We hope you've enjoyed your exploration of Lava River Cave. You are cordially invited to visit the other fascinating volcanic features of the Deschutes National Forest. Personnel at Lava Lands Visitor Center, 1 mile north of this park, will be glad to suggest points of interest.

Photos by Vern Bartley, Bend, OR.

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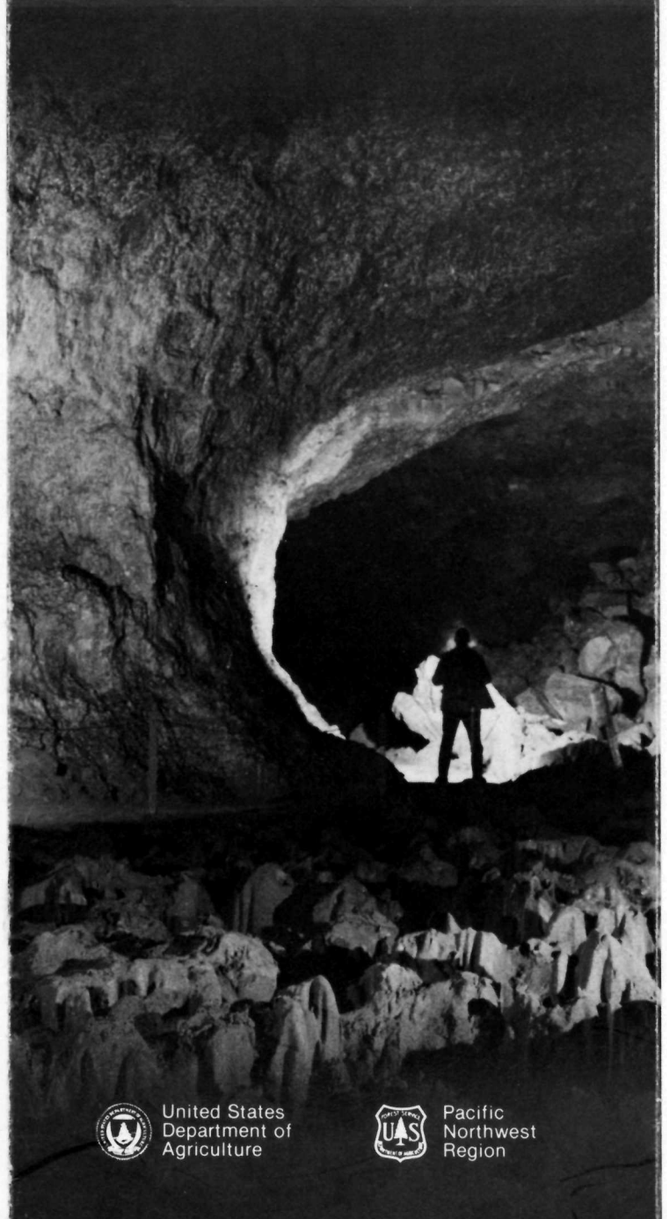
LAVA RIVER CAVE

DESCHUTES NATIONAL FOREST



United States Department of Agriculture

Pacific Northwest Region

Lava River Cave Trail

Introduction

The sparsity and spaciousness of Central Oregon's Lava Lands create an area of striking beauty both above and below ground. Lava Lands, known for its diverse volcanic features, is well named. Large areas are covered by lava flows, some of which are only a few thousand years old. These rivers of rock are basalt, a molten lava that spread quickly and sometimes flowed up to seventy miles. Great tunnels wind through many of these flows suggestive that awesome forces of nature were once at work. These ancient lava tunnels (called tubes) are one of the area's most interesting secrets.

Lava River Cave is one example of these ancient lava tunnels. The cave is managed by the Deschutes National Forest.

Trail Information

You are cordially invited to follow the ancient course of one of these molten rivers of rock by walking the trail through the Lava River Cave. This trail is an easy one hour 1.2 mile (1829m), round trip walk beginning and ending at the parking lot. This brochure will aid in your enjoyment, understanding, and appreciation of the underground world of a lava tube. After using the brochure you may return it when you leave, or keep it for future reference. Although the cave is a little over a mile in length this brochure will discuss features for only the first 3,000 feet (914m). Have an enjoyable walk.

Lava River Cave Story

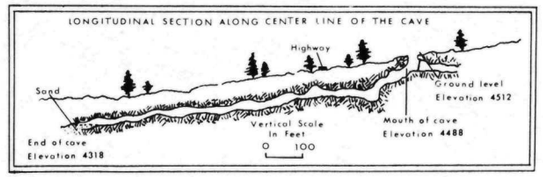
Repeatedly over the past several hundred thousand years, great systems of fissures opened in Central Oregon. From many of these openings rivers of molten rock poured forth across the lands. Lava River Cave formed in one of these fiery rivers during the last Ice Age, sometime between 10,000 and 100,000 years ago.

The fluid lava (called pahoehoe by native Hawaiians) spilled down the flanks of great Mount Newberry flowing between older Ice Age lava flows. This lava flow reached thicknesses of around 100 feet. Undoubtedly the fiery river poured through a pine forest much like that of today.

The front of the molten river was fed through channels that developed within the cooling and hardening mass of lava. When the lava stopped pouring from the fissure the channel drained leaving a remarkable tunnel called a lava tube.

Fortunately for us, part of the roof has caved in allowing us to enter the cave; otherwise we would not know the cave even existed. We do not know why the roof fell in, but it was probably by the wedging power of ice or an earthquake.

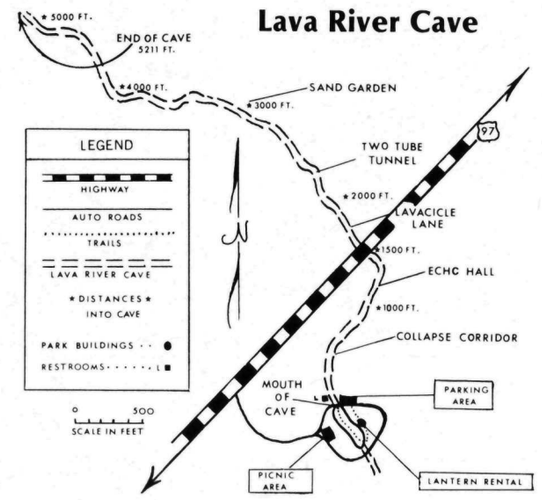
Lava River Cave extends in two directions from the entrance. The main tunnel, which is the longest known uncollapsed lava tube in Oregon, winds northwesterly for 5,211 feet (1,589m) on a gradual downhill slope toward the Deschutes River. The remainder of the cave extends in a southeasterly direction for about 1,500 feet (457m). It is closed to the public due to loose and dangerous rocks.



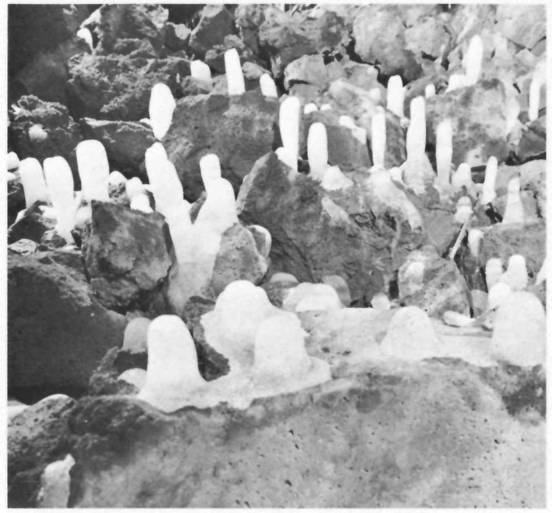
Discovery

Lava River Cave was one of the first lava tubes to be discovered by settlers in Central Oregon. It was first known as Dillman Cave, named after its discoverer, Leander Dillman, who found it while hunting in 1889.

Dillman was a stockman and trapper who lived nearby and used the cave's 40°F year-round temperature as a natural refrigerator to cool his venison. For 32 years the cave was known as Dillman's Cave, but in 1921 the named was changed to Lava River Cave. Continue down the trail to the cave opening. The numbered distance statements which follow refer to locations along the trail marked by distance posts. From here we enter the underground world of a lava tube.



Lava River Cave - Points Of Interest



Collapse Corridor
0-1000', 0-305m

The cave's entrance appears as hardly more than a hole in the ground but excites unusual interest from the beginning. At the mouth the trail drops suddenly over volcanic rocks, bridged by stairs, bringing you to the floor of a large cool chamber where winter born stalactites and stalagmites of ice persist until the warmer days of June.

The piles of volcanic rock you see in this corridor fell from the roof and sides. Each year the action of ice freezing in the cracks pry a few rocks loose. Since most freezing occurs near the entrance, most rocks have fallen here.

Echo Hall
1,000-1,500', 305-457m

Stairs lead upward from the collapsed corridor to the main section of the tunnel, and after a short walk you'll be amazed at the proportions of nature's handiwork. The ceiling reaches heights of 58 feet and is 50 feet wide with the arch of volcanic rock seemingly more perfect than if it had been made by man. If you listen, conversation echoes in far recesses and voices return as eerie sounds in the darkness, giving this area the name of Echo Hall.

Notice the remnants of the ancient stony current clinging to tunnel walls. They appear as slaggy crusts and as rounded over-hanging shelves. In other locations, the walls are etched with lateral markings showing the varying levels of the old volcanic flows.

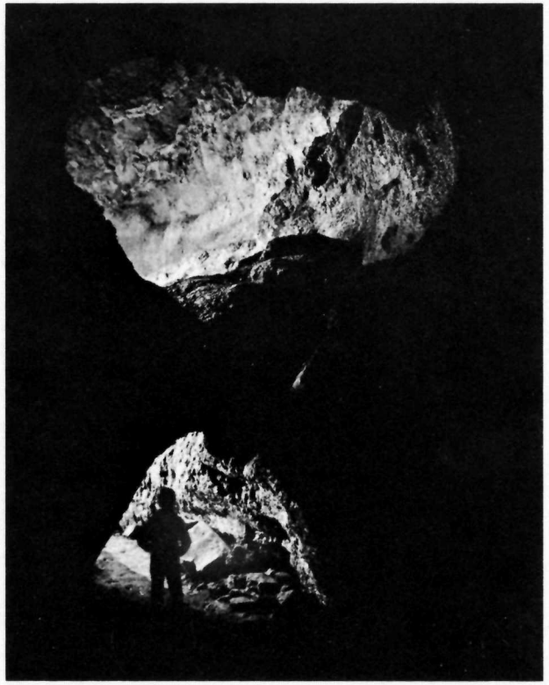
Near the end of this hall the 1,500 feet (457m) post marks the overhead passage of Highway 97.

Low Bridge Lane
1,500-2,000', 457-610m

When most of the molten lava drained out hot gases were trapped in the interior of the tube. These gases reheated the lining of the cave walls and ceilings causing the volcanic rock to remelt. This remelting formed a peculiarly shiny and glazed form of lava resembling slumped gray toffee that thinly coats the tube.

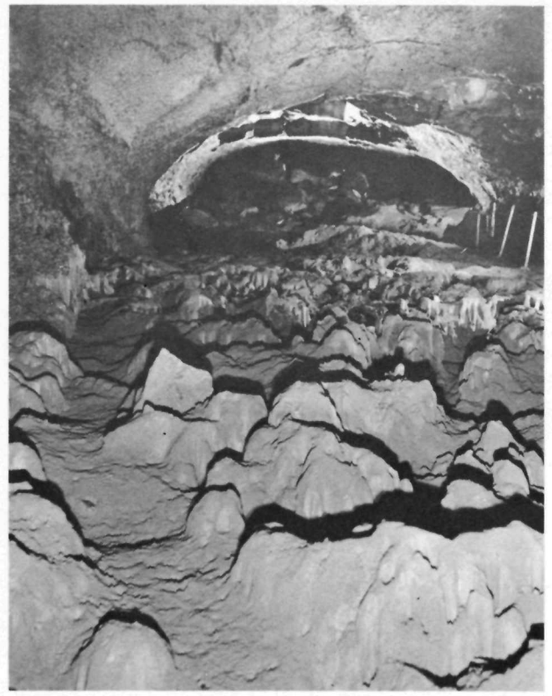
In other areas of the tube volcanic stalactites occur. These "lavacicles" are found in two forms. Hollow cylindrically shaped "soda straws," formed by escaping gases, and the cone shaped drip pendants, formed by remelted lava dripping from ceilings and walls.

The ceiling in this area drops to approximately 5½ feet so watch your head.



Two Tube Tunnel
2,000-2,500', 610-610m

Where the tube begins to narrow you will notice lava shelves extending across the width of the tunnel. Here two tubes are found for 95 feet (29m) with intermittent connecting passages. The upper tube was probably a channel for molten lava at approximately the same time as the lower. The upper level, however, eventually drained into the lower.



Sand Garden
3,000', 914m

The floor of most of the cave is covered with sand. Where did it come from? Years ago many people thought that an ancient river flowed through the cave. Actually, water did carry sand into the cave, but drop by drop not as a river. The sand is volcanic ash which came from Mount Mazama's (Crater Lake) violent eruption 6600 years ago. Rain and melting snow carried the volcanic ash down through cracks and openings of the lava flow and dripped from the ceiling. Occasionally enough water would leak into the cave to pool and flow short distances. This is how sand was spread over the cavern floor in places where very little drips from the ceiling.

The constant dripping of water has carved a garden of spires and pinnacles in the sand. Since this cycle probably takes hundreds of years, please help us protect these delicate and fragile gardens for others.

The Sand Garden marks the end of this self guided trail. In the remaining 2,211 feet (643m) of the cave you will pass through a sandy corridor. The last 310 feet (94m) was dug out by two men in the 1930's. If you wish to go to the end you should plan another 30 minutes of walking time.