

ARCHEOLOGICAL INVESTIGATIONS IN GREENE
COUNTY, INDIANA.

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One of the most interesting archeological areas in Indiana is located in the vicinity of Worthington, Greene County, Indiana. (Fig. 1.) It is at this point that Eel River joins the West Fork of White River and on the united flood plains of these rivers the town of Worthington is built. On the flood plain and on the higher lands forming the valley walls

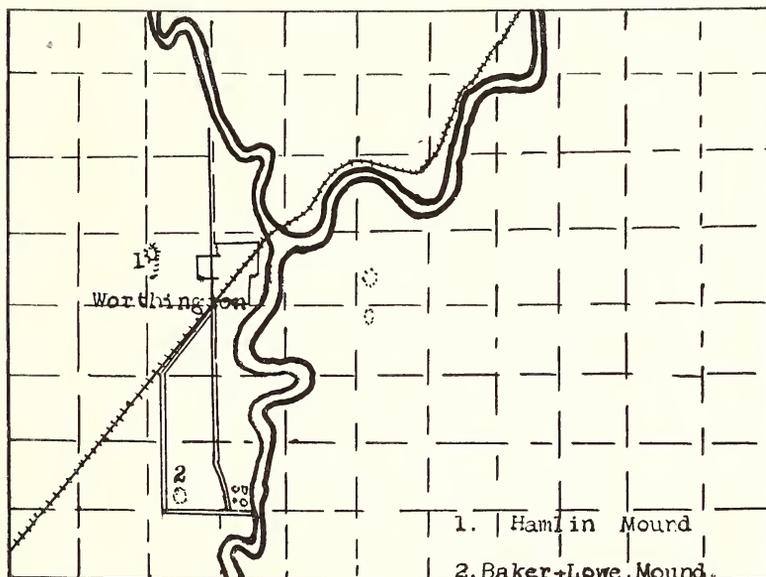


Fig. 1.—Location of the Hamlin and Baker-Lowe mounds in Greene County, Indiana.

burials have been made in natural and artificial mounds. It is probable that some of the natural mounds of the flood plains were raised in order to bring them above the highest level of flood waters.

During the field season of 1926, and again in 1927, the members of the field party of the Division of Geology of the Indiana Department of Conservation spent some time in Greene County investigating mounds in the vicinity of Worthington. These investigations were undertaken at the request of Mr. Fred E. Dyer, a local collector of archeological materials, and a resident of Worthington. In 1926 the field party consisted of the writer and assistants J. S. Kaserman, A. E. Moore, J. E. Organ, and R. E. Stouder. Assistance was also given by Mr. Dyer and Carl Pottenger.

A small mound on the Dyer farm in Section 20, T 8 N, R 5 W was excavated. In the base of the occupied portion of this mound about four feet under the surface a rock floor was found. This floor was composed of slabs of sandstone of irregular shapes. These slabs were from three to four inches thick and from one to two and one-half feet in lateral extent. All of the sandy loam above the floor showed evidence of having been disturbed and contained fragments of bone, charcoal, and artifacts. The sand beneath the floor did not show any signs of having been disturbed.

The sandstones were probably obtained from outcrops of Pottsville sandstone which are present on the west bank of White River directly west of the mound. From the appearance of the surfaces of some of the sandstones it is apparent that fires had been built on the floor.

A field lying south of the Dyer mound contains a number of undulations of the sand dune type. Fragments of pottery, flint chips, arrow points, axes, charcoal, and bone fragments have been found on this surface.

The field party next excavated a mound rising some 20 feet or more above the general level of the White River flood plain in Section 1, T 8 N, R 5 W. This mound is a conspicuous feature and very symmetrical in outline but it contains no evidence of occupation, and such evidences were not to be found on the surface.

A group of small mounds, known locally as the "Circle Mounds," because of their circular distribution, were next examined. The mounds are grouped about a central depression. Some of them had had trees of large size growing upon them. These mounds are located north of the road which runs through the center of Section 4, T 7 N, R 5 W. No signs of occupation were found in any of these mounds. In the field to the south of the Circle Mounds are a series of undulations produced by sand movements. On the surface of these elevations flint chips and arrow points were collected.

Artifacts were collected from a cultivated field on the Hays farm near Point Commerce and several small mounds in this vicinity were investigated.

INVESTIGATIONS IN 1927.

The field party of 1927 consisted of the writer and assistants R. E. Esarey, Lewis Childs, S. T. Clashman, Geo. Whitlatch, H. Rankin, and J. S. Kaserman. Local assistants were Judge Oscar Bland, Fred E. Dyer, Carl Pottenger, and Thos. Bullock. Investigations began by the excavation of the Hamlin Mound in Section 19, T 8 N, R 5 W. This mound is situated on the rim of the valley wall which overlooks to the east the flood plain of the White River at its junction with Eel River. Near the point of juncture the city of Worthington occupies a portion of the flood plain. The mound is the most prominent topographic feature on a billowy surface but it does not rise very high above the general surface. Back of it toward the west is another elevation which is separated from the one excavated by a slight depression. Other mound-like elevations occur both north and south of the one excavated. The

slope of the rim toward the valley has been cultivated and on its surface fragments of pottery, arrow points, axes, and other objects have been found.

THE HAMLIN MOUND.

Stratigraphy. 4. The upper portion of the mound is composed of a sandy clay loam which has thickness of from nine to twelve inches. The amount of cementation in the layer gave evidence of the development of colloidal mineral matter.

3. Beneath the loam is a layer of dark sand or sandy loam which may represent an old soil. This stratum has a thickness of about two feet and contained the upper burials. It was less coherent and did not exhibit the degree of cementation of the upper layer.

2. The third layer from the top is a dark brown sandy loam containing some organic matter. It has a thickness of one to two feet and contained the lower burial zone which was from three to four feet below the surface of the mound. This layer was cemented and firm in places forming dense dark colored masses which may have represented burial spots of organic materials.

1. The lowermost layer of the mound consists of a light yellow sandy loam of the dune type in that general region. This layer showed no evidences of having been disturbed. No humus, charcoal or artifacts were found in it.

Size of Grain. In the sieve test of 2, 100 per cent of the sample passed the 40-mesh sieve; 63 per cent passed the 60-mesh sieve; 38 per cent passed the 80-mesh sieve; and 21 per cent passed the 100-mesh sieve.

Method of Excavation. In excavating the Hamlin Mound the following methods were used: An area 20 feet square was measured on the top of the mound. Excavation was begun along a line extending from east to west on the north side of the square, and also on a line extending along the east side of the square. From these two lines the work of excavation was carried forward toward the center of the square to the depth of the undisturbed layer of sand. The material below the top covering of loam was comparatively soft, unindurated, and easily removed by the use of spade and shovel except in certain spots where colloidal matter produced by organic materials had caused a certain degree of cementation. The top was first carefully removed and as soon as a burial was encountered the use of spade and shovel was abandoned and the object uncovered by the use of trowel, knife and brush. The finer materials immediately around the burials were sieved to recover small objects which might otherwise have escaped attention. In this way small objects such as beads were recovered.

Burials. The burials in the Hamlin Mound were in two horizons. The upper one was from one and one-half to two feet below the surface. The lower horizon was from three to four feet below the surface. The larger number of burials was in the lower horizon. There

was a very notable difference in the degree of decomposition of the materials in the two horizons. The materials of the upper zone were less decomposed and represented probably a much later time of burial. Some of the artifacts of the lower zone were more primitive than those of the upper zone. None of the burials contain evidences of anything but aboriginal occupation. In all burials where the lower limb bones were found in place the pedal extremities pointed in the general direction of the rising sun for that latitude in the later part of June. Some of the intrusive burials of the upper zone showed evidence of the bones having been bunched before burial.

Number 1. This burial was located near the northwest corner of the square and in the upper horizon. This burial contained a human skull, the bones of which were largely separated, and much decomposed. From impressions made in the sand by the skull it seems that the longitudinal diameter was about nine inches and the vertical diameter five inches. Near the skull was a badly broken pot with some of the parts missing. One notched and one unnotched arrow point were found near the skull. There were also some flint chips in the sands around the skull. (Fig. 2.)

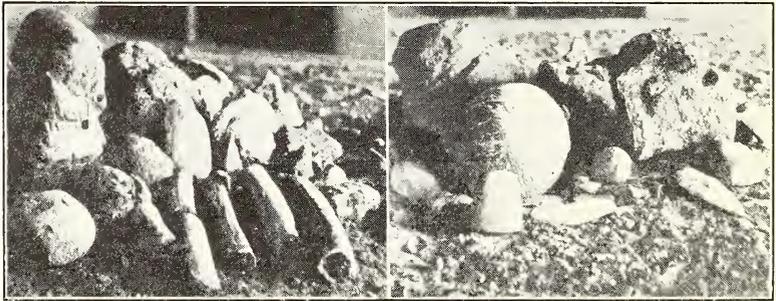


Fig. 2—From Hamlin Mound. At left, skull, pot, hammer, stone, celts, arrow points, and other bone fragments and artifacts from burial No. 1. At right, skull, other skeletal material, fragments of pottery, flint chips, and artifacts from burial No. 2.

Number 2. This burial was located about eight feet south of number 1. It contained the most complete skeleton of any of the burials. It occupied the lower horizon and the bones were very much disintegrated. The skeleton was in a supine position with feet pointing toward the northeast. The small sections only of the limb bones could be removed. The bones of the thorax were almost completely disintegrated but the imprint of the vertebrae was visible in the sandy loam. (Fig. 2.)

Number 3. Judge Bland and Mr. Dyer opened this burial on the east-west line of the square. Parts of four skeletons were found in the upper horizon. A pot, three skulls, and 34 arrow points were found.

Number 4. This burial was located near number 2 and contained a skull which has a vertical diameter of four and three-quarter inches, an anterior-posterior diameter of seven inches and a lateral diameter in the temporal region of five inches. The lower jaw has an anterior-

posterior length of three and one-half inches; distance between ramuses, three and one-fourth inches; height of ramuses two and one-fourth inches; distance from median line of jaw to posterior surface of last molar three and one-fourth inches; diameter of crown of largest molar seven-sixteenths inch; the maximum thickness of the jaw is three-fourths inch. This burial also contained other bone fragments, charcoal, and flints. (Fig. 3.)

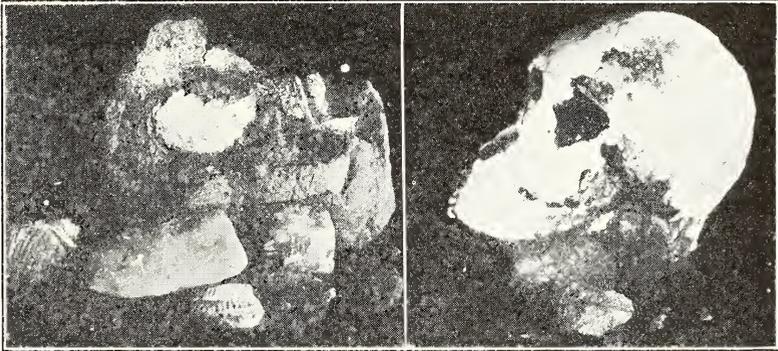


Fig. 3—From Hamlin Mound. At left, portion of infant's skull enclosed in pot which was in turn enclosed in a larger pot, fragments of pottery and flint, all from burial No. 6. At right, skull and flints from burial No. 4.

Number 5. This burial was located near number 3 in the north-east part of the square. It contained a skull, fragments of bones, charcoal, flint chips, arrow points, fragments of chert, and a pot which had a maximum lateral diameter of five and one-half inches and a vertical diameter of three and one-half inches. (Fig. 4.)

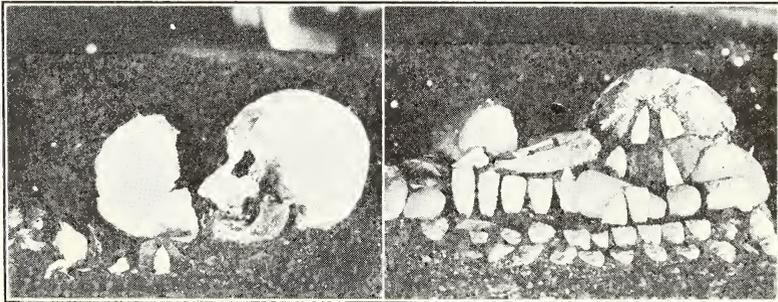


Fig. 4—From Hamlin Mound. At right, the bowl of a pot, fragments of the rim, skull, flint chips, charcoal and arrow points from burial No. 8. At left, fragments of a skull, other skeletal fragments, the bowl of a pot, 34 arrow points, 2 celts, a hammer stone and other artifacts from the Hamlin mound, burial No. 5.

Number 6. This burial was located near number 3. It contained a skull with lower jaw having 16 teeth, vertebrae, flints, and fragments of pottery. (Fig. 3.)

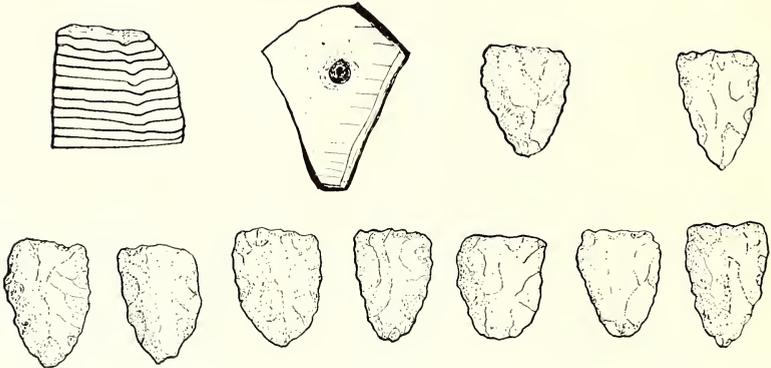


Fig. 5—Ripple marked sandstone, a sandstone pendant, and arrow points from the Hamlin Mound.

Number 7. This burial was located near the center of the square. A part of an infant's skull was enclosed in the basal portion of a small pot. The small pot was enclosed in the basal portion of a larger pot. The rims of both pots had been broken off. The skull seems to be that of a very young infant as there was little evidence of much ossification in the fragment which remained.

Number 8. Portions of a skull and fragments of other bones were found about five feet southwest of number 7. There were some fragments of pottery and charcoal in the burial. (Fig. 4.)

Number 9. A badly decomposed skull and fragments of other bones were found near the southwest corner of the square. These bones were in the lower horizon and badly decomposed.

Number 10. Small fragments of a badly decomposed skull were found near number 7. Fragments of bones, pottery, charcoal and flints were found at three other points in the square.

Figures 5, 6, and 7 show artifacts found in the Hamlin Mound.

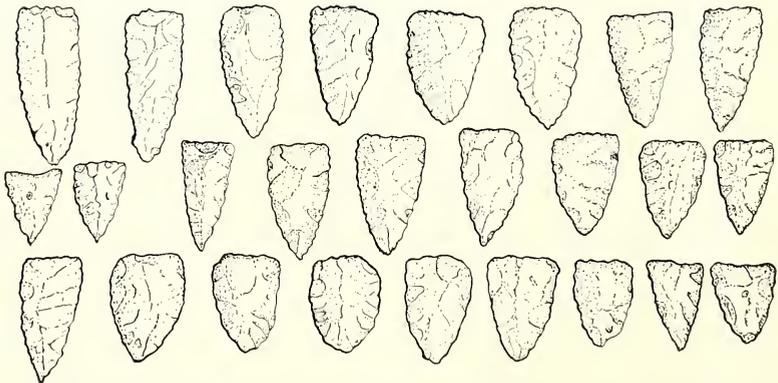


Fig. 6—Arrow points from the Hamlin Mound, all unnotched, a part of the collection covering one of the burials.

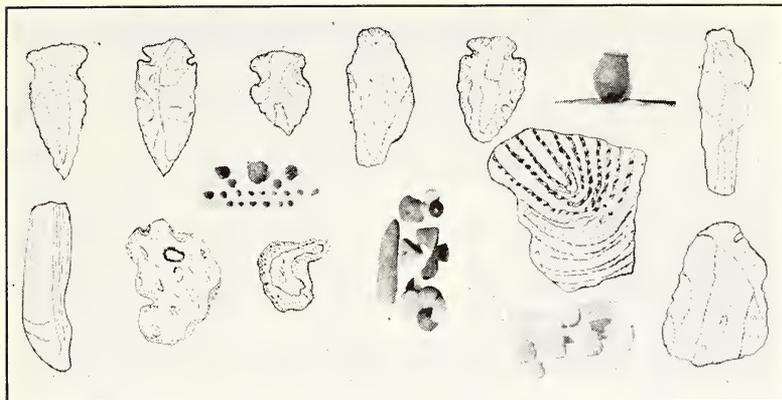


Fig. 7—A pot, pearl knife blade, axes, hammers, pestle, arrow points, and other artifacts from the Hamlin Mound and other mounds near Worthington.

BAKER-LOWE MOUND.

The Baker-Lowe Mound (fig. 8) is located on a former flood plain of the west fork of White River southwest of Worthington in Section 5, T 7 N, R 5 W. It is an elliptical mound having a length from east to west following the curvature of 249 feet and a width of 213 feet. The height of the mound above the general level on the west side is about 30 feet, and on the east side it is about 20 feet. The base of the mound covers about one acre of land. It forms a prominent topographic feature of the region and attracts the attention of passersby.

The upper part of the mound is composed of a sandy loess-like material. The light brown subsoil is covered with a darker brown soil. The body of the mound is composed of white sand which is probably water deposited although a part of it may have been wind-blown. The east slope of the mound is covered with about three and one-half feet of the brown subsoil and soil. The line of contact between the white sand and the overburden is somewhat irregular. At two points on the east slope the brown subsoil penetrated more deeply into the white sand than at other points. No burials extended below the line of contact or the upper surface of the white sand. The lower burials were a little above the line of contact and the upper ones within two feet of the surface.

Method of Excavation. Since permission was obtained by Mr. Dyer for only a limited examination of this mound it was decided to lay the mound off into four quadrants and to excavate the northeast quadrant. Starting at the base of the mound on the east side a ditch was dug to the central point at the top of the mound. In depth the ditch extended to the top of the white sand which exhibited no evidence of having been disturbed. Other ditches were advanced simultaneously. One from the north side to the top along the west side of the quadrant and two others at equal distances from the first two. Beginning on the

east the ditches were number 1, 2, 3, and 4 consecutively. On the lower slopes of the mound none of these ditches showed any evidence of occupation or disturbance. A stone hammer was found 40 feet from the top of the mound in ditch number 2. Bone fragments were found in this ditch about 30 feet from the central point. In ditch number 3, about 35 feet from the central point, a brown stiff clay loam containing bone fragments and shells was encountered. The brown layer dipped down into the white sand at this point and it was apparent that a burial had been made there. The larger part of the burials were found in that portion of the quadrant nearest the central point.



Fig. 8.—View of the Baker-Lowe Mound taken from the southwest.

Burials. (Fig. 9.) The surficial evidences of occupation have been abundant on the Baker-Lowe Mound. The fragments of bones, flint chips, pieces of pottery, and artifacts of various kinds have been picked up on its surface. The cultivation of land has aided in bringing these to the surface. A score or more years ago excavations were made and it is reported that three complete skeletons were removed from one point and that some perfect specimens of pottery were obtained along with other artifacts.

Number 1. The first burial was encountered in ditch No. 2 at a point about 40 feet from the central point at the top of the mound. At this point a hammer stone composed of an igneous rock of the diorite type was found. The hammer was probably carved from a glacial boulder. Yellow and gray flints, a black flint, and some fragments of a human skull were found nearby.

Number 2. This burial was encountered in ditch No. 1 about 23 feet from the center of the mound. It contained human skeletal material, the carapace of a terrapin, gastropod and plecy pod shells, marginella shell beads, bone beads, deer horn awl, a lime concretion, charcoal and flints. This burial was in the upper horizon.

Number 3. This burial was located in ditch No. 2 about 35 feet from the center. It contained fragments of human bones, charcoal, and flints. Apparently this burial had been disturbed at some time between

the last excavation and the time of burial as a dark soil was found in the material overlying the fragments mentioned.

Number 4. This burial was found about 13 feet from the center near ditch No. 1. The contents include human skeletal remains, animal remains, gastropod shells, a pearl knife blade made from the thick part of a plecypod shell, lime carbonate concretions, and some flint chips and artifacts.

Number 5. This burial was near ditch No. 1 about ten feet from the center. It contained human skeletal material, gastropod and plecypod shells and shell fragments, charcoal fragments, ripple-marked sandstone

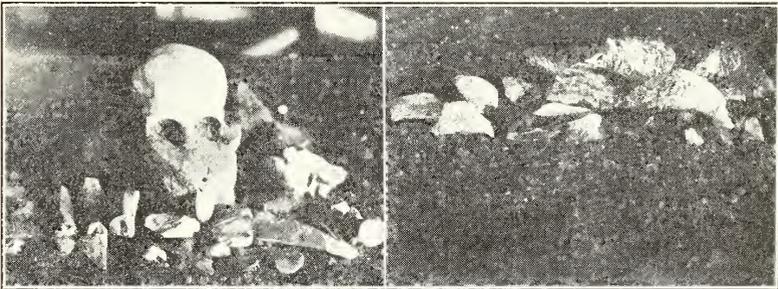


Fig. 9—From the Baker-Lowe Mound. At right, portion of an infant's skull, other skeletal materials, shells of gastropods, arrow points, pearl knife blade, fragments of pottery, beads, and other artifacts. At left, fragments of skull and pottery.

fragments, human teeth, a marginella shell bead, flint chips, and arrow points. This burial was in the upper horizon.

Number 6. This burial was found about ten feet from the center at a point about midway between ditch No. 2 and ditch No. 3. It contained a human skull, some small bones of the thorax, small fragments of larger bones, pottery fragments, flint chips and artifacts.

Number 7. This burial was located about 15 feet from the center midway between ditch No. 3 and ditch No. 4. It contained the anterior portion of the skull of an infant. The anterior-posterior length of the frontal bone along a median line is four and one-half inches, its width above the eye sockets is three and one-half inches. Other materials of the burial are bones of rodents, gastropod shells, fragments of pottery, human teeth with the roots absorbed, and flint chips and artifacts.

Number 8. This burial was located about 15 feet from the center midway between ditch No. 2 and ditch No. 3. This burial contained the skeletal remains of a small rodent, human bones, pottery fragments, and flint artifacts.

Number 9. This burial was located about 35 feet from the center near ditch No. 3. Human bone fragments were found, charcoal, flints, and shells were also found near the skeletal materials.

After excavating the northeast quadrant a ditch was dug along the line of ditch No. 1 across the top of the mound to the west. In the southwest quadrant a pit four feet square was dug 23 feet from the

central point and another one nearer the north-south line at a distance of 11 feet from the center of the mound. Another pit was dug about 20 feet from the center in the northwest quadrant in a line dividing the quadrant into two equal parts. No burials of importance were found in these pits. A few bone fragments were found in one and some charcoal and a human tooth in another.

The writer is indebted to Mr. Arch Addington and to Mr. R. E. Esarey for assistance in preparing the photographs used in this article.