

# Timpanogos Cave

NATIONAL MONUMENT • UTAH



The lofty peaks of the Wasatch Mountains rise above the valleys of the Great Basin. Towering above all its huge neighbors in this jumble of peaks is Timpanogos, a 3,660-meter (12,000-foot) snowcapped mountain whose Indian name is believed to mean "rock river." On the north slope of the mountain is Timpanogos Cave, a series of small underground limestone caverns ornamented with beautiful deposits.

The Timpanogos Cave system consists of three caves connected by manmade tunnels. The first, Hansen Cave, was discovered by Martin Hansen in 1887 as he followed cougar tracks to its entrance. The other two caves, Timpanogos and Middle, were not discovered until 1921. Soon after these discoveries, the U.S. Forest Service posted the area as a public service site, the first in a series of actions that eventually led to the establishment of Timpanogos Cave National Monument.

To reach the cave entrance from park headquarters, you follow a trail that winds for 2.4 kilometers (1.5 miles) up the steep side of Mount Timpanogos. About 3 hours are needed to make the round trip. The cave entrance is about 305 meters (1,000 feet) above the canyon floor, and along the trail are outstanding views of the Wasatch Mountains, Utah Valley, and American Fork Canyon. Turning from these scenes, you enter the cave, where the beauty of another world unfolds.

Much of the cave interior is covered by a filigree of white translucent crystals which sparkle like an array of jewels. Flowstone, helictites, and soda-straw stalactites are among the many smaller features that culminate in larger forms, such as the fantastic Cavern of Sleep, Father Time Jewel Box, and the Great Heart of Timpanogos. Tiny pools of water reflect the beauty of the cave.

Dripstone is still being formed. From the tips of countless stalactites hang sparkling drops of water, each of which leaves behind an infinitesimal ring of limestone before it drops to the floor, where another bit of calcium carbonate is deposited. So slow is this action that dozens, or even hundreds, of years may be required to add 2.5 centimeters (1 inch) to a stalactite or a stalagmite.

#### **HOW THE CAVE WAS FORMED**

The formation of Timpanogos Cave began when pressures forced rocks upward along the Wasatch Fault, creating the overlying Wasatch Mountain Range. Within the mountain mass there were many smaller breaks or faults. As the walls of faults slid past each other, some rock was ground and pulverized. These zones of porous material constituted the blueprints for the caves. At a time when the nearby American Fork River had not yet cut the canyon very deep, slightly acid ground water lay in the fault line near the surface of the water table. There it slowly dissolved the pulverized rock as well as portions of the solid limestone walls. Thus a series of tunnels and rooms were created at approximately the same level.

As the river began to cut the canyon below this level, the standing water drained from the caves and air entered for the first time. A small tributary of the river apparently flowed through the caves briefly, bringing in rounded pebbles, but doing little to alter the shape of the walls.

Water, originating on the surface as rain or melting snow, continued to make its way down through the fault. Now, however, it began to decorate rather than excavate. Colorful stalactites grew from the ceiling and stalagmites were built upward from the floors and ledges. Draperies resembling bacon rind also grew and walls were decorated with glistening aragonite crystals or tangled masses of stone called helictites. The beauty of these odd shapes was enhanced by tints of lemon-yellow, red, brown, and green—all obtained by the addition of mineral impurities to the calcium carbonate that forms the dripstone.

The rocks of the mountain tell a geologic story of their own. Markers along the trail will give you an understanding of the magnitude of the earth forces and the long period involved in production

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#### **WE'RE JOINING THE METRIC WORLD**

The National Park Service is introducing metric measurements in its publications to help Americans become acquainted with the metric system and to make interpretation more meaningful for park visitors from other nations.

of the landscape of the canyon. Although the oldest of rocks are represented here, the subsequent record is incomplete because of an important unconformity or gap in the rock sequence occurring between layers below the Desert limestone in which the cave is formed. The break in the geologic record represents a lapse of probably more than 125 million years (Cambrian to Mississippian).

### ABOUT YOUR VISIT

If you are driving south from Salt Lake City on Int. 15, turn east at Utah 92, the Alpine exit. If you are driving north from Provo, turn east at Pleasant Grove or American Fork. Timpanogos Cave is 11 kilometers (7 miles) from either town via a paved road. The cave is open every day from May through October. From November through April, snow and ice make the trail to the cave impassable.

At the visitor center, you can learn more of the fascinating details of the formation and history of the cave and park through museum exhibits and an audiovisual program. And what you learn will add to your pleasure in visiting the cave.

All visitors to the cave must be accompanied by a tour guide. Tickets to the cave can be obtained at the visitor center; a nominal tourguide fee is charged. Because tour sizes are limited, frequently on weekends and holidays it is not possible to accommodate all visitors who wish to tour the cave.

All tickets are sold on a first-come, first-served basis. No reservations are accepted.

A picnic area with water, tables, and stoves is near the visitor center. From Memorial Day to Labor Day you may purchase snacks and gifts from the concession stand.

### HELP PROTECT YOUR PARK

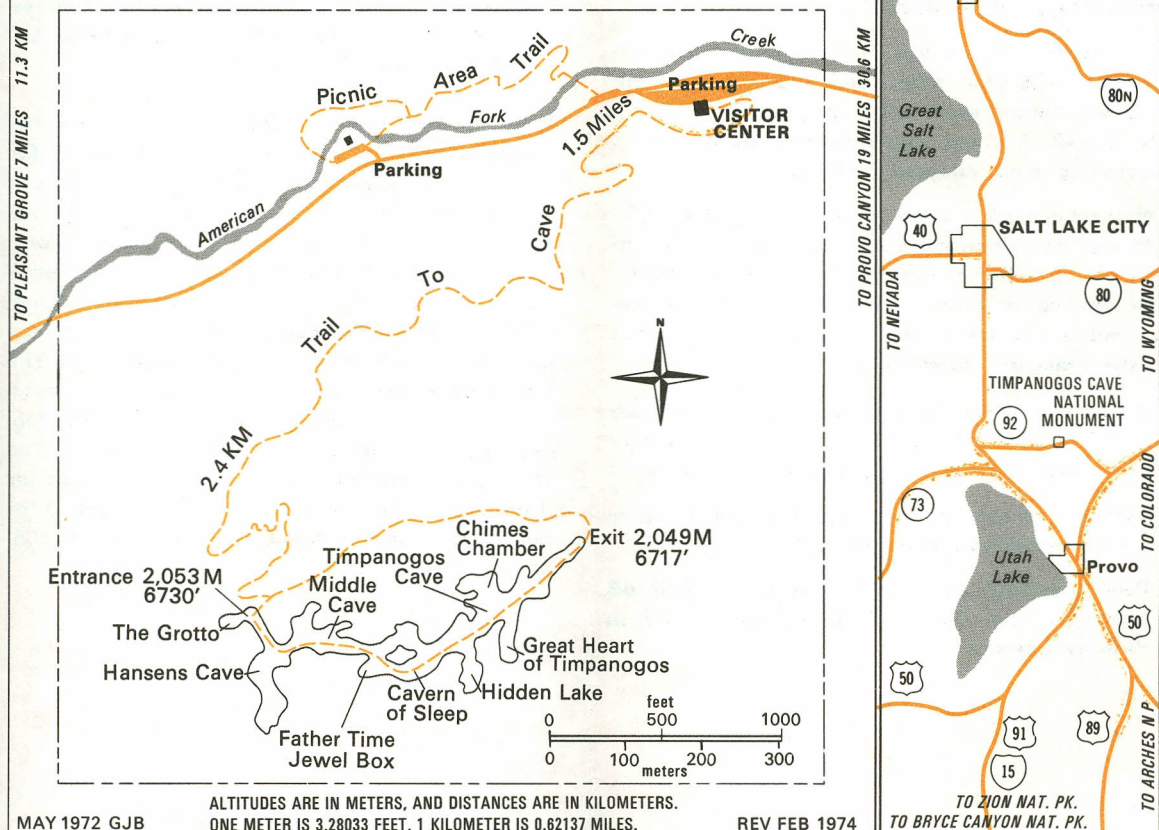
*Touching or tapping on cave formations is prohibited.* Many of the smaller formations are so fragile that they can be broken by a mere touch, and all can be stained by repeated handling. Once damaged, or destroyed, the loss is permanent, for most of the decorations are no longer growing.

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

*Pets are not allowed within the caves, in public buildings, or on trails. They must be kept on a leash.*

*Picnic only in picnic areas; build fires only in receptacles provided. Keep the grounds clean.*

## TIMPANOGOS CAVE NATIONAL MONUMENT



## **A WORD ABOUT SAFETY**

**Children under 16 years of age must remain with their adult supervisors, who are responsible for their safety and conduct.**

**The paths in the caves are well lighted and arranged with your safety in mind. Because the average temperature within the caves is a chilly 6° C. (43° F.), you should wear a warm jacket. Smoking is not allowed in the caves.**

**Natural erosion on the surface can cause rock-falls at any time, and rocks large enough to inflict serious injury frequently strike the trails. Be alert to the sound of falling rocks and be prepared to take cover near the wall or the nearest other place of protection.**

**Do not take shortcuts and please do not run; stay on the paved trail and be careful not to kick or throw any object that could injure those below.**

**Because the cave trail is steep, strollers or other wheeled vehicles are not permitted.**

**Drive carefully; the maximum speed limit is 48 kilometers per hour (30 mph). Park only in designated areas.**

## **ADMINISTRATION**

Timpanogos Cave National Monument is administered by the National Park Service, U.S. Department of the Interior. A superintendent, whose address is RR 3, Box 200, American Fork, UT 84003, is in immediate charge.

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.