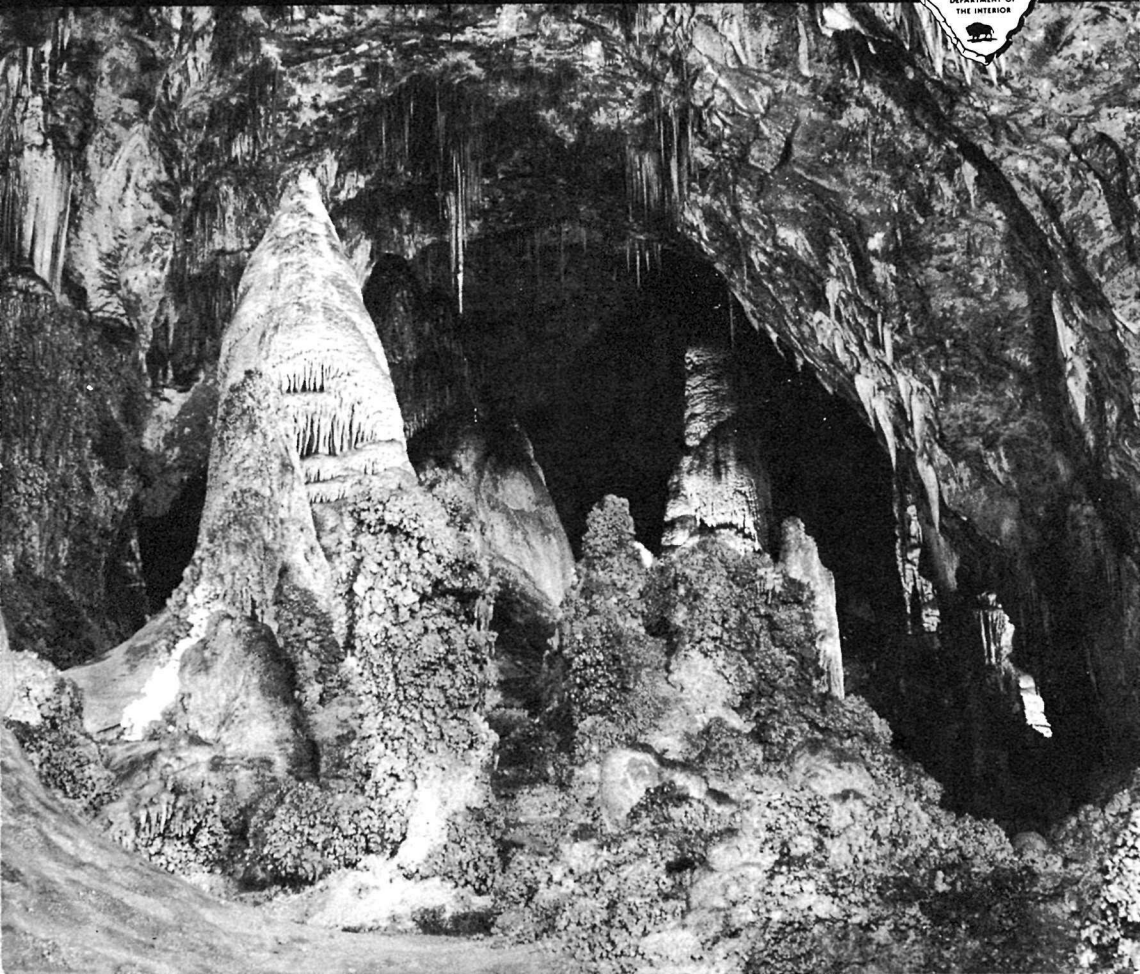


Carlsbad Caverns

OPEN ALL YEAR

NATIONAL PARK NEW MEXICO



Carlsbad Caverns

NATIONAL PARK

Carlsbad Caverns National Park is located in the semidesert country of southeastern New Mexico in the rugged foothills of the Guadalupe Mountains. The cave, for which the park is named, is of unusual magnificence and size.

While many miles of passages have been explored, development has been limited to the 750-foot and 829-foot levels reached by trail from the natural entrance and by elevator. An extension of the lower level may be seen at the "Jumping-Off Place" in the Big Room. Extending eastward from the lunchroom is an unopened passage which has been explored to a depth of 1,100 feet. Lower undiscovered levels may exist.

History

Circular rock cooking pits and grinding bowls on the surface and the paintings, or pictographs, on the cave entrance wall attest to the occupation of the entrance and the adjacent area by Indians. It is not probable, however, that they ventured far into the cave.

Early pioneer trails passed near the cave entrance. The Spanish conquistadors are believed to have come into the Pecos Valley near the cave, and the historic Butterfield Express Trail (first express trail across the West) crossed the route of the Spaniards. Today, wagon irons and other relics of ambushed wagon trains are sometimes unearthed.

Cattlemen, the first permanent settlers, arrived in the 1880's. They knew of the cave, referred to it as the Bat Cave, and may have explored portions of it. The first real interest in the cave, however, resulted from the finding of its valuable deposit of bat guano, a nitrate-rich fertilizer. At the turn of the century, mining began, and among the miners was a local youth, Jim White, who took every opportunity to explore the cave. Later, Jim became an unofficial guide, and subsequently, under the National Park Service, he was made a park ranger. Finally he was appointed chief ranger.

The fame of the Carlsbad Caverns grew. In 1923, a report by Robert Holley, of the General Land Office, United States Department of the Interior, so stressed the scenic beauty of the cave that Carlsbad Cave National Monument was established by Presidential proclamation on October 25, 1923. Nationwide publicity was provided when the National Geographic Society published findings of comprehensive explorations made in 1923 and 1924 by Dr. Willis T. Lee, of the Geological Survey, United States Department of the Interior. By act of Congress, approved May 14, 1930, the area became Carlsbad Caverns National Park.

When first established, the park surface area was only 700 acres. It now has an area of over 77 square miles. Within its bounds are many other caves of either scenic or archeological interest, which have not yet been developed.

The National Park System, of which this area is a unit, is dedicated to conserving the scenic, scientific, and historic heritage of the United States for the benefit and enjoyment of its people.

Formation of the Cave

This cave was made by underground water in two rock formations known as the Tansill and Capitan limestones. The limestones were deposited in a shallow sea 200 million years ago during the Permian period. The area was finally raised far above sea level by earth movements, beginning some 60 million years ago, which were also responsible for the

Rocky Mountains. Since that time, water dissolving the limestone has hollowed the vast cavities, and has formed the amazing decorative deposits.

Settling of the original sediments and repeated earth movements made numerous cracks in the limestone rocks. The cave began when fresh waters from above found their way along these cracks and through pores of the rock.

All large caverns owe their origin to the solution of limestone by water. This took place deep down in the rocks, in the zone of complete water saturation. Small original crevices grew larger through solution until they became rooms and corridors. More and more water entered and all cavities were kept full, allowing effective solution work to proceed on all exposed surfaces.

A later series of earth movements were ex-

perienced here. This, the Guadalupe uplift, lowered the water table and allowed surface streams to cut deep canyons into the limestone. The water filling the cave was drained away, first from the upper sections and later from the lower portions as well. Air replaced the water in the underground chambers; then solution stopped and deposition began.

During this second stage of development, nature converted the simple cavities into a wonderland. Myriads of beautifully shaped formations hang from the ceilings. Some of them are large icicle-like structures variously ornamented and known as stalactites. Some are small delicate growths resembling plants. Rising from the floor are spires or more massive forms known as stalagmites. Sometimes stalactites from the roof and stalagmites from the floor join to form columns. Less commonly, irregular spiral and curiously twisted and branched forms develop; these are called helictites.

All these fascinating forms are due to the deposition of carbonate of lime, carried in solution by descending ground water. As the water evaporates and becomes saturated, or is agitated, this carbonate of lime crystallizes upon the ceilings, walls, and floors of the cave. The constant addition of minute deposits of this material has created the wonderful cave formations you see all around you in Carlsbad Caverns.

Many of the formations are delicately colored. This results from a small amount of iron oxide (shades of tan) or other mineral matter in the limestone. When saturated with water, formations glisten and appear to be translucent. If seepage of water stops, the cave's appearance gradually becomes dull and the surfaces slowly assume a powdered look. Such a dry cave is spoken of as mature or dormant.

The Carlsbad Caverns are unique because of the vast size of the underground chambers and their high ceilings—features brought

about partly by rock collapse. During the solution phase, large wall and ceiling blocks were undermined and fell into the already formed cavity. Collapsing continued even after the cave became dry, but ended once stability was achieved. No rock has fallen within the cave for thousands of years.

The Bat Spectacle

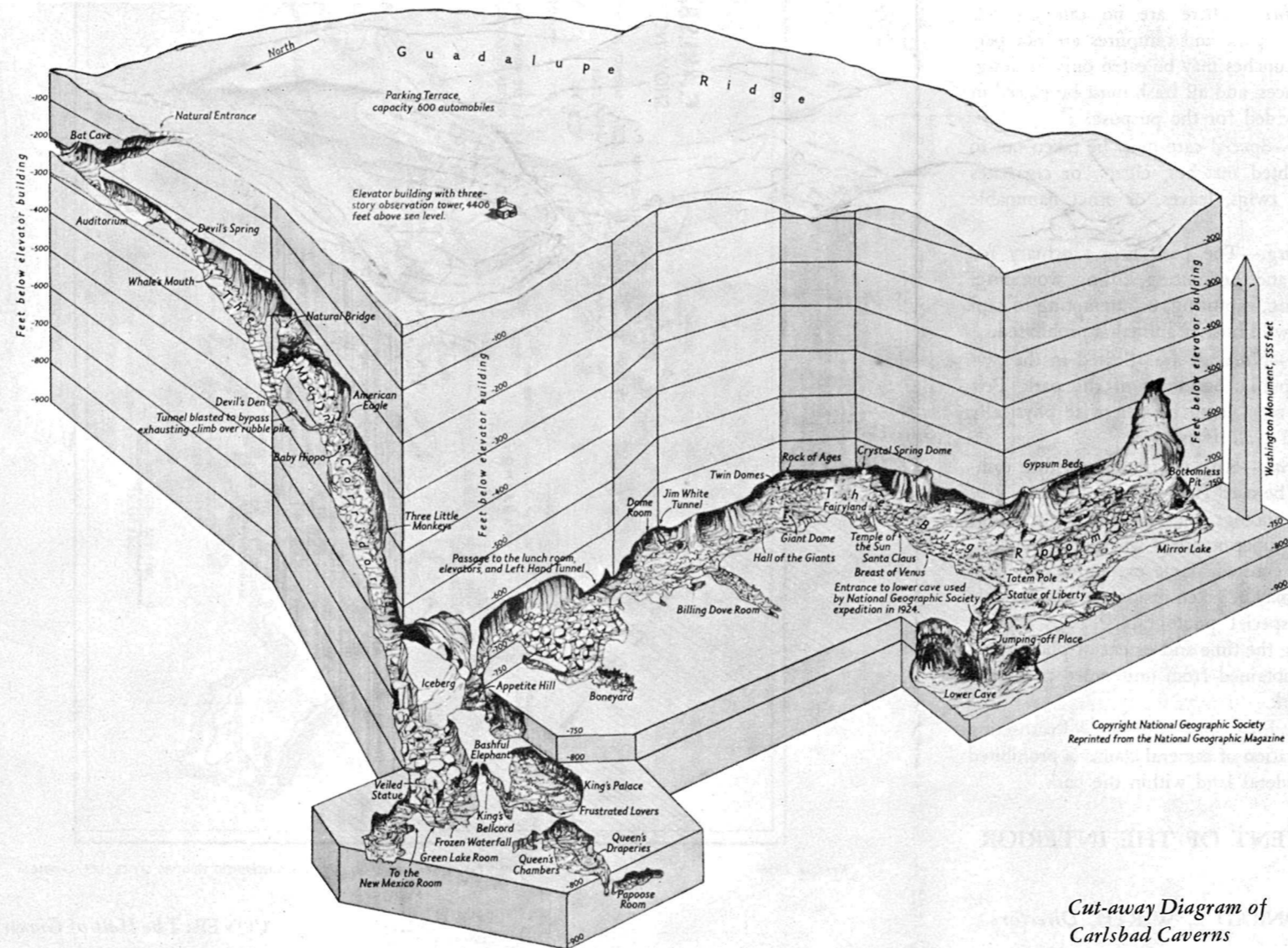
The bat flight is one of the parks' great attractions. Flying out through the cave entrance each summer evening, incredible numbers of bats spiral upward, stream southward over the rim, and later separate into flocks for night foraging. The exodus continues for quite some time, but availability of insect food supply determines the size and density of the flight. When night-flying moths and beetles are numerous, millions of bats are in flight, but during the winter, with no insects available, most of the bats of Carlsbad Caverns migrate to warmer regions.

Bats return from their nocturnal feeding just before dawn. Diving speedily into the entrance, they fly directly to the Bat Cave to spend the day. At roost, bats hang head downward from the walls and ceiling in dense clusters or mats.

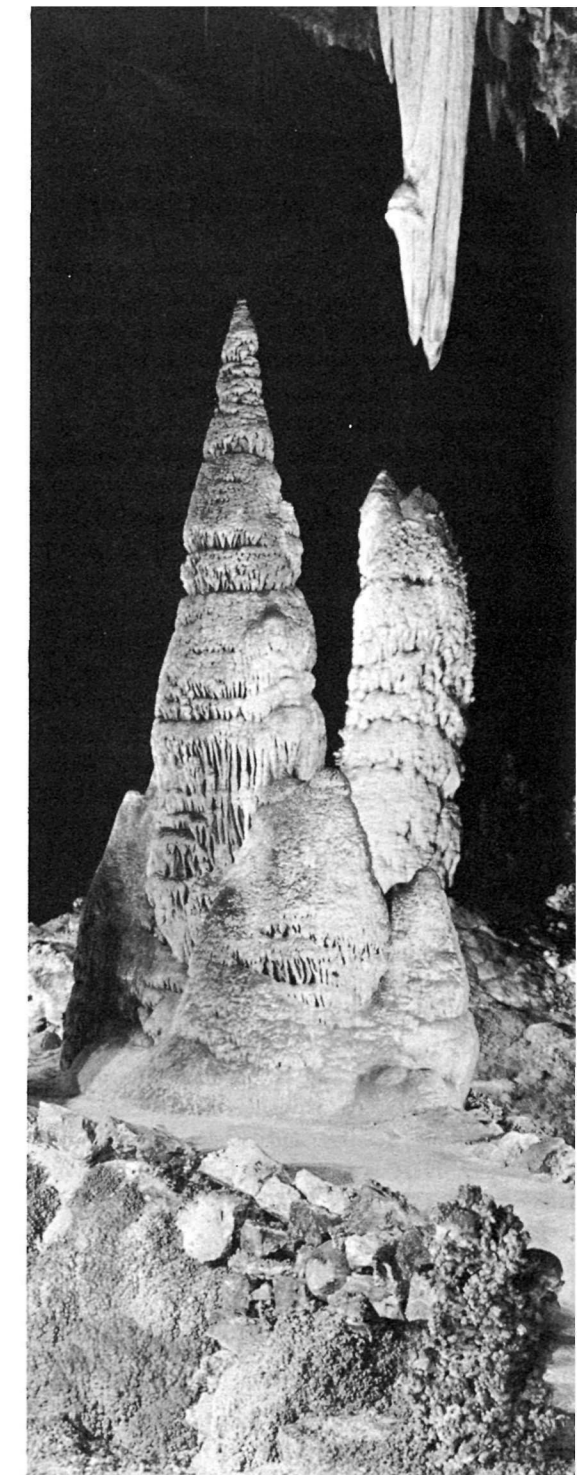
Because of its nocturnal habits, folklore and superstition have long maligned the bat. However, the insect-eating bats of Carlsbad Caverns are quite harmless and are beneficial to man since they destroy harmful insects, and also produce guano—a valuable fertilizer.

Of the 11 different species of bats found in the cavern, the Mexican free-tailed bat is by far the most numerous. These gregarious, semitropical, migratory bats have earned their name because they are found abundantly in Mexico and because they have a tail which projects about 1 inch beyond the tail membrane.

A National Park Service naturalist gives a talk on the bats each summer evening at the cave entrance just before the flight begins.



Cut-away Diagram of Carlsbad Caverns



One of the spectacular formations in the Big Room.

The Underground Trip

Every day throughout the morning, conducted 4-hour trips start from the natural entrance. Also, in the summer there are early afternoon trips.

National Park Service guides conduct parties throughout the entire trip. You are invited to ask questions of the guides who will give you authentic information.

The walking distance for those making a complete tour is about 3 miles. The most strenuous part of the tour is in the beginning, before the halt for lunch. If you wish to avoid that part of the trip, you can enter the cave by elevator and join the walk-in groups in the lunchroom 1 3/4 hours after the start of the tour. On this partial tour you will visit only a part of the underground chambers.

The main corridor of the cave, beneath the entrance, is immense, but its beauty does not compare with that of the chambers beyond. These chambers—the Green Lake Room, King's Palace, Queen's Chamber, and Papoose Room—are unparalleled in their splendor. They are all seen before reaching the central point, where a stop is made for lunch and rest.

After lunch, you will enter the Big Room, the most majestic of the caverns' many chambers. The trail around the perimeter of this room is 1 1/4 miles long, and at one place the ceiling arches 285 feet above. Formations here are massive as well as magnificent; some resemble needles and others huge chandeliers. Here is found the Giant Dome which bears a striking similarity to the Leaning Tower of Pisa.

Upon returning to the lunchroom, elevators with a capacity of 1,200 people per hour will take you to the surface.

What To Wear in the Cave

Although the cave temperature remains stationary at 56°, the surface temperature varies from nearly zero in winter to over 100° in summer. At all times of the year, therefore, a light sweater or other wrap

should be worn in the cave; while on the surface, clothes should be suitable for the season. Trails and stairways are used throughout the underground tour. Low-heeled shoes (not the wedge-heeled type) with rubber soles and heels are recommended.

What to See Aboveground

Desert plantlife furnishes an attractive spectacle in April and May when you may be fortunate enough to see many desert plants in full bloom. These plants flower only briefly and then go to seed. The seeds lie dormant until the following spring. A self-guiding trail provides identification of many of these interesting plants. Also of interest are the many varieties of cactuses, identified in the cactus garden.

How To Reach the Park

The park is serviced by the Santa Fe System on the north through the city of Carlsbad, and by the Texas and Pacific, Rock Island, and Southern Pacific Lines through El Paso. Carlsbad Cavern Coaches operates to the park from both cities. Continental Airlines provides daily airplane service to the airport at the city of Carlsbad.

By automobile, the park is reached by U. S. 62-180 and 285.

Accommodations

There are no overnight accommodations in the park, but modern hotels, motels, and trailer courts in Carlsbad and nearby towns along the approach highway offer various types of service.

Adjoining the visitor center are a restaurant, curio shop, nursery, and kennel. A nominal charge is made for nursery and kennel service. The nursery charge is \$1.50 a day for each child (includes lunch). The kennel charge is 50 cents for each pet. This concession is operated by the Cavern Supply Co., Carlsbad, N. Mex., under Government supervision. Its rates and services are approved by the National Park Service. This company also

serves a moderate priced lunch in the cavern lunchroom.

Guide Fee

There is a nominal fee for guide service, which includes the use of the elevator. Children under 12 years of age or organized groups of school children 18 years old or under, when accompanied by adults responsible for their safety and orderly conduct, are admitted free.

Mission 66

Mission 66 is a program designed to be completed by 1966 which will assure the maximum protection of the scenic, scientific, wilderness, and historic resources of the National Park System in such ways and by such means as will make them available for the use and enjoyment of present and future generations.

Administration

Carlsbad Caverns National Park is administered by the National Park Service of the United States Department of the Interior. A superintendent, whose address is Box 111, Carlsbad, N. Mex., is in immediate charge.

Please Help Us Protect This Park

Park regulations are designed for the protection of the natural beauties and scenery, as well as for your comfort and convenience. Park rangers and guides are here to help and advise you. If you need information, or are in any difficulty, see an employee in uniform. The following synopsis of the regulations is for your convenient reference and guidance.

Preservation of Natural Features.—Trees, flowers, vegetation, rocks, mineral formations, or any animal, bird, or other life may not be disturbed, injured, or destroyed;

and walls or formations in the caverns may not be defaced by writing, carving, or otherwise marring them. Canes, umbrellas, or sticks of any kind may not be taken into the caverns unless permission is granted by the superintendent or one of his representatives, this permission being given only when such cane or stick is necessary for you to make the caverns trip. Tossing or throwing rocks or other material inside the caverns is prohibited.

Camping.—There are no campgrounds within the park and campfires are not permitted. Lunches may be eaten only in designated places, and all trash must be placed in cans provided for the purpose.

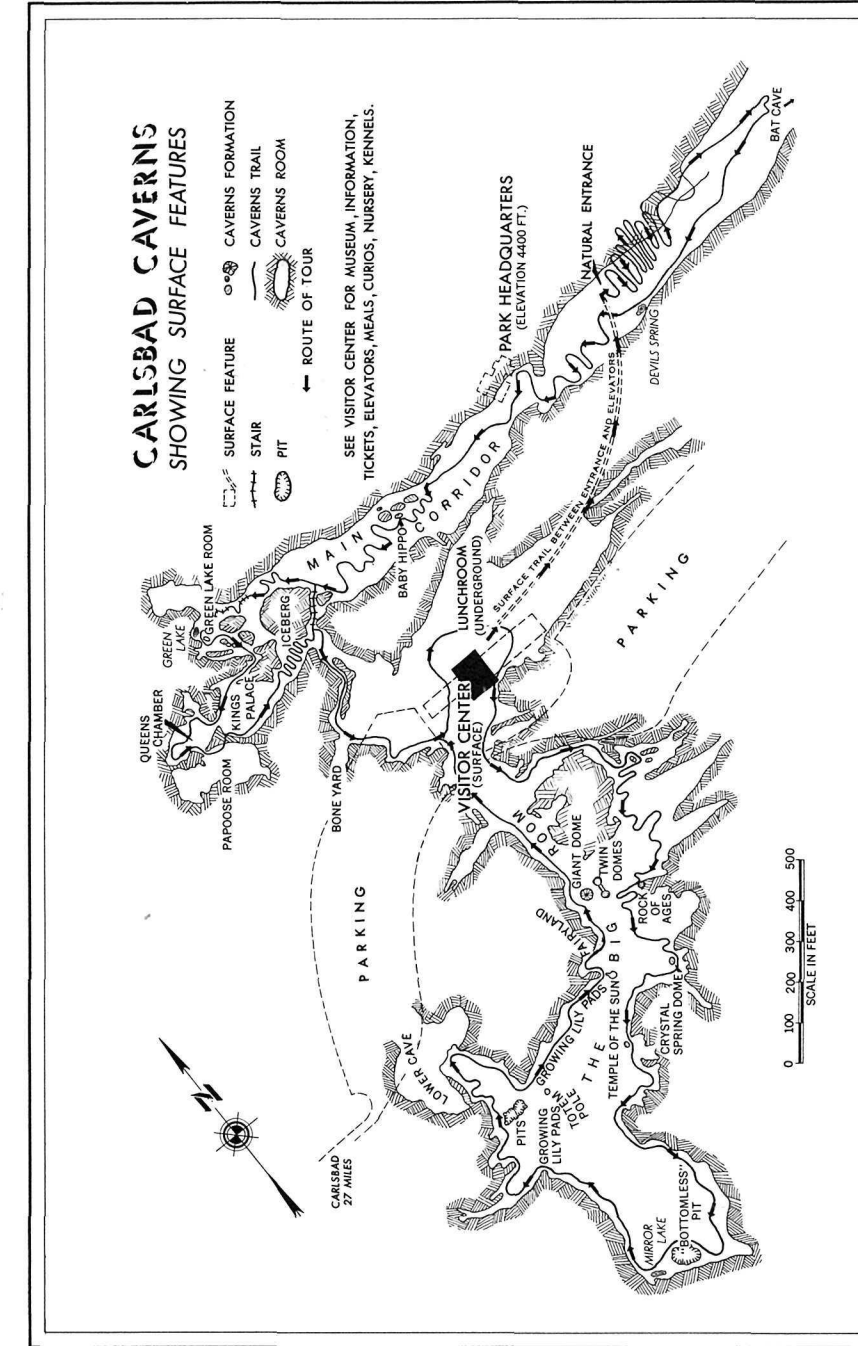
Fires.—Special care must be taken not to drop lighted matches, cigars, or cigarettes in grass, twigs, leaves, or other flammable material.

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

Dogs.—No dogs are allowed in the caverns or public buildings of the park. Pets must be on a leash or otherwise physically restrained at all times.

Cameras.—Still and motion-picture cameras may be used freely on the surface. Professional photographers must obtain a permit from the superintendent when special equipment is required. Time exposures and flash pictures may be taken inside the caverns only on the special photographic party. Details regarding the time and extent of photo tours may be obtained from uniformed personnel of the park.

Prospecting and Mining.—Prospecting or the location of mineral claims is prohibited on all Federal land within the park.



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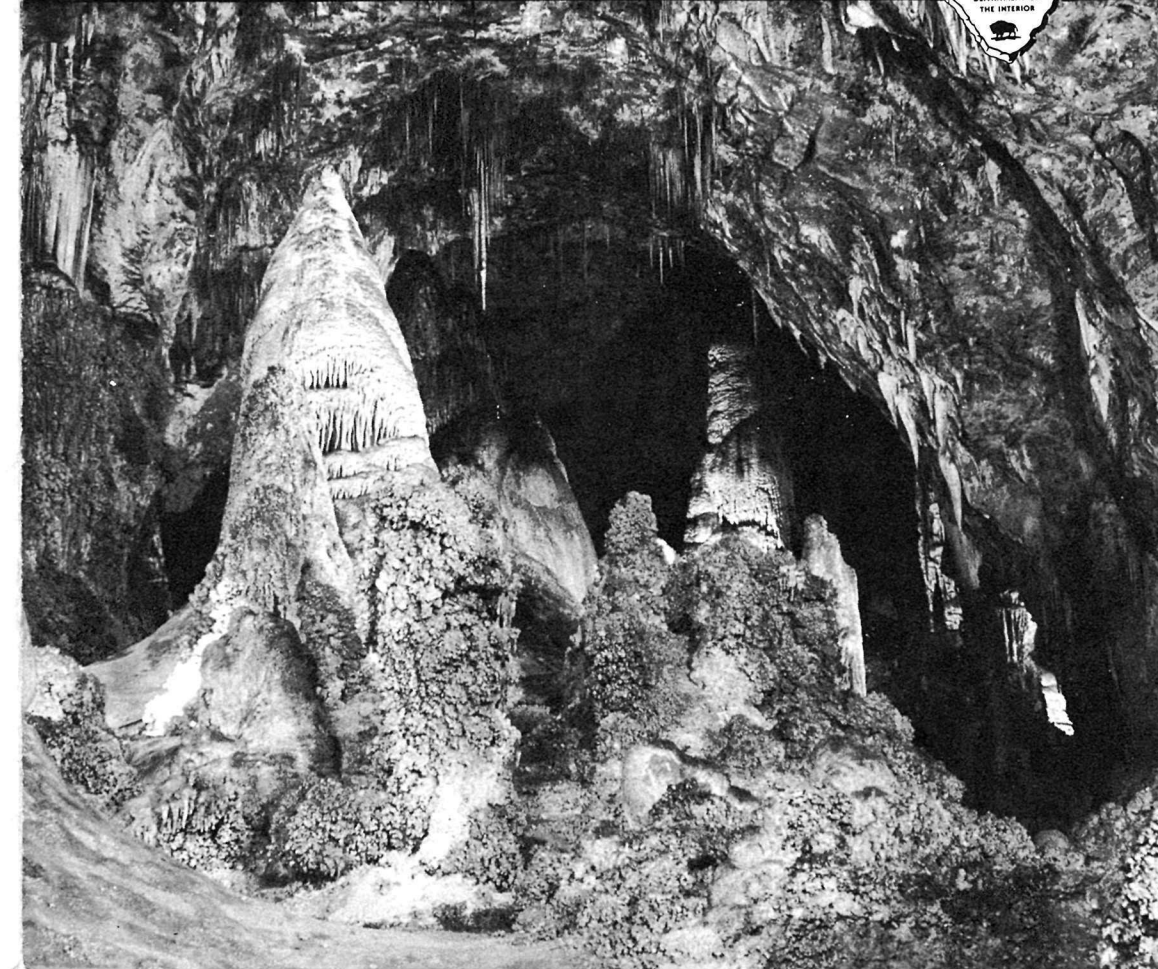
UNITED STATES DEPARTMENT OF THE INTERIOR
FRED A. SEATON, *Secretary*
NATIONAL PARK SERVICE, CONRAD L. WIRTH, *Director*

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COVER: *The Hall of Giants.*