# Wind Cave

NATIONAL PARK

SOUTH DAKOTA



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OPEN ALL YEAR

THIS NATIONAL PARK, on the southeast flank of the Black Hills of South Dakota, contains a limestone cavern noted for its unusual boxwork formations rarely found in other caverns of the world. The park is also the home of buffalo and other animals of the plains. The cavern consists of a series of subterranean passages known to be at least 10 miles in extent. These passages are lined with calcite crystal formations in various color shadings. The park was established by an act of Congress on January 9, 1903, and now has an area of about 44 square miles.

The Black Hills of South Dakota present many features of unusual interest. Rising like an island from the treeless plains, they culminate in Harney Peak, the highest point in the United States east of the Rocky Mountains. The variety of their minerals, rocks, and geological formations is exceptional.

Of the many caves found near the margin of the Hills, Wind Cave is most widely known. Its discovery, in 1881, is credited to Tom Bingham, a Black Hills pioneer who, while deer hunting, was attracted by a strange whistling sound which came from a clump of brush. Search disclosed a small opening in the rock about 10 inches in diameter from which issued a strong draft of air. It is located a few steps back of the present manmade entrance.

The strong currents of wind that blow alternately in and out of the mouth of the cave suggested its name. This strange phenomenon is believed to be caused by changes in the atmospheric pressure outside. When the barometer is falling, the wind usually blows outward; when it rises, the wind blows in. Many visitors enjoy stopping at the cave entrance to post themselves on weather indications.

### Colorful History

IN ADDITION to its natural beauty and scientific interest, the southwestern section of South Dakota has a colorful and picturesque history. Possibly a French explorer made his way into it as early as 1683, and the Verendrye brothers are said to have visited it in 1743.

The Sioux, an Indian tribe conspicuous for strength and bravery, long occupied the region and only submitted to white settlement after a bitter and tragic struggle. Some of their descendants are today living on the Pine Ridge and Rosebud Indian Reservations, a short drive from Wind Cave.

According to an Indian legend, the four winds were major deities of the Plains tribes; hence the "Cave of the Winds" was a sacred spot to them. This was one reason why the

The National Park System, of which this park 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.



Wooded and plains country, typical of the southern Black Hills

Sioux fought so hard for the Black Hills when they were invaded by white men.

The Civil War and the Indian uprisings (under the leadership of Red Cloud, Sitting Bull, Spotted Tail, and other great warriors) hampered the development of this region. But in 1874 Gen. George A. Custer's expedition through the Black Hills resulted in the discovery of gold on French Creek; settlement followed rapidly. From 1879 to 1886 were boom years that made legendary figures of such pioneer characters as Wild Bill Hickok, Deadwood Dick, Calamity Jane, and Preacher Smith.

## Geological History of Wind Cave

THE BLACK HILLS are a great dome-shaped uplift of the earth's crust from which the younger (upper) strata have been removed by erosion. Removal of these strata has exposed the ancient sediments and granites of the core and has left the truncated edges of the younger beds encircling the core in concentric ridges and valleys.

The granites may be 1 billion years old. The ancient sediments, into which the granites intruded as molten rock, are even older. Some 250 million years ago, the Pahasapa limestone was deposited in an ancient sea which covered this region. Seashells, proof of its origin, are still embedded in the limestone.

Wind Cave was created in this great Pahasapa formation as ground waters containing carbonic acid dissolved the limestone along fractures in the rock. These fractures were probably formed by the same forces that uplifted the Black Hills region.

The beautiful boxwork, one of the striking features of the cave, is due to the deposit of delicate veins of calcite in intersecting crevices in the limestone. These veins were left projecting as the more soluable limestone between them was removed by solution. Crossing each other, they form small compartments, or boxwork. In their fragile beauty these veins resemble the tracery of lace.

Other interesting cave features are frostwork, flowstone, and crystal-lined cavities. At one point a "black light" demonstration brings out the colorful fluorescent qualities of a frostwork ledge. The process of solution has produced many strange shapes, some of which resemble plants and animals.

### Surface Features

THE SURFACE 'AREA of the park contains prairie grasslands and forests. Here you can see wildlife, representative of many species that roamed the Black Hills in the early days.

You can usually get close, unobstructed views of the buffalo (bison) herd from the main highway which winds through the rolling hills of the park. Please remember that the buffalo are wild and cannot be treated like domestic animals. It is not wise, therefore, to get out of your car or to go near any of them.

Small groups of antelope may often be seen by the careful watcher. The elk frequent the open parts of the park during the night, late afternoon, and early morning. During the day they return to the forests. The deer usually remain in the woods, but may sometimes be seen crossing the grasslands. Prairie dogs (ground squirrels, *Cynomys ludovicianus*) have several of their "towns" in the park. These towns once covered many square miles of the Great Plains. On a main park road, a roadside exhibit has been placed near one of the towns to help you understand the habits of these interesting little animals.

# Cave Specimen and Wildflower Displays

Specimens of formations from the cave are displayed in the visitor center for your close examination. You may not, however, handle or remove specimens from the cave.

During the summer, a wildflower display is also maintained. It includes the common species of Black Hills flora. You are requested not to pick flowers in the park.

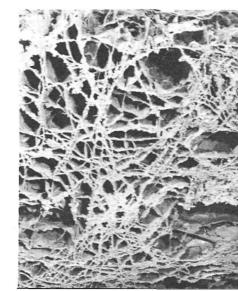
### Cave Trips

ALL TRIPS through the cave are under the guidance of park rangers. The entrance fee, including Federal tax, is 75 cents, except for children under 12 years of age who are admitted free.

The fee includes the use of the elevator on the outgoing trip. Children must be accompanied by adults assuming responsibility for their safety and orderly conduct while in the cave. Groups of school children 18 years of age or under are admitted free.

The trip through the cave is not unlike the average hike over a mountain trail. Comfortable walking shoes should be worn. The temperature is 47° and does not vary winter or summer. It is advisable to take a light sweater or jacket. The cave is electrically lighted.

# Boxwork formation, tipped with white aragonite crystals, on ceiling in Elks Room





Visitor Center

### Cave Trip Schedules

From April 1 through October 31 one of the following trip schedules (trips of 1 to 1½ hours duration) is in effect, depending on the availability of park ranger guides:

Schedule A—April, May, and October. Trips 4 times daily at 8:30 a. m., 10 a. m., 1:30 p. m., and 3 p. m.

Schedule B—June and September. Trips 10 times daily every hour from 8 a. m. to 5 p. m.

Schedule C—July and August. Trips 34 times daily every 15 minutes from 7:30 a.m. to 6 p. m.

From November 1 to March 31 cave trips are available to school and other organized groups only. You should notify the park superintendent a few days in advance to assure availability of guide service.

### How To Reach the Park

WIND CAVE NATIONAL PARK is in southwestern South Dakota in the heart of the Black Hills country. Main points of entrance are from the south via Hot Springs and from the north via Custer. U. S. 85A runs through the park and connects the two cities. An alternate approach from Custer is via U. S. 16A and State Route 87 through Custer State Park.

Bus service to the park is available from Hot Springs, Custer, Rapid City, and Edgemont.

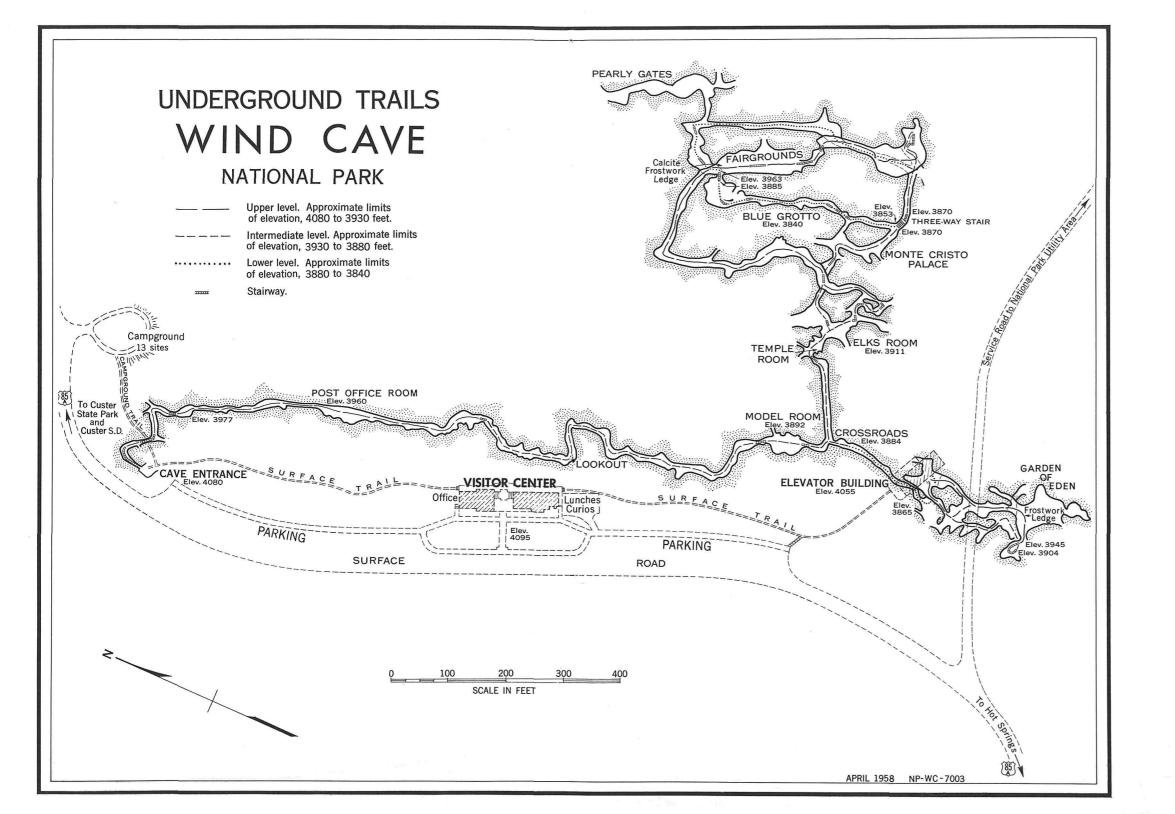
The Chicago, Burlington, and Quincy Railroad stops at Edgemont. Western Airlines has two daily flights to Hot Springs.

### Accommodations

No hotels or tourist cabins are located in the park, but a campground, with free wood and water, is maintained near headquarters. Lunchroom facilities and soda-fountain service are provided during the summer. Curios and miscellaneaus articles are obtainable. Good hotels, motels, restaurants, and garages are located in Hot Springs, Custer, and other nearby towns.

#### Mission 66

MISSION 66 is a program designed to be completed by 1966 which will assure the maxi-



mum 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

WIND CAVE NATIONAL PARK is administered by the National Park Service of the United States Department of the Interior. A superintendent, whose address is Hot Spring, S. Dak., is in immediate charge of the park.

### 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 will help and advise you as well as enforce regulations. If you need information, or are in any difficulty, see a park ranger.

The following synopsis and suggestions are for your general guidance. Full regulations may be seen at the office of the superintendent and at the ranger station.

Preservation of Natural Features.—In order that future generations may enjoy the park in its natural state, you are asked to refrain from collecting rocks, minerals, or plants, and from marring the walls and formations in the cave in any way.

Cave Trips.—No person is permitted to enter the cave unless accompanied by a park ranger.

Fires.—Light carefully, and in designated places. Extinguish completely before leaving camp, even for temporary absence. Do not guess your fire is out—know it.

Camps.—Please use the designated campground and keep it clean. Combustible rubbish must be burned in campfires, and all other garbage and refuse should be placed in garbage cans or pits provided for the purpose.

Trash.—Do not throw paper, lunch refuse, film cartons, chewing gum paper, or other trash on walks, trails, roads, or elsewhere. Carry until you can burn in camp or place in receptacle. Don't be a litterbug.

Automobiles.—Careful driving is required at all times for protection of yourself, other visitors, and the wildlife. Obey traffic rules. Do not drive car off the highway. Tractors with lugs or vehicles without tires are strictly prohibited.

Wildlife.—You should remain on the highway and in, or very near, your car in the park because the buffalo are not confined by fences. These animals are dangerous to persons on foot.

Firearms.—Unless adequately sealed, cased, broken down, or otherwise packed to prevent their use while in the park, firearms are prohibited, except upon written permission from the superintendent.



UNITED STATES DEPARTMENT OF THE INTERIOR
Fred A. Seaton, Secretary

NATIONAL PARK SERVICE, Conrad L. Wirth, Director



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