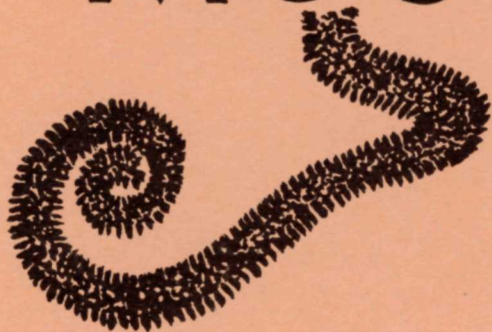




SERPENT
MOUND



Guide To
SERPENT MOUND

by

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(Revised)

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SERPENT MOUND

Description

Serpent Mound is an embankment of earth nearly a quarter of a mile long, representing a gigantic serpent in the act of uncoiling, with the greater portion of the body extended in seven deep curves nearly to the tip of the tongue of land upon the elevated surface on which it lies. Partly within the open jaws of the serpent is an oval wall of earth representing the open mouth. Serpent Mound is one of four or five effigy mounds in the state of Ohio, and is the largest serpent effigy in the world. It is situated in the northern part of Bratton Township, Adams County, on the east bluff of Brush Creek, a short distance from the village of Louden. With three burial mounds it is included in a tract of sixty acres known as Serpent Mound State Memorial.

The Builders of Serpent Mound

In Ohio are hundreds of prehistoric mounds, enclosures, village sites, and cemeteries. Many of the more important of these have been excavated, and from the things found in them it is believed that they were built or occupied by at least three different groups of people before the discovery of America in 1492. To these three groups the names *Fort Ancient*, *Hopewell*, and *Adena* have been given. No objects made by man have been found in Serpent Mound itself, but excavation of the conical burial mound about four hundred feet to the southeast has brought forth a number of things which are similar to those found in the burial mounds of the prehistoric Adena Indians, who lived in Ohio between 1000 B.C. to 700 A.D. If this conical mound were erected by the same people who built Serpent Mound, as seems probable, it is not unlikely that the great ceremonial effigy mound was a religious emblem of the Adena People.

The Purpose of Serpent Mound

The serpent has played a prominent part in the religions of the world, ancient and modern, primitive and civilized, as the symbol or incarnation of deities or of impersonal forces. For many peoples the serpent has symbolized eternity, apparently because of its annual habit of shedding its skin and thereby seeming to renew its life. For others it has represented evil, like the serpent in the Garden of Eden. Among the ancient Greeks the serpent was the symbol of the healing deity Asklepios, who dwelt in or manifested himself through the huge tame snakes which were kept in his temple, and today, as a direct outgrowth of this belief, two intertwined serpents constitute the sign of the medical profession.

In the mythologies and ceremonial practices of the New World peoples the serpent was sometimes evil and sometimes capable of benefiting human kind. The feathered serpent was the controlling character of the art of the ancient Maya of Yucatan, appearing in their stone carvings as a general indication of divinity, and serpents often provided the motif for carvings on small stone objects which have been taken from the burial mounds of the Mississippi Valley. Among the Indians of the United States the plumed or horned serpent was a mythological monster who was opposed in conflict to thunder beings benign in their intent toward men. Among living Indians the well-known Snake Dance of the Hopi of Arizona, held every two years, is celebrated principally as a prayer for rain, and in the region around Lake Superior those Indians who still retain the old beliefs affirm that their ancestors secured copper from the horns of a serpent in that great lake.

There is abundant evidence that the Indians who formerly lived in Ohio were similarly impressed with the serpent. To the Delaware, who lived in the northeastern part of the state some two hundred years ago, great horned serpents, believed



A View of Serpent Mound

to live in rivers and lakes, were evil beings, with the exception that charms made of their scales were thought to possess the power of causing rain. Among the Shawnee the word *manito*, referring to a mysterious spiritual power in the Algonquian dialects, usually means "snake." The same word among the Fox Indians of Wisconsin referred to any snake except a garter snake. Conversely, among the Huron (or Wyandot) and the Seneca the word denoting mysterious evil power referred also to snakes.

That Serpent Mound symbolized to the builders some religious or magical principle there can be no doubt, and in view of the great size of this effigy the importance of that principle in their system of religious beliefs is equally certain. Whether the serpent represented by this mound was a good or evil being will remain unknown. There have been

many attempts to interpret the exact meaning of Serpent Mound by inquiring into the beliefs and customs of Indians pertaining to serpents, and by showing that the pose and contour of the mound represent a mythical serpent in the performance of a certain act. The former method will not lead to the true interpretation until the tribal identity of the builders of the mound is known; the difficulty of the latter method is greatly increased by the disagreement of authorities upon the original outline of the head of the serpent and the adjoining oval earthwork.

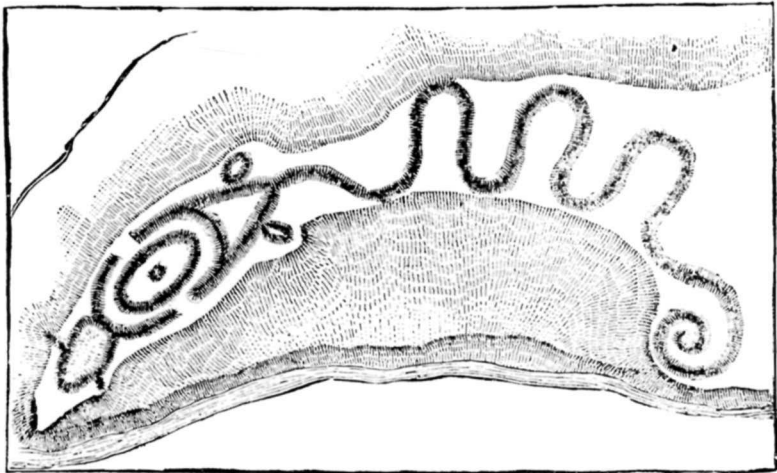


FIGURE 1
Reconstruction of Serpent Mound by J. P. MacLean

Ephraim G. Squier and Edwin H. Davis, who were the first to make a careful examination of the mound, described the head and oval in their *Ancient Monuments of the Mississippi Valley*, published in 1848. John P. MacLean examined the mound in 1885, and later published the drawing shown in Figure 1, in which elevations not described by Squier and Davis are added. The archaeologist Frederic W. Putnam of Harvard University visited the mound in 1886, and his resto-

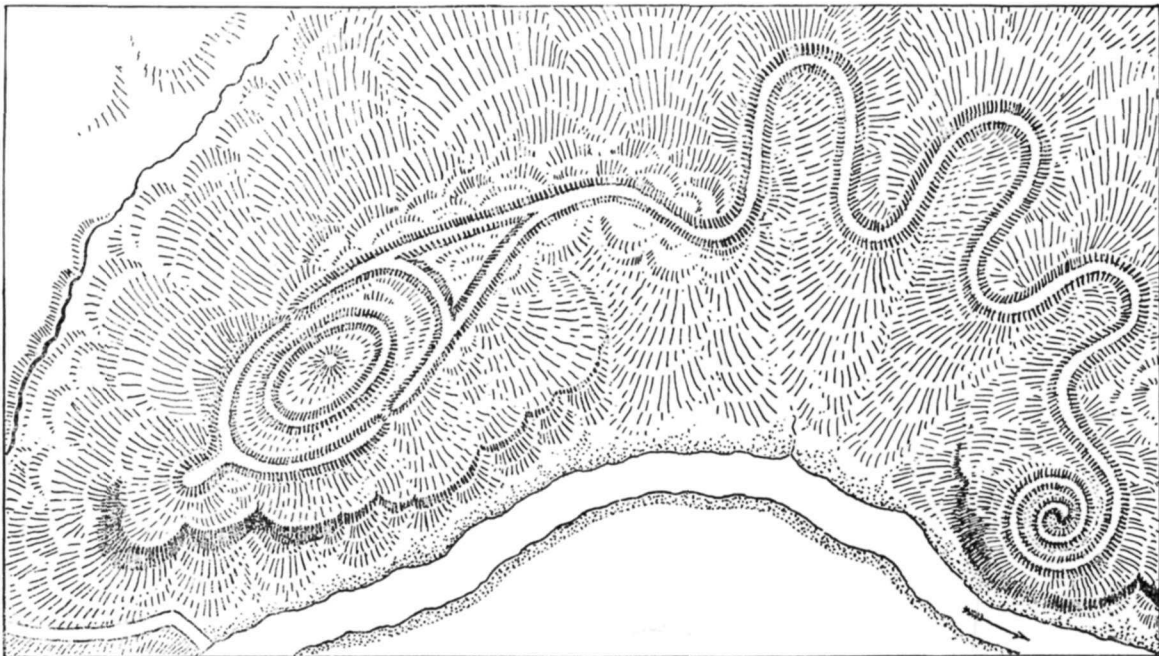


FIGURE 2
Reconstruction of Serpent Mound by W. H. Holmes

ration, which is the present one, followed the drawing of Squier and Davis with the exception of the elevations on either side of the neck. Finally, in 1886, William Henry Holmes of the Smithsonian Institution published the drawing shown in Figure 2, which is a modification of MacLean's plan adding to Squier and Davis' drawing a semi-circular wall around the western end of the oval, with a protuberance or tongue at its apex. In 1919, Charles C. Willoughby of Harvard University published the most important paper that has been written on the Serpent Mound, in which the plan by Holmes is endorsed.

In view of the many interpretations of the structure of the mound, it is evident that the surface of the ground beyond the borders of the neck, head, and oval exhibited irregular elevations which did not lend themselves to the mapping of any single symmetrical outline representing with certainty the original intention of the builders. If these irregularities had been faithfully drawn to scale by Squier and Davis there would still have been room for more than one interpretation. Squier and Davis saw the mound in a state of ruin some hundreds of years after its abandonment by the builders. In its present condition it is a restoration by Putnam, who attempted to show the mound as it was the day it was completed, with the wall quite level and symmetrically rounded. Putnam found the site of the mound under cultivation at the time of his visit in 1886, but he followed the drawing of Squier and Davis, with the exception of the elevations at each side of the neck. Of the correctness of the outlines of the head and oval in their present condition there can be little doubt. There may originally have been other features. The elevations at the neck, described by Willoughby as horns, and the small mound beyond the oval, which MacLean pictured as a frog, are still visible. It cannot be said, however, that reconstructions of the complete head and oval possess final accuracy, although the endorsements by Willoughby and by H. C. She-



Small Burial Mound and Shelter House at Serpent Mound

trone in *The Mound-builders* of Holmes' reconstruction represent the preference of most students of the subject.

In its present condition Serpent Mound appears to represent a gigantic serpent with an open mouth. The reptile in the act of swallowing an egg is the interpretation offered by Squier and Davis and the one most frequently mentioned. MacLean interpreted his drawing to represent a serpent striking at a frog, which leaped away, at the same time ejecting an egg, the oval earthwork. Holmes at first regarded the oval as symbolizing the heart of the reptile, but later came to view it as a conventionalization of the head and eye. Willoughby interpreted the two elevations at the neck of the serpent, shown in MacLean's drawing, as horns, thus identifying Serpent Mound with the mythological horned serpent of the northern Indians of this country.

In addition to Serpent Mound there are but few other earthworks which can be said with a high degree of probability to represent serpents. There is a serpent effigy in the province of Ontario, Canada, ten miles southeast of Peterboro, on the

north shore of Rice Lake in the township of Otonabee. The three convolutions are very shallow, and there is a gradual narrowing of the body from the rounded head to the tip of the tail, which is not coiled. The total length is 189 feet, the average height 5 feet, and average width 24 feet. Twenty-three feet beyond the head is an oval mound with diameters of fifty and thirty-seven feet, which was found upon excavation to contain the remains of four individuals. This earth-work lies upon land at an elevation of about eighty feet above the waters of Rice Lake.

Another serpent effigy is in Argyleshire, Scotland, near the shore of Loch Nell. It is in the form of an S curve, three hundred feet long, rising gradually from tail to head to a height of about twenty feet. In the early descriptions of this effigy it is said that a line of symmetrically placed stones extended the entire length of the crest of the wall. The head forms a circular cairn in which excavations revealed a chamber made of huge boulders, containing burnt bones, hazel-nuts, charcoal, and one flint implement.

The effigies in Ontario and Scotland resemble those of Ohio sufficiently to cause speculation as to their common origin. A suggestion of some interest but greater fancy has it that the serpent effigies portray Halley's Comet as a great serpent in the sky, approaching the moon which it is about to devour. While the appearance of Halley's Comet is no doubt an event which has terrified primitive people every seventy-five years the world over, actual serpents on the earth itself have played too great a part in the beliefs of primitive people to necessitate recourse to such an explanation.

Dimensions

Serpent Mound is the largest known serpent effigy in the world. It lies on top of a curved spur of land which projects out into the valley of Brush Creek and about one hundred feet above the waters of the creek. A thick ledge of rock projects from the end of this spur near the top, giving the impression of a pointed, grotesque, reptilian face, an appearance which leads to the belief that this crescent-shaped elevation symbolized the serpent to the prehistoric inhabitants of the region, with the effigy mound itself a late afterthought.

In its present state of restoration Serpent Mound consists of two separate parts, the serpent proper and an oval wall one end of which is recessed into the open mouth of the serpent. The head of the serpent is represented as lying on one side, with jaws open, apparently in the act of swallowing the oval figure. The entire earthwork is extended in a wide curve fitting that of the spur on which it lies. This wide curve is made up of seven deep serpentine convolutions and a tail of three coils. The area within the oval is slightly higher than the outside base of the wall, and at its center is a small mound of burnt stones. Squier and Davis gave the height of the wall and oval as four feet. The width averages eighteen feet. The long diameter of this earthwork, measured from the outer edges of the wall, is 125 feet; the short diameter, which is north and south, is 60 feet.

The length of the larger curve from the west end of the oval, traversing the convolutions at a point midway between the lateral curves and extending to the point where the outside coil of the tail touches the edge of the cliff, is 737 feet. The length of the serpent proper, following the convolutions and the coils of the tail, is 1,254 feet, measured from the tip of the upper or northern jaw, which is slightly longer than the other. The average width of the body of the serpent is about twenty feet and its height along the head and body is from four to five feet. From the beginning of the tail to its



Conical Burial Mound near Serpent Mound

tip, the wall gradually decreases in width and height until it terminates in a bank about one foot high and two feet wide.

Nine feet from the east end of the oval and partly inclosing it is the crescent wall, seventeen feet in width, which forms the open jaws of the serpent. The two ends of this wall are seventy-five feet apart. The two walls forming the upper and lower jaws are seventeen feet in width and sixty-one and fifty-six feet long, measured on the inside from the point of union with the crescent to their point of meeting, which is forty-seven feet from the convex or eastern edge of the crescent. The head of the serpent across the point of union of the jaws is thirty feet wide and five feet in height. From the point of union of the jaws the neck extends eastward more than one hundred feet, to the first curve.

Excavations

Frederic W. Putnam of Harvard University spent three seasons, following the year 1886, excavating and restoring Serpent Mound, the conical mound numbered 3 on the map (Figure 5), and various graves and other points of interest in the immediate vicinity.

From his examination of the soil at several points beyond the borders of Serpent Mound itself and beneath the mound, it is apparent either that the portion of the hill upon which it lies was levelled off to the clay subsoil before the erection of the mound or there was at the time of the construction of the mound no black soil above the clay. The latter seems the more likely conclusion, since no black soil was used in constructing the mound. This peculiar circumstance is perhaps best explained as a result of erosion and drainage on this elevated spur of land, which prohibited the accumulation of a normal amount of black soil such as is seen to the depth of a foot or more in less easily drained areas. Putnam made several trenches through the oval and through the effigy itself, and laid bare the edges of the mound throughout its entire length, finding definite evidence that both parts of the mound

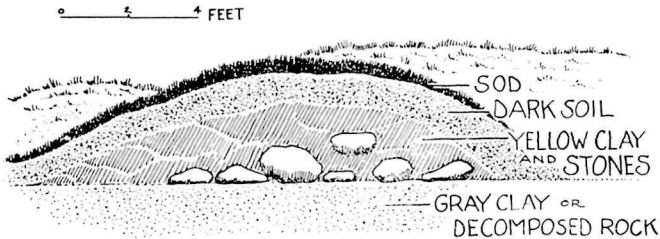


FIGURE 3
Cross-section of the Oval Earthwork, as Excavated by Putnam

had been blocked out on the surface of the clay before the earth was piled up. In some places this was done with stones and in others with clay, often mixed with ashes. Stones were especially in evidence at the west end of the oval and where

the edge of the serpent approached the steep cliffs, as if to prevent the earth from being washed away. "It is evident," says Putnam, "that the whole structure was most carefully planned, and thoroughly built of lasting material."

In the sketch, Figure 3, showing the face of a trench through the oval, a layer of dark soil nearly two feet thick is shown just beneath the sod covering the mound and conforming to the curved surface. This dark soil, which is made up largely of vegetable mold, must have been formed after the oval was erected. The clay of which the mound is built was collected mainly from the general surface, probably to a depth of about a foot.

Evidences of occupation, such as fragments of pottery, deposits of ashes and charcoal, deposits of burnt stones, and dark earth containing animal bones, were most abundant in the vicinity of mound 5 (Figure 4) and between that mound and the conical mound numbered 3. There were also graves in this area, and to the southwest of mound 5 there are three depressions from which some of the earth for the burial mounds, or perhaps for the effigy itself, may have been taken.

At the time of Putnam's excavations the conical mound, number 3, was nine feet high and seventy feet in diameter. It had been plowed for many years; its original height was probably two or three feet greater. As the result of his excavations of this mound Putnam described the following stages in its construction:

First, an area 71 feet in diameter was cleared off to a depth of several inches, making a clear, level floor. *Second*, 11 feet northwest of center a trench was dug, 14 inches deep, two feet wide, and five feet long, which was filled with loose clay containing broken animal bones. On the south and southeast from six to 14 feet from center, five small holes were dug to the depth of about a foot. Presumably vertical posts were placed in them. *Third*, over this cleared area, covering

the trench and embedding the posts, a layer of clay was placed forming a level platform 18 inches high, on the central portion of which a large fire was built and upon which was placed the body of an adult male human being nearly six feet tall, and from 25 to 30 years of age. While this cremation fire was still burning, clay was thrown upon it, extinguishing the fire and halting the complete incineration of the human remains. The ashes formed by the fire covered an area 30 by 35 feet. They were several inches thick, and beneath were signs of heat in the clay indicating that the ashes had not been carried there from elsewhere. This layer contained many potsherds, pieces of burnt bone, stone chips, broken stone implements, 12 unbroken ones, and pieces of clam shell. A burnt layer similar to this extended nearly a hundred feet north of the mound, and about the same width as the mound.”

Later investigations of the Adena Culture would seem to indicate that Putnam had actually uncovered an Adena house site. The floor of the mound was the original floor of the house. The raised layer of clay was part of a primary mound in which a male of the family, perhaps its chief or shaman, was buried. After that burial the house was burned down and the family erected another elsewhere. Later other burials were made on the primary mound, each being covered with earth. This new dirt covering was added over the entire original burial. Thus the mound increased in area and in height until it covered, or nearly covered, the original house site. It is unfortunate that Putnam did not investigate the perimeter of the floor of the mound, where he probably would have found the post-mold pattern of the house.

Implements and ornaments of stone, bone, and copper were found at various places in the mound, but for the most part near the bottom on a level with the bed of ashes, and therefore in association with this original burial. Those in closest association with the charred remains were as follows: one

hematite (iron ore) cone, a stone celt, flint arrowpoints, two stone axes with three-quarter grooves, and the points of several bone awls. Near the ash-layer but not in it, was a copper breastplate, roughly rectangular, 9½ inches long and from 3½ to 4 inches wide. There were also two flint scrapers, one notched and one stemmed. The arrowpoints were of the stemmed and leaf-shaped types.

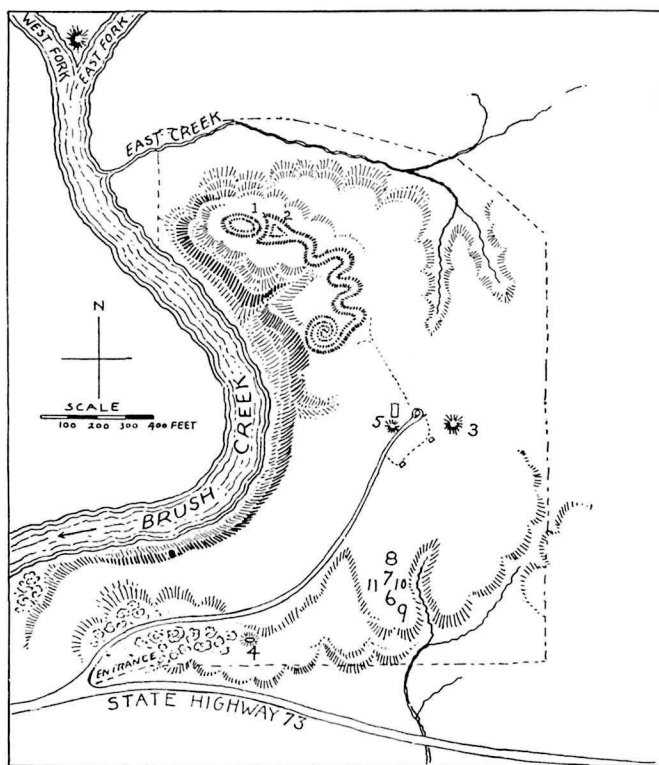


FIGURE 4
Map of Serpent Mound State Memorial Area

(1) The oval earthwork, with a small pile of stones at its center. (2) Head of the serpent. (3) Conical burial mound. (4) Elliptical burial mound. (5) Small burial mound. (6,7,8) Stone graves. (9,10) Fireplaces. (11) Three stone graves.

Nine burials described by Putnam as the remains of individuals buried in graves opened from the surface of the mound some time after its erection, were found at various depths above the ash-layer, some of them so near the surface as to have been disturbed by the plow. Three of these were extended and the positions of the others could not be determined. With one of them, on the bones of the left forearm, was a stone celt six inches in length. The others were without artifacts.

Mound 4 was oblong and originally two or three feet high. Putnam's excavations revealed the disintegrated remains of four individuals, all adults and probably males, in irregular graves built of stones. About one foot below the ground level was a bed or layer of ashes a foot thick. Three of the stone graves were beneath this ash-layer, and the fourth, made of stone slabs, seven feet long and two feet wide, was still farther down at a depth of two feet below the bottom of the uppermost layer of stones covering the three upper graves. In this lowest grave was a skeleton extended southeast to northwest, resting on a floor of flat stones. Between one arm and the rib bones were several flint flakes and a crude flint implement.

Numbers 6, 7, and 8 on the map indicate the sites of stone graves. In one of these an almost completely disintegrated skeleton lay in the extended position on a bed of stones with head to the east. The other two graves were beneath two masses of burnt bones, ashes, and charcoal in which a number of points of bone awls, a chisel-like implement of antler, and several knives and arrow-points of flint were found. An unusual feature was the lack of skulls for these two skeletons. They lay in the extended position. With one were the following objects: at the left shoulder a long spearpoint of blue flint, five flint knives, two pieces of chipped flint, and a piece of grooved sandstone probably used as a sharpening tool; near the left knee twenty-three flint knives and points, pieces of awls made of the leg-bone of the deer, and two



Serpent Mound Museum

stone celts; between the knees were one flint point and a mass of red ochre containing another point and a bone awl. The flint points were of the stemmed type. The following artifacts were found with the other skeleton: along the right leg and pelvic bones twelve flint knives and points and one long bone awl; on the inner side of the right upper arm bone one flint knife and three flint flakes; at the lower end of the arm bone one galena (lead ore) gorget with two perforations. Other material in this grave not immediately associated with the bones is listed as follows: part of an antler implement, the remaining portion of which was found in the adjoining grave; a grooved piece of sandstone; forty flint flakes; eighteen chipped flint implements, many of them cracked and broken by heat; one antler chisel; and some red ochre.

Six feet west of these graves, at point 11 on the map, were three more made likewise of stone. One of them contained an extended adult skeleton, head to the east, covered

first with ashes and then with clay. The position of the other two skeletons was not determined.

Other graves in the same general area contained the remains of at least six individuals. In one there were portions of three skeletons, each in a separate pile or bundle, indicating burial or reburial after disintegration of the flesh. Another skeleton, in a grave made by placing stone slabs on edge, was accompanied by the shell of a box turtle. This skeleton was directly over a deeper grave measuring nine feet long and five feet wide, containing two skeletons, one above the other on a base of flat stones.

Numbers 9 and 10 on the map were the sites of fireplaces, as indicated by burnt earth, ashes, and charcoal. One of them was without artifacts, and in the other were found one broken hematite cone, pieces of flint implements, several tubes or handles made of deer leg bones, and a chisel-like implement of deer antler.

These mounds and graves present several features characteristic of the Adena Culture. Chief among these are the stemmed and leaf-shaped flint points, pieces of sandstone bearing grooves, bone tubes or handles, red ochre, the single central burial in mound 3, the conical shape of this mound, and the burials beneath the ground level in mound 4. The copper breastplate, the stone axes, the stone graves, and the bundled burials, while found occasionally in mounds of the Adena type, are more closely related to other cultures. While a particular culture cannot be assigned with certainty to Serpent Mound and the adjacent burial mounds and graves, one important consideration favoring the Adena Culture may be mentioned. Since mounds of this culture usually contain one burial centrally placed and accompanied by an unusual number of artifacts, many of which appear to be magical or religious symbols or to have been used for the working of magic, there is strong evidence that they are the burial places

of priests or medicine men. The ceremonial or religious nature of Serpent Mound is adapted to such an interpretation.

References. This booklet is a compilation based upon the published accounts of the following authorities: William Henry Holmes, J. P. MacLean, Frederic W. Putnam, E. O. Randall, Squier and Davis, and Charles C. Willoughby. The only publication by Putnam on Serpent Mound is in the *Century Illustrated Monthly Magazine* for April 1890. The article by Holmes may be found in *Science*, Vol. VII (1886). That by Willoughby is in the *American Anthropologist*, Vol. XXI, No. 2 (1919). Squier and Davis published the first account of Serpent Mound in *Ancient Monuments of the Mississippi Valley* in 1848. MacLean presented his interpretation in the *American Antiquarian and Oriental Journal*, Vol. VII (1885), pages 44-47, and E. O. Randall's *The Serpent Mound* was published by the Ohio State Archaeological and Historical Society in 1905.

Serpent Mound State Memorial

In 1887 about sixty acres of land, including Serpent Mound, were purchased with money subscribed in Boston and given in trust to the Peabody Museum at Harvard University. In 1900, on the recommendation of Frederic W. Putnam of the Peabody Museum, this tract was deeded to the Ohio Historical Society, by which it is maintained as a state memorial.

