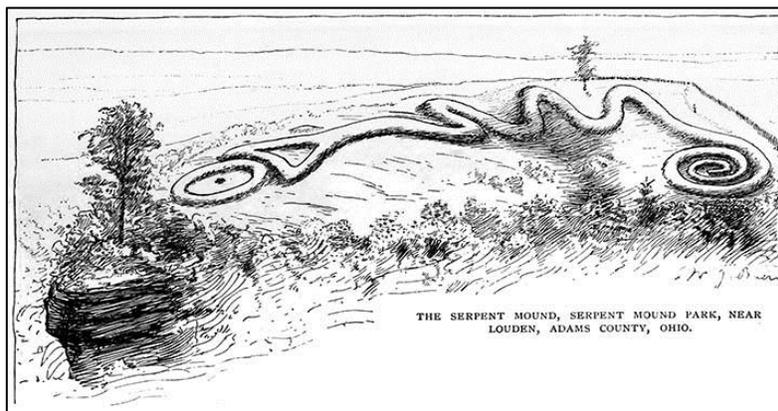


Long Shadows Over the Valley: Findings from ASC Group's Excavations at Serpent Mound State Memorial

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"Reclining on one of the huge folds of this gigantic serpent, as the last rays of the sun, glancing from the distant hilltops, cast their long shadows over the valley, I mused on the possibilities of the past; and there seemed to come to me a picture of a distant time, of a people with strange customs, and with it came the demand for an interpretation of this mystery. The unknown must become known!" -Frederic Ward Putnam, 1890

In 2011, ASC Group, Inc. (ASC), a Cultural Resource Management (CRM) firm headquartered in Columbus, Ohio, conducted excavations of an area southeast of Serpent Mound and in close proximity to a large conical mound. Headed by principal investigator Kevin Schwarz, the dig represented one of just a handful of archaeological investigations at Serpent Mound State Memorial since Harvard's Frederic Ward Putnam conducted the initial excavations at Serpent Mound in the late 1880s. ASC's work was made possible by the National Historic Preservation Act of 1966, which provides a requirement for this kind of investigation prior to development that may impact an important archaeological site. ASC's findings expanded upon those made by Putnam (1890) over 100 years earlier, shedding new light on the mysteries surrounding Serpent Mound (Figure 1) and its native contemporaries. Most notably, the discovery of a feature dating to the Fort Ancient period carries implications for understanding the relationship between early and late occupants of the plateau where Serpent Mound sits (Schwarz and Lamp 2012).

Putnam's Investigation

Before detailing ASC's findings, it is important to outline Putnam's original investigation, which included excavations of a conical mound that is part of the site (Figure 2) and a small portion of the area north of it. Within the mound, Putnam discovered the skeletal remains of ten people: one from an ancient burial uncovered at the bottom of the mound, and nine from "intrusive" burials nearer the surface of the mound. Putnam also excavated an ash bed that jutted out from the mound and extended some 100 ft. north, far enough to cross the access road that



Figure 1. Aerial photograph of Serpent Mound.

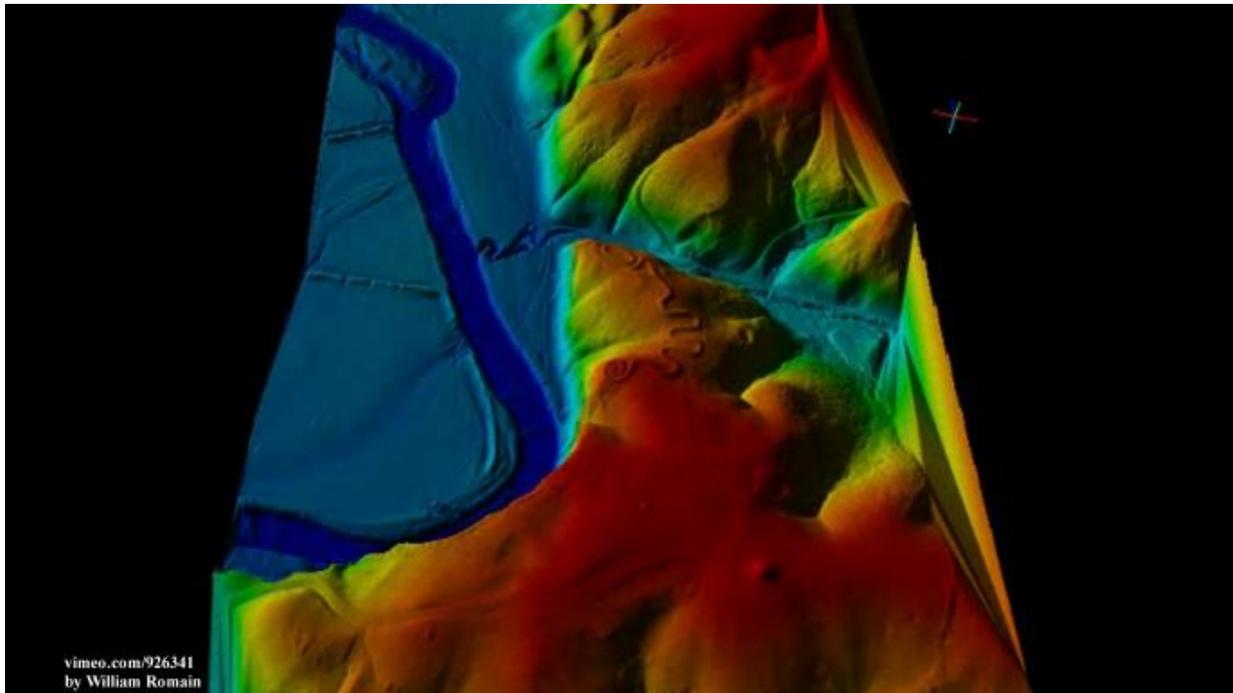


Figure 2. Screen capture of LiDAR (light detection and ranging) video showing Serpent Mound and the conical mound. Vertically exaggerated during processing (by William Romain, vimeo.com/926341).

now exists in this area. He found hundreds of artifacts while excavating this ash bed, including pottery sherds, stone chips, pieces of burned bone, stone implements, and shells of freshwater clams. The ash bed will be returned to later in this document.

After careful consideration, Putnam concluded that the conical mound was a burial monument for the ancient inhabitants of the area. The artifacts surrounding the mound, Putnam believed, were remnants of those living and conducting religious rituals in this part of the Ohio Valley. Subsequent analyses of the artifacts by archaeologist James B. Griffin (1943), among others, indicated that the Adena, a group of mound builders who roamed the Ohio Valley during the Early Woodland Period (roughly 1000-200 B.C), lived at the site. He posited that, since this group constructed the conical mound, they also likely built the nearby Serpent Mound. This remained the prevailing theory until 1996, when carbon dating of charcoal samples from within Serpent Mound revealed they dated to around A.D. 1000, suggesting that the later Fort Ancient peoples, not the Adena, built Serpent Mound (Fletcher et al. 1996). Adding to the debate over the origins of these mounds are the recent and unpublished radiocarbon dates obtained from Serpent Mound by a research group led by Dr. William Romain (Ohio State University, Newark), which provide, for the first time, Early Woodland (Adena period) dates for Serpent Mound itself. Thus, there is considerable uncertainty and need for research about the resident prehistoric groups, and hence during what time periods, particular parts of the site were utilized.

ASC's Investigation

In 2011, renovation of restrooms south of the parking lot and the installation of sewer and utility lines prompted ASC's investigation. Acting in accordance with the National Historic Preservation Act (1966), the Ohio Historical Society hired ASC to conduct archaeological investigations in advance of this renovation project and monitor and document any archaeological artifacts and features during construction.

Utilizing survey and excavation techniques, ASC unearthed multiple artifacts and features. Most artifacts coincided with the Adena period of occupation, but one feature dated to the later Fort Ancient period (Figure 3).

Early Woodland Period, Adena Culture

Many unearthed artifacts were consistent with Putnam's conclusion about prehistoric habitation of the area, although in areas much closer to the conical mound. A Cresap Stemmed projectile point found in a test unit along the sewer line west of the mound (Figure 3) is consistent with the style used by the Adena (Figure 4). Neighboring artifacts were likewise dated to the Early Woodland period given their spatial association with the Cresap point (Figure 4).

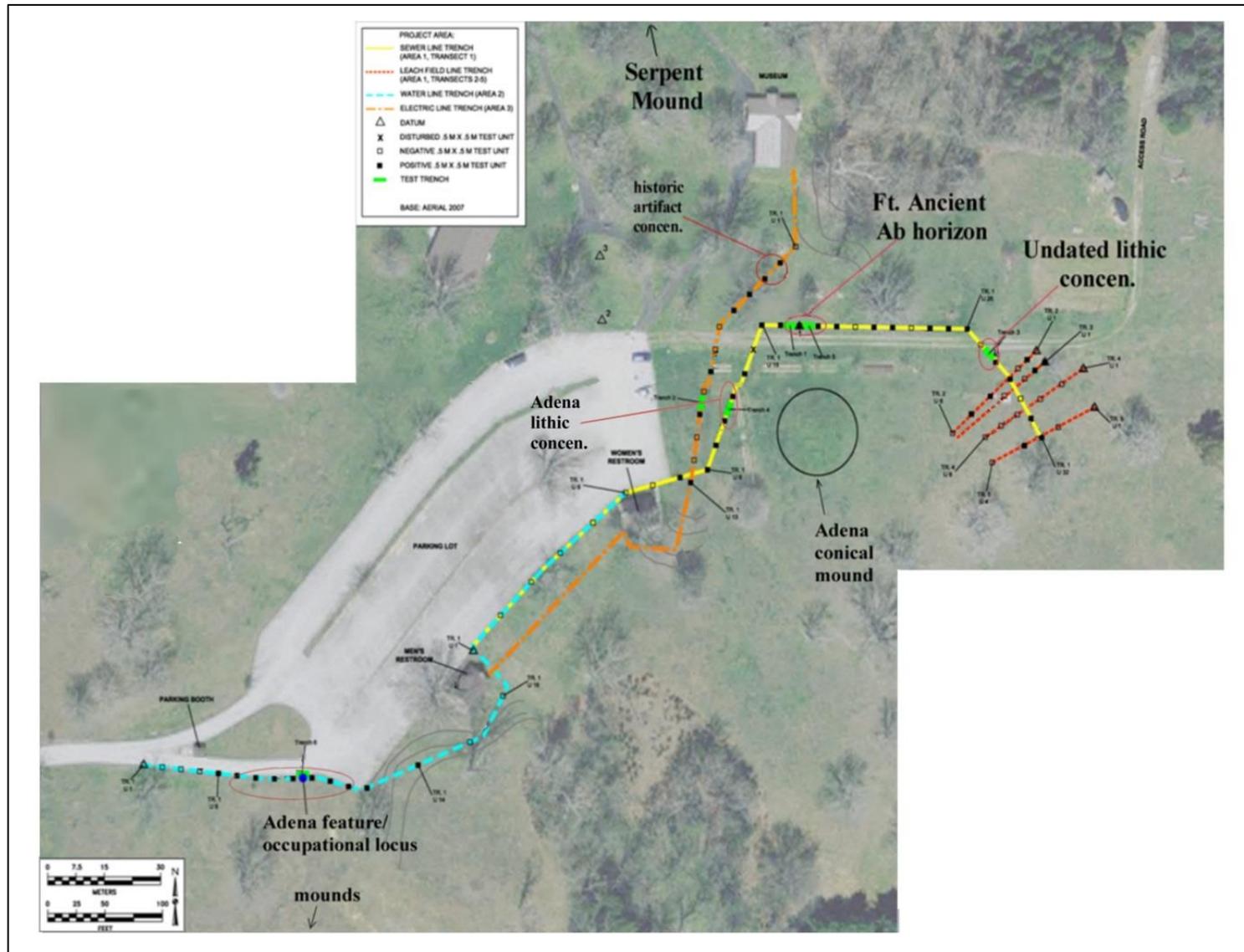


Figure 3. Aerial photograph showing excavations along planned utility trenches, the Adena feature/occupational locus, Fort Ancient buried A (Ab) horizon and artifact concentrations.

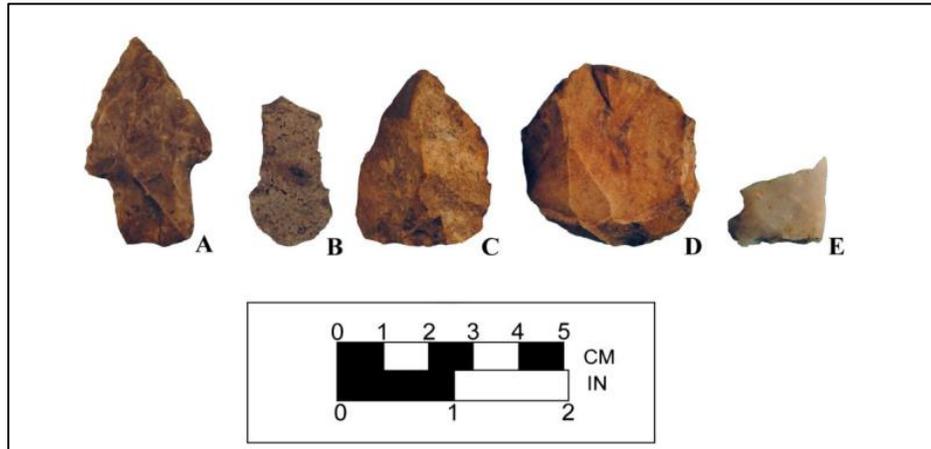


Figure 4. Stone tools recovered from shovel testing the sewer line: A) Cresap Stemmed projectile point; B) base fragment of drill; C) biface; D) endscraper; E) fragment of a notched and hafted tool.

Ceramic sherds found at multiple locations are consistent with the style and thickness of Adena pottery (Figure 5). Perhaps most concretely, radiocarbon dating of select charcoal samples from a feature along the water line trench adjacent to the parking lot (Figure 3) places their burial at around 506-376 B.C., corresponding with the time range of Adena occupation. These artifacts, among others, suggest that the area surrounding the conical mound was once inhabited by the Adena (it is believed particularly that the feature marks an Adena occupational locus) (Figures 6 and 7). In other words, the Adena were living in this location and carrying out various domestic activities.

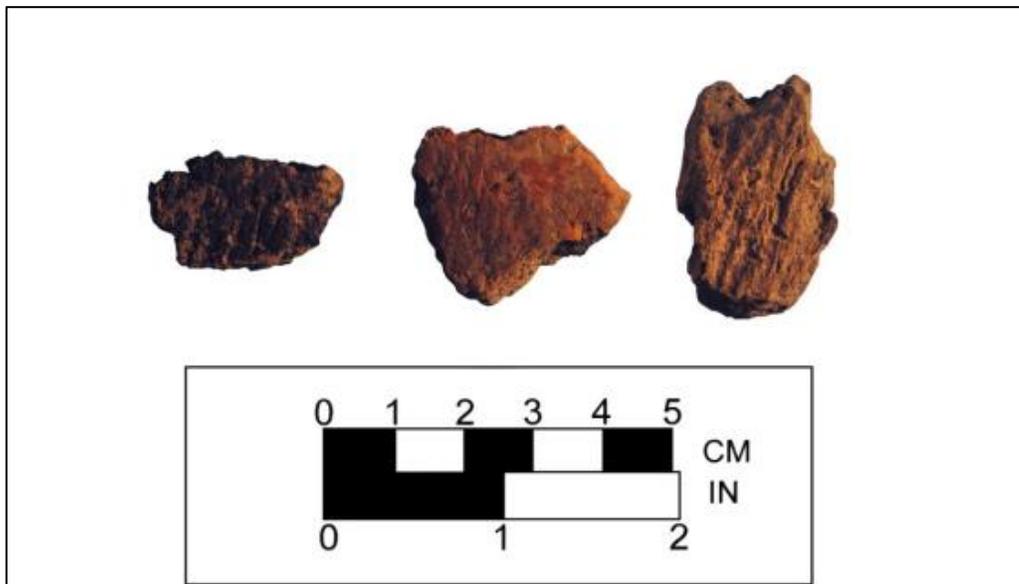


Figure 5. Selected prehistoric ceramic sherds recovered during the investigation.

Late Prehistoric Period, Fort Ancient Culture

ASC also unearthed a feature from the Late Prehistoric period in an area north of the Adena conical mound. In Test Trench 1, the excavations uncovered an ashy layer in the buried A soil horizon (Figure 8). The A horizon is an ancient ground surface that has been buried under more recent soil deposits. Test Trench 5 produced a similar ashy layer, along with two charcoal chunks (Figure 9). This area is marked “Fort Ancient Ab horizon” on Figure 3. These findings occurred in the same area where Putnam recorded uncovering an ash layer in his investigation. Carbon dating of a charcoal chunk from Test Trench 5 revealed that these remains were buried around A.D. 1041-1211, during the Late Prehistoric Period. This coincides with Fort Ancient use of the site.

Though the ash layer and charcoal remains may be remnants of subsistence activity, it is the opinion of ASC that, given the size of the burned area and its association with the conical mound, they are more likely the result of ritual activity. Putnam likewise theorized that the area north of the mound, where he located the ash bed and numerous artifacts, was one of ritual activity, although he attributed this activity to the Adena people rather than the Fort Ancient people. While it can't be conclusively proven, the ash layer and charcoal remains uncovered by ASC may be related to those uncovered by Putnam over one hundred years earlier.

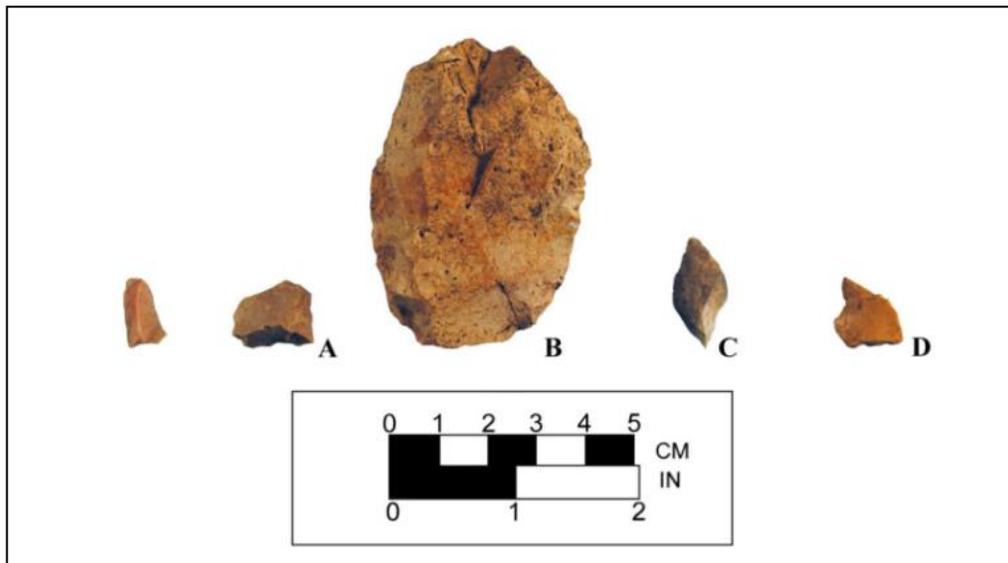


Figure 6. Chipped stone tools recovered from water line and electrical line: A) biface fragments from shovel testing the water line; B) biface from shovel testing the electrical line; C) biface fragment from waterline trench; D) biface fragment from Test Trench 6.

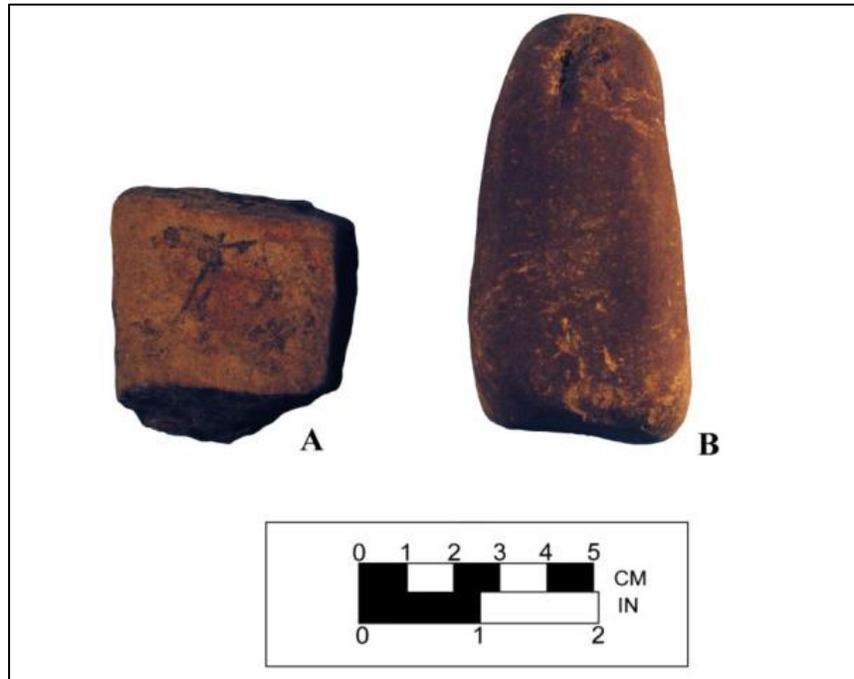


Figure 7. Groundstone tools: A) fragment of bi-pitted stone found while shovel testing the electrical line; B) hammerstone found in trench spoil along leach field line.



Figure 8. Soil profile of Test Trench 1 showing ash layer in buried A horizon.

This finding is quite significant. It indicates the continued use of the area surrounding the conical mound long after Adena occupation of the site. In addition, the possibility of ritual activity associated with the Adena conical mound by the Fort Ancient peoples raises questions about the relationship between the two cultural groups' occupations and possible continuity in the use of the site. This discovery should be considered when forming interpretations about Serpent Mound and its native contemporaries.

Historic Period

During the early nineteenth century Serpent Mound was wooded and only known to local inhabitants. When Ephraim Squier and Edwin Davis visited Serpent Mound in the early 1840s they

Figure 9. Soil profile of Test Trench 5 showing ash layer within the buried A horizon.

had been told that what they were going to visit was a defensive earthwork. During the visit they realized they were viewing a serpent effigy in the forest, and they made the first map of it (Squier and Davis 1848)(Figure 10). Subsequently, the forest was damaged by a tornado in the 1850s. Most of the trees were felled. Afterwards, the landowner, a local farmer, began grazing cattle in the pastures they created near Serpent Mound.

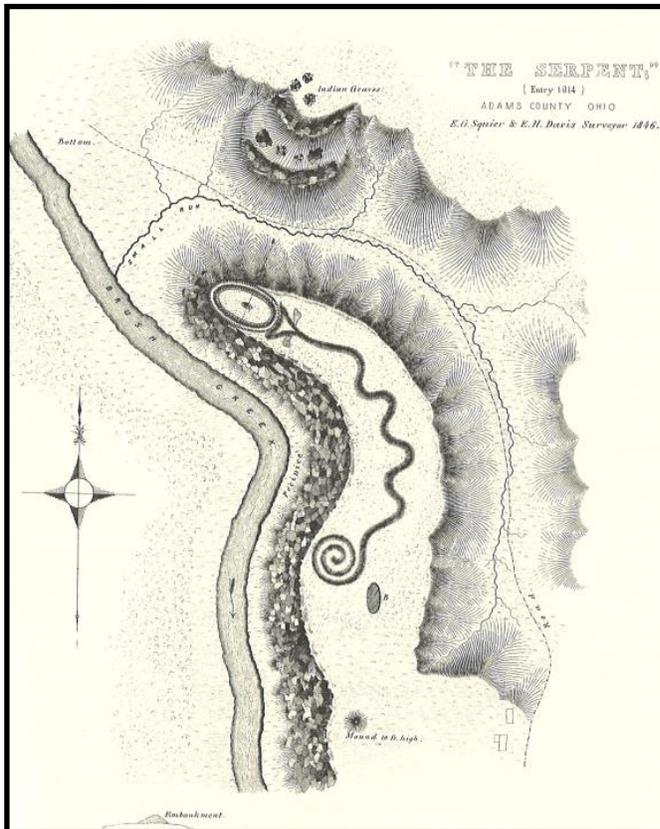


Figure 10. Serpent Mound as mapped by Squier and Davis (1848)

The combined effects of the tornado, cattle, and early vandalism and treasure-hunting meant that Serpent Mound was damaged and eroding in the early 1880s when Frederic Ward Putnam first visited it. He raised money for the purchase of the Serpent Mound (Putnam 1886) and the land around it. For a time, Harvard University maintained Serpent Mound as an archaeological park, one of the first such parks in the United States. During the late 1880s Putnam and colleagues camped near Serpent Mound while excavating the Serpent Mound and conical mound, among other areas. It was difficult for Harvard University to maintain a park in Ohio, though, so in 1900 they transferred control of the park to the Ohio Historical Society. During the 1930s, workers from Federal relief programs such as the Civilian

Conservation Corps (CCC) were employed at the park maintaining and upgrading the facilities. Their efforts gave us the caretaker's residence and the restroom facilities. The buildings have thus taken on historical significance in their own right. Serpent Mound is now a state memorial and a heavily visited tourist site.

Illustrated below are some of the historic artifacts recovered from ASC's investigation near the conical mound. The stoneware crockery was found in a concentration during excavations along the electrical line (Figure 3; Figure 11). This is near the current museum. Also, a fragment of a decorated ceramic pipe, a copper sewing or medicinal capsule, and a marble were found (Figure 12). The crockery could have been deposited by Putnam, the previous landowners, or early tourists at the site. The pipe could have been used by Putnam, one of his excavation team, or an early tourist. Likewise the copper capsule, which is sealed and had not been opened, could have contained medicine or sewing needles and was apparently lost, perhaps by an early tourist. The marble was probably lost by a child.

Conclusion

Excavations of the area surrounding Serpent Mound have been rare. The National Historic Preservation Act (1966) provided ASC with a unique opportunity to investigate this area. Their discoveries reveal the area surrounding Serpent Mound to be the scene of much activity on the part of multiple culture groups. The unique findings suggest that continued excavations of the area surrounding Serpent Mound will yield additional discoveries with the potential to influence future interpretations about the mound and the inhabitants of the plateau.

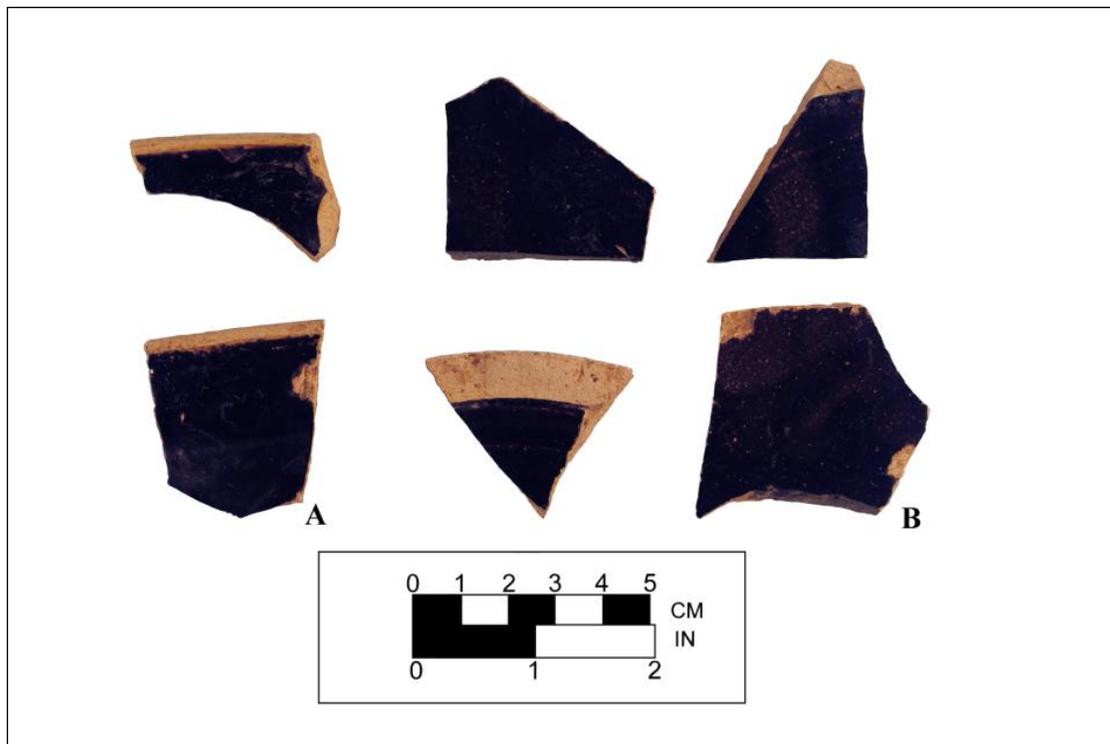


Figure 11. Stoneware crockery recovered from the trench excavated for the electrical lines: A) rims; B) body sherds.

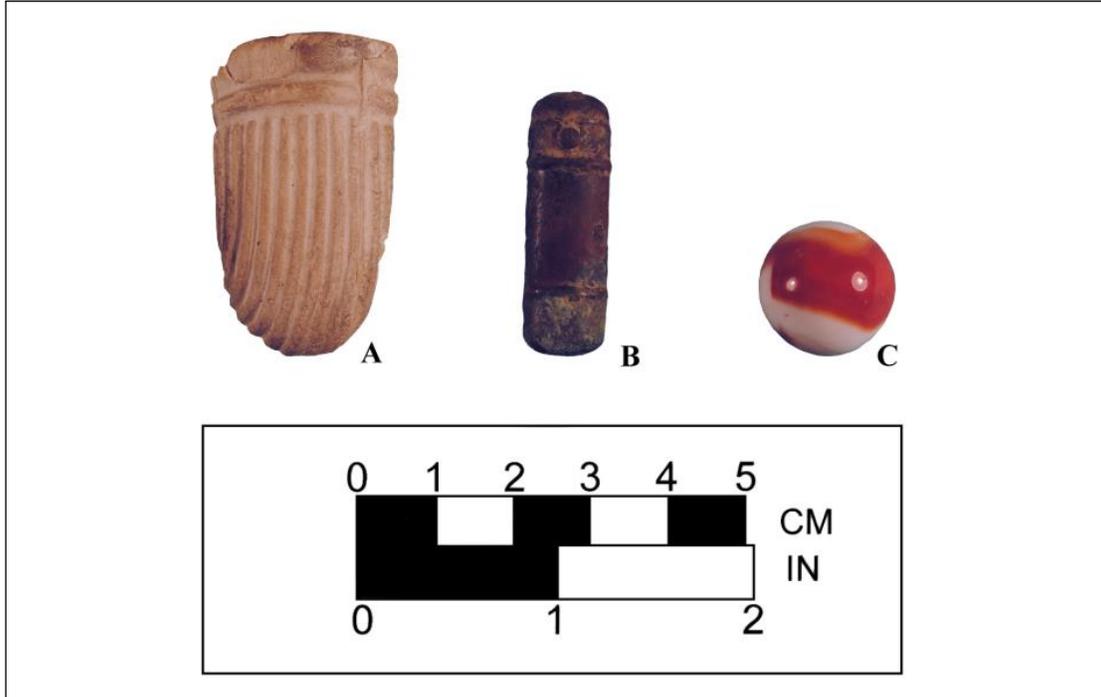


Figure 12. Other historic artifacts of interest: A) decorated ceramic pipe bowl fragment; B) copper sewing or medicine capsule; C) glass marble.

Acknowledgments

Thanks are given to Tina-Hartman Davis and the cartography department of ASC for production of Figure 3 and the artifact photographs. David Lamp edited this document.

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