

United States Department of the Interior  
National Park Service

National Register of Historic Places  
Registration Form

1. Name of Property

historic name Onyx Cave

other names/site number King Cave, Boiling Springs Cave, Onyx Mountain Caverns

2. Location

street & number 14705 Private Drive 8541 [n/a] not for publication

city or town Newburg [X] vicinity

state Missouri code MO county Pulaski code 169 zip code 65550

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this  
[X] nomination [ ] request for determination of eligibility meets the documentation standards for registering properties in the  
National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my  
opinion, the property [X] meets [ ] does not meet the National Register criteria. I recommend that this property be considered  
significant [ ] nationally [ ] statewide [X] locally.  
(See continuation sheet for additional comments [ ].)

Signature of certifying official/Title Claire F. Blackwell/Deputy SHPO

5 April 1999  
Date

Missouri Department of Natural Resources  
State or Federal agency and bureau

In my opinion, the property [ ] meets [ ] does not meet the National Register criteria.  
(See continuation sheet for additional comments [ ].)

Signature of certifying official/Title

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

- [ ] entered in the National Register  
See continuation sheet [ ].  
[ ] determined eligible for the  
National Register  
See continuation sheet [ ].  
[ ] determined not eligible for the  
National Register.  
[ ] removed from the  
National Register  
[ ] other, explain  
See continuation sheet [ ].

Signature of the Keeper

Date



## 8. Statement of Significance

### Applicable National Register Criteria

☒ **A** Property is associated with events that have made a significant contribution to the broad patterns of our history

☐ **B** Property is associated with the lives of persons significant in our past.

☐ **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

☐ **D** Property has yielded, or is likely to yield, information important in prehistory or history.

### Criteria Considerations

Property is:

☐ **A** owned by a religious institution or used for religious purposes.

☐ **B** removed from its original location.

☐ **C** a birthplace or grave.

☐ **D** a cemetery.

☐ **E** a reconstructed building, object, or structure.

☐ **F** a commemorative property.

☐ **G** less than 50 years of age or achieved significance within the past 50 years.

### Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

## 9. Major Bibliographic References

### Bibliography

(Cite the books, articles and other sources used in preparing this form on one or more continuation sheets.)

### Previous documentation on file (NPS):

☐ preliminary determination of individual listing (36 CFR 67) has been requested

☐ previously listed in the National Register

☐ previously determined eligible by the National Register

☐ designated a National Historic Landmark

☐ recorded by Historic American Buildings Survey

# \_\_\_\_\_

☐ recorded by Historic American Engineering Record

# \_\_\_\_\_

### Areas of Significance

INDUSTRY

### Periods of Significance

1892

### Significant Dates

N/A

### Significant Person(s)

N/A

### Cultural Affiliation

N/A

### Architect/Builder

N/A

### Primary location of additional data:

☒ State Historic Preservation Office

☐ Other State Agency

☐ Federal Agency

☐ Local Government

☐ University

☐ Other:

Name of repository: \_\_\_\_\_

## 10. Geographical Data

Acreage of Property 43.71 acres

### UTM References

A. Zone Easting Northing  
15 585040 4193530

B. Zone Easting Northing  
15 585230 4193560

C. Zone Easting Northing  
15 585230 4193530

D. Zone Easting Northing  
15 585630 4193520

[X] See continuation sheet

### Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

### Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

## 11. Form Prepared By

name/title Mary Catherine Smith

organization N/A date September 4, 1998

street & number 12780 Belle Road telephone 573/736-2145

city or town Crocker state Missouri zip code 65452

### Additional Documentation

Submit the following items with the completed form:

### Continuation Sheets

### Maps

A USGS map (7.5 or 15 minute series) indicating the property's location.

A Sketch map for historic districts and properties having large acreage or numerous resources.

### Photographs

Representative black and white photographs of the property.

### Additional Items

(Check with the SHPO or FPO for any additional items)

### Property Owner

(Complete this item at the request of SHPO or FPO.)

name Harry A. And Agnes M. Thiltgen

street & number 14545 Private Drive 8541 telephone 573/762-2443

city or town Newburg state Missouri zip code 65550

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Section 7 Page 1

Onyx Cave  
Pulaski County, MO

**Summary:** Onyx Cave is located at 14705 Private Drive 8541, Newburg vicinity, Pulaski County, Missouri. High in a heavily wooded Ozark bluff overlooking the Gasconade River, Onyx Cave is a natural cave, formed by the action of groundwater in the Gasconade Dolomite (dolomite is a magnesium-rich limestone). Caves, sinkholes, and springs abound in the area. Onyx Cave has a huge entrance room with two passageways toward the rear. A small stream, crossed by a noncontributing bridge, flows across the entrance room from the passage on the south wall. The passage on the east wall leads easterly through the mined area that contains extraordinarily rich deposits of cave onyx. Translucent cave onyx that is pure white to cream in color, some with reddish-colored banding, has been deposited in magnificent cave formations. The formations range from the common stalactites, stalagmites, and columns, to beautiful draperies, and to the seldom seen stalactiflats and cave boxwork. Massive beds of onyx add to the richness of the deposit. Nearly every square inch of the ceiling and floor is covered with onyx. In 1892, the period of significance, an 8x13 foot vertical shaft was sunk in order to mine the onyx. The shaft is about 1000 feet east of the cave mouth, and is over 100 feet deep. It is covered with treated plywood and surrounded with a mesh fence.

The historical integrity of the site is excellent. Only a small amount of onyx was removed from the cave, and a few of these large blocks of onyx remain on the surface next to the shaft. These blocks, as well as other blocks in the cave and at the bottom of the shaft, remain exactly as they were when they were abandoned over 100 years earlier. Two concrete and sandstone pads, on which the hoist and steam engine used to rest, are visible on the surface, and systematic archaeological testing should identify other industrial or habitation components. A modern frame building used as a ticket office and educational facility stands about 300 feet west of the shaft and is counted as the only noncontributing resource. A cement path leading down the bluff to the cave, a small covered rest shelter along the path, and several picnic tables are not included in the resource count; all are not significant in size and scale or are temporary or designed to be moved. There are evidences of early occupation by native Americans, such as some points and grindstones, but no systematic archaeological studies have been conducted. Onyx Cave has been open to the public since 1990, and it has been preserved in as natural of a state as possible.

**Narrative:** The Missouri Ozarks, known for dense forests, rugged, hilly terrain, and clear, spring-fed streams is the setting for the unique Onyx Cave. To get to the cave, one must travel on a road that is a section of Historic Route 66, now declared a Missouri State Historic Byway, and that is also part of the historic Cherokee Trail of Tears, which was designated by Congress as a National Historic Trail in 1987.

Onyx Cave is a natural cave, formed by the often underestimated erosive power of groundwater moving through cracks, crevices, and between layers of dolomite rock in the Ordovician age upper Gasconade Formation. The formations in the cave were created after the erosional phase had ended, and deposition had begun. Surface water seeping downward through the dolomite became rich in calcium carbonate. When the water reached the interior of the cave, a chemical reaction involving a loss of carbon dioxide from the water caused the calcium carbonate to be deposited, eventually forming the cave onyx.

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Onyx Cave  
Pulaski County, MO

High in a dolomite bluff, Onyx Cave is 1/4 mile east of and 200 feet above the meandering Gasconade River. Over 7000 feet of passageway, from the entrance room trending mostly toward the northeast and toward the southeast have been surveyed and mapped. More research is needed to determine if these passageways connect with other caves. The area surrounding the cave is classic karst topography, characterized by caves, sinkholes, and springs. Within 1.5 miles of Onyx Cave there are 11 caves, 2 large sinkholes, and a large spring (Hebrank, 1977). The two sinkholes, about 3/4 mile east of Onyx Cave, are Slaughter Sink and Conical Sink, and are considered the most spectacular in the state. Boiling Springs, the ninth largest spring in Missouri, boils up in the Gasconade River about 1/4 mile northeast of Onyx Cave at a measured rate of 45,000,000 gallons per day. The sinkholes and Boiling Springs are part of the same hydrological system. Fluorescein dye injected into Slaughter Sink traveled the one mile to Boiling Springs within a speedy two days. Many geologic field trips, ranging from elementary school to university to professional geologist/hydrologist levels of expertise, are conducted to these features, for it is quite unusual to find such a system in an area this small and so easily accessible.

The entrance to the cave is in the large natural mouth of the cave, and faces to the west. In 1986 the present owners of Onyx Cave closed in the mouth with a native rock wall, and set wooden doors in the wall (see photo #1). This was done in order to protect the cave from vandalism as well as to help keep the climate in the cave as constant as possible. Lichen and other organic materials are beginning to cover the wall, presenting a natural appearance.

Upon stepping through the entrance, the main room is entered. The huge room is approximately 85 feet wide, 250 feet long, and 33 feet high. Two passageways lead from the room, one each on the south and east walls. The floor, covered with red clay, begins a gradual descent. From the passageway on the south wall of the main room, a small stream flows across the room. A noncontributing bridge has been built across the stream. The main room is nearly devoid of cave decorations. One small broken dripstone formation is near the entrance. About 130 feet east of the entrance is a beautiful flowstone formation (see photo #2). The flowstone is actually quite large, at least eight feet in diameter and extends from the floor to the ceiling. However, it is dwarfed by the vast expanse of the room.

The passageway on the back (east) wall of the main room leads through the mined area, which is nearly overflowing with cave onyx. It is totally filled with onyx speleothems (cave decorations) of every kind imaginable, from the common stalactites, stalagmites, and columns, to the less common helectites (a curly-cue kind of stalactite) and stalactiflats (a stalactite that terminates not in a point but in a pancake-like structure) up to 6 to 8 feet across.

Cave pearls, cave coral, and rare cave boxwork are found here. Perhaps the most beautiful formations of all, the elegant flowing cave draperies, range in size from tiny and delicate to quite large and imposing. Translucent, pure white to cream in color, much of this beautiful onyx is also found in massive form. The concentration of the cave decorations is extraordinary.

A mine shaft was sunk in this passage, about 500 feet east of the cave mouth, in order to mine the onyx. Located on the top of the bluff, about 1000 feet (overland) east of the cave mouth, the

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Onyx Cave  
Pulaski County, MO

shaft is 8x13ft, and extends vertically 106 feet downward through solid rock. At the base of the shaft remain several large blocks of cave onyx that were abandoned when the mining ended. Most of the mining was done in this area. Little of the onyx was actually removed from the cave. Many drill marks remain in the cave walls.

On the surface the shaft is covered with sheets of treated plywood and surrounded by a mesh fence. Just inside the fence, on the west side of the shaft, lie several huge blocks of cave onyx. These too, have remained in the same place for over 100 years. Outside the southern section of fence are two contributing concrete and sandstone pads, upon which the mining hoist and the steam engine that powered it once sat.

On the surface, none of the original machinery remains, nor are there any buildings dating from the period of significance. Little documentation has been found which could determine the number and location of buildings that existed during the period of significance. According to William Louis Sheldon, a drill and blasting man who actually worked in Onyx Cave during 1892, a blacksmith's shop was located about 30 feet to the southwest of the hoist and steam engine during the period of significance (Sheldon, 1962). Little if any archeological material from this building is evident today. To date there has been no archaeological study conducted at the site. A modern 32x60ft frame noncontributing building is now used as a ticket office and educational facility. A noncontributing cement path curves from the ticket office down the steep bluff to the cave entrance. A small noncontributing rest shelter offers respite to the bad-kneed or weary visitor. There are two parking areas, one being about 100 feet southeast of the ticket office. The other parking area is about 100 feet north of the cave entrance, at the end of a small road leading from the parking lot near the ticket office. Much as it would have been during the period of significance, the site is heavily wooded with native hardwoods, such as oak, hickory, and ash, and is also dotted with the Missouri state tree, the flowering dogwood.

The present owners, Harry A. and Agnes M. Thiltgen, purchased the site on October 21, 1963, with the intention of preserving the cultural and natural history of Onyx Cave. Originally known as King Cave and Boiling Springs Cave, and after the discovery of the onyx deposits, Onyx Cave, the Thiltgens changed the name from Onyx Cave to Onyx Mountain Caverns. The cave was opened to the public on August 20, 1990, as a tourist attraction. Thousands of visitors, including schoolchildren on geology and history trips, and geologists from all over the country, visit Onyx Cave each year.

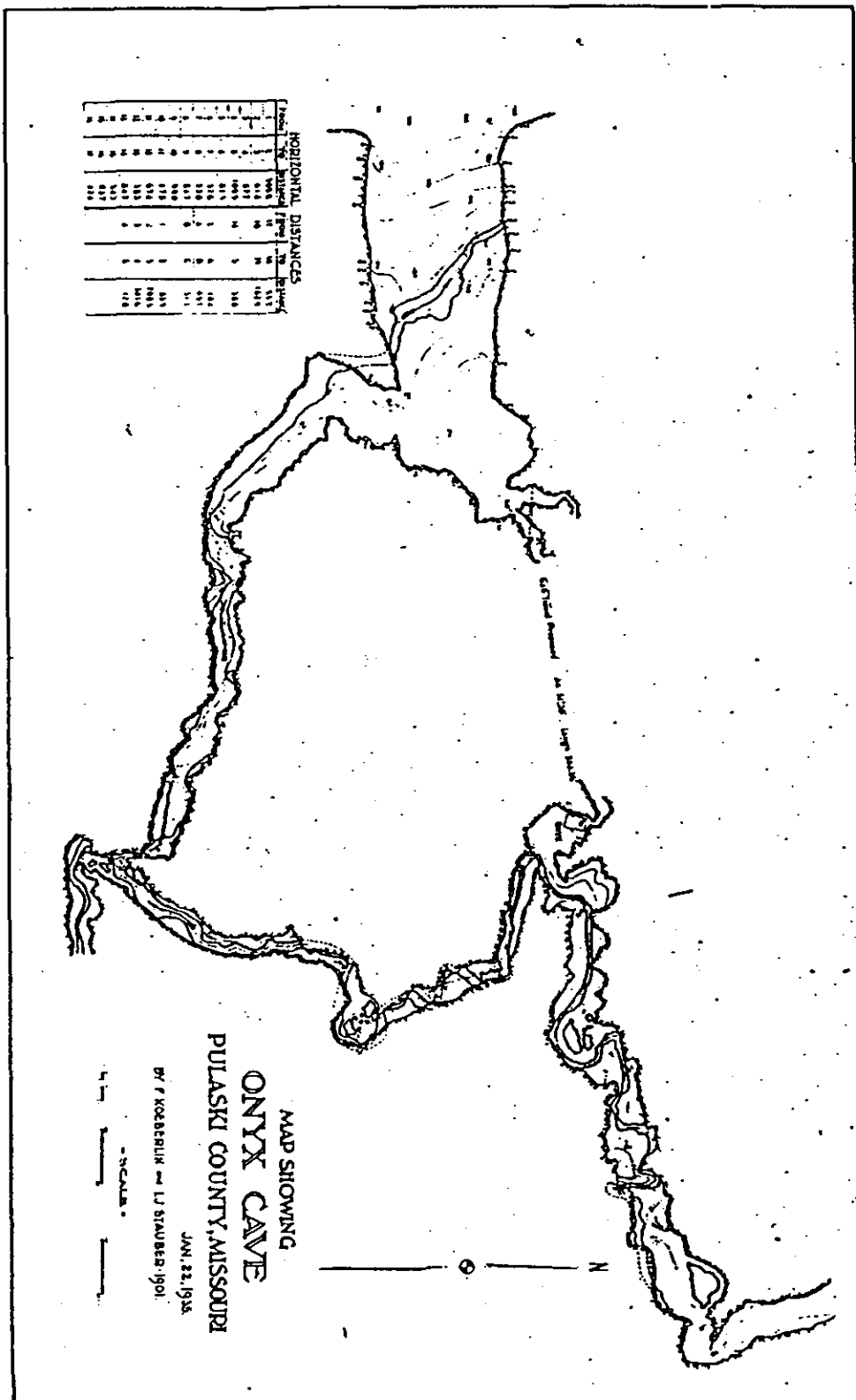
Electric lighting and an unobtrusive gravel pathway (to prevent slipping on the slippery red clay floor) have been added to the cave. A small bridge was built over the stream in the main room. The natural passageway through the onyx deposits has been somewhat enlarged to allow visitors to pass through safely. This too, was done unobtrusively and is not particularly noticeable except to a person who has some geological knowledge. Protective screens have been placed around a few delicate formations that are within arm's reach of the path. The Thiltgens have worked hard to preserve the cave and the surface in as natural condition as possible. The historic integrity of the site is excellent, making Onyx Cave the best preserved onyx mining cave in the United States.

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Onyx Cave  
Pulaski County, MO



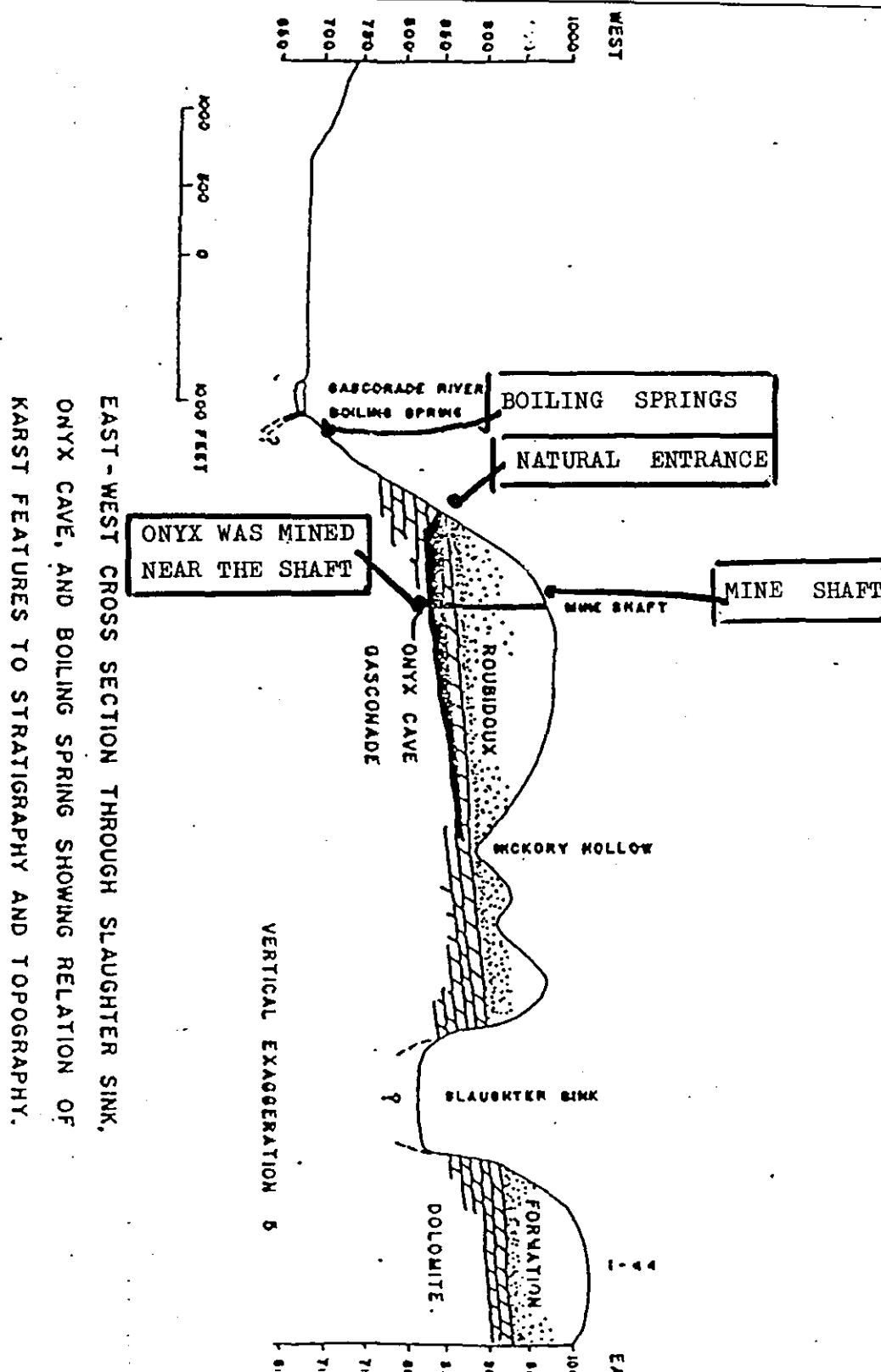


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Onyx Cave  
Pulaski County, MO



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Onyx Cave  
Pulaski County, MO

**Summary:** Onyx Cave, located at 14705 Private Drive 8541, Newburg vicinity, Pulaski County, is significant under Criteria A in the area of INDUSTRY. Following a revival of interest in the use of onyx in interior and architectural detailing in the 1860s, caves in Missouri and elsewhere were searched for substantial and suitable deposits of the mineral. Onyx Cave, originally Boiling Springs Cave, was one of a number of caves or quarries identified in central Missouri. Onyx Cave was mined for only part of one year, when it was discovered that its onyx deposits were flawed and the cost of extraction was prohibitive. Because of this brief effort at exploitation and unlike a number of other caves in the state also mined for the mineral, Onyx Cave remained virtually intact, its natural features largely undisturbed, while many other caves and quarries in the same period were systematically looted of their stores of onyx. However, sufficient evidence of the mining effort remain in Onyx Cave to illustrate the short lived mineral boom in Missouri and the methods and means by which the mining entrepreneurs attempted to exploit the resource. Onyx Cave is, therefore, representative of the effort to supply cave onyx for architectural and interior ornamentation and, according to the Missouri Division of Geology and Land Survey, the best preserved of the state's caves that retain evidence of the mining of cave onyx<sup>1</sup>; it was also the only Missouri cave in which a shaft was sunk to facilitate the removal of the onyx.<sup>2</sup> Although Onyx Cave may also have significance in the areas of entertainment/recreation and archaeology, adequate contexts have not been developed to permit evaluation in those areas. The period of significance is restricted to the single year during which the cave was mined, 1892.

**Narrative:** In the latter half of the nineteenth century and the early twentieth century, polished marble was widely used for interior and architectural detailing. Large slabs were sought for flooring, mantels, paneling, and columns, in both private and public buildings, while smaller pieces were crafted into lamp bases, paperweights, vases, table tops, and cane and parasol handles. Marble was the general term "applied to any calcareous rock capable of taking a good polish, and which [was] suitable for ornamental work or high-grade construction."<sup>3</sup> Crystalline limestone and dolomite were the stones most adaptable for architectural work. Available in a range of colors and occurring in a variety of locations, the stone might be known locally as onyx, cave onyx, onyx marble, Mexican onyx, black onyx, or travertine.<sup>4</sup>

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<sup>1</sup>H. Dwight Weaver, Division Information Officer, Missouri Department of Natural Resources, Division of Geology and Land Survey, to Harry Thiltgen, August 28, 1997.

<sup>2</sup>Jerry D. Vineyard, Deputy State Geologist, Missouri Department of Natural Resources, Division of Geology and Land Survey, to Harry Thiltgen, August 29, 1997.

<sup>3</sup>H. Dwight Weaver, "A Brief Report on the Onyx Mining Industry of Missouri, 1890 to 1915" [typescript], Missouri Department of Natural Resources, Division of Geology and Land Survey, August 1997, p. 1. Copy on file in Missouri Cultural Resource Inventory, Historic Preservation Program, Jefferson City, Missouri.

<sup>4</sup>Ibid.

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Onyx Cave  
Pulaski County, MO

The qualities of onyx had been recognized and the stone quarried since Classical times. In 1862, architects and builders were reacquainted with its qualities by the French display at the International Exhibition of London. At this time Mexico, controlled the onyx market. Onyx deposits in Europe, Asia, and Algeria had been worked out. In the 1880s, in the United States, mining entrepreneurs turned to the caves of Kentucky, Tennessee, and Missouri in search of deposits of cave onyx. By 1890, the St. Louis Globe-Democrat enthusiastically reported that their search had been rewarded in the Missouri Ozarks, with "miles of subterranean wonders--onyx of all colors and immeasurable extent--great chambers lined with the beautiful stone--statues and pillars of onyx . . ."<sup>5</sup>

Early mining efforts focused on caves in central Missouri. In March 1891, the Ozark Onyx Company was incorporated in St. Louis "to purchase and operate the onyx mines and caves in Crawford and Pulaski counties . . ."<sup>6</sup> According to the Rolla New Era, deposits were onyx were discovered in virtually all of the 150 caves inspected, although only in small quantities in most. The main onyx formation was identified in three caves and four quarries, or "broken down caves," older caves collapsed as the result of surface erosion. Two caves and quarries were in Crawford County and one cave and two quarries were in Pulaski County. The newspaper reported:

The wonderful formation of stalactites and stalagmites had aroused their awe and curiosity . . . they were a store of inexhaustible wealth, only awaiting the hand of man to be developed . . . Pieces of the formations were broken off and found, when polished slightly, to present a very handsome appearance. Several years ago one of these polished pieces of stone fell into the hands of a geologist. In a moment the true nature of the stone stood revealed. It was onyx of the truest and highest grade.<sup>7</sup>

According to the St. Louis Globe-Democrat, the formation identified in those two counties was thought to contain a "practically inexhaustible" supply of valuable onyx.<sup>8</sup> By August 1891, the Ozark Onyx Company had established a 50,000 square foot stone working plant in St. Louis, equipped with twenty-eight railroad carloads of machinery from Rutland, Vermont, as well as skilled workmen transferred from Vermont to operate the machinery. One railroad carload of onyx from Crawford County and two carloads from Pulaski County had been received at the Ozark Onyx Company's plant, and an additional fifty carloads from both counties had been quarried and were awaiting shipment.

Other companies soon followed Ozark Onyx's lead in the rush to exploit Missouri's supply of onyx. On June 2, 1892, the Imperial Onyx Company of Milwaukee, Wisconsin, issued 1000 shares of stock to raise capital to begin mining Boiling Springs Cave, soon renamed Onyx Cave,

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<sup>5</sup>Ibid., p. 2.

<sup>6</sup>[Rolla, Missouri] New Era, March 14, 1891.

<sup>7</sup>Ibid.

<sup>8</sup>"St. Louis An Onyx Market," St. Louis Globe-Democrat, August 13, 1891.

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Onyx Cave  
Pulaski County, MO

in Pulaski County. The mining began in the autumn of 1892. Once mining began, the amount of onyx contained in the cave was found to be much greater than was previously realized, perhaps greater than that of any other cave in the area. The onyx from this cave was to be removed in blocks that measured 4 x 4 x 6 feet, and was designated for architectural work in the St. Louis Dispatch Building and other buildings as well.

In order to remove these huge blocks of onyx, an 8 x 13 foot vertical shaft was sunk approximately 100 feet through soil and rock, 1000 feet east of the cave mouth. An extraction system consisting of a large hoisting winch, a steam engine to power the hoisting winch, and cables was emplaced in order to haul these large blocks to the surface. Below the surface a series of cables and pulleys was used to move the in-place blocks through the cave to the shaft. To prevent the light colored onyx from becoming stained by the red clay on the floor of the cave, the blocks had to be set on rails or skid blocks (Sheldon, 1962). Removing the blocks of onyx through the cave mouth would have been easier and cheaper, but the cave mouth was on the property of a landowner who, when asked to sell the property, wanted an "unreasonable price" for it (Koberlin and Stauber, 1901). Thus, Onyx Cave became the only cave in Missouri to have a shaft sunk over 100 feet deep for the purpose of removing cave onyx.

Onyx was removed from the chamber pierced by the access shaft, as well as a passage between the shaft and the cave entrance. However, problems were encountered in the first, and ultimately only, carload of onyx shipped to the firm's processing facility in St. Louis. The onyx was found to be unusable due to minute fissures along cleavage planes. These fissures made the stone fracture during cutting and shaping at the St. Louis finishing plant. This stone would have been suitable for small knick-knacks and souvenir objects, but not for the much more profitable large slabs of paneling or blocks of stone. Believing the fissures to be due to improper blasting procedures, additional attempts were made to remove large blocks for architectural work but with no more success. In an effort to salvage the operation,

Attempts were then made to extract some of the more choice deposits in blocks of such size, that they could be used for massive architectural work. A few months were spent in trying to get one of those blocks when this was ruined by a blast. The mine was then abandoned in disgust, the machinery removed and the buildings left to decay.<sup>9</sup>

Due to the fissures in the onyx, the cost of removal of the onyx outweighed the potential profits. It was estimated that no more than three or four carloads of onyx were removed from the cave, with most of this amount abandoned near the mouth of the shaft. The mining of Onyx Cave ended the same year it began.

In an 1895 report, George P. Merrill, Curator of the Department of Geology, U.S. National Museum, attributed the lack of success in onyx mining to the incompetence of the geologists who evaluated the deposits, miners who used blasting to mine the mineral, and the unrealistic expectations of the entrepreneurs who fueled the scramble for what proved to be nonexistent

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<sup>9</sup>F.R. Koberlin and I.J. Stauber, "Report on the Onyx Deposits of Boiling Springs Cave (now called Onyx Cave)," undergraduate thesis, Missouri School of Mines and Metallurgy, Rolla, Missouri, 1901, pp. 8-9.

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Onyx Cave  
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wealth. The Missouri onyx deposits proved to be too flawed, as the result of interruptions in their deposition and the voids and impurities that permeated the deposits.<sup>10</sup>

Despite this lack of success, in 1901, mining Onyx Cave was reconsidered. The 1904 World's Fair was going to be held in St. Louis, and cave onyx was wanted for display in the Mining and Mineralogy Hall and for building material. The above-mentioned student thesis of I.J. Stauber and F.R. Koberlin explored the possibilities of re-opening the mine, but mining was not resumed. Today, Onyx Cave is one of only a few surviving caves in the United States that was mined for onyx. Many caves have been stripped of their onyx. Big Onyx Cave in Crawford County collapsed due to blasting. Onyx Cave and Arnholdt Cave in Camden County are submerged under the waters of Lake of the Ozarks.

Missouri cave onyx mining was highly speculative and short-lived; the speculative fever continued as late as 1928, but the industry was most active from 1890 to 1915.<sup>11</sup> It was found that early reports of the amounts and quality of Missouri cave onyx were greatly exaggerated. The same type of fissures that were present in the onyx in Onyx Cave were found in most of the Missouri cave onyx. Missouri onyx could not compete with the high quality, low-priced onyx that had been discovered in California and Arizona.

According to H. Dwight Weaver, of the Missouri Division of Geology and Land Survey, Onyx Cave presents "a unique opportunity for students, scholars, and other people to learn about the extinct onyx mining industry in Missouri, and to see the ruins the miners left behind."<sup>12</sup> In addition, Weaver identified four significant distinctions unique to Onyx Cave:

(1) Onyx Mountain Caverns was the first large cave in the United States to be mined for cave onyx, (2) Onyx Mountain Caverns is the only show cave in the United States where people can view the ruins of the extinct onyx mining industry of America on a large scale and learn about this unique industry at the turn of the 20th century, (3) Onyx Mountain Caverns is the only cave in the United States where miners cut a shaft more than 100 feet deep into the earth to mine onyx from a cave, and (4) Onyx Mountain Caverns is the best of the few surviving caves in America that still contain visible relics and evidence of the mining of cave onyx.<sup>13</sup>

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<sup>10</sup>George P. Merrill, "The Onyx Marbles: Their Origin, Composition, and Uses, Both Ancient and Modern," (Smithsonian Institution, U.S. National Museum, Washington, D.C., 1895), pp. 541-485, cited in Weaver, p. 4.

<sup>11</sup>The Ozark Onyx Company, a pioneer in the speculative boom in Missouri, sold its quarries in Crawford and Pulaski counties and its stone works in St. Louis at public sale in December 1893. Rolla Weekly Herald, December 14, 1893.

<sup>12</sup>H. Dwight Weaver, Division Information Officer, Missouri Department of Natural Resources, Division of Geology and Land Survey, to Harry Thiltgen, August 28, 1997.

<sup>13</sup>Ibid.

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Onyx Cave  
Pulaski County, MO

Though the mining of Onyx Cave did not bring the speculators the great profits for which they had hoped, it did inspire others to attempt to make their fortunes in the onyx industry in other Missouri caves. The exploration, and in many cases the exploitation, of the caves of Missouri resulted in the education of the public. Before the onyx mining excitement began, most people thought of caves only as dark, dank holes in the ground, full of bat dung, rodents, and creepy-crawlies, and bereft of any possible aesthetic qualities. The cave explorers and onyx miners told stories of the otherworldly beauties and wonders of their underground realms, which eventually led to the public's realization that the caves themselves were valuable natural resources, and deserved appreciation and protection.

Onyx Cave became a tourist attraction in the early twentieth century. From the early 1900s to the 1930s, tourists from St. Louis and other parts of the country flocked to this beautiful, rugged Ozark country of clean, clear rivers and pure air. From the nearby resort towns of Jerome and Arlington, tourists would float a few miles up the Gasconade River to the impressive Boiling Springs, the ninth largest spring in Missouri, bubbling up 45,000,000 gallons of water per day in the river at the foot of the bluffs just 1/4 mile north of Onyx Cave. The tourists would then head up the bluff to Onyx Cave, either on foot or by horseback to tour the cave.

During the 1950s the U.S. Government studied Onyx Cave for the purpose of possibly building a jet-propulsion lab in the huge main room. Plans were drawn up, but the lab did not materialize.

The present owners, Harry A. and Agnes M. Thiltgen, purchased the site on October 21, 1963. The Thiltgens opened Onyx Cave to the public on August 20, 1990, and the cave became the only show cave in the United States where people can view ruins of the onyx mining industry on a large scale. The cave has been well preserved and remains relatively undisturbed. Large blocks of cave onyx remain in place both at the bottom of the shaft and on the surface near the shaft, where they were abandoned over 100 years ago. Electric lighting, a gravel pathway, a small bridge over the stream in the main room of the cave, a slight enlargement of the path through the onyx deposits for the safe passage of visitors, and, in the mouth of the cave, the installation of a native rock wall with wooden doors for the protection of the cave are the only known changes since 1892. The surface of the site is heavily wooded, and the only building on the site is a modern frame building which is used as a ticket office and educational facility. The absence of original buildings on the surface does not affect the historical integrity of the site.

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Onyx Cave  
Pulaski County, MO

**Bibliography**

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- Hebrank, Arthur. A Guide to Geology in the Rolla Area. Rolla: Missouri Department of Natural Resources, 1977.
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- "Millions in Onyx." The New Era, Rolla Missouri, 14 March, 1891.
- Unklesbay, A.G. and Jerry D. Vineyard. Missouri Geology: Three Billion Years of Volcanoes, Seas, Sediments, and Erosion. Columbia: University of Missouri Press, 1992.
- Volunteer Research Reserve Unit Number 9-9. "Report Number One on Project Cavern: An Evaluation and Survey of Underground Voids within a Radius of Fifty Miles of Rolla, Missouri, for a Jet Propulsion Laboratory or Industrial and Civilian Defense Use." Missouri Geological Survey archives, 1951.
- Weaver, H. Dwight. "A Brief Report on the Onyx Mining Industry of Missouri, 1890." Missouri Department of Natural Resources, Division of Geology and Land Survey, 1997.
- .Personal Correspondence to Harry Thiltgen, Newburg, Missouri, August 28, 1997.

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Onyx Cave  
Pulaski County, MO

**Geographical Data**

**UTM References:**

E. 15/585620/4193170  
F. 15/585020/4193200

**Verbal Boundary Description:** The nominated property is bounded by the legal description recorded in the office of the Pulaski County Recorder of Deeds, Pulaski County Record of Surveys, Book 9, page 743, described as follows:

A part of the Northwest Quarter of the Southeast Quarter, and a part of the Northeast Quarter of the Southwest Quarter, all in Section 33, Township 37 North, Range 10 West, of the 5 P.M., located in Pulaski County, Missouri, and more particularly described as follows:

Beginning at the southwest corner of the Northwest Quarter of the Southeast Quarter of said Section 33; thence along the southern boundary of the Northeast Quarter of the Southwest Quarter of said Section 33, North 89°-36'-48" West, 500.00 feet; thence leaving the southern boundary of the Northeast Quarter of the Southwest Quarter of said Section 33, North 00°-24'-00" West, 1014.04 feet; thence North 82°-17'-30" East, 504.05 feet, to the eastern boundary of the Northeast Quarter of the Southwest Quarter of said Section 33; thence along the eastern boundary of the Northeast Quarter of the Southwest Quarter of said Section 33, South 00°-24'-00" East, 45.03 feet; thence leaving the eastern boundary of the Northeast Quarter of the Southwest Quarter of said Section 33, South 89°-34'-44" East, 1320.00 feet, to a point lying west of the eastern boundary of the Northwest Quarter of the Southeast Quarter of said Section 33; then South 01°-04'-57" East, 1040.23 feet, to the southeast corner of the Northwest Quarter of the Southeast Quarter of said section 33; then along the southern boundary of the Northwest Quarter of the Southeast Quarter of said Section 33, North 89°-39'-44" West, 1332.39 feet, to the point of beginning.

**Boundary Justification:** The boundaries correspond with the current legal description of the property. The single contributing site includes both surface and subterranean components. The cave is the main subterranean component, which retains a number of features representative of the brief mining venture, while surface evidence of mining operations includes, discarded blocks of onyx and concrete pads which supported a hoist and steam engine; also visible on the surface are the main entrance to the cave and the mouth of the shaft sunk in 1892 to permit removal of onyx from the cave. Systematic archaeological testing has not been done of the surface area, to discover if other evidence of mining operations such as industrial or habitation sites remain. One noncontributing building, a visitor's center and museum, is included within the boundary. Aside from this building, a number of picket tables, a rest shelter, a concrete path, and a graveled parking area are the only intrusions; these are not significant in size or scale or are temporary or movable structures or objects and are not included in the resource count.



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**Onyx Cave  
Pulaski County, MO**

**Photographs:** The following is the same for all the photographs:

Onyx Cave  
14705 Private Drive 8541  
Newburg vicinity, Pulaski County, MO  
Photographer and location of negatives-Harry Thiltgen, 14545 Private Drive 8541,  
Newburg, MO 65550  
Date-October 25,1997

**List of Photographs**

**Cave Photographs**

1. Cave entrance; facing east southeast
2. Large flowstone in entrance room; facing south
3. Large block and small blocks of mined onyx, abandoned where they fell; facing north
4. Drill marks in flowstone from which a large block of onyx was mined, small pieces remaining on floor; facing west
5. Intact cave formations (cave draperies); facing east
6. Drill marks in flowstone; facing east
7. Drill marks in flowstone at bottom of shaft, facing east
8. Abandoned blocks of onyx, mined from the ceiling; facing east
9. Abandoned blocks of onyx, mined from the ceiling; facing north

**Surface Photographs**

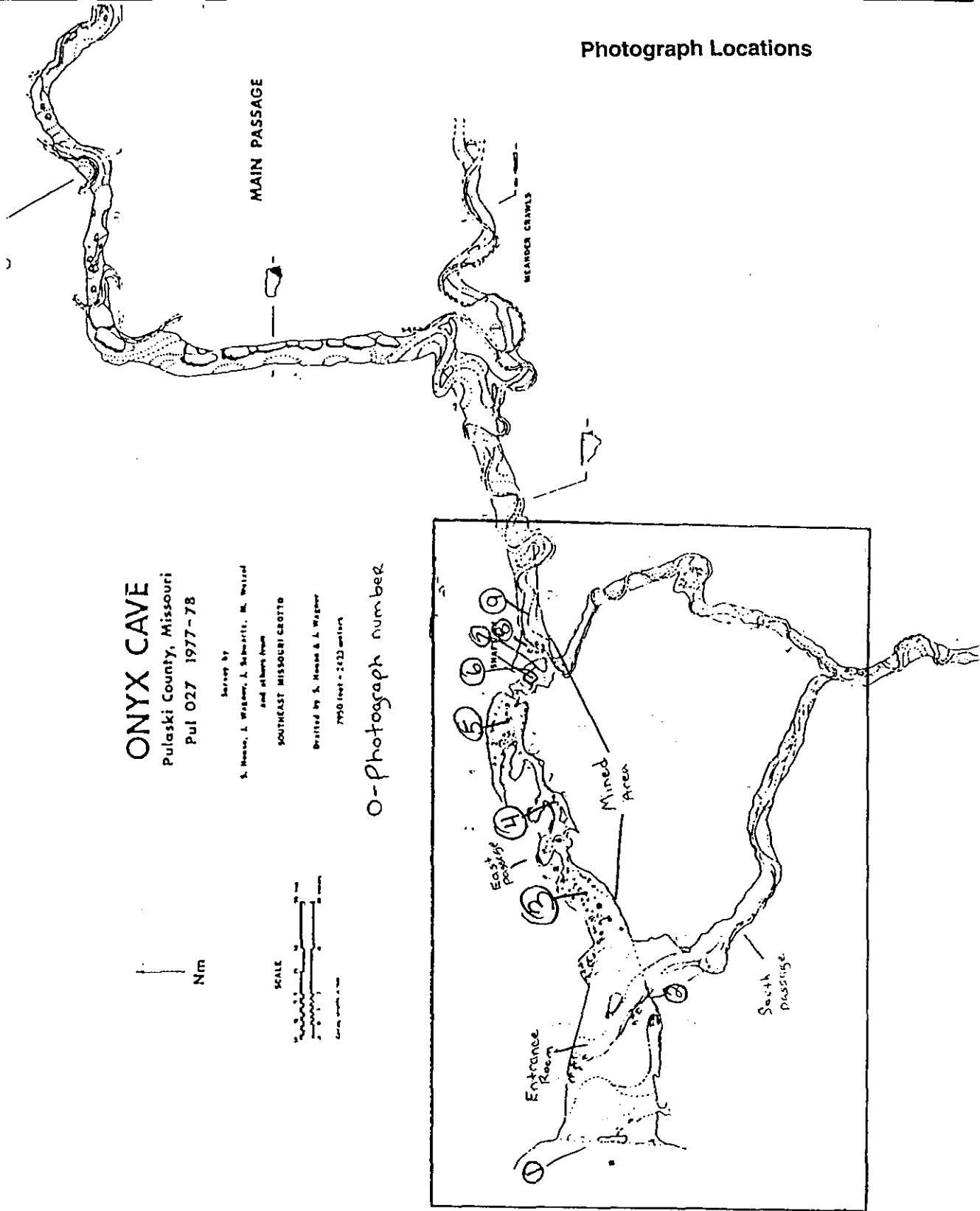
10. Mine shaft, covered with treated plywood; facing north
11. Sandstone pad on which the hoisting winch rested; facing south
12. Abandoned blocks of onyx, just west of the shaft; facing east
13. Ticket office and vegetation typical of the site; facing west

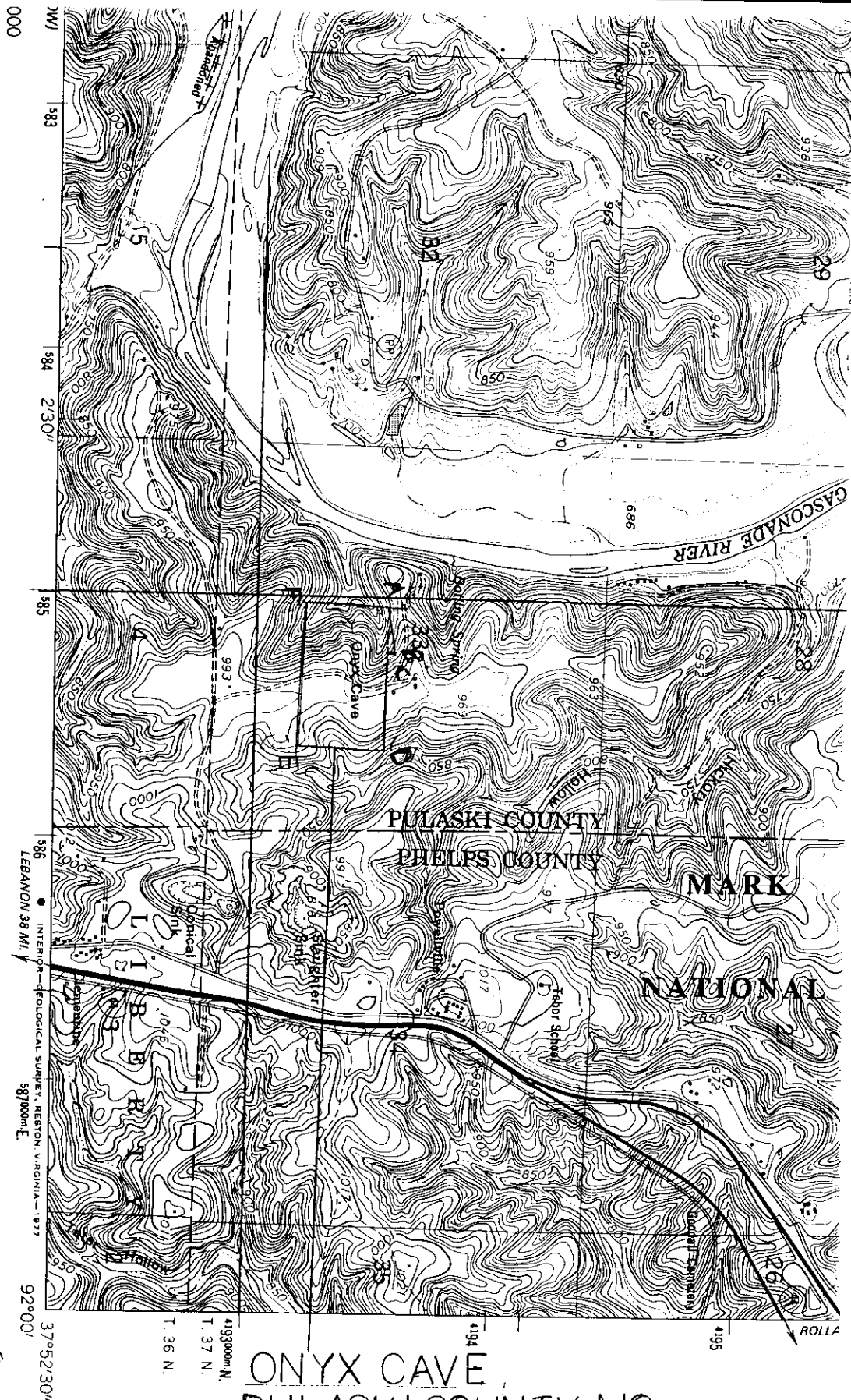
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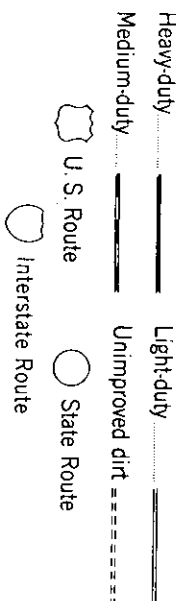
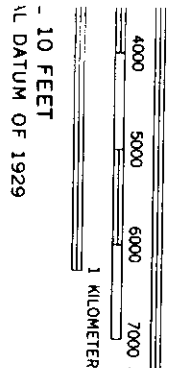
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Onyx Cave  
Pulaski County, MO





MAP ACCURACY STANDARDS  
ORADO 80225, OR RESTON, VIRGINIA 22092  
D TECHNICAL INFORMATION  
OURCES, ROLLA, MISSOURI 65401  
SYMBOLS IS AVAILABLE ON REQUEST



DIXON, MO.  
NE/4 WAYNESVILLE 15' QUADRANGLE  
N 3752.5-W 9200/7.5  
1954  
PHOTOREVISED 1976  
AMS 7559 I NE-SERIES V879

MS N 559 N SW  
(KAINLUCK HOLLOW)  
A. 10

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**SUPPLEMENTARY LISTING RECORD**

NRIS Reference Number: 99000529

Date Listed: 5/24/99

Onyx Cave  
Property Name

Pulaski  
County

MO  
State

Multiple Name

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This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

Beth Boland  
Signature of the Keeper

7/20/99  
Date of Action

=====

**Amended Items in Nomination:**

As the shaft and the two pads on which the machinery sat contribute to the site (see Section 7, p. 3 of the nomination form, they should be added to the count in Section 5. The correct resource count is 1 contributing site, 1 contributing structure, 2 contributing objects, and 1 noncontributing building.

This was discussed with Steve Mitchell of the MO SHPO staff.

**DISTRIBUTION:**

National Register property file  
Nominating Authority (without nomination attachment)







