

## DESCRIPTION OF MAMMOTH ONYX CAVE (formerly Kentucky Caverns)

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***(New ownership in 2013 has changed the name of Kentucky Caverns back to the original Mammoth Onyx Cave)***

Mammoth Onyx Cave is located in the midst of the best-known cave region of the United States. The cave is a relic of an underground system that was once much longer. However, both ends of this former cave system were long ago eroded away by down cutting of the surface landscape. The cave that remains, which is the toured portion of Mammoth Onyx Cave, is a natural tunnel that extends for about 800 feet completely through a forested hill. Visitors enter in the midst of the Kentucky Down Under Park and exit on a wooded hillside where no other features of the Park can be seen.

Mammoth Onyx Cave is highly decorated with a wide array of speleothems (cave formations). These include abundant stalactites, stalagmites, columns, draperies (including serrated draperies), flowstone, rimstone dams, and abundant and diverse types of cave coral. Near the discovery entrance is some very unique cave coral with long, parallel, near-vertical lines of deposition. Some of the cave coral in Mammoth Onyx Cave has formed underwater in former pools (sub aqueous coral) and other deposits have been formed in the open air (sub aerial coral). One large pool (Martha's Pool, named for the girl who discovered the cave in 1791) remains and is an important feature of the cave tour.

Nearby Mammoth Cave and Hidden River Cave have relatively few cave formations due to very little water movement through the ceilings and walls. In contrast, Mammoth Onyx Cave is a very active cave where most of the formations are wet and still depositing. In several places flowstone deposition has covered portions of the trail. The cave formations are unbroken and in excellent natural conditions throughout most of the cave. The exception is some relatively minor breakage in a small area near the cave exit where it is likely that souvenirs were collected many years ago. Since that time the cave has been very well protected by the Austin family.

Mammoth Onyx Cave also has a very diverse assortment of solutional features. These include ceiling domes formed under artesian groundwater conditions and nice ceiling anastomoses. The solutional development of the cave has created a basically horizontal cave that is very three dimension in appearance. In many places a visitor can see that passages undoubtedly continue beyond bends that obstruct the view. In this respect the cave is nicely mysterious.

One descends into the cave on a flight of stairs and then travels along a relatively level trail segment until climbing up and then back down over a very large mass of flowstone and

other cave formations. Following this, the next segment of trail is again relatively level and is partly along a large cave pool. Finally, one ascends another flight of stairs to emerge from the back entrance to the cave. From the back entrance one can take a relatively level surface trail that leads around the point of the hill and back to the other attractions within the Kentucky Down Under Park.

For many years Mammoth Onyx Cave was the only visitor attraction at the site. *(In 2013 new ownership has changed the name of Kentucky Caverns back to the original Mammoth Onyx Cave.)* Visitors to the cave were undoubtedly satisfied with their experience. With the development of Kentucky Down Under the cave is no longer a “stand alone attraction”, but instead is an integral part of the extensive park development.

The cave was developed as a show-cave in 1921. The development shows high quality craftsmanship available at a time when jobs in Kentucky were scarce. Most of the trail is carefully constructed of well-chosen and carefully mortared native flagstone; the trail itself is very attractive and is in very good condition. As now operated, you enter the cave from an Australian theme area, go “down under” through the cave, and exit in the woods of rural Kentucky.

The typical tour duration is 30 minutes without any retracing of the tour route. This tour duration is typical for most American show caves. The pace through the cave is easy and leisurely, but a little bit of bending and twisting is needed in crossing over the massive flowstone in the middle of the cave. A very large tree root near the end of the cave is used by interpreters to integrate what people have seen in the cave with the overlying forest.

In summary, this is a beautiful show cave with a great diversity of interesting features that are easy to interpret. While the cave contains some unusual features, it is best viewed as a cave that contains most features that the typical visitor would expect to see in a high quality show-cave. Both the cave and its infrastructure are in good condition. Guided tours in this cave will work best if the group size does not exceed 30 people. The cave is not handicapped accessible and could not be modified for the handicapped without modifications that would seriously damage the natural integrity of the cave.

*About the Author. Tom Aley is President of the Ozark Underground Laboratory and is a Professional Geologist licensed in Kentucky, Alabama, Missouri, and Arkansas. He routinely provides professional services on cave management issues and on the interpretation of caves and their features, and has published extensively on these topics.*