANE, AND AUTO STAGE

By a combination of rail and bus, Carlsbad Caverns National Park is served by the Santa Fe System on the north and the Missouri Pacific-Texas & Pacific Lines and the Southern Pacific Lines on the south. The town of Carlsbad is the rail terminus via the Santa Fe, the local line branching off at Clovis, N. Mex. There is a regular bus service from Carlsbad to the caverns and return, the charge for this service being \$2 for the round trip and \$1.75 when the party consists of three or more. Visitors coming from the railroads to the south and west may obtain bus service at El Paso or Pecos, Tex. In addition to being the main entrance to the park on the Southern Pacific Transcontinental Lines, El Paso is also the airplane gateway.

The park is also served by the Page Way Stage Lines from Roswell, N. Mex., on the north, Carlsbad on the east, and Pecos on the south. From the west the caverns may be reached through El Paso via the Carlsbad Caverns coaches. Complete information on schedules and rates may be obtained from any bus agent in the United States or Canada.

BY AUTOMOBILE

Excellent motor roads lead to Carlsbad Caverns National Park from all directions. One of the most recently designated national highways is United States Highway No. 62, which extends from Niagara Falls, N. Y., to El Paso, Tex., and probably intersects more transcontinental highways than any other road in the country. Among these are United States Highways Nos. 66 and 70. United States Highway No. 285, which



ANOTHER VIEW OF THE 8-MILE SCENIC HIGHWAY—WALNUT CANYON

it also intersects, connects the park with Santa Fe and Mesa Verde National Park and also, through its intersection with United States Highways Nos. 380 and 60, with the Grand Canyon National Park and the Petrified Forest National Monument.

Motorists on United States Highway No. 80, known as "The Broadway of America", or the "Bankhead Highway"; on United States Highway No. 290, the "Old Spanish Trail"; and on United States Highway No. 90, the "Mexican Border Highway", may reach the park via Pecos, Tex., and Carlsbad.

Coming in from the west to El Paso, motorists continue along United States Highway No. 62 to Carlsbad Caverns, a distance of 150 miles through country of especial interest. Leaving the eastern limits of El Paso, the highway crosses the desert floor for 25 miles to the Hueco Mountains. Through these mountains it goes with long, sweeping curves and easy grades to a vast plain of semiarid grazing land. Not far to the north of this highway the old Butterfield stagecoach route was laid out in the fifties.

About 90 miles east of El Paso the highway crosses the salt lake beds, which were the cause of the Salt War of San Elizario in 1877. Slightly more than 100 miles out of El Paso the highway joins with the Van Horn-Carlsbad Highway and soon enters the Guadalupe Mountains, winding up through the canyons which the Butterfield stagecoaches once traversed, and swinging around Guadalupe Point and El Capitan, the highest points in Texas. At the entrance to Walnut Canyon, about 150 miles out of El Paso, is the park entrance. Here motorists should turn to the left to reach the entrance to the Carlsbad Caverns. From the junction at the park entrance one drives through Walnut Canyon over a recently constructed highway which winds gracefully between the cactus-covered hills to the parking terraces at the caverns entrance.

ACCOMMODATIONS

There are no overnight accommodations available in Carlsbad Caverns National Park, but modern hotels and tourist camps in nearby cities and towns along the approach highway offer various types of service at prices ranging from \$1 to \$2 for camps and from \$1.50 to \$3 for hotels. The National Park Service exercises no jurisdiction over these accommodations.

In the park itself, however, a store is maintained near the caverns entrance where refreshments, soft drinks, pictures, photographic supplies, cigarettes, candy, post cards, and souvenirs may be purchased. This is operated by the Cavern Supply Co., the only public utility operating in the park under Government franchise and supervision. Rates and service at the store are approved by the Secretary of the Interior.

The Cavern Supply Co. also serves luncheon at the 750-foot level in the caverns for the convenience of visitors making the 6-hour trip. Orders for luncheon, at the moderate cost of 50 cents, are taken as the visitors start on the cave trip.

Another service furnished by the company is a day nursey near the caverns entrance, where babies and small children are cared for. A charge of \$1.50 a day for each child is made for this service which includes lunch. Although there is no limit placed on the age of children going through the caverns, parents will derive much more enjoyment from the trip if not accompanied by very small children, especially those under 4 years of age.

The Cavern Supply Co. also takes care of pets, for which a charge of 50 cents each is made.

NEARBY PLACES OF INTEREST

Carlsbad.—About 28 miles northeast of the caverns, at the intersection of United States Highways Nos. 62 and 285, is the city of Carlsbad. Located in the heart of a Government irrigation district, it is an oasis in the cactus-covered desert. Accommodations at modern hotels and tourist camps are available. Paved streets arched by shade trees and a municipal bathing beach freshened by mineral springs afford welcome contrast from the surrounding desert. The largest potash mine and refinery in the world are located near Carlsbad. The Pecos River is well stocked with game fish, and large and small game are in nearby mountains. A free museum, located in the Carlsbad Library, has exhibits of caverns formations and archeological relics of the region. An airport is 3 miles south.

Artesia.—In an irrigated district also is Artesia, a 90-minute ride from Carlsbad Caverns on State Highway No. 2. Hotel and campground accommodations are available, and the town and vicinity have much of interest to offer the traveler. Bountifully stocked by the nearby Federal fish hatchery, the waters of Lake McMillan and the Pecos River offer excellent fishing. The artesian wells and oil refineries attract the attention of visitors.

Roswell.—About 100 miles north of the caverns is Roswell, the home of the New Mexico Military Institute. Here golf, swimming, tennis, and good motion-picture theaters are available. Surrounding Roswell are fine irrigated farms, and many beautiful drives run through this interesting region. The largest artesian well in the world, furnishing 13,000,000 gallons of water a day, is located just east of Roswell. A little farther east is the Bottomless Lakes State Park, surrounded by richly colored bluffs. The Lincoln National Forest, Billy the Kid Land, and the Mescalero Apache Indian Reservation are west of Roswell on United

States Highways Nos. 70 and 380. Hotels and campgrounds are available throughout this region. There are some 700 summer cabins in the Ruidoso Canyon alone.

El Paso (Gateway to Old Mexico).—This thriving city, 150 miles southwest of Carlsbad Caverns, offers much of interest to the traveler. Fort Bliss, the largest cavalry post of the United States Army and home of the First Cavalry Division, is at the eastern edge of the city. Three old missions, Ysleta, Socorro, and San Elizario, may be visited in the Rio Grande Valley a few miles below El Paso. These missions were built in the latter part of the seventeenth century. Just across the Rio Grande is Juarez, the largest Mexican city on the border. One of its principal attractions is Mission Nuestra Señora de Guadalupe, first permanent structure to be built in this valley by Spanish priests in 1659.

Santa Fe.—If you motor north from Carlsbad Caverns to Mesa Verde and Grand Canyon National Parks, you may go through Santa Fe, second oldest permanent European settlement in the United States and capital of New Mexico. The influence of the Spanish settlers and the native Indians is visible everywhere today. This interesting historic background, coupled with the fine climate and natural beauty of the region, has made Santa Fe a favorite resort with travelers. The exact date of its establishment has never been fixed, but much of the evidence available points to 1605. Many ancient buildings, closely connected with its colorful past, still stand. The Governor's Palace, believed to have been erected early in the seventeenth century, is now the home of the Historical Society of New Mexico, the School of American Archeology, and the New Mexico Museum of Archeology. This building was continuously occupied by Spanish and American Governors until 1909. Gen. Lew Wallace lived in it from 1878 to 1881, and it was there that he wrote the concluding chapters of *Ben Hur*. Just north of the city are the ruined earthworks of Fort Marcy, constructed by General Kearny when he occupied Santa Fe in 1846.

Remains of many communal dwellings, built by the prehistoric peoples who occupied this region long before the arrival of the Spaniards, are found throughout the Southwest, and some of them may be seen a few miles from Santa Fe. Just over the New Mexico State line, in the southwestern corner of Colorado, is Mesa Verde National Park, created by the Federal Government in 1906 to protect hundreds of the most notable prehistoric cliff dwellings in the United States.

REFERENCES

- ANDERSON, A. W. *The Carlsbad Caverns of New Mexico* (The Cavern Supply Co., Carlsbad, N. Mex.), 1935.
- BAILEY, VERNON:
Animal life of the Carlsbad Caverns. Monograph of the American Society of Mammalogists No. 3 (The William & Wilkins Co., Baltimore), 1928.
Bats of the Carlsbad Caverns. *National Geographic Magazine*, September 1925.
- BELL, H. S. *Carlsbad the Magnificent*. *Nature Magazine*, December 1927.
- DARROW, F. L. *Within the Earth*. *St. Nicholas Magazine*, August 1930.
- GRANT, BLANCHE C. *Cavern Guide Book, Carlsbad Caverns, N. Mex.* (Cram & Co., Topeka, Kans.), 1928.
- HESS, FRANK L. Oolites or Cave Pearls in the Carlsbad Caverns, N. Mex. *U. S. Nat. Mus. Proc.*, vol. 76, art. 16, 5 pp., 8 pls., 1929.
- JIM WHITE'S OWN STORY. *Jim White, Carlsbad, N. Mex.*, 1932.
- LEE, WILLIS T.:
A Visit to Carlsbad Caverns (Guadalupe Mountains, N. Mex.). *National Geographic Magazine*, January 1924.
Carlsbad Caverns (N. Mex.). *Scientific Monthly*, August 1925.
New Discoveries in Carlsbad Caverns (N. Mex.). *National Geographic Magazine*, September 1925.
- MITCHELL, G. E. *Carlsbad Caverns, a Wonderland of New Mexico*. *Mentor*, August 1925.
- NICHOLSON, F. E. *The Exploration of Carlsbad Caverns* (Railey Printing Co., Inc., Wichita Falls, Tex.), 1930.
- PARKER, HARRY C. Notes on Mammals of the Carlsbad Caverns Region. *Jour. of Mammal.*, vol. 13, no. 1, p. 70, February 1932.
- WARNER, L. H. *Visiting Carlsbad Caverns*. *National Republic*, March 1930.
- WETMORE, ALEXANDER. Bones of the Great Horned Owl from the Carlsbad Caverns. *The Condor*, vol. 33, no. 6 (November–December), pp. 248–249.
- WILLIAMS, HENRY EDISON. *Christian Science Monitor*, edition of April 8, 1932.
- MISCELLANEOUS:
New Mexico's Big Cave. *Literary Digest*, November 29, 1924.
Elevator to Reach Underworld Wonderland. *Popular Mechanics*, June 1931.

NATIONAL PARKS IN BRIEF

ABRAHAM LINCOLN, KY.—Birthplace of Abraham Lincoln. Established 1916; 0.17 square miles.

ACADIA, MAINE.—Combination of mountain and seacoast scenery. Established 1919; 26.01 square miles.

BRYCE CANYON, UTAH.—Canyons filled with exquisitely colored pinnacles. Established 1928; 56.23 square miles.

CARLSBAD CAVERNS, N. MEX.—Beautifully decorated limestone caverns. Established 1930; 15.75 square miles.

CRATER LAKE, OREG.—Beautiful lake in crater of extinct volcano. Established 1902; 250.52 square miles.

FORT McHENRY, MD.—Its defense in 1814 inspired writing of Star Spangled Banner. Established 1925; 0.07 square miles.

GENERAL GRANT, CALIF.—General Grant Tree and grove of Big Trees. Established 1890; 3.98 square miles.

GLACIER, MONT.—Unsurpassed alpine scenery; 200 lakes; 60 glaciers. Established 1910; 1,537.98 square miles.

GRAND CANYON, ARIZ.—World's greatest example of erosion. Established 1919; 1,008 square miles.

GRAND TETON, WYO.—Most spectacular portion of Teton Mountains. Established 1929; 150 square miles.

GREAT SMOKY MOUNTAINS, N. C.-TENN.—Massive mountain uplift; magnificent forests. Established for protection 1930; 683.75 square miles.

HAWAII: ISLANDS OF HAWAII AND MAUI.—Interesting volcanic areas. Established 1916; 248.54 square miles.

HOT SPRINGS, ARK.—Forty-seven hot springs reserved by the Federal Government in 1832 to prevent exploitation of waters. Made national park in 1921; 1.54 square miles.

LASSEN VOLCANIC, CALIF.—Only recently active volcano in United States proper. Established 1916; 163.48 square miles.

MAMMOTH CAVE, KY.—Interesting caverns, including spectacular onyx cave formation. Established for protection 1936; 60.20 square miles.

MESA VERDE, COLO.—Most notable cliff dwellings in United States. Established 1906; 80.21 square miles.

MOUNT McKinLEY, ALASKA.—Highest mountain in North America. Established 1917; 3,030.46 square miles.

MOUNT RAINIER, WASH.—Largest accessible single-peak glacier system. Established 1899; 377.78 square miles.

OLYMPIC, WASH.—Forests of unusual density; rare Roosevelt elk. Established 1938; 1,012.5 square miles.

PLATT, OKLA.—Mineral springs. Established 1906; 1.32 square miles.

ROCKY MOUNTAIN, COLO.—Peaks from 11,000 to 14,255 feet in heart of Rockies. Established 1915; 405.33 square miles.

SEQUOIA, CALIF.—Outstanding groves of Sequoia gigantea. Established 1890; 604 square miles.

SHENANDOAH, VA.—Outstanding scenic area in Blue Ridge. Established 1935; 282.14 square miles.

WIND CAVE, S. DAK.—Beautiful cavern of peculiar formations. Established 1903; 19.75 square miles.

YELLOWSTONE: WYO.-MONT.-IDAHO.—World's greatest geyser area, and an outstanding game preserve. Established 1872; 3,471.51 square miles.

YOSEMITE, CALIF.—Valley of world-famous beauty; spectacular waterfalls; magnificent High Sierra country. Established 1890; 1,176.41 square miles.

ZION, UTAH.—Zion Canyon, 1,500 to 2,500 feet deep. Spectacular coloring. Established 1919; 138.04 square miles.

GOVERNMENT PUBLICATIONS

Glimpses of Our National Parks. Brief descriptions of national parks. Address Director, National Park Service, United States Department of the Interior, Washington, D. C. Free.

Recreational Map. Shows Federal and State recreational areas throughout the United States and gives brief descriptions of principal ones. Address same as above.

Fauna of the National Parks. Series No. 1. By G. M. Wright, J. S. Dixon, and B. H. Thompson. A survey of wildlife with recommendations for adequate protection. Illustrated. 157 pages. Superintendent of Documents, Washington, D. C. Price, 20 cents.

Fauna of the National Parks. Series No. 2. Wildlife management in the national parks. By G. M. Wright and B. H. Thompson. Illustrated. 142 pages. Superintendent of Documents, Washington, D. C. Price, 20 cents.

Fauna of the National Parks. Series No. 3. By J. S. Dixon. Birds and mammals of Mount McKinley National Park, Alaska. 236 pages, illustrated. Superintendent of Documents, Washington, D. C. Price, 35 cents.

National Parks Portfolio. By Robert Sterling Yard. Cloth-bound and illustrated with more than 300 pictures of places of outstanding scenic interest. Superintendent of Documents, Washington, D. C. Price, \$1.50.

Illustrated booklets about the following national parks may be obtained free of charge by writing to the National Park Service, United States Department of the Interior.

Acadia, Maine.

Crater Lake, Oreg.

General Grant, Calif.

Glacier, Mont.

Grand Canyon, Ariz.

Grand Teton, Wyo.

Hawaii, Hawaii.

Hot Springs, Ark.

Lassen Volcanic, Calif.

Mesa Verde, Colo.

Mount McKinley, Alaska.

Mount Rainier, Wash.

Platt, Okla.

Rocky Mountain, Colo.

Sequoia, Calif.

Wind Cave, S. Dak.

Yellowstone, Wyo.-Mont.-Idaho.

Yosemite, Calif.

Zion and Bryce Canyon, Utah.