# impanogos ave

THE GREAT HEART

National Monument

UTAH

## Timpanogos Cave

A series of small but beautifully decorated underground chambers within limestone beds, on the north slope of Mount Timpanogos.

PAMED FOR THEIR BEAUTY, the Wasatch Mountains raise their lofty peaks high above the valleys of the Great Salt Basin. Amid this jumble of peaks, towering above all of its huge neighbors, is Mount Timpanogos. The name Timpanogos is believed to be a Paiute Indian word meaning "Woman Lying Down." On the slope of the snowcapped 12,000-foot mountain is the series of scenic caverns now included in Timpanogos Cave National Monument.

From monument headquarters, you follow a

trail that winds for a mile and a half up the steep side of Mount Timpanogos to the cave entrance. Along the trail, you can obtain outstanding views of the Wasatch Mountains, Utah Valley, and American Fork Canyon. Turning from these views of scenic grandeur, you enter the cave where awe-inspiring beauty of another world unfolds.

Electric lights have been installed to display the beauties of the cavern. By means of indirect and subdued lighting, unusual effects have been produced. Fresh air is supplied naturally from hidden vents; the paths are well arranged and lighted so that you may better enjoy your trip through this fairyland. The average temperature within the cave is 42° F.

Much of the cave interior is covered by a filigree of pink and white translucent crystals which glow and sparkle like an array of jewels. Feathery boas, braided wreaths, and needlelike stalactites are among the myriads of smaller features that culminate in larger forms, such as the fantastic Chocolate Falls, The Jewel Box, and the Great Heart of Timpanogos. The formation of dripstone is still taking place. Tiny pools of water reflect the beauty of the cave. From the tips of countless stalactites hang sparkling drops of water, each of which leaves behind an infinitesimal layer of lime before it drops to the floor where another bit of lime is left. So slow is this action that dozens, or even hundreds, of years may be required to add an inch to a stalactite or a stalagmite.

#### GEOLOGY

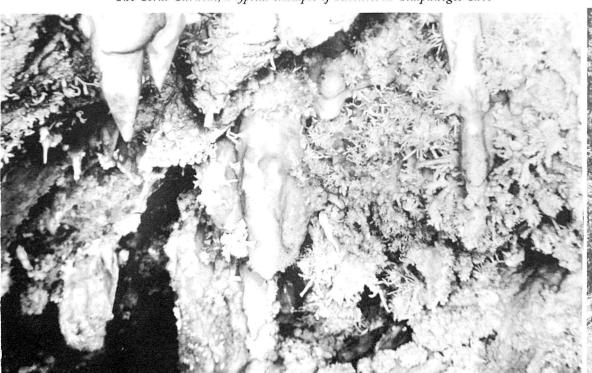
Although little is known about the age of the cave, the processes by which it was formed are better understood. Water is responsible for both its excavation and its decoration. The first event in the story was one which makes this cave unique among the caves of the national parks and monuments. This event was closely related to the earth movement that elevated the rock from which the Wasatch Range was carved. The rocks could not stand the strain of this movement and broke, those on either side of the break moving in opposite directions. The movement produced a zone of broken and pulverized rock through which ground water could pass readily. It is probable that this zone of weak material was wider at the level where the cave later was formed and so constituted a natural reservoir in which the water accumulated. As this accumulation drained away it carried with it the pulverized rock and the limestone it had dissolved from the broken fragments. By this means a tunnel eventually was formed. All of the broken rock was removed, the solid limestone attacked, and the tunnel finally was enlarged to form a cavern. It is thought that this was happening when American Fork flowed at the approximate level of the cave. The stream in the cave could not keep pace with the river, and, as the canyon was deepened, the cave was left in the canyon wall. The cave stream disappeared either because it found other means of reaching the river or because rainfall became much less.

As though reconciled to their defeat by the river, the cave waters ceased excavating the cave and began to decorate it. Pendants were hung from the ceiling, and pedestals were built upon the floor. Sheafs of pink- and brown-striped draperies were suspended before dark crevices, and the hard walls of the cave were encrusted with glistening crystals or bedecked with tangled masses of root-shaped stone, called

helictites. The beauty of these odd shapes was enhanced by tints of red, brown, green, blue, and lavender—all obtained by the addition of iron in varying amounts and mineral combinations to the mineral which forms the dripstone.

The rocks of the mountain also are significant, and markers along the trail will give you an inkling of the magnitude of the earth forces and the long period of time involved in production of the landscape of the canyon. Although the oldest of rocks are represented here, the subsequent record is not complete, an important break occurring at the base of the Madison limestone in which the cave is formed. This break in the geologic record represents a lapse of time of probably more than 125,000,000 years (Cambrian to Mississippian). During this period, life in the surrounding oceans developed from its most primitive forms to the relatively complex fishes, and finally to those first representatives of land animals, the amphibians. which emerged from the sea to spend part of

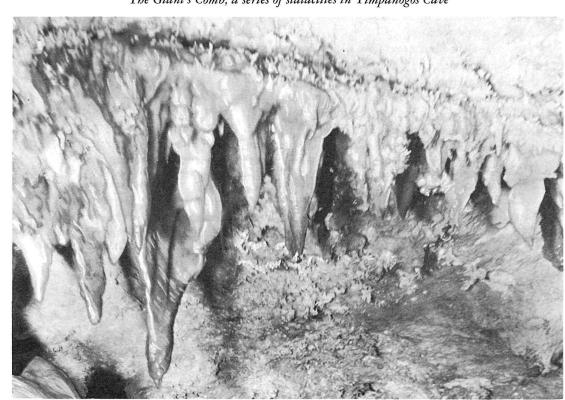
The Coral Gardens, a typical example of helictites in Timpanogos Cave



Scene along the trail to entrance of Timpanogos Cave



The Giant's Comb, a series of stalactites in Timpanogos Cave



their lives on land. In the sea that sheltered these creatures the Madison limestone was deposited. Evidence of its marine origin can be found in the fossil sea shells imbedded in it.

#### ABOUT YOUR VISIT

Motorists driving south from Salt Lake City on U.S. 50, 89, or 91 should turn east at State Route 80, a few miles south of "The Point of the Mountain." Those driving north from Provo should turn off at Pleasant Grove or American Fork. Timpanogos Cave is 7 miles from either town, via a good paved road that is normally free from snow between April and November.

The cave is open as long as weather permits, normally May 1 to October 31 from 8 a.m. to 3 p.m. The cave entrance is on the slopes of Mount Timpanogos, about 1,000 feet above the canyon floor, and is reached by a 1½-mile, well-graded foot trail. The nominal fee for guide service through the cave is waived for children under 12 years of age and groups of school children 18 years of age or under, when accompanied by adults responsible for their safety and conduct.

At monument headquarters is a picnic area with water, tables, and stoves. Lunches and supplies are available at the nearby store.

For the protection of the natural beauties of the monument, as well as for your comfort and convenience, please:

Drive carefully; speed limit within the monument is 25 miles per hour; park only in designated areas.

Picnic only in picnic areas; keep the grounds clean.

Be careful with fire.

Do not pick flowers or deface rocks, trees, or formations within the cave.

Keep dogs and cats on leash or otherwise under physical restrictive control. They are not permitted within the cave.

Use flash bulbs only in taking photographs within the caverns.

Stay on the trails. Shortcutting is not permitted as it endangers those below.

#### **ADMINISTRATION**

Timpanogos Cave was set aside as a National Monument by Presidential proclamation on October 14, 1922, under the jurisdiction of the Department of Agriculture. In 1933 it was made a part of the National Park System. It is now administered by the National Park Service, U.S. Department of the Interior, and covers an area of 250 acres in American Fork Canyon. A superintendent, whose address is R.F.D. 1, Box 287, American Fork, Utah, is in immediate charge.

#### 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.

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.



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

NATIONAL PARK SERVICE, Conrad L. Wirth, Director



