Carlsbad Caverns

NATIONAL PARK
NEW MEXICO

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FOR YOUR SAFETY IN THE CAVERN
You should wear low rubber-soled or non-skid walking shoes in the cavern. We also recommend you bring a sweater or jacket. For safety reasons baby strollers are not allowed.

A fee is charged for cave tours. Golden Age and Golden Access Passport holders get 50 percent discounts. Golden Eagle Passports are not applicable for cave tour fees.

ADMINISTRATION
Carlsbad Caverns National Park is administered by the National Park Service, U.S. Department of the Interior. A superintendent, whose address is 3225 National Parks Highway, Carlsbad, NM 88220, is in immediate charge. For further information call 505-785-2232.

National Park Service
U.S. DEPARTMENT OF THE INTERIOR

On the northeastern slope of the Guadalupe Mountains in southern New Mexico is Carlsbad Caverns, a place of contrasts. Unlike many other natural parks, it reaches deep within the earth to preserve and interpret a subterranean wonderland acclaimed as "king of its kind." On the surface, the land is harsh and rugged, with the steep rock-strewn ridges covered with cactus and other spiny plants. Temperatures are often extreme and rainfall is sparse. But below ground, huge galleries lavishly decorated with delicate stone formations are always cool and moist.

Some 70 caves are preserved in the 18,916-hectare (46,753-acre) park. Carlsbad, the largest, has one room with a floor area equal to 14 football fields and enough height for the U.S. Capitol building in one corner.

You can tour vast underground chambers, explore deep, winding canyons on the surface, study Permian Age fossil reef, view unusual desert plants, and witness spectacular evening bat flights when the migratory colony is in residence.

HOW THE CAVES FORMED

The limestone in which the caverns formed was deposited near the edge of an inland arm of the sea during Permian times, about 250 million years ago. Its core is a fossil barrier reef built by lime-secreting algae and other marine organisms. To the north are layered rocks which formed in a lagoon behind the reef, and to the south are exposures of talus, or rock fragments, broken from the reef's crest by storms on the ancient sea.

In time, growth of the massive reef was halted and it became buried under layers of sediment. A pattern of cracks then appeared in the rock which set the stage for the formation of the caves.

Rainwater, converted to a weak carbonic acid by absorption of carbon dioxide in the soil and decaying matter above, seeped into the cracks and worked its way down to the permanently saturated zone—water table. It then slowly dissolved the rock to create immense underground galleries.

As mountain building forces raised the caves above the water table, air filled their chambers and mineral-laden water filtering in from the surface began to decorate the rooms with stalactite and stalagmite formations. A few of these are still slowly growing, but no change is noticed in a human lifetime.

THE BATS

For thousands of years, bats that winter in Mexico have used one portion of the main cavern as a summer home. From late spring until the first major frost in October or early November, these tiny flying mammals spiral out of the cavern entrance in incredible numbers at sunset each evening. They fly southeastward over the escarpment rim to feed at night on flying insects along the Black and Pecos Rivers. Before sunup the colony returns to the cavern where the bats sleep during the day. Up to 5,000 bats per minute may boil up through the cavern opening, depending on weather conditions and the insect food supply.

THE CAVERN AND MAN

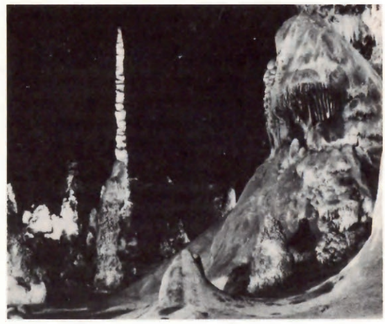
More than a thousand years ago, prehistoric Indians left paintings on the entrance wall of Carlsbad Cavern and cooked agave and other desert plants in a rock pit just outside. They were attracted to the cavern because of the shelter it could provide, as were the Apache Indians of more recent times.

More permanent settlers arriving after the Civil War were attracted to the cavern by what appeared to be smoke against the sky; from nearer the cave they discovered that the dark cloud consisted of literally millions of bats streaming out of the opening. Later, finding huge guano deposits beneath the bat roost valuable as natural fertilizer, the settlers' interest in the cave became commercial. Mining claims were filed on the "Bat Cave" and more than 90,700 metric tons (100,000 tons) of guano were removed in 20 years.

James Larkin White, a young cowboy who was fascinated by the cavern and its bats, became a foreman for the guano mining companies and spent more than 20 years exploring, building trails, and escorting people through portions of the cavern. His efforts, along with those of others, led to a visit by Robert Holley of the General Land Office, to a 6-month National Georgraphic Society expedition under Dr. Willis T. Lee, and finally to designation of the cave as a national monument in 1923. Additional land and caves were added in 1930 when it became a national park.

FROM DESERT TO MOUNTAINS

The landscape of the park holds as much interest as the awesome caves beneath. Elevations range from 1,097 meters (3,600 feet) above sea level at the base of the escarpment on the east boundary to 1,936 meters (6,350 feet) atop Guadalupe Ridge on the west boundary. Slicing through the rugged backcountry are numerous canyons with intriguing names like Slaughter, Bear, Walnut, Rattlesnake, Lefthook, Midnight, Yucca, and Double.



The Totem Pole was formed on the cavern floor by droplets of water, each holding a minute quantity of dissolved limestone. As the water fell and splashed against the stalagmite, the lime it carried precipitated and was deposited on the tip of the pole, building it higher and higher over the centuries.

The shape of the land in the park has created wide variations in temperature, soil, sunlight, and moisture, and these in turn have resulted in a wide variety of life forms. On the flatlands near the base of the mountains are creosotebush and other drought resistant shrubs. In the canyons, black walnut, hackberry, oak, desert willow, and other trees are common. The canyon walls and ridge tops are covered mostly with agave, yucca, sotol, ocotillo, and desert grasses; and at the higher elevations are juniper, pine, and Texas madrone. In all, more than 600 plant species have been identified. In wet years, a succession of colorful annuals covers the canyons and ridges with a carpet of blooms from spring into fall.

Wildlife abounds, although the nocturnal habits and natural camouflaging of many species keep them from being readily seen. Most commonly encountered among the mammals are jackrabbits, ringtails, raccoons, skunks, foxes, gophers, wood rats, mice, squirrels, porcupines, and mule deer. Seen less often are coyotes, badgers, bobcats, and mountain lions.

More than 200 species of birds, ranging in size from tiny hummingbirds to the majestic golden eagle, have been identified. During the summer, turkey vultures glide on thermal currents above the canyons, and cave swallows rear young in mud nests plastered high up on the walls of several caves.

The harsh land is also the home of many lizards and snakes. None should be feared, but the rattlesnakes should be respected. It is unlikely that you will see any, but be watchful on warm summer evenings and when traveling cross country.

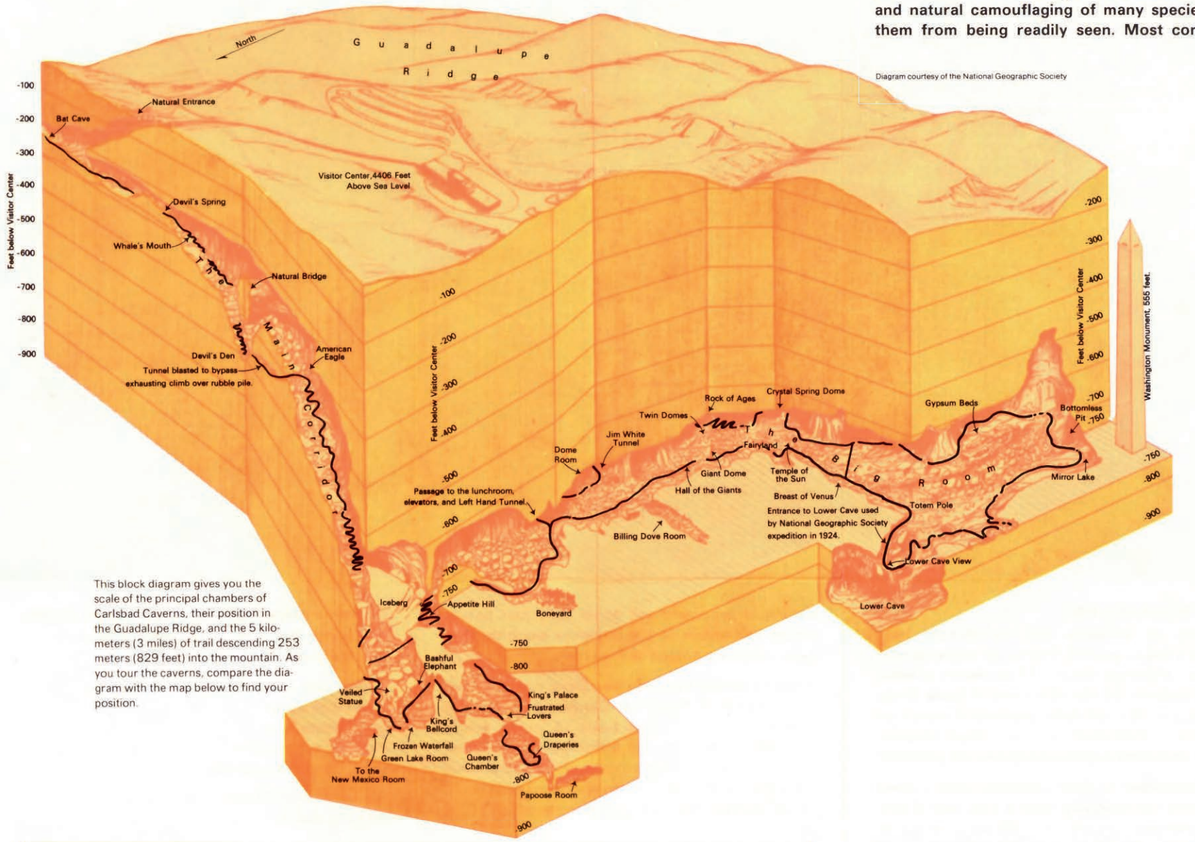
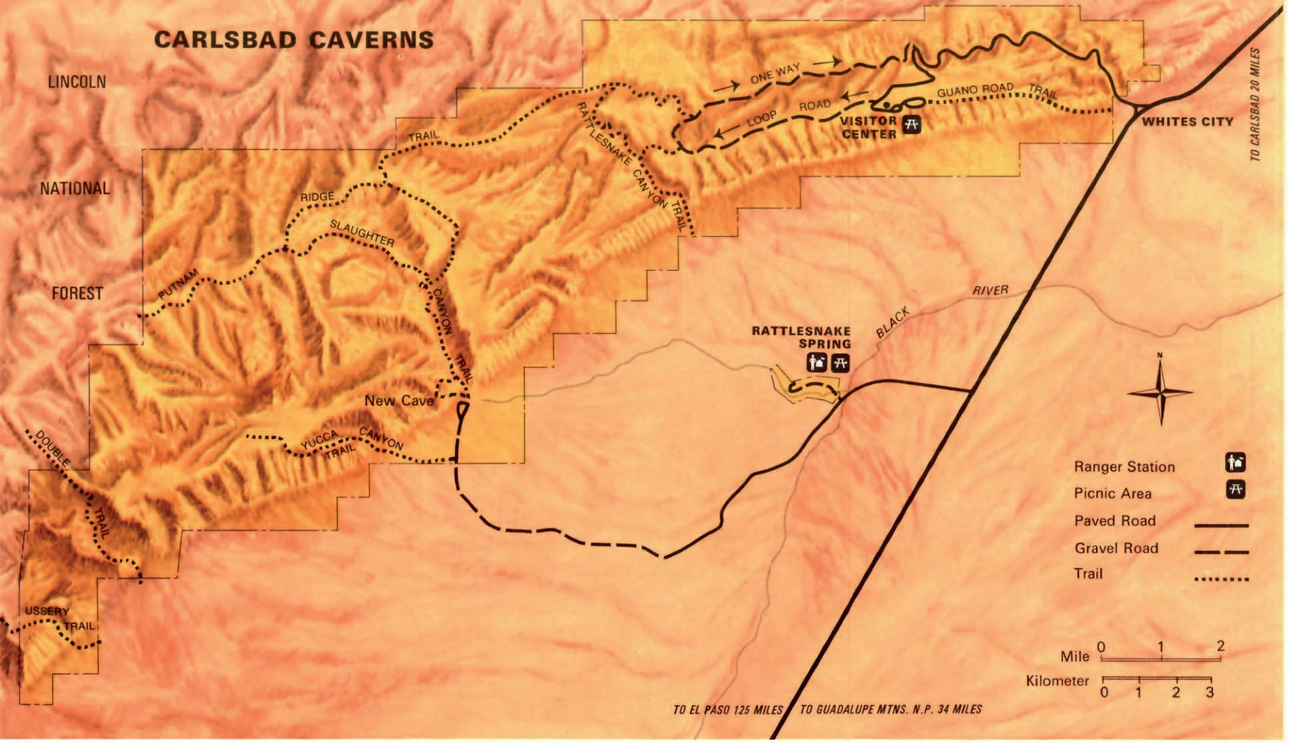
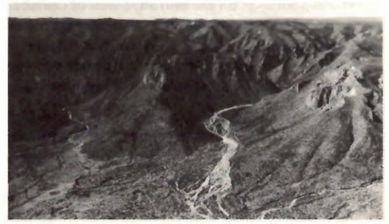


Diagram courtesy of the National Geographic Society

This block diagram gives you the scale of the principal chambers of Carlsbad Caverns, their position in the Guadalupe Ridge, and the 5 kilometers (3 miles) of trail descending 253 meters (829 feet) into the mountain. As you tour the caverns, compare the diagram with the map below to find your position.



This aerial view of Slaughter Canyon shows the typical rugged, rock-strewn ridges and desert washes of the park.



A ringtail peeks out of its favorite habitat.

The collared lizard sometimes runs upright on its powerful hind legs.

Bats leave the cave's natural entrance on their evening flight.

WHAT TO SEE AND DO

A variety of activities can be enjoyed both above and below ground. The visitor center is near the cavern entrance, which is 11 kilometers (7 miles) west of highway 62-180 at the end of State Route 7. The center is open daily year-round except on Christmas. Information and orientation services, exhibits, and interpretive publications are provided.

From September to April *complete cavern tours* are offered continuously from 8 a.m. until 2 p.m. and *shorter elevator trips* are offered from 8 a.m. to 3:15 p.m. Both trips are offered for longer hours in the summer. On the complete 5-kilometer (3-mile) cavern trip you enter the cave through the natural entrance and walk through the Main Corridor and the Big Room. During most of the year this entire tour is self-guided, but during the first half of December, all of January, and the first half of February you must accompany a ranger on a guided tour of the Main Corridor; you can then continue through the Big Room on your own. On the 2-kilometer (1¼-mile) elevator trip you explore the Big Room on your own. Everyone returns to the surface by elevator. The complete cavern tour is somewhat strenuous and is not recommended for persons with walking or breathing problems. The most scenic part of the Big Room can be reached by wheelchairs, which are available at the visitor center. Photography is allowed on all trips except ranger-guided tours. Photographers must stay on cavern trails and must not rest cameras or tripods on cavern formations.

Bat flight programs are given daily just before sunset in summer at the entrance amphitheater. Exact times are posted daily in the visitor center.

Primitive lantern trips into New Cave, which is near the entrance of Slaughter Canyon, are available seasonally on a limited basis (A guide fee is charged.). Inquire at the information desk upon arrival. The trail to this cave involves a strenuous climb (152 meters/500 feet in elevation) and should be attempted only by those in good physical condition.

Nature trails near the cavern entrance and along the Walnut Canyon entrance road offer an opportunity to become acquainted with plants of this semi-arid land. Guided walks into the desert are also scheduled during the main travel season.

Sightseeing by car can be both enjoyable and educational when traveling the park entrance road as it winds through lower Walnut Canyon and then climbs to the top of the Capitan Reef Escarpment. Along the 11-kilometer (7-mile) route are opportunities to view exposures of the ancient reef and lagoon deposits, wildlife, and unusual desert plants. Roadside exhibits interpret natural features along the route. On clear days, a sweeping panorama of the entire reef escarpment and the Delaware Plain extending more that 160 kilometers (100 miles) southward into Texas awaits you on the reef crest.

The Walnut Canyon Loop Road is a 15-kilometer (9.5-mile) one-way gravel road. It lets you drive to the threshold of the backcountry. It begins near the visitor center (see map), leads along a ridgetop, and winds down through upper Walnut Canyon past a pioneer homestead site.

Hiking and backpacking are limited only by the amount of water hikers can carry. Adequate water, good boots, and topographic maps are essential. Permits are required for overnight backcountry trips. Open fires are not permitted.

For safety, check with a park ranger before going into the backcountry.

CLIMATE AND SEASONS

Summers are usually warm and winters mild. However, extreme changes can come suddenly at any season of the year. If moisture comes early, *spring* brings an abundance of color as wildflowers and cactus come into bloom. It also brings strong winds. In the *summer*, the bats are flying, agaves blooming, and the fruit of the prickly pear cactus is ripening. Thunderstorms accompanied by brief but often heavy downpours may bring flash floods to the canyon bottoms. In *autumn* squirrels fatten themselves on fruits and seeds, reptiles go into hibernation beneath the rocks, and the bats migrate southward. In *winter* the normally mild weather may be broken by a shortlived snowstorm or a bone chilling cold front sweeping through on gale force winds. In the cavern the temperature remains constant at 13°C (56°F) year round. Average annual precipation is 35.5 cm (14 in.).

PRECAUTIONS

The following suggestions are offered to help make your visit safe and pleasant.

Wear proper shoes and clothing. Shoes with synthetic soles often slip on wet downhill trails in the cavern; wear shoes with rubber soles or heels. Boots are advised for surface hikes and the New Cave trip.

Stay on cavern trails and do not run. Steep drop-offs and deep pits lie just off the cave trails in many places, and thin crustlike deposits often conceal cavities below. Parents should keep small children at their side. Use the handrails provided.

If the electric power fails while you are underground, stop and remain quiet until the lights come on again. Provisions have been made for such emergencies and standby lighting will be in operation within a few moments. Such failures are relatively rare.

Observe posted speed limits. The park roads have been designed for sightseeing and not for high-speed travel. Be alert for deer bounding across the roadway, and for people who have stopped their vehicles to observe or to take photographs.

Watch for rattlesnakes when hiking on the surface. If you should see one, do not kill it, simply detour around it.

Beware of the cactus and other desert plants; their spines can inflict painful injury. The knifelike lechuguilla agave can even pierce leather shoes.

HELP PROTECT YOUR PARK

Touching cavern formations is prohibited. Many formations are so fragile they can be broken by a mere touch; all can be stained by repeated handling. Once damaged, the loss is permanent because most decorations are no longer growing. Smoking in the cave also is prohibited.

Collecting or disturbing rocks, plants, or wildlife either above or below ground is prohibited by law.

Pets are not allowed within the cavern, public buildings, or backcountry, and must be kept on a leash in other areas. Kennel service is available.

Entering backcountry caves and undeveloped parts of Carlsbad Caverns without written permission of the superintendent is prohibited. Conditions for issuing permits vary according to the management, resource, and hazard class of each cave. Most are closed except for research. Direct requests for information and applications for permits to the superintendent.

Hunting wildlife, the possession of loaded firearms, the use of metal detectors, and prospecting for mining claims also are prohibited.

HOW TO REACH THE PARK

Carlsbad Caverns National Park is on U.S. 62-180, 32 kilometers (20 miles) southwest of Carlsbad, N.M., and 242 kilometers (150 miles) east of El Paso, Tex., both served by bus and air transportation, with rental cars and bus service to the park.

ACCOMMODATIONS AND FACILITIES

A restaurant, gift shop, nursery, and kennel are next to the visitor center. Lunches and refreshments are also available underground. These facilities are provided by The Cavern Supply Company, P.O. Drawer Y, Carlsbad, NM 88220. There are no overnight accommodations or campgrounds in the park, but numerous motels, campgrounds, and trailer parks are located nearby. Picnic facilities have been provided at the visitor center and at Rattlesnake Spring, a detached unit 13 kilometers (8 miles) southwest of the park entrance on the Slaughter Canyon Road.