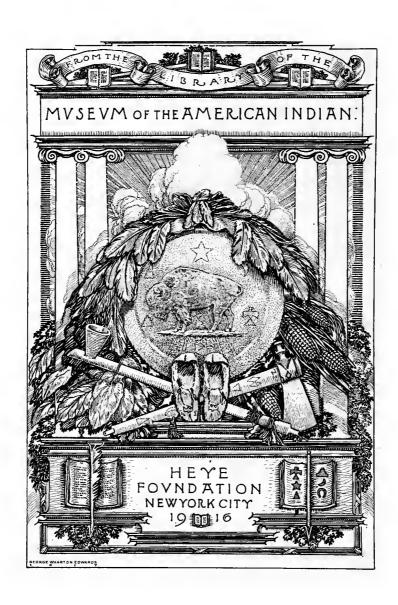
# SOME ABORIGINAL SITES

ON

# MISSISSIPPI RIVER

By CLARENCE B. MOORE







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#### WRITINGS ON ARCHÆOLOGY.

#### By Clarence B. Moore.

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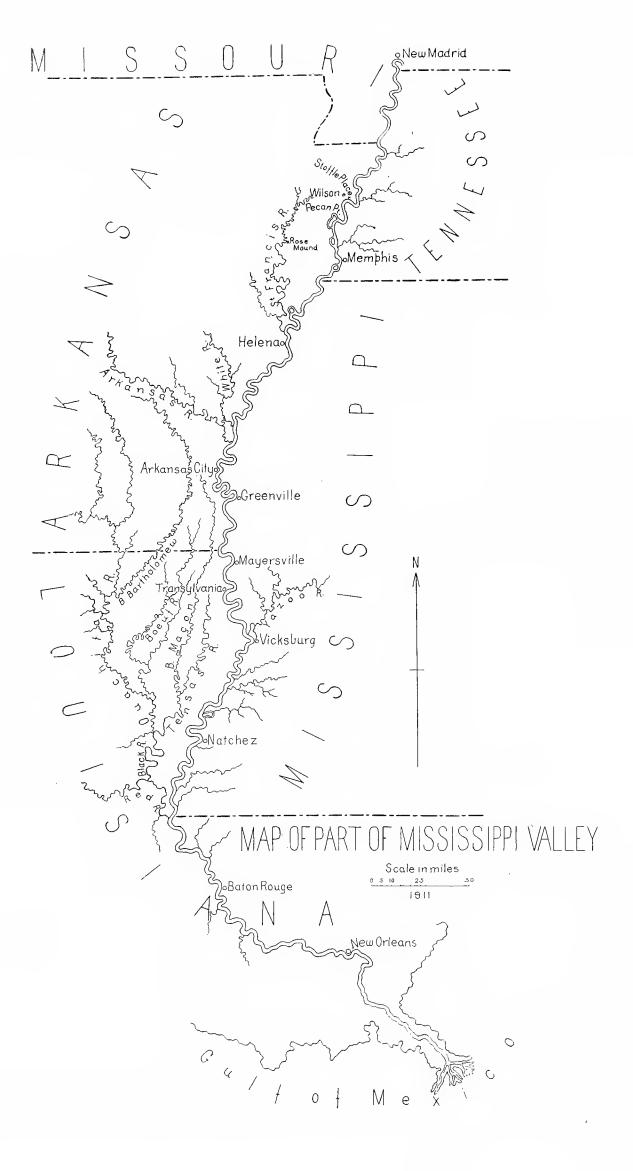
# Some Aboriginal Sites on Mississippi River

BY

# CLARENCE B. MOORE

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# SOME ABORIGINAL SITES ON MISSISSIPPI RIVER.

BY CLARENCE B. MOORE.

This report treats of our investigation of some aboriginal sites along Mississippi river, lying within three miles on each side of the stream or within that distance back from certain dead rivers, so-called, which are former courses of the Mississippi.

The investigation covered the river from New Orleans, Louisiana, to a point somewhat above Wilson, Arkansas, not far from the southeastern boundary of the State of Missouri, a distance of about 775 miles, by water. It occupied one hundred and thirty-one days: parts of November and December, 1910; of January and April, 1911; and all of February and March, 1911.

As has been explained in previous reports, Mr. J. S. Raybon, captain of the steamer from which our explorations are conducted, as has been his custom for many years to do, with a companion, in advance of our coming, went over in a small boat much of the territory which it was our intention to explore, making inquiries at landings, visiting sites, and obtaining the names of their owners, from whom permission to dig could be procured prior to our coming. The time devoted by Captain Raybon to this work was parts of two summers, and the portion of the Mississippi river searched by him was from the northernmost point to which our exploration was conducted down to Natchez, Mississippi. Consequently that part of the river (archæologically an unimportant one at the present time) from Natchez to New Orleans, was investigated by us without the advantage of a previous search made in our behalf.

Unfortunately for the cause of archaeology, investigation along the banks of the Mississippi, where in the past numerous Indian villages were, is affected by two adverse conditions. The great river is ceaselessly changing its course, eating into one place and depositing soil at another. Hale Point, Tennessee, a site celebrated for the discovery of interesting relics even in recent times, is now totally destroyed by the encroachment of the stream, while it is likely, on the other hand, that some interesting sites along the river now lie beneath thick layers of alluvial deposit.

Cultivation also is rapidly removing nearly all traces of aboriginal remains—especially the sites on comparatively level ground, in which so many aboriginal burials in the Mississippi river region are found.

<sup>&</sup>lt;sup>1</sup> Distances by water in this report are taken from the "Map of the Alluvial Valley of the Mississippi River. Published by the Mississippi River Commission, 1907," a publication of the United States Government.

Along the territory immediately bordering the lower Mississippi cultivation has been carried on for so long a time that archæological research there is practically useless.

From New Orleans, La., to Baton Rouge, in the same State. 126 miles by water, our quest was not satisfactory. The land along the river is thoroughly cleared and comparatively thickly peopled, and has been under cultivation for so long a time that one hears but little of aboriginal remains within reach from the river. With but few exceptions along this part of the Mississippi one hears only reports of mounds that have been ploughed away or sees only small parts of them, which have been left by cultivation. Aboriginal cemeteries are unknown.

Between Baton Rouge, La., and Natchez, Miss., 134 miles, following the course of the river, the presence of mounds along the river was comparatively unknown to the inhabitants. With the exception of one mound originally of fair size, about two miles above Baton Rouge, which had been largely dug into in various places, but four small mounds were found by us, although thirty-eight localities along the river were visited and careful inquiries were made.

Continuing up the river, between Natchez and Vicksburg, Miss., 100 miles by water, most careful inquiries were made by us in addition to the search conducted by our agents at the time of their journey of discovery. Nevertheless, our joint efforts resulted in the finding of but three mounds until the interesting group near Glass, Miss., a short distance below Vicksburg, was reached. The mounds near this place will be fully described later in this report.

Between Vicksburg and the Blum mounds,<sup>2</sup> that great group a short distance above Greenville, Miss., about 124 miles as the river runs, many flat-topped and fairly symmetrical mounds, some of medium size, some large,<sup>3</sup> and a few interesting groups of such mounds (including the fine group at Mayersville, Miss.) were visited by us.

While all that part of the Mississippi river under description was carefully searched by us, we believe that conditions north of Vicksburg are such as to facilitate a more successful quest and that consequently few if any sites of importance on this part of the river were passed by us unnoticed. It is true that aboriginal sites are often well back from the present course of the river and are frequently screened from it by trees,<sup>4</sup> but large mounds, singly and in groups, such as seem to be found along this part of the river, are as a rule well known for some distance around, and diligent inquiry, such as was made by our agents, and later by our selves, must, we believe, almost invariably have led to their discovery.

<sup>2</sup> The great group of mounds just above Greenville is described in a former report and is referred to later in this one.

<sup>3</sup> One mound of the group near Transylvania, La., is about 50 feet in height.
<sup>4</sup> Usually a late growth on ground deposited by the river in comparatively recent times, and not forest trees among which sites would be likely to be found intact.

<sup>&</sup>lt;sup>1</sup> Near Rodney, Jefferson Co., Miss., about 12 feet high; near Grand Gulf, Claiborne Co., Miss., 12 feet in height, approximately; Locust Mound, Horseshoe Lake, Warren Co., Miss., less than 4 feet in height. The first mentioned mound had been partly washed away; the other two were dug into by ns with negative results.

Mounds or groups of mounds, all of considerable size, were found by us between Vicksburg and Greenville as follows:

Near Henderson, East Carroll Parish, Louisiana.

Near Chotard, Issaquena Co., Mississippi.

Near Transylvania, East Carroll Parish, La.

Near Longwood, East Carroll Parish, La.

Near Mayersville, Issaquena Co., Miss.

Near Pilcher's Point, East Carroll Parish, La.

Near Harwood, Chicot Co., Arkansas.

Unfortunately, between Vicksburg and the Blum mounds, though considerable work was done by us, neither bones nor artifacts were discovered.

De Soto's followers saw mounds in use as dwelling-sites for chiefs who lived upon the mounds, with their people on the level ground about them, and long investigation in recent times has shown that many mounds were of this domiciliary class and apparently were not constructed primarily for burial purposes.

Some of these large, flat-topped mounds which had every appearance of having been domiciliary, were dug into superficially by us, while others had so suffered by wash of rain that the making of excavations in them seemed useless, in view of the fact that in the rare cases when domiciliary mounds contain burials, such burials are near the surface.

A few mounds in use as modern cemeteries were closed to us.

Though there is but little hope of the discovery of relics of any kind in domiciliary mounds, they nevertheless are of great importance in an investigation, since they mark former centers of aboriginal life, and as life and death go hand in hand, the presence of these mounds indicates where cemeteries are or have been.

As the reader of that part of this report describing the more northerly sites investigated by us will learn, aboriginal burials there were found by us in level ground, in rises, and in ridges, on the surface of which almost invariably lay various indications of former aboriginal life, in the shape of fragments of pottery, bits of flint, and remnants of human bones, etc.

Though elaborate search was made by us and some digging was done in the ground surrounding the mounds between Vicksburg and Greenville, no indication whatever—superficial or interior—of the presence of aboriginal cemeteries was found; nor was there any reliable history of the finding, at any of these sites, of anything indicating the presence of aboriginal burials.

It is our belief that this absence of cemeteries from the region under discussion lies in the fact that the long cultivation to which the land has been subjected has destroyed all aboriginal burials that formerly were there, and that this occurred at a time beyond the remembrance of those now alive and when general interest in archæological matters was so slight that the discovery of human bones and of artifacts was allowed to pass unrecorded.

<sup>&</sup>lt;sup>1</sup> We would explain that in the use of the word "mounds" reference is made to symmetrical mounds or to those that seem to have been such, and not to rises of the ground, or ridges, or flat, elevated areas that have grown up under occupancy, which often contain burials.

<sup>47</sup> JOURN, A. N. S. PHILA., VOL. XIV.

From Greenville to the point where our season's investigation ended, 295 miles by the river, though many sites have been destroyed by cultivation, some still remain, and all those where successful work was done by us will be particularly described in this report. A number of other sites in this region, however, in which our quest was unrewarded, though much work was done in some of them, will not be referred to.

Throughout our season's work there were found by us sixty-five skulls of the aborigines, in good condition, and a considerable number of other parts of the skeletons, all of which were sent as a gift to the United States National Museum. Dr. Aleš Hrdlička, Curator of the Division of Physical Anthropology in the Museum, will, we trust, describe these remains at a later period.

That part of the Mississippi river whose aboriginal sites are described in this report is included in the Lower and Middle Mississippi Valley regions—geographical divisions (among others) made by Holmes 1 to facilitate his description of aboriginal pottery, in certain of his exhaustive memoirs on the subject, to which the reader of this report is particularly referred.

The Middle Mississippi Valley region is defined by Professor Holmes as follows, in writing of its pottery: "Apparently its greatest and most striking development centers about the contiguous portions of Arkansas, Missouri, Illinois, Kentucky and Tennessee. The area covered is much greater, however, than would thus be indicated; its borders are extremely irregular and are not as yet at all clearly defined."

As a boundary line between the Lower and Middle Mississippi Valley regions has not as yet been definitely determined, we would suggest that the Arkansas river and an imaginary line extending eastward from its mouth be considered as such, not only because the geographical position of the river fits it to serve as the basis of such a division, but for the reason that the aboriginal pottery of the Arkansas river possesses the distinctive features belonging to the ware of both the region above and the region below that stream.

North of the Arkansas river incised decoration on earthenware is comparatively seldom encountered, and when it is present among the great number of undecorated pieces, it is, as a rule, of inferior execution, often consisting of hardly more than a series of parallel lines. Incised decoration, excellent in design and in execution, is rarely met with north of the Arkansas river.

On the other hand, south of that river engraved, incised, and trailed decoration on pottery is the rule rather than the exception, and vessels marked by beautifully incised decoration are not infrequently found.

In the Middle Mississippi Valley region, north of the Arkansas, pottery with decoration in color—solid red or polychrome—is often found.

South of the Arkansas, however, the use of pigments for decoration of pottery

<sup>&</sup>lt;sup>1</sup> William H. Holmes. "Ancient Pottery of the Mississippi Valley," Fourth An. Rep. Bur. Ethn. William H. Holmes. "Aboriginal Pottery of Eastern United States," Twentieth An. Rep. Bur. Am. Ethn.

<sup>&</sup>lt;sup>2</sup> Twentieth An. Rep. Bur. Am. Ethn., p. 80.

was rather infrequently resorted to, and while some few vessels from this region have solid coatings of red, they are exceptional and they usually bear incised decoration in addition. Vessels with polychrome designs are very exceptionally met with in the Lower Mississippi province.

Human effigy vessels are comparatively abundant in the region lying north of the Arkansas river, while south of that river vessels of this type are seldom found.

There can be no question that north of the Arkansas the average quality of the ware and the character of the modeling are inferior to those of the region to the southward.

The pottery of the Arkansas river, as we have said, shares the distinctive features present in that of both territories. Incised decoration, as well as the use of pigments for decoration of pottery, are abundantly evident in the valley of the

Vessels representing the human form, are fairly numerous along the Arkansas, but are not found there in the same numbers they are met with in regions farther north.

In the sites of the Arkansas river also are many vessels resembling the lesscarefully made ones of the region to the north, while many others, in excellence of ware and beauty of form and of decoration, call to mind the better work of the Lower Mississippi Valley.

As the reader possibly may care to inquire further as to the pottery of these regions, we would suggest that the two memoirs of Professor Holmes, already cited, and "Contributions to the Archeology of Missouri, Part I, Pottery," and our "Antiquities of the St. Francis, White and Black rivers, Arkansas," 2 treat of the pottery of the Middle Mississippi region.

The aboriginal pottery of Middle Tennessee, which we presume may be classed as belonging to the Middle Mississippi region, is described in General Thruston's work, "Antiquities of Tennessee."

The ware of the Lower Mississippi Valley region is considered by Professor Holmes in the Twentieth Annual Report of the Bureau, and, in part, in our "Antiquities of the Ouachita Valley." 3

The earthenware of the Arkansas river is partly described in Holmes' memoirs already referred to; in his "Collection from Arkansas County" 4; and in our "Certain Mounds of Arkansas and of Mississippi, Part I. Mounds and Cemeteries of the Lower Arkansas River." 5

In parts of this report reference will be made to the exact number of earthenware vessels found by us at various sites under description. To assume that all these vessels are entire would be incorrect; in fact but few of them are so. It is our endeavor to convey an idea of the approximate total of vessels placed by the

Dr. Edward Evers.

<sup>&</sup>lt;sup>2</sup> Journ. Acad. Nat. Sci., Phila., Vol. XIV.

Journ. Acad. Nat. Sci., Phila., Vol. XIV.
Third An. Rep. Bur. Ethn., p. 476 et seq.
Journ. Acad. Nat. Sci., Phila., Vol. XIII.

aborigines in such parts of the sites as were dug through by us, and hence each vessel found is counted as one, no matter how fragmentary it may have been at the time of its discovery.

Various causes contributed to the mutilated condition of numerous vessels. Many were more or less broken by aboriginal disturbance,—grave cutting through grave,—while others, soaked with water and consequently softened, gave way under the pressure of the soil, in the course of years, and were crushed to fragments. Numbers of vessels also, reached in process of cultivating the ground in recent times, were hopelessly ruined by breakage—not alone shattered by the plow, but having parts irretrievably carried away.

There is still another factor contributing to lessen the proportion of entire vessels discovered. Although the ceremonial breaking of earthenware vessels did not obtain in the region under description, the thrifty aborigines were prone to utilize imperfect vessels for interment with the dead, and hence the discoverer often comes upon bottles without necks or with only parts of necks; bottles which, having had basal supports, have them in part only or are without them; other vessels from which important parts are missing, including bowls once decorated with modeled heads and tails but which have them no more.

Another fact to emphasize, especially in connection with the Middle Mississippi Valley region, is the large proportion of inferior earthenware placed with the dead in some of the sites—vessels of inferior texture and of ordinary form—often asymmetrical—without decoration of any kind, with the exception perhaps of beaded or notched margins, or possibly a few rude lines of incised decoration. We do not believe it possible for those familiar with the pottery of this region only through visits to museums, or by inspection of illustrations of selected specimens, to have any conception of the small proportion of really interesting vessels found in some aboriginal sites in the region in question. It has been our fortune there, more than once to unearth fifty successive vessels without coming upon one presenting any feature of especial interest, either in the way of elegance of form or of decoration, or of oddity of design.

The large proportion of vessels of inferior ware and of commonplace form, carelessly modeled and scarcely decorated, or without decoration, found among the mortuary tributes of pottery made by the aborigines of the Middle Mississippi region, arises, we think, from the great quantity of pottery in use in that region in aboriginal times. The time required for the making of this superabundance of vessels perhaps bred carelessness of manufacture in respect to much of the ware, and set the potters working in a perfunctory way, as is exemplified by the great repetition in the form of the vessels and in their decoration.

The pottery obtained by us in a broken condition, that seemed desirable to place on exhibition in the Academy of Natural Sciences of Philadelphia, where all our collections may be seen, has been cemented together, with slight restoration in some cases, always made in a way to be distinguished from the original.

The reader is referred to a recent publication of the Bureau of American Ethnology for a full and interesting account of the aboriginal tribes of the Lower Mississippi Valley —this region, of course, not of necessity coinciding as to boundaries with the one to which the same name has been given in order to facilitate descriptions of its pottery.

All measurements of objects described in this report are approximate, and reduction in size in the illustrations of them is linear.

Dr. M. G. Miller, who, as anatomist of the expeditions, has taken part in all our previous field work and in putting all our reports through the press, aided the investigation again this season.

Mr. S. G. Weir, as assistant, gave valuable aid in a number of ways, and Captains J. S. Raybon, commander of our steamer, and Hugh W. Nixon of Memphis, Tenn., a Mississippi pilot since 1850, contributed to the success of the expedition.

The thanks of the Academy are tendered Prof. F. A. Lucas for the identification of bones of lower animals; Dr. H. A. Pilsbry and Mr. E. G. Vanatta for determination of shells; Mr. F. J. Keeley for identification of minerals and rocks; Dr. H. F. Keller for chemical determinations; Mr. Stewart Culin for valuable information; Miss H. N. Wardle for suggestions, and aid with the index; and Mr. F. W. Hodge for literary revision of the report.

The Academy also wishes to express its gratitude to the owners of plantations along the Mississippi river and various dead rivers tributary thereto, who, without exception, in the most liberal manner, placed their property at its disposal for investigation and most courteously did everything in their power to insure the success of the expedition.

We shall now take up in detail some of the sites investigated by us in this season's work, as a rule including only such as yielded tangible results, though many other sites, as we have said, were visited and a number were dug into by us, some to a considerable extent.

<sup>1</sup> John R. Swanton. Bulletin 43. "Indian Tribes of the Lower Mississippi Valley and Adjacent Coast of the Gulf of Mexico."

<sup>2</sup> For obvious reasons we have not furnished sections for the microscope, cut from objects submitted to Mr. Keeley, who consequently has not been able to make as exact determinations as he otherwise could have made.



### SITES INVESTIGATED.

(Lower Mississippi Valley.)

Near Shaw Field, Pointe Coupée Parish,¹ Louisiana. Trudeau, West Feliciana Parish, La.
Near Glendale Landing, Concordia Parish, La.
Near Ellis Cliff, Adams County, Mississippi.
Near Oak Bend Landing, Warren County, Miss.
Near Glass, Warren County, Miss.
Shadyside Landing, Washington County, Miss.
Richland, Desha County, Arkansas.
Near Neblett Landing, Bolivar County, Miss.

(MIDDLE MISSISSIPPI VALLEY.)

Avenue, Phillips County, Ark.
Kent Place, Lee County, Ark.
Johnson Place, Tunica County, Miss.
Commerce, Tunica County, Miss.
Rhodes Place, Crittenden County, Ark.
Mound Place, Crittenden County, Ark.
Bradley Place, Crittenden County, Ark.
Pecan Point, Mississippi County, Ark.
Stoffle Place, Mississippi County, Ark.

Mounds near Shaw Field, Pointe Coupée Parish, La.

About one mile in a WNW. direction from Shaw Field, which is on the river's bank, are two mounds, near together, in woods, on property of Messrs. James and Emmett Cotton, of Raccourci, La.

The larger mound, somewhat more than 6 feet in height, is almost square as to its base, with a diameter of about 100 feet. Eleven trial-holes sunk into the summit-plateau showed the mound to be of rather raw clay into which graves, none of which found by us exceeding 2 feet in depth, had been dug from the surface in places. Five burials were encountered, four of the bunched variety, and one, badly decayed, which seemingly had been a skeleton closely flexed on the left side.

Of the four bunched burials one consisted of bones with which apparently no skull had been placed; one had three skulls; one, five skulls; and one had seventeen skulls. All the bones were badly decayed.

The only objects found with the burials were three flat pebbles: two with one burial, one with another.

The smaller mound, resembling the other in shape, seemed not to have been used for burial purposes, as our digging came upon only clay unmixed with organic matter.

<sup>&</sup>lt;sup>1</sup> The State of Louisiana uses the term parish to designate that division of the commonwealth which in every other State in the Union is known as a county.

SITE AT TRUDEAU, WEST FELICIANA PARISH, LA.

Immediately at Trudeau Landing is a farm with a residence somewhat back

from the river. At one side of this house is black soil, indicating former aboriginal occupancy. Through part of this ground ran a small road, from the side of which, we were informed by the occupant of the house, an intelligent colored man, a brass kettle had been uncovered by wash of rain. While digging into this place, after the discovery of the kettle, we were told, various objects of iron or of steel were unearthed, and also a pipe, probably of catlinite (Fig. 1), which we obtained.



Fig. 1,-Pipe of cathinite. Trudeau, La. (Full size.)

Seven trial-holes put down by us near where the kettle had been discovered, failed to come upon graves, though dwelling-site debris was encountered in places.

Mound near Glendale Landing, Concordia Parish, La.

In woods about 1.5 mile in a northerly direction from Glendale Landing, on property belonging to Mr. J. M. Davis, resident nearby, is a mound irregularly circular in outline, having a basal diameter of about 100 feet. The present height of the mound, which is said to have been trampled down somewhat by cattle who seek it at times of overflow, is about 4 feet. As this place of refuge is highly prized by its owner, its destruction by us was wholly out of the question.

The mound apparently contains many burials, as eight trial-holes came upon seven interments, and in the removal of these, eight more were discovered. These fifteen burials, all in graves let down from the surface, none deeper than slightly more than 2 feet, were nine of the bunched variety and six of adults extended on the back, one of which had lost a leg through aboriginal disturbance.

Although bits of pottery were scattered throughout the mound, probably refuse material gathered with the soil, but one vessel was found with the burials. This



Fig. 2.—Earthenware vessel. Glendale Landing, La. (Diam. 4.8 inches.)

vessel (Fig. 2), which lay near the skull of a child, forming part of a bunched burial, is a small, flat bowl, having as decoration a design in the main composed of partly interlocked scrolls, alternate scrolls filled in with reticulate lines, and having a flat, circular base slightly projecting, in the cen-

ter of which a hole has been made—possibly by a root.

Two burials, a bunched and an extended one, were accompanied with masses of red pigment; while a large bunched burial, having fifteen skulls, had a lump of red paint and a bit of yellow ochre about 2 inches in diameter, concave on one side, where doubtless material for use as paint had been worked out.

An extended burial had red and yellow pigment near the skull, and a small, flint 1 arrowhead with triangular blade and a shank for attachment.

Apart from bones in the soil was a slender, barbed arrowhead of flint.

### MOUND NEAR ELLIS CLIFF, ADAMS COUNTY, MISS.

About one mile in a southerly direction from Ellis Cliff, on rising ground forming part of the hills that here approach the river, was the remnant of a small mound which had been dug into previous to our coming. Investigation of the parts remaining yielded two burials and parts of two others. One skeleton lay closely flexed on the back, the knees being drawn up toward the chin. Another was closely flexed on the right side. Two skeletons which had been interred side by side, closely flexed on the right side, had lost heads and shoulders by the making of another grave in aboriginal times.

No artifacts were present with these burials.



Fig. 3.—Pipe of sandstone. Church Hill, Miss. (Full size.)

At Gum Ridge, Jefferson County, Miss., a settlement on the river, Mr. T. G. Wood of that place, kindly presented to the Academy a gracefully shaped celt, probably of metamorphic rock, and a pipe of sandstone, having a rounded bowl but rectangular in transverse section as to the part intended for the reception of

<sup>&</sup>lt;sup>1</sup> The term "flint" is used in a general way in this report to include chert and other closely allied rocks.

<sup>48</sup> JOURN, A. N. S. PHILA., VOL. XIV.

the stem (Fig. 3). The celt and the pipe, Mr. Wood informed us, were found by a colored man at Church Hill, a short distance from Gum Ridge, and probably were uncovered by the plow.

Mound near Oak Bend Landing, Warren County, Miss.

A few feet from the water's edge at Oak Bend Landing, is a mound of irregular outline, about 50 feet and 60 feet in basal diameters, and 3 feet high, approximately. Persons long resident in the neighborhood report the mound, which they say once was considerably higher, to have been graded to serve as a foundation for a house, and subsequently to have suffered additional loss in height through wash of water. The house had disappeared at the time of our visit, but a cistern, which no doubt had belonged to the house, was present in the mound.

Trial-holes in this mound came at once upon human remains, and two days were devoted by us to the investigation of what probably had been a small burial mound.

Unfortunately much digging into this mound had been done by others, as there was great disturbance of bones and of artifacts, in places, and numerous corroded nails of iron were found in the course of our digging, which presumably had been left on the surface of the mound at the time of the demolition of the house, and had been introduced into the mound through various excavations.

Owing to all this disturbance and to the advanced state of decay in which the skeletal remains were found, the exact score of burials and their classification were hard to determine. Twenty-eight burials were noted by us, mostly belonging to the bunched variety, but a few burials of adults extended on the back, and the skeletons of several children also were present in the mound.

Three individual burials had the skulls covered by inverted bowls which fitted the skulls like caps.

Some of the bunched burials were extensive, one having no fewer than thirty skulls (many in fragments) and a great quantity of other bones, though we were not in a position to say whether or not the full complement of bones for the number of skeletons represented by the skulls was present. The skulls of the bunched burials, as a rule, were heaped together at one side of the burial.

In most instances singularly few artifacts lay with the bunched burials, when the number of individuals these burials often represented is taken into account. For instance, the burial we have cited (which included with the rest the skulls of two adolescents and of three children) was accompanied with a single vessel of earthenware. This, however, was an extreme case, other bunched burials having been somewhat more liberally provided. For instance, Burial No. 7, a large, bunched burial with many skulls, had associated with various parts of it: twelve earthenware vessels; fragments of corroded sheet-brass or copper; glass beads; a rude disk of bituminous coal, about 2.5 inches in diameter; powdered hematite in two places.

A feature of this burial was the presence of several toy vessels of earthenware, put in near bones of children.

With a number of burials in this mound were glass beads, and with some were fragments of sheet-brass or of sheet-copper—sheet-brass certainly in some cases. The mound, therefore, is post-Columbian.

We shall now describe the artifacts present with some of the burials.

Burial No. 13 was the skeleton of an adult, extended on the back. At the head was an earthenware vessel in fragments; a bottle lay at the feet. On the chest of the skeleton and extending to one side of it lay a small bunch of human bones with which no skull was found. Lying above this bunch, but possibly deposited for the lower burial also, were a number of objects in line, overlapping each other to some extent, as follows: an imperfect flint arrowhead; a chisel wrought from a flint pebble; a polished celt of flint, 4 inches in length; two celts of sedimentary rock, 5.25 inches, and 6.75 inches in length, respectively; a tool or weapon of iron or of steel, about 5 inches in length, badly corroded; and, together, five lance-points and knives of flint, two broken; one leaf-shaped implement of flint, 3.5 inches long; and a bit of rock-crystal.

Burial No. 20, a bunch having eleven skulls, including two of adolescents, was accompanied with two earthenware vessels. Near a skull, not on each side of it, but placed together, were two disks of indurated clay, each about 1.24 inch in



Fig. 4.—Ear-plugs of indurated clay. Oak Bend Landing, Miss. (Full size.)

diameter and .75 inch in thickness. The surface of these disks is polished and seems in additition to have received a coating of some dark material. The periphery of each disk shows a slight projection all the way round on each side (Fig. 4). Presumably these objects were ear-plugs, though the projecting parts seem inadequate to have held the ornament in place unless it exactly fitted the opening in the lobe of the ear.

Burial No. 26, of the bunched variety, having twenty-five skulls (one of which had belonged to an adolescent and four to children), had in association four vessels of earthenware, variously placed, and, together, one arrowhead of flint and three pebbles. With this burial also was a circular object of indurated clay, 1.3 inches in diameter, centrally perforated, concave on both sides. The two faces of this object, which perhaps was an ear-plug, are polished.

Burial No. 28 consisted of a single skull over which was an inverted bowl. We have classed this burial among individual ones in the belief that the remainder of the skeleton had disappeared through decay or in the great disturbance to which the mound had been subjected. Beside the covering bowl stood another vessel, and near the skull and just below the rim of the bowl over it were two chisels wrought from pebbles of flint.

A few objects lay in the mound apart from burials. These objects, which probably owed their position to disturbance, were: a small celt of diabase; a chisel made from a flint pebble; an ornament 1.25 inch in length, fashioned from the axis

of a marine univalve (Fulgur), including a small part of the whorl, perforated longitudinally; a flat pebble about 3 inches in length, chipped on opposite sides near the smaller end to facilitate attachment to a handle, perhaps for use as a pebble hammer.

A sample of pigment from this mound is reported on by Dr. H. F. Keller as follows: "That marked 'Site at Oak Bend, Warren Co., Miss.,' is a red ochre containing about 40% of clay and silica and about 60% of hydrated oxide of iron. It is intensely red throughout its entire mass and is coarsely granular and gritty."

Forty-six vessels of earthenware, mostly in small fragments, were recovered from this mound. The ware, as a rule, is inferior to that found in the mound near Glass, only two miles distant. Ten of the vessels are without decoration; most of the others bear incised or trailed designs, some, however, crude and scanty.

One fragment of a vessel which apparently had been coated with red pigment was the only evidence encountered of the use of paint in the decoration of earthenware in this mound.

Several of the better class of vessels from the Oak Bend Landing mound will now be described in detail.

Vessel No. 10. This bottle (Fig. 5), with low, wide neck, is of hard and com-



Fig. 5.—Vessel No. 10. Oak Bend Landing, Miss. (Height 6 inches.)

paratively thin ware. The modeling is symmetrical; the trailed decoration has been executed by a firm and practised hand. It is interesting to note that practically the same decoration may be seen on a vessel from near Menard Mound, Arkansas river, Ark., figured by us.

Vessel No. 8. A bottle 5.5 inches in height, with low, wide month, bearing a trailed design largely composed of circles between lines, some curved, some straight. The design is rather faintly executed and consequently wanting in effect.

Vessel No. 24. A bowl having a modeled head of an animal and a conventional tail, both rising vertically from opposite sides. Within the head, the jaws of which are extended, are objects which rattle when shaken. Around the body are two trailed, encircling lines, rudely done, enclosing diagonal lines. On the base a six-pointed star is incised. Diameter 6.5 inches.

### SITE NEAR GLASS, WARREN COUNTY, MISS.

About one mile NNE. from Glass, a station on the Yazoo and Mississippi Valley railroad, on the plantation of Mrs. J. P. Cline, of New York City, which is under the management of Mr. William G. Paxton, of Vicksburg, Miss., are four mounds forming a very irregular circle with a diameter of about 420 feet. Some distance north of these mounds is another, much spread and worn, on which is a house.

None of these mounds was erected as a place of refuge in time of flood, for although they are on ground subject to occasional overflow, they are not ten minutes' journey from the hills which approach the river at this place.

The largest mound of the group composing the so-called circle is 30 feet in height and is still rather symmetrical, though wash of rain has already scarred the upper part. The basal diameter N. by E. and S. by W. is 180 feet; E. by S. and W. by N. it is 167 feet. The diameters of the summit-plateau in the same directions respectively, are 60 and 64 feet.

Fourteen trial-holes in this plateau failed to come upon artifact or bone.

Two other mounds of the four composing the circle have been greatly mutilated. One, about 6 feet in height originally, has been partly cut away in making a road, while the other, curtailed on one side by the same road, has been in part washed away on the opposite side by a small bayou, and has been leveled to a considerable extent to serve as a foundation for a building which formerly stood upon it. Both these mounds were unsuccessfully dug into by us.

The fourth mound of the circular group has a height of 15 feet. NNE. and SSW. its diameter of base is 149 feet; ESE. and WNW. it is 128 feet. The diameters of the summit-plateau, respectively, in the same directions are 39 feet and 59 feet. This mound, however, has been under cultivation practically over its entire surface, and a narrow spur, protected from the plow by a tree, projects from a corner of the summit-plateau a distance of 13 feet, thus showing that the plateau

<sup>1</sup> "Certain Mounds of Arkansas and of Mississippi," Fig. 19. Journ. Acad. Nat. Sci., Phila., Vol. XIII.

has been worked away through cultivation by at least that number of feet on one side.

Although, as the reader is aware, digging into the flat tops of domiciliary mounds is seldom productive of positive result, occasionally burials are found in these plateaus or in parts of them.

Trial-holes in the summit-plateau of the mound in question came upon several vessels of earthenware, all near the surface. Consequently it was decided to dig completely through that part of the plateau (about three-quarters of its present area) where indications of graves were found.

Human remains were encountered but twice and consisted of some crumbling teeth of a child, 1.5 feet down, and the left human of an adult, 2 feet below the surface. In both instances these remains were accompanied with deposits of pottery, extending some distance from them, and evidently were all that was left of entire burials.

In other instances artifacts were present, singly and in groups, where no burials were apparent, though beyond question they had been present but had disappeared through decay.

There came from this mound, in addition to vessels of earthenware: several polished pebbles, evidently smoothing-stones for pottery; a discoidal stone roughly shaped from a pebble; a flat pebble chipped toward one end, on two opposite sides, probably to facilitate attachment to a handle; a small quantity of powdered hematite used for paint, of which Dr. H. F. Keller says it "is an impure, ferruginous clay. It is very red on the outside, but yields a red-brown powder on grinding which turns brick-red on ignition. It contains 72.5% silica, showing that the clay is mixed with considerable sand."

Associated with pottery, and lying side by side, were two cylinders of yellow clay material, crumbling and in many fragments, varying from .8 to 1.1 inch in diameter. These cylinders had been decorated with longitudinal parallel lines, placed near together. It seems as if possibly the cylinders had been compressed in molds, as a small longitudinal ridge is evident on one side. We were unable to determine the length of these cylinders, which fell into many fragments on removal, but the deposit, as it lay in the ground, was 15 inches in length. We could not learn if this was the length of a single cylinder or included part of one projecting beyond the other. Each of these cylinders possessed one rounded end which came from opposite extremities of the deposit. The character of the end opposite the rounded one we were unable to determine, though we think it likely that the objects had been what is known as spade-shaped implements and that their upper parts had crumbled away.

Thirty-five vessels of earthenware were scored by us as coming from this mound, though the count was of necessity imperfect as only two whole vessels were encountered, the surface of the mound having been dug into and ploughed in a way to break most of the pottery contained in the graves.

The ware from this place contains little if any shell tempering. It is fairly

thin, and, as a rule, of medium excellence. Various forms of the bowl predominate. The principal feature in connection with the pottery uncovered from this place is the great proportion of decorated vessels. In point of fact, but one wholly undecorated vessel, or part of a vessel, was met with in the mound.

With the exception of a vessel having a design of red and of cream-colored pigments upon it, all others from this mound bear incised or trailed decoration to a greater or less extent. This decoration is largely conventional and often based on the scroll, as is so frequently the case with pottery in the Lower Mississippi region.

The following vessels from this place are deemed worthy of particular attention. Vessel No. 7. This superb bottle, of thin, hard, black ware, by the exactness of the spacing and the freedom shown in the execution of the design, is in the front



Fig. 6.—Vessel No. 7. Glass, Miss. (Height 6 inches.)

rank among vessels from the Lower Mississippi region, whose aboriginal potters, when their best efforts were exerted, excelled all others in incised decoration, in the region now known as the United States. The regularity of the lining on this vessel and the evenness of the cross-hatch work are remarkable (Fig. 6).

Vessel No. 24. This handsome bottle has a well-executed, incised decoration clearly shown in the illustration (Fig. 7). The ware is thin and hard, and this piece may be considered a good example of the better, but not of the best, pottery of this region.

Vessel No. 1. This vessel (Fig. 8), which we think may be classed as a bottle, is of hard, yellow ware, and bears an incised design based on circles, triangles, and the swastika.



Fig. 7.—Vessel No. 24. Glass, Miss. (Height 5.75 inches.)



Fig. 8.—Vessel No. 1. Glass, Miss. (Height 4.3 inches.)



Frg. 9.—Vessel No. 8. Glass, Miss. (Height 3.5 inches.) 49 JOURN. A. N. S. PHILA., VOL. XIV.



Fig. 10.—Vessel No. 6. Glass, Miss. (Diam. 6.3 inches.)



Fig. 11.—Vessel No. 18. Glass, Miss. (Height 6 inches.)

Vessel No. 8. This vessel of yellow ware (Fig. 9) bears as decoration an incised design of mediocre workmanship, based on scrolls and circles.

Vessel No. 20. A bowl of excellent brown ware tempered with material other than shell, belongs to a class representatives of which were found by us in the Neblett Landing Mound, Miss., which will be described later in this report. The type of vessel referred to consists of an inverted, truncated cone, the sides being in various degrees of expansion. In this particular case the bowl, with a circular, flat base about 3.5 inches in diameter, has a height of only 3.1 inches, while the diameter of the vessel itself is 11.1 inches, so that the expansion is marked.

Vessel No. 12. A bottle 7.2 inches in height, with globular body and short, slender neck constricted below the opening, which is flaring. The decoration in white and brick-colored pigments has been executed with considerable care and consists of partly interlocked scrolls of white and of red around the body, and a red triangle at the flat base. The neck has a uniform coating of red. This bottle, the



Fig. 12.—Vessel No. 36. Glass, Miss. (Height of pot 4.7 inches.)

pigment of which is in excellent condition, is especially interesting in that it comes from a site in the Lower Mississippi valley, in which region polychrome decoration on earthenware is exceptional.

Vessel No. 6. A bowl of yellow ware (Fig. 10) having an incised decoration of crescentic figures.

Vessel No. 18. A bottle of yellow ware (Fig. 11), from which, unfortunately, the upper part of the neck has been ploughed away. Around the body is a band in relief. The incised decoration, which is rather faint, is based on the swastika, with curious, trefoil figures in addition.

Various slight rises of the ground in different parts of this plantation, on which were a few scattered signs of aboriginal occupancy, were investigated by us but without success. Probably places of burial at these sites had been destroyed in the course of long cultivation of the soil.

There were presented to us here fragments of a vessel which we were told had washed from a bank. This vessel (Fig. 12) is of very coarse, shell-tempered ware, and entirely unlike that found by us in the mound. On each of two opposite sides of the vessel is modeled in relief a long-bodied quadruped somewhat similar to the lizard-like figures present on a vessel found at Madisonville, Ohio, and figured by Professor Holmes.<sup>1</sup>

On the modeled figures on our vessel, however, ears are represented, which feature presumably takes these figures out of the reptilian class. An opening for suspension is present between the body of each animal and the side of the vessel.

#### Blum Mounds, Washington County, Miss.

This noble group of mounds at Winterville, near Greenville, Miss., explored and surveyed by us during a previous visit, is fully described in our "Certain Mounds of Arkansas and of Mississippi."

# SITE AT SHADYSIDE LANDING, WASHINGTON COUNTY, MISS.

Near Shadyside Landing are three mounds which would be in full view from the river but for the presence of trees. Near these mounds are various small ridges and that elevations which evidently, in the past, were aboriginal dwelling-sites, though much of their superficial parts apparently had disappeared through work, wear, and wash.

We are indebted for permission to examine this site to Mr. J. H. Leavenworth of Greenville, Miss., its owner.

The mound nearest the landing, of irregularly circular outline, with basal diameter of 166 feet, has a height of about 13 feet. Trial-holes sunk into its summit-plateau yielded no return.

In full view from this mound is another, somewhat larger but much spread, and evidently considerably reduced in height through wash of rain and trampling

Twentieth An. Rep. Bur. Am. Ethn., Pl. CLXIIIa.
 Part III. "The Blum Mounds." Journ. Acad. Nat. Sci., Phila., Vol. XIII.

of feet. In fact a house built upon the mound, resting on supports, has beneath it a part of the mound about 2 feet higher than the rest of its surface which has been washed and worn away while the portion under the house has been protected. In Fig. 13 is shown this house under which may be seen the ground rising as described.

Within a few feet of this mound is the third one, having a circular base about 95 feet across. The height is 7.5 feet. Our digging in this mound was not rewarded.



FIG. 13.—House on mound at Shadyside Landing, Miss., showing part of mound under the house, protected from wash of rain, and illustrating the erosion to which mounds sometimes are subjected.

A short distance in a northwesterly direction from the mound nearest the river is a small, flat rise in the ground, on which were some fragments of pottery and other debris. This area was fairly riddled with our trial-holes, which showed that burials had been put down from a higher level, but that most of them were near the surface owing to the amount of material which had been ploughed and washed from that part of the site.

With the bunched burial were the crumbling remains of a small earthenware vessel.

A few feet east of the ridge we have described was another or perhaps an extension of the mound. The surface of this ridge was covered with fragments of pottery, and bits of human bone were plentiful on it.

This ridge or extension was thoroughly investigated by us, but unfortunately it became evident that nearly all the made ground which had formed during aboriginal occupancy had been worked or washed away, as but two burials were found—one a bunch having a single adult skull; the other, a burial of the same class with ten skulls, three of which had belonged to children. The upper part of this burial was visible on the surface, while none of it lay more than one foot deep.

With the latter burial were three vessels of earthenware: one of medium size, having a body with four lobes, without decoration; another badly crushed, on which



Fig. 14.—Vessel No. 3. Shadyside Landing, Miss. (Height 3.5 inches.)

were two encircling incised lines; a third (Fig. 14) having a round opening and a square, flat base on which are a number of concentric, incised squares. The body of the vessel has incised, encircling lines, containing diagonal ones.

With this burial also were part of a small celt of fine-grained sand-stone, and, dangerously near the surface, a fine pipe of limestone (Plate XXIX), representing a human figure on hands and knees. The pipe lay on its side directly beneath the bones, which had somewhat disintegrated the parts of the pipe in contact with them. Both sides of this pipe are shown in the plate, the one injured by the bones being easily distinguishable.

On the surface, near this burial, was a small, barbed arrowhead of white flint. The barbed type of projectile point was very rarely found by us on the Mississippi north of this place, the leaf-shaped point usually being met with.

Scattered in the soil were found, apart from burials, in the Shadyside Landing site: two small, rude celts; a pebble shaped somewhat to resemble a celt; another pebble showing a slight amount of workmanship, and grooved at one end to serve as a pendant; a pebble probably of igneous rock, with an artificial semi-perforation at one end; part of an antler 5.5 inches in length, squarely severed and with a considerable hollowing out of the proximal end; a number of small chisels chipped from flint pebbles, which differ from chisels of the same material found farther north on the river in that these are chipped but not ground at the edges which, moreover, are flaring.





SHADYSIDE LANDING, MISSISSIPPI, PIPE OF LIMESTONE. (ABOUT FULL SIZE.)

All other ridges and rises at this interesting place were carefully dug into by us, but while it was evident they were of artificial origin, it was also apparent that the parts in which burials probably had been, had washed or worn away.

SITE AT RICHLAND, DESIIA COUNTY, ARK.

Richland, a settlement belonging to the Price, Ledbetter Land Company, of Richland, includes the De Soto Plantation. About one mile north of Richland, in woods, on property belonging to the Company, is a large, flat-topped mound which has been extensively used for burials in recent times.

One of the houses on the main road in Richland, on the De Soto Plantation, stands upon a low, much-spread mound. On one side of this house seven trial-holes were put down, all of which reached burials. In removing these burials others were found, making a total of eighteen, none at a depth greater than 3 feet. The bunched burial was not represented, all being individual burials, some extended on the back, some flexed. All were of adults except one of an adolescent and one of a child. Two of the burials, lying side by side, had lost heads and shoulders by the digging of a hole some time in the past.

At the legs of one burial were a few small, shell beads, and some powdered hematite was near the skull of another. Near the feet of an extended burial was an undecorated vessel of moderate size, cylindrical, with slightly flaring rim and a base moderately convex.

Although doubtless the mound contained a great number of interments, we felt disinclined to continue its exploration, especially as the position of the house and out-buildings upon it precluded all idea of its complete demolition.

Within a short distance of the mound just described is an almost imperceptible rise in the ground, of limited extent, the soil rather dark in shade and having on the surface numerous fragments of pottery. Investigation of this site, however, indicated that it had not been used for burial purposes.

MOUND NEAR NEBLETT LANDING, BOLIVAR COUNTY, MISS.

Back of Neblett Landing is the old Neblett Place, now known as Virginia Plantation, the property of Mr. Charles Scott of Rosedale, Miss.

About two miles in a NE. by E. direction from the landing there is on this plantation a mound about 7 feet in height. It is nearly square and has a summitplateau. The entire mound has been under cultivation that has rounded its corners and extended its diameter, which, at the time of our visit, was about 125 feet. Trees on the side of this mound show it to have suffered extensive wash of rain, the roots of one tree being exposed for 2.5 feet above the present surface. The mound, however, presumably, has suffered more extensively from wash of water on the sides than on the level top. Nevertheless, it was evident that the plateau also had suffered to a considerable extent, as fragments of pottery and of human bones lay on it in numbers at the time when our work was undertaken. Moreover, some burials were found partly uncovered by the plow, and presumably many more had been totally destroyed.

In shape this mound has every appearance of having been a domiciliary one, and our digging in it, which lasted two and one-half days, with seven men, confirmed this view, for while the mound confained many burials in the summit-plateau and part-way down the sides, it was evident that these had not been made during the building of the mound, but had been sunk from the surface, after its completion.

The mound was composed largely of raw clay material, some parts of it having more sand than others. The graves, none deeper than 3 feet, which was an exceptional depth, had been dug into this material, which had a distinctive color, making it easy to define the limits of the graves from the surface down on account of the presence in them of the dark village-site material from the onter parts of the mound. Presumably, then, a domiciliary mound had been utilized superficially as a place of burial.

Sixty-five burials came from this mound, of which forty-four were bunched burials. Three of these latter were noteworthy in that, instead of having the long-bones in layers or in piles horizontally, they were arranged almost vertically in the ground.

The bunched burials, in regard to the number of skulls found with each of them, were as follows, the skulls having belonged to adults, when not otherwise described:

Without a skull, 1

With a single skull, one being of an adolescent and one of a child, 20

With two skulls, four having each the skull of a child and one that of an adolescent, 14

With three skulls, including the skull of an adolescent, 2

With five skulls: four adult skulls and one of an adolescent; four adult skulls and one of a child; three adult skulls, one of an adolescent, and one of a child, 3

With six skulls, one being that of a child, 1

With seven skulls, including one of a child, 1

With eight skulls, two being of children, 1

With twelve skulls, including two of children and one of an adolescent, 1

The remainder of the burials were:

Adults at full length on the back, 16

Children, 3

Recent disturbances, 2

The bones at this place were badly decayed, none being in a condition for preservation.

In connection with eight burials—five bunched burials and three extended ones—bark was present, usually below the burial, but exceptionally, above if. Presumably, however, other burials in the mound had been accompanied with bark, which had disappeared through decay.

The only objects, except earthenware vessels, found in the soil apart from burials, were a pebble-hammer and a piercing implement of bone.

Singularly few artifacts, except earthenware, had been placed with burials in this mound. A bunched burial which included the bones of a child, had a pebble

rudely fashioned to form a discoidal stone. With a bunched burial lay a flat pebble perforated at one end. Pebbles thus treated are not often met with. One, similar to that from this place, was unearthed by us in the site at Avenue, Ark., and will be referred to later in this report, while three other perforated pebbles were found by us on the lower Arkansas river, and one at the Forrest Place, near the mouth of the St. Francis river, Ark.

Ninety-one vessels of earthenware lay with burials in this mound and six vessels were found apart from them.

The bunched burials at this place had their full share of earthenware vessels, the deposits with some of the larger burials being greater than those with smaller ones.

Burial No. 17, a bunched burial, consisting of six skulls of adults and one of a child, lay upon bark, and had with it thirteen vessels, an interesting feature being that some of these are diminutive and evidently had been placed with the burial on account of the child included with it.

Burial No. 33, a bunch in which were eight skulls, two of them having belonged to children, was accompanied with eight vessels, and here again toy vessels intended for children were present.

Of the ninety-seven vessels from the Neblett Landing mound, twenty-four were unbroken or nearly so, most of the remainder being badly crushed.

The ware from this mound is not of the best, and no vessel shows a polished surface. A few of the vessels exhibit fairly graceful modeling and some diversity of form, though, curiously enough, the bottle is present in but few instances. A favorite form of vessel at this place is one somewhat resembling an inverted, truncated cone, which is represented among the vessels found no fewer than thirty-seven times, with various modifications, of course, including a considerable expansion of the body.

Decoration is a marked feature of the pottery from the Neblett Landing mound, only nine of the ninety-seven vessels found being entirely without it, though in some instances the decoration present is scanty enough, being only a single, incised encircling line, or a line arranged in festoons.

The decoration in the main consists of line-work,—engraved, incised or trailed,—fairly well executed in some instances, but much of it of mediocre or inferior workmanship, as is the case in nearly all sites where this kind of decoration on pottery is employed. There is great repetition of design on the ware, the partly interlocked scroll, the current scroll, the spiral, festooned lines, loops surrounding circles (some of these in connection with rude cross-hatch work), all doing yoeman service as they are so often called upon to do in connection with incised decoration on aboriginal pottery in certain regions.

Decoration in color is present on but two vessels from this place—a design in red and white in each instance. On the whole, the earthenware of the Neblett Landing site is interesting, as this site is the northernmost one investigated by us on the Mississippi river where line decoration is a feature, though line decoration, as we have already said, is often present on aboriginal pottery from sites on the Arkansas river, which enters the Mississippi only a few miles above Neblett Landing.

We shall now take up the description of certain of the more interesting vessels from this place.

Vessel No. 56. This vessel (Fig. 15) is a shallow bowl in the form of a shell, the hinge of which, in all its details, is carefully and accurately reproduced. The

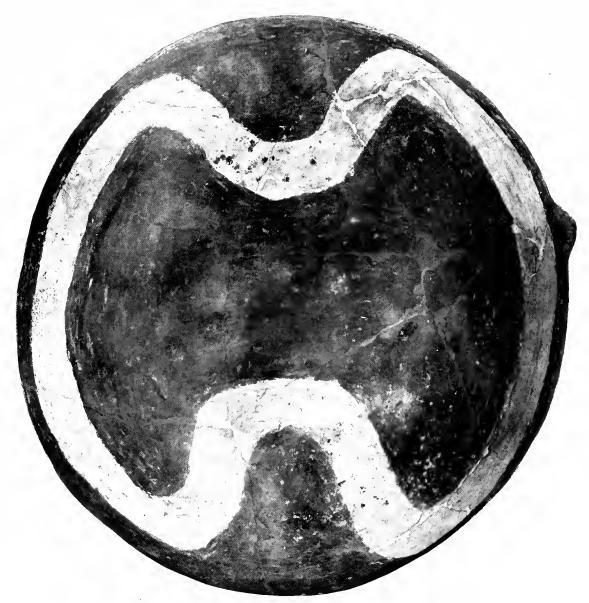


Fig. 15.—Vessel No. 56. Neblett Landing, Miss, (Diam. 11.2 inches.)

model taken by the aboriginal potter, according to Doctor Pilsbry, was probably the fresh-water mussel (*Unio purpuratus*). The outline of this shell, however, as Doctor Pilsbry points out, is elliptical, while that of the bowl is round. It is quite possible, nevertheless, that the outline of the vessel was modified to suit the needs of a bowl. The decoration on this vessel has been a coating of cherry-colored pig-

ment on the inside, now partly worn away, and on the outside a well-preserved design, hour-glass in shape, perhaps current scrolls united, in white pigment on a background of cherry. Both colors are remarkably well preserved. In this vessel we see polychrome decoration south of the Arkansas river, but a very short distance south of it, it is well to bear in mind.



Fig. 16.—Vessel No. 28. Neblett Landing, Miss, (Diam. 8.3 inches.)

Vessel No. 28. This bowl (Fig. 16) bears by way of decoration on the inside a circle of solid red pigment from which extend four arms in red, forming a cross. The background is pigment of cream color. The exterior decoration is a cross of cream color with arms expanding somewhat toward the extremities, and having a background of red.

Vessel No. 22. This interesting vessel of the well-known "teapot" variety (Fig. 17), which will be discussed more fully in this report in our account of the



Fig. 17.—Vessel No. 22. Neblett Landing, Miss. (Height 5.9 inches.)



Fig. 18.—Vessel No. 5. Neblett Landing, Miss. (Height 4 inches.)

site at Avenue, is to a certain extent a variant from the usual "teapot" vessel in that a modeled frog surrounds the neck. There has been restoration of one leg of this modeled figure, which, however, does not show in the illustration.

Vessel No. 5. We have here a vessel of compound form representing a circular bowl set on a kind of sancer. The incised decoration is based mainly on the scroll. There is a single hole for suspension, on two opposite sides (Fig. 18).



Fig. 19.-Vessel No. 71. Neblett Landing, Miss. (Diam. 8.3 inches.)

Vessel No. 71. This bowl, of the form prevailing in the Neblett Landing site, bears on the body an incised design consisting of a well-known combination where a current scroll has each of its loops arranged to include a circle (Fig. 19).



Fig. 20.—Vessel No. 90. Neblett Landing, Miss. (Diam. 6 inches.)

Vessel No. 90. A bowl of the same type as the preceding vessel as to form, but having a graceful finish to the margin, as shown in Fig. 20.

Vessel No. 96. This bowl, a life-form representing a shell, is similar to vessels found to the northward in the Middle Mississippi region, where, however, they are usually without decoration. But this vessel, being from a region where incised decoration was in vogue, has on the outside a design based on the swastika, and on the front, upper part, within (though it does not show in the illustration), an incised band filled in with crossed, diagonal lines (Fig. 21).



Fig. 21.—Vessel No. 96. Neblett Landing, Miss. (Height 3.3 inches.)

Vessel No. 19. This vessel, also representing a shell, resembles in form the bowl just described and on the inside is similarly decorated. On the outside, in front, incised scrolls extend around circles, while behind are two bands with crossed, diagonal lines, similar to the single band in front. Height 4.2 inches.

Vessel No. 55. A bottle of inferior ware, having projecting from one side a tail, and from the other side the head of a bird or of a quadruped, from which the bill or nose is missing through breakage prior to interment. On two sides of the bottle are rude, incised designs, possibly representing wings (Fig. 22).

Vessel No. 52. This bottle, of light brown ware, bears on the body an incised decoration composed of the circle and the scroll (Fig. 23).

Vessel No. 69. There is shown in Fig. 24 an inverted bowl of light brown ware, which is undecorated on the inside, but bears on the exterior a well executed trailed design based on the scroll.

In sight of the mound just described is another, considerably larger, the surface of which apparently has not been under cultivation. It is said that this mound has been used largely for burial purposes in comparatively recent times, and



Fig. 22.—Vessel No. 55. Neblett Landing, Miss. (Height 4.1 inches.)

evidence of this in the shape of headboards marking graves is still apparent on one part of the mound. A number of trial-holes sunk in the summit-plateau of this mound were unproductive.



Fig. 23.—Vessel No. 52. Neblett Landing, Miss. (Height 3.6 inches.)

Between the two mounds was level ground which had been long under cultivation. On the surface were scattered some debris from aboriginal sites and a few fragments of human bone. A considerable number of trial-holes in this ground came upon three burials, with one of which was an inferior vessel of earthenware.



Fig. 24.—Vessel No. 69. Neblett Landing, Miss. (Diam. 6.5 inches.)

Here ends the description of our work in the Lower Mississippi region. The next site to be considered lies north of the Arkansas river and consequently in the Middle Mississippi valley.

SITE AT AVENUE, PHILLIPS COUNTY, ARK.

At the settlement of Avenue is a plantation belonging to Mr. R. B. Goalder, who resides at Avenue.

On this plantation, in full view from the road, is a much-spread mound on which are a frame building and a number of out-houses. This mound, no doubt, was the domiciliary high place of the site.

About one-quarter mile in a SSW direction from this mound, still on the property of Mr. Goalder, is a ridge about 120 feet by 240 feet, and from 2 to 6 feet in height, depending on that part of the surrounding area (which is far from level) whence the altitude is taken.

Here and there on the surface of this ridge, which we were told had been under cultivation about six years, bits of flint pebbles, fragments of pottery, burnt clay, and particles of human bone were observed.

A few yards westerly from this ridge is another, about 125 feet by 95 feet and approximately 3 feet in height, which had almost contiguous another ridge 85 feet by 70 feet and about 2 feet in height. These two ridges are on a plantation belonging to Mr. A. Martin of Henrico, Ark., and are said to have been under cultivation for two seasons only. At the time of our visit trunks of trees were still standing in the field in which these ridges were. On the larger of these two ridges were a few fragments of human bones and indications of aboriginal occupancy in the past, but the smaller site had no superficial debris.

Three days, with seven men to dig, were spent by us in the investigation of the three ridges mentioned, which were composed of clay so tenacious that the sounding-rod was of little avail and trial-holes only were of service.

Burials and artifacts were encountered in the two larger ridges only, the burials being sixty-two in number, all in graves extending from the surface down, none to a depth greater than 2 feet. Some burials already had been disturbed by cultivation, and it was evident that in a few years more the plow would have destroyed the majority of them.

The burials were as follows:

Adults at full length on the back, 3

Adults partly flexed on the right side, 9

Adults partly flexed on the left side, 2

Adult closely flexed on the left side, 1

Adult extended on the back to the knees, with the legs closely flexed on the thighs, 1

A lone skull, 1

Recent disturbances, of considerable extent, 3

Infants or children, 3

Bunched burials, 39

The bunched burials, in layers or piles of bones, sometimes without skulls, sometimes with a number of them, were not determined as to the exact number of

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complete skeletons present, and it is doubtful if such determination were possible in the badly decayed condition in which the bones were found.

The bunches, with the number of skulls with each (the skulls being of adults when not otherwise described), were as follows:

Bunches without skulls, 6

Bunches with one skull each, 9

Bunches with two skulls each, including one bunch having one skull of a child, 11

Bunches with three skulls each, including one bunch with a child's skull, 6

Bunches with four skulls each, including one bunch having a skull of a child, 4

Bunches with six skulls each, including three skulls of children in one bunch, 2

Bunch with seven skulls, 1

The last mentioned burial had about 8 inches above it a few bits of calcined human remains.

On the surface of this site were no entire artifacts, and in the soil, apart from burials (with the exception of pottery) nothing was found save a single chisel wrought from a flint pebble.

But three burials at this place were accompanied with artifacts other than pottery.

Burial No. 6, a bunch, had in addition to a bottle and two bowls, two long pins or piercing implements of bone.

Burial No. 33, a bunched burial, had near it a flat pebble, oval in outline, about 2 inches long and 1.5 inch in maximum diameter. Near the margin of the broader part is a perforation for suspension. We have referred to perforated pebbles of this kind in our account of the site at Neblett Landing, in this report.

Burial No. 48, a bunched burial, had two bottles and some red oxide of iron ground for use as pigment.

Seventy-tive earthenware vessels (one of which was apart from human remains) came from the site at Avenue, the vessels being with the bunched burials as frequently as with the single skeletons, though some burials of both classes were without pottery. Vessels in some instances lay one within the other, and occasionally small, inverted bowls covered the openings of bottles.

As a rule, in most sites in the Middle Mississippi region, where pottery is present, and in regions to the southward also, though perhaps to a less extent, musselshells (*Unio*) are often found in vessels, on them, or near them. These shells were used as spoons. No such shells were present with any vessel at Avenue.

The ware from this place is thin, as a rule, and often of the yellow, porous kind so adaptable to decoration with pigment. This class of decoration is present in seventeen instances on the pottery found at Avenue by us, thirteen being uniform coatings of red, while in four cases red appears in connection with white or cream-colored paint.

Many undecorated vessels of this soft, yellow ware, in addition to the painted ware, and a few vessels of dark material but ill-fired, were in a friable condition

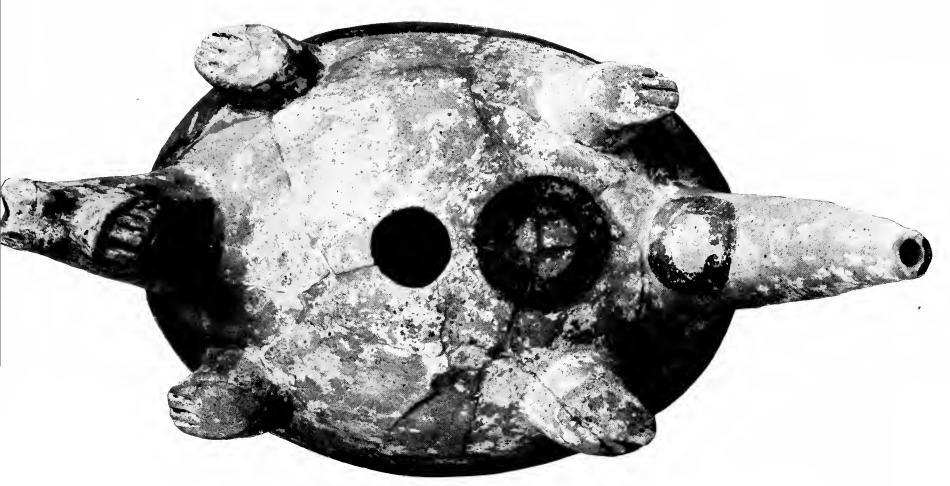


Fig. 25.—Vessel No. 20. Avenue, Ark. (Length of body 8.9 inches.)

and badly crushed. Two interesting vessels belonging to a better class of this painted ware have been repaired, and later will be described in detail.

Among the vessels found at this place were two bowls with slight, rude, trailed decoration; one small bowl having a series of rough, single, festooned lines, incised exteriorly around the margin, in which were rude imprints of a pointed implement; a vessel having six small lobes; a vessel with small, pointed knobs near the rim.

Among the vessels decorated with red pigment was one with a conventional tail of an animal, but which had lost the head through breakage in early times, and another with the modeled head of a predatory bird, but having suffered partial loss of the caudal appendage.

Vessel No. 20. There is shown in Plate XXX, and in another position in Fig. 25, the most interesting vessel of the "teapot" variety which has yet come to our notice. This vessel, which possibly represents a tortoise or a turtle (though the head is far from resembling that seen on any of the order Chelonia), shows the animal lying on its back with legs extended upward, the toes of the hind feet directed backward in a manner forcibly indicating the habit of the tortoise and turtle family. The only other vessel of the "teapot" variety portraying a life-form placed upon the back, that has come to our knowledge, is one found by us in the Rose Mound on the St. Francis river, Ark., but in this case legs and feet are not

The decoration on this "teapot" vessel from the site at Avenue consists of an excellent coating of red pigment covering the lower part of the body. Red pigment also is on the eyes and on the upper and lower part of the head and the under portion of the tail or spout. Two circles, one at the base of the tail and one near it, on the belly, probably representing the female sexual organ and the vent, likewise are shown in red. The remainder of the vessel, except the base, where the yellow ware is without decoration, has had a coating of cream-colored pigment.

Incidentally, we may repeat here what we have detailed in former reports to a considerable extent. The "teapot" vessel, so far as the United States is concerned, is found only in eastern Arkansas and nearby regions, its centre of distribution being the territory along the lower Arkansas river, though it has been found northward as far as the Rose Mound near Parkin, on the St. Francis river, Ark., and southward near the junction of Bayou Bartholomew 2 with the Ouachita river, in northern Louisiana, where, however, probably it was carried in trade.

The "teapot" vessel has been found in Coalioma county, Miss., but not far removed from the river,<sup>3</sup> and Professor Holmes figures a vessel belonging to the same class as coming from "Mississippi." <sup>4</sup>

Clarence B. Moore. "Antiquities of the Ouachita Valley," p. 75. Journ. Acad. Nat. Sci., Phila., Vol. XIV

Twentieth An. Rep. Bur. Am. Ethn.

<sup>&</sup>lt;sup>1</sup> Clarence B. Moore. "Autiquities of the St. Francis, White and Black Rivers, Arkansas," Pl. XVIII and Fig. 31.

<sup>\*\*</sup>Charles Peabody. "Exploration of Mounds, Coahoma County, Mississippi." Peabody Museum Papers, Vol. III, No. 2, Pl. XIV.

\*\*William H. Holmes. "Aboriginal Pottery of Eastern United States," p. 94, Pl. XLb.



AVENUE, ARKANSAS, VESSEL NO. 20. (LENGTH OF BODY, 8.9 INCHES.)



AVENUE, ARKANSAS, VESSEL NO. 8. (HEIGHT, 4.6 INCHES.)

Another vessel of this class, from the site at Neblett Landing, Bolivar County, Miss., is described in this report.

As the reader probably is aware, the ordinary variety of "teapot" vessel has a sub-globular body with a knob on one side and a spout on the opposite side. The variants are animal forms, the spout taking the place of the tail.

It may be interesting to note in respect to the "teapot" vessel that this form, which almost entirely is confined to the State of Arkansas, does not seem to be found in the same territory as the well-known head vases, which also are a specialty of the same State, the head vessels being found more to the northward. As we shall have occasion to point out when writing of these vessels, the Rose Mound on the St. Francis river, Arkansas, may be considered, so far as records go, the northernmost point where "teapot" vessels have been found and the southernmost limit of discovery of head vases.

Vessel No. 32. This bottle, 10.5 inches in height, found in seventy-two fragments, has been cemented together and proves to be of graceful form, the body globular with a flattening at the base, the neck of medium length, slender and slightly constricted below the opening, which has a decided flare. The decoration, consisting of partly interlocked scrolls in red and white pigment, has, in addition, in spaces between the scrolls, indications of black coloring material, now largely worn away. The neck has a uniform coating of red. This bottle in all respects resembles a class of vessels found in sites along the Arkansas river.

Vessel No. 68, a bottle with graceful, globular body, and flat base, has a slender neck, constricted toward the opening where it flares sharply. The decoration on body and neck is a uniform coating of red pigment. Height of bottle, 9 inches; length of neck, 3.5 inches.

Vessel No. 27. A bottle of yellow ware, having as decoration on its globular body with flattened base, six vertical, elliptical bands of red and white pigment alternately. Between the bands is a separating space showing the color of the ware. The slender neck, 3.5 inches in height, flaring at the aperture, has been coated with red pigment, much of which still adheres. Height 10.1 inches.

Vessel No. 43. A bowl, parts of which were not recovered, has as decoration inside and out a coating of red pigment. On one side, projecting vertically, is the modeled head of a predatory bird, and on the opposite side a conventional tail extending horizontally.

Vessel No. 8. The bowl shown in Plate XXXI, though slightly asymmetrical, is of considerable interest. On one side, in relief, are modeled the snout, mouth, eyes, and ears of some animal, probably a raccoon. Red pigment covers much of the upper part of the vessel, the rest of which has had a coating of light pink or cream-colored pigment, traces of which still remain. The interior of the bowl also has a coating of red paint above, and traces of cream-colored paint are present on the lower part.

THE KENT PLACE, LEE COUNTY, ARK.

The Kent Place is on the left side of a dead river, going up, about five miles above its union with the Mississippi, which is eighteen miles approximately, by water, above the St. Francis river. This plantation belongs to Mr. Lem Banks, of Memphis, Tenn., whose numerous and extensive properties on the Mississippi and on the St. Francis rivers have all been placed in the most generous way at the disposal of the Academy for investigation throughout the last two seasons.

There are various mounds on the Kent Place, all more or less altered from their original shape through cultivation and through wash of rain. This place was well known when the dead river on which it now is was the course of the Mississippi, and doubtless in the subsequent decades great quantities of burials and accompanying artifacts have been plowed up and destroyed.

About one mile in a northerly direction from the landing on the Kent Place is a mound about 18 feet in height, if measured from the general level. North and south its diameter of base is 180 feet, and 120 feet east and west. The summitplateau slopes upward from the northern extremity. From the southern end of the mound a ridge runs southward and then turning eastward continues to a deep depression containing water at the time of our visit, which depression doubtless marks the spot whence material for the building of the mound was taken. The length of this extension is about 300 feet; its breadth is about 80 feet, though it varies considerably. The ridge slopes sharply after leaving the mound, so that its height the greater part of the way is inconsiderable.

From the northern extremity of the mound a similar ridge, 340 feet in length, extends in a northerly direction and then turning, continues to the eastward.

Near the landing are two mounds, one of considerable size but greatly spread and cut by roadways, worn by trampling of feet and washed by water, on which are several frame buildings. In the smaller mound many burials are said to have been made in recent times.

Some dwelling-site debris lay in places over the cultivated part of the plantation. A flint chisel, however, was the only object of interest gathered by us from the surface.

As the clay at this place was too tenacious to permit much sounding with rods, trial-holes were almost our sole means of finding burials, and these were put down in great numbers throughout five and one-half days' digging by six men.

The sites more or less successfully dug at the Kent Place were: the ridges at both ends of the mound, already referred to; several rises of the ground in a field to the north of the mound; other elevations in cultivated ground in a southeasterly direction from the mound. One burial (No. 22), which will be particularly described later, came from the summit-plateau of the mound itself (in which, however, owing to recent burials, our digging was very restricted), and one from pasture land near the old river bed.

Our investigation resulted in the discovery of fifty-four burials, as follows:

Adults, 35

Adolescents, 2

Infants and children, 14

Bunched burials of adults, none exceeding the remains of two, 3

The thirty-seven adults and adolescents were in the following positions:

Extended on the back, 11

Partly flexed on the right side, 11

Partly flexed on the left side, 8

Closely flexed on the right side, I

Disturbances, aboriginal and recent, 5

Burial No. 30 lay extended on the back to the knees, but the legs had been flexed against the thighs, bringing the feet to the pelvis.

Apart from burials there were found in the soil: one small, chipped, cutting implement of flint; one flint chisel; one arrowhead of the same material; part of an undecorated pipe of earthenware, of ordinary type; another large fragment of an earthenware pipe from which the bowl is partly missing, which has had at one time an extension in which has been an orifice of considerable size. In front of the bowl of the pipe are two projections like feet which enable the pipe to stand upright when placed on a level surface. Such supports (found even on some modern pipes) were present on pipes found by us in various sites along the St. Francis river, Arkansas. It is interesting to note, also, that pipes of this class were used by the aborigines in Argentina, and in Mexico.

But little of importance in addition to earthenware had been placed by the aborigines with their dead at the Kent Place. We shall describe in detail all burials with which artifacts other than earthenware were found, including the earthenware discovered with these particular burials.

Burial No. 4, a child about six years of age, had near the head, a bottle. Near this burial, and probably belonging to it, lay a small pebble, part of which had been chipped away to give it the form of a ceremonial axe. No perforation, however, is present.

Burial No. 5, a child about seven years of age, had at the neck and on the chest, eleven shell beads and an ornament, made from the bone of some fish, having a hole artificially made, and apparently trimmed a little on the edges. At the left knee was a bottle.

Burial No. 6, adult at full length on the back, had at the right elbow a bowl. By the legs lay a skull 21 inches long, belonging to a fish of the gar family.

Burial No. 7, adult partly flexed on the left side, lay with a bottle at the left of the skull, and a bowl under the left shoulder. At the neck were four shell beads.

Burial No. 8, adult, lay partly flexed on the right side, thus bringing the knees

 <sup>&</sup>lt;sup>1</sup> Professors F. F. Outes and C. Bruch. "Los Aborígines de la República Argentina," p. 54.
 <sup>2</sup> Eduard Seler. "Die alten Bewohner der Landschaft Michuacan," p. 101 et seq. Gesammelte Abhandlungen zur Amerikanischen Sprach- und Alterthumskunde. Dritter Band.

toward the head. In the space between the knees and head were a bottle and a bowl. Thrown out by the digger at work on this burial, and doubtless belonging to it, was a tubular bead of copper or of brass, very badly corroded.

Burial No. 9, adult, closely flexed on the right side, had near the feet a bottle, below which were two bowls. Near these bowls were fourteen slender arrowpoints of flint, eight lying together, the rest slightly scattered. Crushed against the pelvis were a number of pendants of shell, most of them broken beyond restoration, though a few have been successfully repaired. These pendants had been made by cutting out slender sections of mussel-shells, and include at one end part of the hinge of the shell, beneath which is a perforation. One side of each ornament is scalloped. A small quantity of powdered hematite lay near the left forearm of this burial.

Burial No. 10, adolescent lying flexed on the right side, had the space between the knees and the head occupied by the following objects: a bottle and a bowl; an interesting pipe (Figs. 26, 27) representing a human figure with perforations in the



Fig. 26.—Pipe of earthenware. Kent Place, Ark. (Full size.)



Fig. 27.—Pipe of earthenware, side view. Kent Place, Aik. (Full size.)

ears. On the back of the figure is represented the back-bone as it is so often shown in human effigy vessels. Near the pipe were three pebbles, about 3 inches in diameter, each rudely rounded to form a discoidal stone, and the earapace of a tortoise.

Burial No. 12, adult, partly flexed on the left side, had on the left side of the skull, an ornament of sheet-copper, 3.25 inches wide by 5 inches long, having two holes near together at the center, for attachment. On the outer side of the orna-

<sup>1</sup> At the Kent Place, vessels, though often found near the heads of burials, also frequently were come upon at other parts of the skeleton.

ment, preserved by the copper salts, were the remains of matting with which the burial probably had been covered. On the inner side were fibrous remains badly decayed. At the left of the skull was a bowl, and at the left shoulder a vessel of the well-known "teapot" class. At the outer side of the left elbow was a ceremonial axe of quartzite, of what is known as the hoe-shaped variety, 5.25 inches in length, without the perforation which these axes usually have.

Burial No. 15, adult, partly flexed on the right side, had a flint knife 4.1 inches in length, with a double serrated edge, at the right fore-arm. At the left elbow was a bowl resting in another bowl, near which was a lump of kaolin, probably used for pigment. At the left shoulder was a bottle resting on a bit of sandstone. Near the skull of this burial were two discoidal stones, one of fossiliferous limestone, the other roughly rounded from a pebble. A few decaying shell beads lay at the neck.

Burial No. 22, adult, was the one to which reference has been made as having been found in the summit-plateau of the mound. This skeleton, which was partly flexed on the right side, lay 4 feet down, a depth greater than that of any other burial found by us at the Kent Place. At the left of the skull was a rude ornament of sheet-copper, 7.75 inches in length and 3.5 inches in maximum width, and having three perforations at one end for suspension or attachment. Small bits of copper had been pieced on with rivets to complete the ornament. At the neck were shell beads and glass beads mingled. At the left of the pelvis was a bowl, and a few badly decayed shell beads lay at the left knee.

Burial No. 32, adult, at full length on the back, had at the left hand four badly decayed mussel-shells, each with a small perforation centrally placed in the shell and not just below the hinge as perforations of this kind usually are found in such shells.

Sixty-nine vessels of earthenware lay with the burials at the Kent Place. These vessels, many of which were very badly crushed, never exceeded five with a single burial, and, as we have said, often had been placed at parts of the body other than the head.

The majority of vessels from this place were of inferior ware and of most common forms, though the use of color for decoration on the pottery had been popular among the aboriginal dwellers at the place, since no fewer than fourteen vessels bore decoration conferred by use of red pigment, while four had designs of red and white paint, and two others red and white pigment with black coloring material in addition. Many of the red vessels, however, were disintegrated beyond redemption, while of the coloring material that had been on them but a small portion remained.

At this place, presumably, the more wealthy or influential individuals dwelt together, inasmuch as every vessel or other artifact of any interest found at the

¹ Of this material Doctor Keller writes: "That marked 'Kent Place, Lee County, Ark.,' is a pure kaolin. It is very soft and friable and the powder consists of microscopic crystalline scales. It is only slightly discolored upon ignition, and a rough quantitative analysis gave silica 47.3%; alumina 38.7%; water 13.9%; and a trace of lime. This is very nearly the composition of pure kaolinite."

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Kent Place came from the two extremities of the mound we have described and from a small hump a few feet from it, while vessels and artifacts from various sites in the fields were of a very inferior class.

It is interesting to note in connection with this place that so far as our investigations extend it furnishes the northernmost occurrence, on the Mississippi river, of the well-known "teapot," or spout vessel, though we have found vessels of this class still farther north on the St. Francis river, Ark. Four "teapot" vessels, all broken and some very fragmentary, came from the Kent Place, one of black ware, two coated with red pigment, and one, parts of which unfortunately had been carried away by a plow, having a handsome decoration in red, white, and black.

There was almost a complete absence of incised decoration on the earthenware of this place. A few vessels were rudely marked with parallel, vertical lines; one had parallel lines encircling a space below the margin; one, a bottle, had a most inferior attempt to render a scroll design with the aid of a sharp point.

We shall now turn to vessels from the Kent Place inviting particular description. Vessel No. 9. The bottle shown in Plate XXXII has a barrel-shaped body decorated with encircling bands of red and of white pigment, separated by narrow spaces showing the yellow of the ware. The neck is covered with a uniform coating of red. The coloring material on this bottle is particularly well preserved and

bears a considerable polish.

Vessel No. 17. This vessel, of the well-known "teapot" variety, has a uniform coating of red pigment, and differs from most, but not all of the "teapot" class in that it has a flat base of circular outline, the bases of the majority of "teapot" vessels being rounded. Another minor variation in this vessel is that the knob opposite the spout instead of being rounded, as is usual in vessels of this kind, shows a slight flattening. Height 7.2 inches.

Vessel No. 4. This bottle, shown in Plate XXXIII, has for decoration on the body six figures, elliptical in outline, alternately red and white. Spaces between these figures now show the yellow of the ware to a considerable extent, but have been colored black, not with pigment, but with material leaving hardly more than a stain, perhaps charcoal, which was used by the Blackfoot Indians in recent times for coloring pottery.

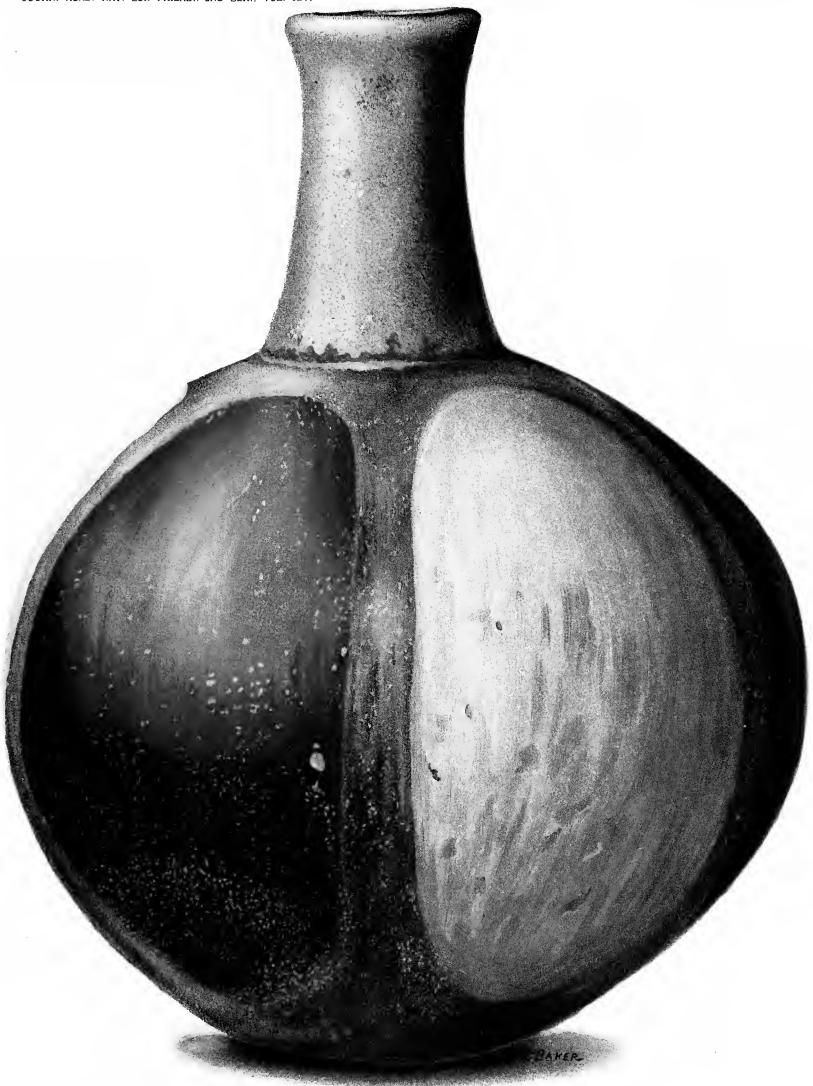
Vessel No. 26. This bottle, 7.3 inches in height, is an example of the crude work in color so often met with in the Middle Mississippi region. The body, which is oblate-spheroidal, is covered with a design consisting of a cherry-colored cross whose four arms extend downward, and a cross of a somewhat degraded white, having arms directed upward. The neck of the bottle is coated with three bands, red, white, and red.

Vessel No. 1. This handsome bottle closely resembles one figured by Holmes.<sup>1</sup> The neck has been coated with red pigment. The body has eight vertical spaces alternately red and white, separated by narrow margins showing the yellow-brown color of the ware (Plate XXXIV).

<sup>&</sup>lt;sup>1</sup> William H. Holmes. "Aboriginal Pottery of Eastern United States," Pl. XLa.



KENT PLACE, ARKANSAS, VESSEL NO. 9. (HEIGHT, 10.2 INCHES.)



KENT PLACE, ARKANSAS, VESSEL NO. 4. (HEIGHT, II.I INCHES.)



KENT PLACE, ARKANSAS, VESSEL NO. 1. (HEIGHT, 10.2 INCHES.)

JOHNSON PLACE, TUNICA COUNTY, MISS.

About two miles east by north from Mhoon Landing is a mound in a cultivated field which forms part of the plantation of Mr. W. M. Johnson, who resides upon it. This mound, about 13 feet high and 120 and 150 feet in diameter of base, has been spread by the long-continued cultivation to which it has been subjected, doubtless with considerable impairment of height.

A number of trial-holes sunk into this mound soon came upon raw clay where there was no likelihood of encountering a burial.

Surrounding the mound is a considerable aboriginal dwelling-site, part of which, on a slope, has been subjected to much wash of rain, judging from the quantity of fragments of human bones on the surface.

Superficially on this site, on which lay considerable debris, were gathered by us: a flint drill; a barbed arrowhead of flint; a pebble on which a cutting edge had been ground, thus forming a diminutive chisel; numerous fragments of pottery colored red, and some showing stripes of white and red; a modeled earthenware head of some animal, colored red in places, and having protruding eyes coated with white pigment.

Apart from human remains, in the soil was a pipe of earthenware, having a flat base protruding slightly beyond the bowl.

Unfortunately at this place, which has long been under cultivation, most of the burials, in all probability, had been ploughed and washed away. Diligent work over all parts of the site came upon four burials: a bunched burial with the bones and skull of an adult; another burial of the same class, having bones and skulls of three adults; a burial, presumably a bunched one, consisting of adult bones which had been badly disturbed by cultivation; the bones of a young child.

With the child's burial was a small vase coated with red pigment, and many fragments of another vessel.

No artifacts lay with the other burials.

## COMMERCE, TUNICA COUNTY, MISS.

Commerce is a small town on a great plantation belonging to Mr. R. F. Abbey, who lives upon it. About three-quarters of a mile in a southerly direction from the landing is a mound on cultivated ground, which has been very symmetrical and is still imposing in appearance, though the corners are somewhat rounded. This mound has been extensively used for burials in recent times. Its height taken from the northern side, where were neither depressions nor ridges of any kind, is slightly more than 20 feet. Its sides face the cardinal points, approximately. Its diameter of base N. and S. is 193 feet; that of the summit-plateau in the same directions is 114 feet. East and west the basal diameter is 173 feet, 83 feet of which is included in the summit-plateau.

Near this mound is a limited area of artificially made high ground, on which lay some fragments of pottery, a few flint pebbles, and much baked clay, remains

of aboriginal fire-places, broadly scattered by the plow. One knife and one chisel, both of flint, came from the surface, but no entire arrowheads were met with.

Two and one-half working days were devoted by us to the dwelling-sites at this place. The twenty-nine burials found were rather widely scattered; some were near the surface and had been disturbed by the plow. We were informed by Mr. Abbey that the part of the plantation on which we were at work had been under cultivation since about 1836; consequently, it is likely that many burials have been ploughed away in the past. Fragments of human bones lay in all directions over the sites.

But little successful work could be done with the sounding rod at this place owing to the number of fire-places below the surface, whose hardened clay impeded the passage of the rod. Consequently, trial-holes were practically our only means of discovering burials.

The burials were as follows:

Adults at full length on the back, 8

Children, 2

Bunched burials, 18

Cremation, 1

The eighteen burials of bones out of anatomical order, in layers and in piles, often consisted of the bones of one individual and never included the remains of more than three.

The cremated bones, in rather small fragments, formed a mass about 20 inches long, 14 inches wide, with a maximum thickness of 2 inches.

Although there were picked up on the surface at the Commerce Plantation a number of fragments of pottery having rather rude incised and trailed decoration, and one bit of ware on which was part of an engraved design, as well as a considerable number of bits of ware colored red on one side or having on them parts of bands of red and of white, but twelve vessels were found by us at this place. These vessels consist of eleven bowls of moderate size and one flat bowl or platter. All are without decoration of any kind, with the exception of one vessel covered with rude punctate marks and of another vessel with a fillet-like decoration around the margin of the opening.

No mussel-shells were found with any of these vessels.

One child had two vessels; one of the extended burials had two; and two had one each. Five bunched burials each had one vessel, and a single vessel lay with the cremated remains. When vessels lay near bunched burials they were as a rule in the neighborhood of the skulls.

The sole burial having with it any object other than pottery was that of a child about four years of age, which lay at a depth greater than did any other burial found by us at this site, namely 3 feet 8 inches. No pottery lay with this interment, but on the chest was a face-shaped gorget about 5 inches long, made from the body whorl of the conch (Fulgur perversum). This ornament has two holes for suspension at the top, or broader end. The decoration consists of a scallop-like carving

on the lower ends of both lateral margins, and traces of workmanship intended to represent a nose and mouth on one flat side.

At the left side of the pelvis of this burial, where the left hand rested, was a ceremonial axe of a silicious conglomerate, of the hoe-shaped class, 4 inches in length and 3 inches in maximum breadth of blade. The perforation usually found on axes of this kind is absent. The size of this little axe, much smaller than is usual with axes of this kind, marks it as a toy and quite in keeping with the age of the child to whom it belonged.

## RHODES PLACE, CRITTENDEN COUNTY, ARK.

The Rhodes Place, formerly the Earle Place, is about one mile directly in from Ward Landing and is the property of Judge John F. Rhodes of Marion, Ark.

On this plantation is a flat-topped mound, washed out of all definite shape, on which stands a dwelling. The height of the mound, taken from the road which passes it, but which itself is on ground artificially heightened in aboriginal times, is 13 feet. On the opposite side, which is lower, the height of the mound is augmented. Two basal diameters of the irregular base are 200 feet and 160 feet.

In the neighborhood of this mound are many rises of the ground and low ridges on which are evidences of former habitation by the aborigines. It was in these places that our digging was done, the exact localities in some cases having been indicated by the results of sounding with a steel rod. We were told that much work had been done at this place by two persons with whose names we were familiar in connection with their wholesale search for pottery on the St. Francis river, Ark., and evidence of previous disturbance at the Rhodes Place occasionally was apparent.

The number of burials found by us was sixty-five, as follows:

Adults, 36

Adolescents, 2

Infants and children, 27

The thirty-eight adults and adolescents lay as follows:

At full length on the back, 35

Partly flexed on the right side, 1

Aboriginal disturbances, 2

The skeleton of one infant also had been disturbed in aboriginal times.

Included among the extended burials are two, the feet of one of which had been plowed away, while the skull of the other had been dug down to and removed by a seeker after pottery.

The reader will note the absence of the bunched burial at this place. The bunched burial was not encountered by us on the Mississippi river north of the site at Commerce.

The burials lay at varying depths in the made ground which had grown up under aboriginal occupancy, the deepest grave in this ground (which itself varied in depth) having been 40 inches. One burial, however, had been dug through the

artificial soil to extend a foot into yellow sand which underlies the made ground at the Rhodes Place. The bottom of this grave was about 4 feet from the surface.

An interesting burial (Number 9) was the skeleton of a female extended at full length, and having on the left arm the skeleton of a very young infant, its head resting on the upper arm of the adult skeleton. This skeleton had at the right elbow a bowl, and over the left shoulder a bottle.

On the surface, and in the soil, but apart from burials, were found at this place: a number of flint chisels; a celt of slate; a few small arrowheads of flint; several arrowheads made from antler: a number of rude disks wrought from fragments of pottery vessels, two centrally perforated; a canine tooth of a dog (Canis familiaris); one bone bead; one pottery support for use in holding a vessel above a fire, of the class described by us in a former report. this particular support, however, not only being concave at the upper end, as such supports usually are, but having a decided outward bend of the body to furnish a more secure support when resting against a curved surface, than a straight body could afford.

Also apart from burials, and evidently lost during the occupancy of the site, was an undecorated pipe of earthenware, of ordinary type, and a similar pipe was found under the following conditions. Here and there throughout this site were large fire-places marked by areas of burnt clay, where it was evident the firing of pottery had been carried on. Immediately under the baked clay of one of these fire-places and partly included in a layer of carbonized material, lay the pipe in question. This pipe, fired black on the side which had been exposed to the flames, but light yellow in color on the upper part, presumably had been overlooked after incomplete firing.

At the Rhodes Place we came upon the southernmost occurrence in our experience of a curious aboriginal custom unknown to us before, namely, the interment with burials (and occasionally apart from burials, though the separation may have occurred after the time of interment) of single wing-bones (metacarpals), or a number of these same bones together, which had belonged to various birds, kindly identified by Prof. F. A. Lucas as follows: swan (Olor americanus); Canada goose (Branta canadensis); greater snow goose (Chen hyperboreus nivalis); lesser snow goose (Chen hyperboreus); wild turkey (Melcagris galloparo); a large duck.

At the great aborignal sites at the Bradley Place and at Pecan Point this custom was repeatedly noted, as will be set forth in the accounts of these sites, which follow in this report.

These wing-bones, when with burials, often lay near the forearms of skeletons, though sometimes the bones were found near other parts of the burials.

We shall now describe each burial with which were artifacts other than pottery, and shall give details of such pottery as was found with these burials.

<sup>&</sup>lt;sup>1</sup> "Antiquities of the St. Francis, White, and Black Rivers, Arkansas," p. 280 et seq. Journ. Acad. Nat. Sci., Phila., Vol. XIV.

<sup>&</sup>lt;sup>2</sup> Some of the wing-bones found by us were so badly decayed and broken that they were not retained for identification.

Burial No. 7, the skeleton of a child four or five years of age, had at the neck three shell beads and two columellæ of marine shells. Grouped around the skull and extending along the right side to the elbow, were eight vessels, nearly all



Fig. 28.—Ear plug of earthenware. Rhodes Place, Ark. (Full size.)

diminutive. Lying beside the vessel farthest down was an undecorated pipe similar to the two others from this site. The placing of pipes with children or infants was not commonly resorted to in aboriginal times, but it has been previously noted by us. With this burial was also an ear-plug of earthenware (Fig. 28).

Burial No. 11, of a child about five years of age, had a few shell beads at the top of the skull where, perhaps, they had fallen from the neck at the time of interment. On the chest was an undecorated, face-shaped gorget of shell, 2 inches long and 1.75 inch in maximum breadth, having two perforations at the broader end and one at the opposite extremity. This burial had pottery vessels as follows: a bottle and a bowl above the skull; a pot at the right shoulder; a bowl near the right humerus.

Burial No. 21, adult, at full length on back, had two shell ear-plugs of the well-known class having the shaft cut from the parietal wall of the shell and the head from parts extending to each side of the suture. These lay one at each side of the skull. With this burial, also, were three vessels of earthenware, on one of which was a badly decayed mussel-shell, having on the outer side rude, incised decoration.

Burial No. 28, a child about four years of age, had ear-plugs of shell of the kind just referred to, the exact relation of which could not be determined as the skull had been disturbed by a blow from the shovel of the man engaged in digging. Seven vessels, all diminutive, were with this burial: a little beyond the skull, a bottle and a bowl; at the left of the skull, a pot and a vessel made in imitation of a foot of a child, with toes and ankle bones distinctly marked (Fig. 35); at the right ankle, two bottles and a ladle or spoon.

Burial No. 33, adolescent, extended on the back, had a pot at the left shoulder, and near the head, a shell ear-plug of the short, blunt pin variety, the companion to which no doubt escaped our search.

Burial No. 41, a child, had at the left of the thigh a much decayed musselshell and a wing-bone of a swan (*Olor americanus*).

Burial No. 42, a child seven or eight years of age, had at the neck two shell beads and one tubular bead of blue glass. On the left side of the thorax was a small, face-shaped gorget of shell, without decoration, having two perforations at the upper, or broader, end. On the right side of the thorax was a rude, discoidal stone of ferruginous clay with a secondary ferruginous coating. The six vessels which lay with this burial, most of which were small, had the following arrangement: a pot at the right of the skull; a bowl over the right shoulder; a pot at the right elbow; a bottle at the left elbow; a large bowl at the left side of the pelvis; a bottle at the middle of the left femur. A shell bead lay near one of these vessels.

Burial No. 45, the skeleton of a child about two years of age, had at the neck a small, thin ornament of shell, broken into many fragments; a bottle lying across a bowl, both diminutive, at the left of the skull; a small bowl at the left shoulder, on which was an animal head containing objects which rattled when shaken.

Burial No. 53, a child, had a bowl at the right of the pelvis and a discoidal of sandstone at the left elbow.

Burial No. 54, a child, had one shell bead at the neck, and a small, flat ornament of shell with two perforations, on the chest. Two vessels lay at the right shoulder.

Burial No. 57, adult, extended on the back, had a bowl and a pot at the right of the skull; a bottle at the left of the skull; a pot at the left shoulder. Near the skull also was a wing-bone of a lesser snow goose (*Chen hyperboreus*)?

One hundred and twenty-three pottery vessels, many crushed into small fragments, came from the Rhodes Place, all but six interred with burials. Three of these six vessels, however, lay together, and unquestionably had accompanied an interment. In aboriginal sites one often comes upon skeletons from which vessels have been taken, but the converse is unusual, and we are constrained to believe that the bones of a very small infant had disappeared through decay (though large bones at this place were fairly well preserved), or that our digger threw the small skeleton back and buried it under the loose soil before the vessels were discovered.

It may be well to explain in connection with vessels found with burials, that the total number met with at any one site must be less than originally had been placed there, since aboriginal disturbance invariably has broken or removed some vessels which latter are not found in connection with the bones, while in recent times the plow, and the "pot-hunter" in certain cases, have removed some vessels, leaving skeletons or parts of skeletons behind.

At the Rhodes Place the greatest number of vessels found with one burial was nine, and children had been by far the most favored.

Many of the vessels are shell-tempered. None has decoration in color.

The more interesting vessels from this place will now be particularly described. Vessel No. 19, a bowl about 8.5 inches in diameter, has notches around the margin, and below, on opposite sides, the modeled head and tail of a frog in relief. In place of modeled legs on each of two opposite sides, however, is a disk in

relief, somewhat more than one inch in diameter.

Vessel No. 65. This human effigy bottle (Fig. 29) differs from others found in this region in that the necks of the latter form parts of the modeled heads and are subservient to them. In this particular case a neck similar to that found on the bottles of the region has the head in relief upon it.

A better example of this type of bottle forms part of the collection of Mr. E. E. Baird of Poplar Bluff, Mo., for not only is the modeling of the vessel superior to that of our specimen, but the neck of the bottle is embellished with a pair of well-made ears.

Vessel No. 21. This human effigy bottle (Fig. 30) is by far the most interesting one of its class found by us in the season's work. The head is well modeled and presents a life-like appearance. Great attention has been given to details on the body, for not only is the back-bone plainly represented, but we see also in relief shoulder-blades, collar-bones, and knobs projecting at the wrists, indicating the heads of the ulnæ. The costal cartilages and the sternum also appear in relief, and a number of ribs have been incised on each side.

But the most interesting feature of all is that the figure is represented as



Fig. 29.—Vessel No. 65. Rhodes Place, Ark. (Height 7.4 inches.)

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Fig. 30.—Vessel No. 21. Rhodes Place, Ark. (Height 8.4 inches.)

sitting cross-legged, a position very rarely seen in aboriginal figures found in the United States, the legs on effigy bottles almost invariably being represented flexed back parallel under the figure. On a shell gorget from Tennessee, however, a cross-legged figure is shown.

Vessel No. 32. A bowl (Fig. 31) having a modeled human head on which is a head-dress presumably made from a stuffed bird or from a bird-skin. In this connection we are indebted to Mr. Charles C. Willoughby for the reference, Plate II of Thomas Hariot's "Virginia," Holbein edition, where is shown an Indian with a



Fig. 31.—Vessel No. 32. Rhodes Place, Ark. (About full size.)

bird with extended wings at one side of the head. The reader probably will recall also that in Le Moyne's "Narrative," Plate XIV, is portrayed a chief wearing part of a bird on the head.

Vessel No. 18. This interesting life-form represents a bird with a crest extending backward from the head and joining the body of the vessel. Both wings also are shown, and the tail, below which is modeled the vent in relief (Fig. 32).

Vessel No. 28 is a bowl (Fig. 33) belonging to the well-known class having a grotesque head of some fanciful animal on one side, and a curling tail on the opposite side. This particular vessel, which is superior to many of its class, has on the back of the head a swastika incised within a circle.

<sup>&</sup>lt;sup>1</sup> Thomas Wilson. "The Swastika," Plate X, Rep. U. S. Nat. Mus., 1894.



Fig. 32.—Vessel No. 18. Rhodes Place, Ark. (About full size.)

Vessel No. 78. A little bowl of a class common to the region, with a modeled, upright head of a bird on one side and a conventional tail on the other. The only feature of special interest about this vessel is that a perforation has been made in the back of the head to aid suspension in connection with two perforations present in the tail. Diameter 5.1 inches.

Vessel No. 90. A small bowl with head, tail, and legs of a frog, modeled in relief. Small objects within the head rattle when shaken. Height 2.9 inches.

Vessel No. 26. A bowl 7 inches in diameter, having a modeled, upright head of some animal impossible to identify, and resembling numerous other vessels from this region. On the back of the head, incised, is a triskelion within a circle.

Vessel No. 82. This bottle (Fig. 34) is decorated as to the neck with notched, encircling bands, one at the base, one somewhat below the opening. On one side is a rude attempt to portray a human face. On the remainder of the neck are three upright, notched fillets.

Vessel No. 56. This bottle, of most unusual form (Fig. 35), representing a human foot, was found, as we have already explained, with the skeleton of a child about four years of age. The neck of the bottle, struck by a spade at the time of



Fig. 33.—Vessel No. 28. Rhodes Place, Ark. (Height 7.75 inches.)



Fig. 34.—Vessel No. 82. Rhodes Place, Ark. (Height 5.1 inches.)



Fig. 35.—Vessel No. 56. Rhodes Place, Ark. (About full size.)



Fig. 36.—Vessel No. 45. Rhodes Place, Ark. (Height 8.4 inches.)



Fig. 37.—Vessel No. 51. Rhodes Place, Ark. (Height 5.3 inches.)

its discovery, has been restored from parts which clearly indicate the height and shape of the neck. General Thruston<sup>1</sup> cites Doctor Jones<sup>2</sup> who describes and figures a bottle from a Tennessee grave, representing the foot and leg of a child. The foot, however, is at the top of the bottle, with the opening at the heel.



Fig. 38.—Vessel No. 3. Rhodes Place, Aik. (Diam. 8.7 inches.)

General Thruston<sup>3</sup> also figures and describes a stone pipe found near Nashville, Tenn., which represents a human foot.

Vessel No. 45. A pot (Fig. 36), evidently a cooking-vessel, is of rather inferior, shell-tempered ware, and bears a decoration, incised and punctate, of about the average excellence met with in that class of work in the Middle Mississippi region. Around the neck is a series of loop-handles.

Gates P. Thruston. "Antiquities of Tennessee," Second ed., p. 137.
Joseph Jones, M.D. "Exploration of the Aboriginal Remains of Tennessee," Fig. 28.
Op. cit., p. 190.

Vessel No. 51. This pot (Fig. 37), another cooking-vessel, much resembles the one just described. The loop-handles, however, are replaced by a more conventionalized form, merely uprights in relief.

Vessel No. 3. This pot (Fig. 38), also presumably used for culinary purposes, although made of coarse, shell-tempered ware, and possessing a surface unfitted for such work, has a handsome, incised decoration far excelling most of the embellishment of this class found in the Middle Mississippi region. The design, based on the swastika, appears four times. In spaces between the upper parts are upright lines in relief, surmounted by what are probably intended to represent human heads.



Fig. 39.—Vessel No. 73. Rhodes Place, Ark. (Height of bowl 2.8 inches.)

Vessel No. 73. A bowl having a modeled human head upright on one side and a conventional tail extending horizontally on the opposite side. On the tail appear two incised ovals, probably a symbol (Fig. 39).

Vessel No. 47. This vase, in reality more gracefully shaped than Fig. 40 would lead one to believe, bears on the body an incised decoration based on the swastika and perhaps in part derived from the crested serpent.

Vessel No. 81, a bowl, is decorated interiorly with a poorly executed, incised design, the meaning of which is problematical, though possibly a bird may be represented, as what may be intended for head, tail, body, and wings appear on the design shown in diagram in Fig. 41.

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Fig. 40.-Vessel No. 47. Rhodes Place, Ark. (Height 4.5 inches.)

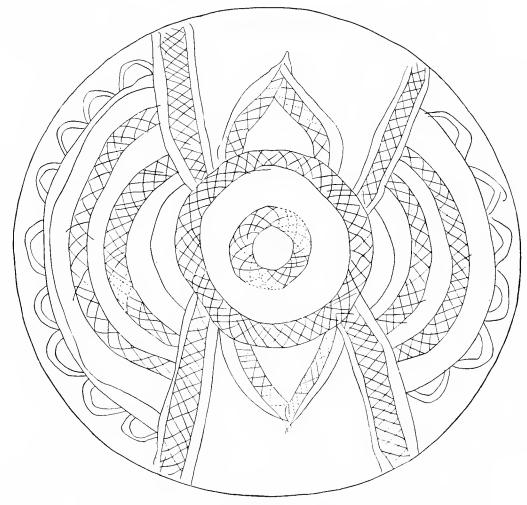


Fig. 41.—Vessel No. 81. Rhodes Place, Ark. Decoration. (Half-size.)

THE MOUND PLACE, CRITTENDEN COUNTY, ARK.

The Mound Place, believed to be about three miles in a direct line from Wyanoka Landing on the Mississippi river, is the property of Mr. D. H. Fox, of Memphis, Tenn. The plantation takes its name from a number of mounds here and there on the place, variously from 5 to 15 feet in height, all much altered in shape by cultivation.

One day, with eight men to dig, was devoted by us to this place, the work being done in some of the mounds and in all the most promising localities on the level ground.

Although fragments of human bone and some broken pottery lay on some of the mounds, nothing was found in them by us, the diggers soon passing through a stratum of made ground to raw soil beneath, in which burials could not reasonably be expected to be found. Presumably much of the ground made by occupancy, and all the included burials, had been ploughed away. We were informed that the original height of the mounds had been impaired to a considerable extent by cultivation.

In the level ground, though many trial-holes were dug, but five burials were encountered—two of adults, two of children, one of an adolescent. The maximum depth was 32 inches.

With these burials were eight earthenware vessels, four with a single burial. On two pots is rude incised decoration consisting of parallel lines; and on a bottle, also incised, are partly interlocked scrolls made up of bands filled in with reticulate lines. One small bowl, rather neatly made, and having the tail and head of a frog modeled on opposite sides (an opening representing the mouth), has an incised decoration based on the swastika and, in addition, three circles, in two of which are scratched four-armed crosses, and in the other, one with eight arms. A bowl has four lobes on the body, rather rudely made.

It was evident from the number of mounds on the Mound Place and from the quantity of debris on the level ground that the site at one time had been a large one. Presumably long cultivation had carried away all the more superficial burials, leaving only a few of the deepest ones.

THE BRADLEY PLACE, CRITTENDEN COUNTY, ARK.

The Bradley Place, on the left-hand side going up, of an "old river," a former course of the Mississippi, which passes back of Island No. 40, is said to be eight miles above the junction of the two rivers, this union being about ten miles above Memphis, though, of course, on the opposite side of the Mississippi.

The plantation, the property of Messrs. Banks and Danner (Mr. Lem Banks of Memphis, whose courtesy to the Academy we have referred to in connection with the Kent Place, and Mr. W. S. Danner, residing on the plantation), has long been famous for the discovery of aboriginal pottery in various parts of its great extent. It is said that the interesting collection of aboriginal pottery in the Cossitt Library at Memphis, came from this place, and doubtless much of it did, but as the collec-

tion was made long ago, and as exact data did not accompany the pottery, it would be difficult to determine the origin of any particular vessel in it.

On the Bradley Place, about one-half mile from the water, are four mounds near together, one in the form of a ridge. These mounds, the Wampanocka group, the highest of which is about 20 feet, were without history of discovery of any kind of aboriginal relies, we were told. Some have been used in recent times for burial purposes. Moreover, as these mounds would be a place of refuge in event of the breaking of the levee (in which one of them is incorporated), no digging into them was attempted. Presumably, like other large mounds of this region, these were built for domiciliary purposes.

The cultivated portion of the Bradley Place, at the present writing, consists of a comparatively small part lying between the mounds and the water, and a vast field around the mounds and extending for several miles inland.

On parts of the territory between the mounds and the river, and on the eastern end of the great field (near the mounds, and farther back in the more or less immediate vicinity of the remains of a mound not associated with the group), as well as comparatively near the western extremity of the great cultivated tract, are ancient dwelling-sites, all more or less following the course of Wampanocka bayou. On these sites lay many relics of aboriginal life and death—bits of pottery; arrowheads, flakes, pebbles, chisels, etc., of flint; and numerous fragments of human bones.

All these sites have been for years most industriously prodded by the rods of colored men resident on the place and by those of visiting "pot-hunters," one of whom is known to have remained at the plantation for a considerable length of time.

All these sites also were carefully gone over by us with the aid of rods and of trial-holes, but while many burials were encountered, the fact that a marked proportion of them had been dug down to and deprived of accompanying artifacts, considerably impaired the scientific value of our results.

Ten and one-half days, with eight men to dig, were devoted to this place. The investigation resulted in the discovery of one hundred and eighty-one burials, none more than 42 inches in depth, as follows:

Adults, 134

Adolescents, 6

Infants and children, 40

The forms of burial of the one hundred and forty adults and adolescents, less eight disturbances, aboriginal or recent, were:

Extended on the back, 117

At full length, face down, 7

Extended on the right side, 1

Partly flexed on the left side, 3

To be particularly described, 4

<sup>&</sup>lt;sup>1</sup> With the exception of one burial, particulars as to which are not in our field notes.

Of the burials at full length on the back thirteen had the legs crossed at the ankles, in seven instances the left over the right, and in six cases in the reverse position.

Burial No. 43, adult, lay with the trunk on the back and the lower extremities partly flexed upward.

Burial No. 81, adult, had the trunk on the back, the thighs almost vertical, the legs flexed back toward the thighs.

Burial No. 92, adolescent, lay at the bottom of a pit about 3 feet in length. The position of the skeleton was the result of its restriction to such limited quarters. The trunk lay semi-reclining against one end of the grave, the head thrown back, face up, the arms parallel to the trunk. The thighs rested on the base of the hole, the left leg flexed back along its thigh, the right leg extending almost vertically upward along the other end of the grave.

Burial No. 129, adult, lay prone, the head on the right side, the right arm under the trunk, the fore-arm flexed, bringing the hand to the head. The left arm lay along the trunk.

The soil at the Bradley Place, though fire-places were evident occasionally, did not show the long aboriginal occupancy that we have found indicated at some other sites.

In the soil, apart from burials, were: one ear-plug of pottery, of the blunt pin type; one earthenware pipe of ordinary pattern and undecorated; three disks wrought from fragments of pottery vessels, each with a central perforation; a number of unperforated pottery disks; several chisels made from flint pebbles; a number of arrowpoints fashioned from deer antler; part of an antler with an encircling groove made preparatory to separation; two astragali of Virginia deer, ground flat on two sides and somewhat worked on two other sides, similar to the interesting astragali to be described particularly, later in this report, in connection with our investigation of the site at Pecan Point. There were encountered in the digging also three small celts, one of sedimentary and two probably of igneous rock; one small celt of black flint; numerous arrowheads of flint, including two of fair size and barbed, the others being small, often leaf-shaped, but sometimes square at the base; a fragment of an undecorated ornament of sheet-copper.

In one or two instances, lying in the made ground at this place, were halves of lower jaws of deer, which probably had been used as scrapers for maize when green, as they sometimes were among the Iroquois.¹ We are told that this part of the jaw was held by the anterior, toothless portion and with the sharp back teeth the kernels were scraped from the cob. "The Seneca housewife when she uses the jaw scraper, with characteristic humor, says, 'I am letting the deer chew the corn first for me."

Some interments at the Bradley Place were without artifacts of any sort; others had pottery alone.

<sup>&</sup>lt;sup>1</sup> Arthur C. Parker. "Iroquois Uses of Maize and other Food Plants," p. 53. New York State Museum. Museum Bulletin 144.

The following burials had artifacts other than pottery associated with them. All burials of adults, when not otherwise specified, lay extended on the backs.

Burial No. 2, adolescent, disturbed. This burial had with it two ear-plugs of the blunt pin type which, however, were not found in place near the head as the skeleton had been disturbed by recent digging prior to ours.

Burial No. 3, a child, had one shell bead at the neck; a bowl and a bottle near the head.

Burial No. 10, a child, with which were two bottles and a pot, near the skull; at the neck, two shell beads, and a small, flat ornament of shell, tending toward oval in outline and having two perforations at the broader end.

Burial No. 24, a child, had a large and a small bottle at the left of the thorax. Large bottles associated with children's burials are somewhat unusually found. Together, at the right elbow, were a bit of quartz crystal and fragments of a shell from the Gulf coast (*Cardium robustum*). With these was an ear-plug gracefully carved from a fairly hard, white stone and copper-coated on the outer surface. A part of that portion of the ear-plug which was intended to button back of the lobe of the ear, is missing through breakage evidently in ancient times, from the appear-

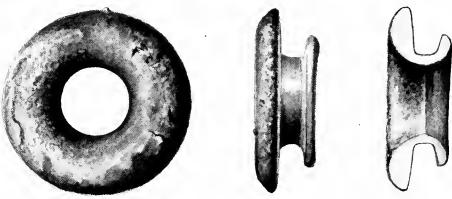


Fig. 42.—Ear-plug of stone coated with sheet-copper on the upper surface. With burial No. 24. Bradley Place, Ark. (Full size.)

ance of the surface of the broken part. The mate to this ear-plug was not present, and it is likely that the broken ornament had been given to the child with which it was found, for use as a plaything or as an ornament. This ear-plug is shown in three positions in Fig. 42. Ear-plugs of limestone, copper-coated similarly to this one, have been found by us in middle Florida, though the stone of these ornaments is not nearly so gracefully carved as is that of the ear-plug from the Bradley Place. An ear-plug closely resembling this one, from a stone grave in middle Tennessee, is figured by General Thruston.<sup>1</sup>

Burial No. 39, adult, had four wing-bones of swans (*Olor americanus*) together at the inner side of the right humerus.

Burial No. 54, adult, had at the right hand a wing-bone of a goose (Branta canadensis). A bowl and a bottle were near the skull.

<sup>&</sup>lt;sup>1</sup> Gates P. Thruston. "Antiquities of Tennessee," Second ed., p. 169.

Burial No. 56, a child, had at each side of the head an ear-plug of the kind somewhat resembling a mushroom in shape.

Burial No. 57, adult. At the right of the skull were two entire tortoise shells, with an arrowhead of antler under one of them. A bowl and a bottle were near the skull.

Burial No. 62, a child. At the left of the skull was a bowl, and another bowl had been placed at the left humerus. In one of these was a rude discoidal stone. A bottle was at the right elbow, and at the left of the pelvis, the carapace of a small tortoise. At the left knee lay a bowl, and nearby an astragalus of a deer, characteristically ground for use in a game.

Burial No. 68, a child, had with it two bottles, one of which had been deposited after the loss of the neck. In the unbroken bottle were: one large bone bead and parts of another one; a very small and badly decayed shell ornament with a single perforation; twenty-five delicate tubes of bone, probably beads, averaging about one inch in length.

Burial No. 70, a child, had at the left of the skull a pot, a discoidal stone, a badly decayed astragalus ground to a certain extent as to some of the sides.

Burial No. 72, a child. Near the skull were: a bowl; a bottle; a flint chisel; a shell ear-plug at one side of the head, its mate probably having been thrown back by the digger. At the left shoulder lay a bowl; a bottle was at the left humerus; on the lower part of the trunk was a bottle without a neck. At the left of the pelvis a pot and a bowl had been placed, while over the pelvis was a bottle.

Burial No. 75, a child two or three years of age, had at the left of the skull a mass of red oxide of iron, ground for use as pigment. Dr. H. F. Keller speaks of this pigment as highly ferruginous. At the neck were: thirty-six shell beads one-third to one-half inch in length; one small, tubular bead of sheet-copper or of sheet-brass, corroded through and through; two beads of glass. With the beads were the spire of a marine shell, greatly decayed, having two perforations for suspension, and what seem to be two diminutive, copper bracelets, one placed above the other and joined together through corrosion when found. These bracelets, if such they are, are made of rods of copper with overlapping ends, but are bent to have an inside diameter of .75 inch, and hence, with such proportions, could hardly have encircled the wrists of even a young infant. Perhaps, placed together, they served as a pendent ornament, in connection with the beads. Attached to these by corrosion was a metal bead similar to the one already described. On the chest of the skeleton was an undecorated gorget of shell, irregularly oblong, 3 by 3.5 inches, having at the broader end four perforations, two in line immediately above two others also in line. To the right of the pelvis stood a bottle.

Burial No. 83, a child, had at the neck a bottle, and an astragalus of an elk, ground smooth on two of its sides and worked to some extent on two other sides.

Burial No. 116, a child about six years of age, had with it a bottle near the head and shell beads at the neck, with which was a small section cut from the body whorl of a marine univalve, having one perforation for suspension.

Burial No. 119, a child, lay with a vessel at each side of the skull and shell ear-plugs on opposite sides of the head. A badly decayed columella of a small marine univalve lay at the chin; a bottle was near the left side of the pelvis.

Burial No. 120, adult, had at the right of the skull, a bottle, and at the right shoulder a number of small pebbles together, presumably having belonged to a rattle, the rest of which had disappeared through decay.

Burial No. 124, adult, was interesting in that it had a bowl inverted over the

skull, completely covering it. Under this bowl, to the left of the lower jaw of the skeleton, was an earthenware pipe having a flat base surrounded by an incised line. To the left of the covering bowl was another bowl upright. Over part of the thorax was a bowl; and another bowl lay at the left shoulder, near which was an undecorated earthenware pipe of ordinary pattern. Immediately alongside the covered skull of this skeleton was evidence of comparatively recent digging, and it is probable that other objects belonging to this burial had been removed previous to our coming.

Burial No. 126, adult, had to the right of the skull, a bottle resting on a bowl. Over the opening of the bottle was a spoon with dentate margin at one end, made from a mussel-shell, which was greatly decayed when found. At the left of the skull, and extending beyond, were eighty-five chips, pebbles, and parts of pebbles, of flint. With these was a mass of red pigment. At the right shoulder were a flint pebble and an arrowhead of antler.

At the outer side of the right humerus, and parallel to it, lay a most interesting object, namely, a tool consisting of a handle of deer antler much worked down and showing impressions of cord which had encircled it its entire length at certain distances apart. Each end of this handle is hollowed out to a considerable extent, and at one end is a perforation, presumably for suspension. In place in the other end was the incisor of a beaver projecting from the socket 1.1 inch, the curve of the tooth being in reverse direction to a curve in the handle (Fig. 43). The tooth is considerably chipped at the distal end as if by use. Although held in place, when found, by a mixture of sand and clay which had gained entrance to the socket, the former method by which the tooth had been fixed was not apparent. Presumably gum had been used which, in course of time, disappeared through decay.

It is interesting to note that Professor Putnam 1 found in



Fig. 43.—Tool made of an incisor of a beaver, in a handle of antler. With Burial No. 126. Bradley Place, Ark. (Full size.)

<sup>1</sup> Frederic W. Putnam. Eighteenth and Ninetcenth Annual Reports Peabody Museum of American Archaeology and Ethnology, p. 456, Figs. 8 and 9.

an Ohio mound, together, two handles of antler, in one of which had been inserted a splinter of bone and in the other a chipped stone point. In this case, too, the method of fastening was not evident.

With this interesting tool found by us was a piercing implement of bone, and on the inner side of the same arm, in many fragments, were what presumably had been two long, slender, bone implements of some kind.

At the left leg lay a large fragment of a bowl which had been of considerable size, in which were forty-seven pebbles and chips of flint and one slab of conglomerate. Resting on these fragments of stone were seventeen tines of antler ranging in length between 1.7 inch and 3.25 inches, carefully worked down and blunt at each end. These probably represent a preliminary stage in the manufacture of handles for small tools. Professor Putnam also found together a number of handles of antler in connection with the tools we have referred to, though the handles found by him were in a more advanced state of completion than are ours.

Under the fragment of bowl containing the handles of antler, and extending beyond it, we found ninety-five pebbles and fragments of pebbles, some 2 or 3 inches in diameter, though most of them were much smaller. With these was a mass of

red pigment.

Burial No. 135, adult, had a bottle at the right of the skull, a bowl on the upper part of the thorax, and three flat implements of bone with rounded ends, probably used in basketry, lying parallel at the right of the humerus.

Burial No. 136, adult, lay with a pot at the left elbow, and a scale of a gar-pike (*Lepisosteus*), perhaps at one time in use as an arrowhead, at the right of the pelvis.

Burial No. 140, adult, had at the right elbow part of a tine of deer antler, smoothed exteriorly and rounded at each end; also an implement or weapon of unusual form, of black flint, 3.9 inches in length and 1.5 inch in maximum width (Fig. 44). At the right humerus were: three piercing implements of bone; part of a small stone celt; about two-thirds of the incisor of a beaver; and a tine of deer antler worked down and hollowed at one end, probably a tool in connection with the beaver tooth, which, however, was not found in place.

Burial No. 142, adult, had at the left elbow a bottle, and at the right of the pelvis, a mushroom-shaped object of pottery, used as a modeling tool in the manufacture of earthenware vessels.

Burial No. 144, adult, had a shell ear-plug at one side of the head, but careful search failed to find its mate on the opposite side. However, at a place where so

<sup>1</sup> Cf. Henry W. Haynes. Proc. Boston Soc. Nat. Hist., Feb. 15th, 1893, Vol. XXVI, p. 31. 55 JOURN. A. N. S. PHILA., VOL. XIV.



Fig. 44.—Point of black flint. With Burial No. 140. Bradley Place, Ark. (Full size.)

much digging had been done down to skulls, for the removal of objects with them, this absence has no significance.

Burial No. 145, a child lying face down, had at the neck a roughly triangular gorget of shell, about 3 inches in length, undecorated, having two perforations for suspension at the broader end. A bowl and a bottle were at the right and at the left knee, respectively.

Burial No. 147, a child about seven years of age, had near the skull a pot, and a conch-shell (Fulgur perversum) having a round hole in the body whorl below the shoulder, for the insertion of a handle. Tools of this class are common enough in Florida, but the discovery of one so far north is of interest. With the shell implement was a mussel-shell (Unio purpuratus). At the right of the skull stood a bottle, while at the left of the head was a pot containing another pot inverted. At the neck were eighty-four shell beads of various shapes and sizes. At each side of the neck was a shell ear-plug of the short, blunt-pin type described by Dumont as "the shape of a nail provided with a head." In this particular instance each ear-plug has back of the head a groove to accommodate the encircling lobe of the ear. A pot lay at the right forearm, and a bowl near the right femur, having with it two mussel-shells, one of which is perforated near the hinge.

Burial No. 152, adult, had a large, decaying mussel-shell over the left elbow, and two others, one notched at the end, at the left humerus.

Burial No. 153, a child, had a bowl and a bottle at the skull, and at the neck a small univalve much decayed.

Burial No. 155, adult, lay with a bowl and a bottle at the right of the skull. In the bowl were forty-eight pebbles and chips of flint, and five small, leaf-shaped arrowheads of the same material. On these were three sections of tines of deer antler, probably intended for tool handles. At the right shoulder was a bowl containing a bit of sandstone and having a nodule of flint nearby. Near the left hand were a bowl and a piercing implement of bone, with the remains of what probably had been a similar implement.

Burial No. 157, adult, had at the right shoulder a handsome chisel wrought from a flint pebble, and fragments of a bone implement. At the right of the skull was a pot.

Burial No. 160, adult, had a shell ear-plug near the skull. The opposite side of the cranium had been dug down to and rifled by a previous digger.

Burial No. 174, adult, lying face down, had a bowl at the left of the skull and a pot resting on the back. Near the pelvis was a piercing implement of bone.

While digging at the Bradley Place we came upon a fire-place which at one end was within about 8 inches of the surface, but sloped downward to a depth of 1.5 feet approximately. Below this fire-place was a pit about 2 feet in depth, in which, mingled with the soil and scattered here and there, were numerous fragments of china and of glass, and the metal part of a fork with two tines.

<sup>&</sup>lt;sup>1</sup> Cited by John R. Swanton. "Indian Tribes of the Lower Mississippi Valley." Bulletin 43, Bur. Am. Ethn., p. 55.

We do not know if this fire-place had been used by Indians or not. At the Bradley Place was abundant evidence of aboriginal intercourse with the whites. This fire-place, however, was not accompanied with masses of baked clay as aboriginal fire-places often are.

Prof. F. A. Lucas kindly has identified bones belonging to the following lower animals, found by us while digging at the Bradley Place: Dog (Canis familiaris), Red fox (Vulpes fulvus), Florida otter (Lutra canadensis vaga), Black bear (Ursus americanus), Bison (Bison bison), Beaver (Castor canadensis), Swan (Olor americanus), Canada goose (Branta canadensis).



Fig. 45. - Vessel No. 28. Earthenware bottle having opening plugged with clay. Bradley Place, Ark. (Height 6.8 inches.)

Two hundred and fifty-eight vessels of earthenware, most of them undecorated, and great numbers crushed to fragments, were found by us at the Bradley Place, all but six with burials, and usually near the skulls, the greatest number with one burial being nine. In or near some of the vessels were mussel-shells (*Unio*) which had been used as spoons, some of the shells being smoothed at one side and a few notched at one end. Shells sometimes had been placed across the openings of bottles.

The earthenware found by us at the Bradley Place does not equal in point of interest that from some other sites in the Middle Mississippi region, and includes few of the rarer forms. The ware, sometimes with shell tempering and sometimes without it, is occasionally of fair quality. It is practically without incised decoration and the use of pigment is evident on it in but nine instances. Of these nine examples, four are vessels originally having had a uniform coating of red pigment; two have simple designs in red on yellow ware; two, decoration in red and cream color; and one, in red, cream, and black.

The following vessels are worthy especial description:

Vessel No. 28. This vessel, or rather the body of a bottle, (Fig. 45), lay at a fire-place. It was also about one foot from a burial, but this proximity presumably was adventitious.



Fig. 46.—Vessel No. 94. Bradley Place, Ark. (Height 8.3 inches.)

The bottle had been of yellow ware, and had possessed three feet which, hollow, had been joined to the body of the bottle after the body itself had been completed. A circular implement had been used to punch holes through the base of the bottle to enable the feet to share in the holding capacity of the body.

The most interesting feature of the bottle, however, is that having lost its neck, a mass of clay had been in part forced down through the opening where the neck had been and in part spread over surrounding portions of the body. The mass of clay was then fired to some extent, leaving the part within the bottle very imperfectly baked, while the exterior portion is more thoroughly fired.



Fig. 47.—Vessel No. 87. Bradley Place, Ark. (Height 5.9 inches.)

The entire mass of clay was withdrawn by us from the bottle only after considerable effort, and it was evident that the closing of the open space had been intended to be permanent, possibly with a view to the reversal of the original position of the vessel, the contents to be allowed to escape through the orifices where the feet had been. It is possible this was the work of children.

Vessel No. 94. This interesting bottle, shown in Fig. 46, presents a rather novel feature, namely, the representation of the human head, the circular opening of the bottle taking the place of the mouth.

Vessel No. 87. A human effigy bottle (Fig. 47) presenting no feature of especial interest and shown merely as a specimen of effigy vessels from this place. A line of small protuberances extending down the back are designed to represent

the presence of vertebræ beneath the tlesh, a common feature in this class of vessels. The legs extend parallel backward under the body.

Vessel No. 156, another human effigy bottle, is somewhat more interesting than the preceding one on account of the peculiar arrangement of the hair or head-dress, which differs on the two sides (Fig. 48).



Fig. 48.—Vessel No. 156. Bradley Place, Ark. (Height 7.75 inches)

Vessel No. 67. A bottle, 7.3 inches in height, with globular body, having as decoration three designs based on the swastika, shown in red on a ground of cream color. This design was much in vogue in parts of the Middle Mississippi Valley region. Almost exactly similar decoration is shown by Holmes, and in various plates of our report on aboriginal sites of the St. Francis river, Ark. The neck of

 $<sup>^{1}</sup>$  William H. Holmes. "Aboriginal Pottery of Eastern United States," Pl. XLIa and b. Twentieth An. Rep. Bur. Am. Ethn.  $^{2}$   $Op.\ cit.$ 

this bottle, 2 inches in height and 3.3 inches in width, has had a decoration in red pigment, now almost obliterated.

Vessel No. 119. A bottle 5.8 inches in height, with a rather short, wide neck, having in relief on one side, the head and fore-legs of a frog, and on the opposite side, the hind-legs.

Vessel No. 127. Such parts of this bottle as were found by us consisted of sixty-eight fragments, which have been cemented together, with restoration of other parts which, however, were not essential in order to determine any feature belonging to the bottle (Fig. 49). This vessel is of considerable interest in that it is evidently shown as enclosed in a network of cord, which suggests the manner in which it is likely bottles sometimes were carried.



Fig. 49.—Vessel No. 127. Bradley Place, Ark. (Height 7.6 inches.)

Vessel No. 182. A bottle (Fig. 50) which has an engraved design based on the swastika, with an addition often found in decoration having a mythological significance among the aborigines of southern United States, and probably derived from the crested serpent. This bottle is of interest in that it comes from a region where engraved decoration is less frequently encountered than is the case farther to the southward.



Fig. 50.—Vessel No. 182. Bradley Place, Ark. (Height 8.6 inches.)

Vessel No. 134. A bottle having in relief on one side a modeled head of a frog and on the opposite side a tail (Fig. 51). The reader will recall that in aboriginal art in the United States, the frog usually is represented with a tail.



Fig. 51.—Vessel No. 134. Bradley Place, Ark. (Height 5.25 inches.)

Vessel No. 84. A pot, the body of which is surrounded by vertical depressions. From one side projects the modeled head of some animal. A tail which has been on the opposite side is missing. On two sides, opposed to each other, are two disks in relief (Fig. 52).

Vessel No. 38. This bowl (Fig. 53) belongs to a class specimens of which often are found in the Middle Mississippi region. It is interesting only in that the animal head is represented with expanded jaws, an unusual, though not a unique feature.

Vessel No. 187. This bottle (Fig. 54) is somewhat similar in shape to one figured by Holmes as coming from Arkansas. The body is surrounded by vertical corrugations which, at one time, have been coated with red and white alternately. The neck, slightly flaring at the opening, has been covered with alternate, horizontal bands of white and of red. A beaded collar surrounds the union of the neck with the body, and a similar decoration adorns the margin of the base.

<sup>&</sup>lt;sup>1</sup> Op. cit., Pl. XVb.

<sup>56</sup> JOURN. A. N. S. PHILA., VOL. XIV.

## SOME ABORIGINAL SITES ON MISSISSIPPI RIVER.



Fig. 52.—Vessel No. 84. Bradley Place, Ark. (Height 4.8 inches.)



Fig. 53.—Vessel No. 38. Bradley Place, Ark. (Height of bowl 4.25 inches.)



Fig. 54.—Vessel No. 187. Bradley Place, Ark. (Height 7.9 inches.)

Vessel No. 131. This rather curious vessel (Fig. 55) has a conventional tail extending from one side, and from the opposite side a head so highly conventionalized that it consists merely of a knob adorned with encircling lines.

Vessel No. 90. In Fig. 56 is shown a bowl of light brown ware, having on one side a knob, and on the opposite side a projection about one inch in length, somewhat resembling a spout of the kind found on vessels of the "teapot" class, though this one is much shorter than are spouts on vessels of the type noted. This rudimentary spout, if such it be, is solid, though at the extremity a shallow depression has been made on it. On the opposite side from the spout is the knob usually found on "teapot" vessels when they are not animal forms, and which, by the way, is often found on vessels representing gourds.



Fig. 55.—Vessel No. 131. Bradley Place, Ark. (Height 3.3 inches.)



Fig. 56.—Vessel No. 90. Bradley Place, Ark. (Diam. 7.5 inches.)

Vessel No. 158. In our description of the site at Pecan Point in this report we have occasion to refer to a symbol, the meaning of which is problematical, and which sometimes appears as the outline of bowls. We have here in Fig. 57 a bowl which, instead of being given the outline of this symbol, which usually has two points projecting vertically, has the points doubled in number and equidistantly placed about the rim.



FIG. 57.—Vessel No. 158. Bradley Place, Ark. (Diam. 10.2 inches.)



Fig. 58.-Vessel No. 69. Bradley Place, Ark. (Diam. 10 inches.)

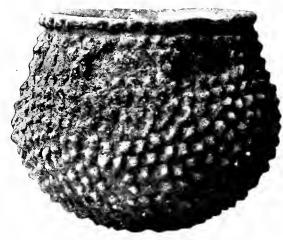


Fig. 59.—Vessel No. 215. Bradley Place, Atk. (Height 3.7 inches.)

 $^{1}$   $O_{P},$  cit., Pl. XIg.

Vessel No. 69. The bowl shown in Fig. 58 is decorated interiorly with an engraved design of mediocre excellence, presenting a triskelion centrally placed and surrounded by groups of festooned lines.

Vessel No. 215. This pot of brown ware (Fig. 59) has an interesting decoration made up of small nodes thickly placed. A somewhat similar vessel is figured by Holmes<sup>1</sup> as coming from Arkansas.

PECAN POINT, MISSISSIPPI COUNTY, ARK.

Pecan Point, on Mississippi river, forms the southeastern corner of Mississippi County, which is the northernmost county of the State of Arkansas, bordering Mississippi river.

Pecan Point has been celebrated for many years for the number of aboriginal antiquities found there during the building of levces and in cultivation. In addition, much successful work was done at this place for the Bureau of American Ethnology, and for the Davenport Academy of Natural Science, of Davenport, Iowa, the results of which are described in various reports of the Bureau of American Ethnology. It was at this place that the first of the interesting class of head vessels was found.

The warm thanks of the Academy of Natural Sciences are tendered Mr. R. W. Friend, of Pecan Point, who cordially put his large plantations there at the disposal of the Academy for investigation, in the most unreserved way.

About one mile above the main settlement at Pecan Point, though still in its outskirts, a short distance from the river, is a mound which has been used as a cemetery in recent times. This mound, which has suffered some in shape in the lapse of years, is about 12 feet in height and is approximately square with rounded corners, its sides nearly facing the cardinal points. The basal diameter is about 110 feet; that of the summit-plateau, 50 feet, approximately. Apparently a causeway connected the mound with the level ground in former times.

A short distance from this mound (which probably was domiciliary and was not dug into by us) is the northwestern corner of a large field which has been long under cultivation, and part of which, judging from the quantity of aboriginal debris scattered over the surface, must have been a dwelling-site for a considerable period in early times. This field, we were told by Mr. Friend, was where the digging previous to our own had been carried on. Since then, however, that part of the field in which aboriginal burials are found has been curtailed by the building of new levees.

Although so much former investigation had been carried on at Pecan Point, we felt the place still offered an excellent opportunity to the archæologist, since it is plain that neither by digging trial-holes nor by the use of sounding-rods can an aboriginal site of any size be entirely cleared of relics, and those using only rods for the discovery of vessels (as did those who preceded us, we were told), of necessity leave behind the vessels that are deeply buried and all those over which are fire-places of hardened clay, through which rods cannot pass.

William H. Holmes. "Illustrated Catalogue of a Portion of the Ethnologic and Archæologic Collections Made by the Bureau of Ethnology during the year 1881," p. 469 et seq. Third An. Rep. Bur. Ethn.

William H. Holmes. "Ancient Pottery of the Mississippi Valley," passim. Fourth An. Rep. Bur. Ethn.

Cyrus Thomas. "Mound Explorations," p. 219 ct seq. Twelfth An. Rep. Bur. Ethn. This account contains a plan of the aboriginal mound and site at Pecan Point.

William H. Holmes. "Aboriginal Pottery of Eastern United States," p. 98 et al. Twentieth An. Rep. Bur. Am. Ethn.

Those relying on rods alone, even in the absence of fire-places miss much pottery, and many skeletons (which often indicate the presence of pottery) which, softened by long exposure to damp, offer little resistance to pointed rods of steel.

Nevertheless, the activities of former searchers are a distinct detriment to the archaeologist seeking exact data, as no definite determination can be arrived at as to the average number of vessels placed with burials in any particular site, since, as we know, these seekers after pottery were accustomed, after ascertaining the position of vessels, to dig down to them and to effect their removal, leaving the skeletons behind.

Our digging at Pecan Point occupied fourteen and one-half days of eight hours each, with a force of nine men to handle the spades and four men to supervise. The work was done in the northwestern part of the field, to which reference has been made, and the area searched extended from the northwest corner of the field, a distance of 162 paces along the northern side, and had a breadth of 89 paces at the western end, where the fence meets that of the northern side at a moderately acute angle, and covered all that part of the field on which signs of aboriginal occupancy were apparent. In addition, a small garden and some territory adjoining it, all of which were contiguous to the area already specified, were dug through by us, with considerable success.

Search elsewhere in the field was not rewarded.

Our quest consisted of sinking trial-holes at random, since inequalities of surface, which might have guided us had they been present, were no longer apparent, and prolonged drought had hardened the soil to such an extent that the use of sounding-rods was not effective.

The soil in which burials were lay upon alluvial deposit and was composed of ground darkened by admixture of organic matter in which were ashes and dwelling-site debris. Fire-places at various depths were encountered at intervals.

The depth of this made-ground varied in places. The deepest burial found (which lay 4 feet 6 inches below the surface) was still in it. Often, however, the depth of this artificial soil did not exceed 3 feet.

Three hundred and forty-nine burials were encountered at the Pecan Point site, as follows:

Adults and adolescents, 257

Infants and children, 58

Disturbances<sup>1</sup> caused by interfering graves, in aboriginal times, and by recent cultivation and search, 34

The forms of burial of the adults and of the adolescents were as follows:

Extended on the back, adults, 227; adolescents, 21, 248

Extended face down, adults, 4; adolescent, 1, 5

Partly flexed on the right side, adolescent, 1

<sup>&</sup>lt;sup>1</sup> In case of serious disturbances such as those noted here, no determination as to age was made. Slight disturbances, such as the loss to the skeleton of an arm or of a foot, were ignored in the classification.

Partly flexed on the left side, adults, 2; adolescent, 1, 3

There was no fixed orientation of the burials at this place, heads being directed toward various points of the compass.

Although considerable age must be accorded the burials at Pecan Point, since nothing in any way indicating contact with white persons was found there, yet possibly owing to the quantity of ashes in the made-ground in which the burials lay, which would act as a preservative, the skeletal remains were in an excellent state of preservation, enabling us to obtain there forty-eight skulls and other skeletal remains, which were included in our gift to the National Museum.

An interesting pathological specimen was met with: Burial No. 69, the skeleton of an adult, had a badly united fracture in the upper fourth of the left femur, with anterior displacement of the upper fragment.

On the surface, where they had been ploughed up, and in the soil of the dwelling-site, were many flint chisels which had been made from pebbles, often ones especially selected owing to a shape which lent itself to the making of a chisel with a minimum amount of chipping. Some chisels, however, were made from pebbles broken in two or from which considerable parts had been removed. After the pebbles had been chipped to the required shape, they were ground somewhat, especially on both sides at one end, to confer a cutting edge. In Fig. 60 is shown a selected pebble; one chipped and ready for grinding; and a completed chisel. In the Third Annual Report of the Bureau of Ethnology<sup>1</sup> is shown one of the chisels from Pecan Point.

Also scattered throughout the made-ground were numerous small, flint arrowpoints, whole or in various stages of completion; one large projectile-point or knife of flint, made with a single barb, a type well known as coming from parts of Arkansas, Louisiana and elsewhere; several celts of moderate size, one of these of fine-grained sandstone, another probably of metamorphic rock; a small, flat mass of bituminous coal; a few, rude, discoidal stones made from pebbles originally flat; many flat, circular pebbles not artificially shaped; numerous disks made from fragments of pottery vessels, some centrally perforated; a tube of bone with an encircling groove near one end; a shell of a cretaceous fossil (Exogyra costata) which occurs in western Arkansas; two scales of the gar-pike, such as Du Pratz says were used as arrowpoints by the Mississippi Indians; three mussel-shells found one within the other, two of which, probably belonging to the same shell-fish (Unio anadontoides), had been carefully worked to a point at one end; an astragalus of an elk and three belonging to Virginia deer, all showing workmanship to enable them to be used as dice in a game; in a little pile together, five wing-bones belonging to the wild swan, the wild goose, and the wild turkey. We have spoken before of the curious custom at the Rhodes Place, the Bradley Place and at Pecan Point, to put near or with the dead, metacarpal bones of birds of considerable size. The evidences of this custom were especially noticeable at Pecan Point, but here, however, each occurrence was not recorded by us as the bones sometimes were too badly crushed and decayed for identification.

<sup>&</sup>lt;sup>1</sup> P. 470, Fig. 142.

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Fig. 60.—The flint pebble to the left in the illustration is one of the kind often selected by the aborigines on account of a suitable shape from which to make chisels. The middle pebble, showing chipping, illustrates the intermediate stage in the work. On the right is shown the finished chisel having a ground cutting-edge. All from Pecan Point, Ark. (Full size.)

The head of a long-bone found in midden debris at this place has been identified by Prof. F. A. Lucas as having belonged to a bison.



FIG. 61.—Pipe of earthenware. With Burial No. 4. Pecan Point, Ark. (Height 2.25 inches.)

We shall now consider all burials at Pecan Point, which were accompanied with artifacts other than pottery vessels, but shall refer also to such vessels as were with these particular burials. The form of burial of adults and of adolescents, in each case, unless otherwise specified, was extended on the back.

Burial No. 2, adult, had a wingbone of a turkey at the left ear, and a leaf-shaped projectile point of flint near the head. At the face was a bowl, and a bottle was at the right shoulder. Burial No. 4, adult, had a bottle at the right side of the skull and a bowl at the right shoulder. Near the head was an earthenware pipe having on two sides a decoration based on the swastika, with spiral arms, and in front an incised representation possibly of the head of a deer with antlers, or of a human head surmounted with plumes (Fig. 61).

Burial No. 13, a child, had three shell beads at the neck, a discoidal stone at the left thigh. Near the stone was the wing-bone of a bird. With this burial also was an astragalus of an elk, smoothed as to some of the sides, for use in a game.

Burial No. 25, a child, had at the right forearm a bowl; at the right thigh, a bottle. Some limonite, doubtless used as yellow pigment, was with this burial.

Burial No. 28, a child, had in addition to a pot: two dumb-bell shaped beads of shell; two shell ear-plugs of different sizes; a flat, oblong, shell bead with crescentic excisions in four sides, and two central perforations.

Burial No. 33, adult, had a bottle at the feet, a bowl at the ankles, and, at the left shoulder, three carefully made implements of split bone, each rounded at one end, probably for use in basketry.

Burial No. 40, a child, had a worked astragalus of a deer near the head, and, on the pelvis, a bottle, a bowl, and a toy vessel representing a frog.

Burial No. 56, an adult, had in association near the head, a bottle and a bowl. A small, flint arrowpoint rested on a dorsal vertebra.

Burial No. 60, an aboriginal disturbance of the skeleton of a well-grown child, the skeleton being present only from the pelvis up. This burial had no fewer than eleven vessels arranged around the remaining parts. In addition, shell beads, some round, some flat, and an ear-plug of shell lay in place at each side of the head.



FIG. 62.—Ornaments made from spires of marine shells. With Burial No. 60. Pecan Point, Ark. (Full size.)

The ear-plugs found by us in the site at Pecan Point, with one exception which will be noted later, belong to the well-known class which somewhat resemble a mushroom in shape, though the head extends slightly more to one side than it does to the other. This class of ear-plugs have the shaft cut from the parietal wall of a large, marine univalve (Fulgur), and the head from parts to either side of the suture, as we have already explained in this report.

To return to Burial No. 60. With the beads, evidently a pendant with the necklace, was a canine tooth of a panther, grooved at one end for suspension. On the forehead of the

<sup>&</sup>lt;sup>1</sup> At Pecan Point, in addition to the wing-bones found and recorded as belonging to particular burials, six other wing-bones were unearthed, some of which were with burials and some apart from them, presumably through disturbance. We cannot say with what burial any one of these bones was found, but Prof. F. A. Lucas kindly has identified the bones as follows: swan, 3; snow goose, 1; wild goose, 1; wild duck, 1.

skull lay a flint knife. Also with the beads was a pendant consisting of a small conch-shell (Fulgur percersum), perforated at the beak for suspension, and three ornaments made from spires of small conch-shells, each with two perforations (Fig. 62).

Burial No. 74, adult, had, in addition to a water bottle, two pairs of shell earplugs. Shell beads were at the neck.

Burial No. 82, an adolescent, lying partly flexed on the left side, had, at the right of the pelvis, a bottle and a bowl containing another bowl in which was a pot, all upright. Alongside these was a bowl within a bowl, both vertically placed. Shell beads were at the neck and a shell ear-plug at each side of the head.

Burial No. 85, adult, had red pigment near the skull and a bone implement with flat, rounded end, similar to those already described, lying at the right humerus. At the left of the skull and at the left shoulder, respectively, were two vessels.

Burial No. 101, a child, had a bowl and a bottle, also many small, flint chips and a single shell bead near the skull.

Burial No. 104, a child, had with it a wing-bone of a snow goose and the penis bone of a raccoon. Raccoon bones of this kind are sometimes found sharpened at the distal end for use as awls, but in this case, while the distal end is intact, the bulbous, or proximal, end is perforated as for suspension, though it is hard to see to what use the object could have been put. Possibly the perforation was placed in a bone intended for an awl which, for some reason, was left unfinished. In a Kentucky site 1 was found a similar bone of a raccoon, perforated at the proximal end and without a point at the opposite extremity.

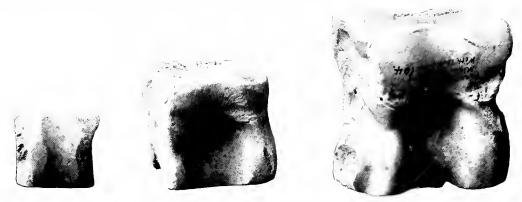


Fig. 63.—From left to right: astragalus of deer, of elk, and of bison, smoothed for use as dice. With Burial No. 104, Pecan Point, Ark. (Height of largest astragalus, 2.4 inches.)

Near the skull was red pigment, and over the left forearm, the left humerus, and the right shoulder, respectively, were a bowl, a bottle, and a bowl. Small shell beads were at the neck. At the left of the skull was a handsome discoidal of limonite with a secondary ferruginous coating.

<sup>1</sup> Harlan I. Smith. "The Prehistoric Ethnology of a Kentucky Site," Plate XLII 5. Anthropological Papers of the American Museum of Natural History. Vol. VI, Part 2.

Lying together, with this burial, was an interesting set of three astragali (Fig. 63) identified by Prof. F. A. Lucas as belonging to bison, elk, and deer, respectively. These astragali had been carefully smoothed in places and are of the kind found by us on the river from the Rhodes Place northward. The reader is doubtless aware that unworked astragali, or knuckle-bones, are very commonly found in aboriginal sites, and that such bones were used in games, but the finding of astragali in aboriginal sites in the United States, carefully smoothed as to certain parts to facilitate their use, presumably as dice, is unusual and possibly has not been reported before.

We are indebted to Mr. Charles C. Willoughby for the information that the only worked astragalus (with sides ground) that he recalls in the Peabody Museum, Cambridge, Mass., belongs to an ox and recently was obtained from Indians of Patagonia.

Mr. Culin <sup>1</sup> figures the astragalus of a bison which was used as a die by Papago Indians of Arizona. This astragalus, however, shows no workmanship.

Mr. Culin, who was on the point of starting on a protracted journey, kindly furnished, at our request, the following note as to worked astragali. Subsequently, after his departure, he sent a second note on the subject, which also we include. Presumably, had it been possible for us to reach Mr. Culin, the two notes, perhaps, with modification, would have appeared as one.

Mr. Culin in his first note says:

"I have carefully examined the worked astragalus from Pecan Point, Arkansas. I have never seen or heard of worked astragali being employed for any purpose among the North American Indians. Unworked knuckle-bones, either small ones of sheep or deer, or large bones of the ox were used recently as dice by a number of tribes in widely separated localities. I have described the astragalus of a bison collected by Dr. W. J. McGee, from the Papago who employed it in a game. I have collected knuckle-bones used as dice from several tribes, notably the Pomo and Maidu in California, who both have two games, one played with the knuckle-bones of sheep, goats or deer, and the other with a single large bone from an ox. These games are counted with sticks and are played like the stick dice game, but it is not unlikely that they were borrowed from the Spaniards.

"The Indians used small unworked knuckle-bones, as well as other small heavy bones, as weights on whirling toys, being tied in the middle of a sinew cord. It may be that the objects you found were used as dice. It is possible, but the evidence is inconclusive."

Mr. Culin's second note is as follows:

"The only worked knuckle-bone [astragalus] in the Field Museum of Natural History [Chicago, Ill.] is a single perforated specimen of medium size (llama?) from the necropolis of Caldera, in Chile. It is associated with many other bone objects, tlat strips of bone, all similarly perforated, as if for suspension, and pretty certainly

<sup>&</sup>lt;sup>1</sup> Stewart Culin. "Games of the North American Indians," p. 148. Twenty-fourth An. Rep. Bur. Am. Ethn.

dice. We have here, therefore, a pre-Columbian worked knuckle-bone [astragalus] die, but the hole is merely for suspension."

Burial No. 107, adult, had below the neck, two beads of bone.

Burial No. 119, adult, had a bottle and a few shell beads at the right humerus. Burial No. 121, adult, had at the skull a bottle and a mushroom-shaped object of earthenware of a class no doubt correctly believed to be modeling tools for pottery, by Holmes.¹ by Thruston² and by Fowke.³

Some have thought that objects of this kind were used to cover the openings of water bottles, and in point of fact a considerable collection of vessels made by modern Indians of British Guiana, now in the Academy of Natural Sciences of Philadelphia, includes numerous bottles with stoppers much resembling the object found by us at Pecan Point.

However, these mushroom-shaped objects of earthenware from prehistoric sites in the United States as a rule show considerable wear and, furthermore, are not found in numbers sufficient to warrant their being considered stoppers. One modeling tool could serve for many bottles, but a stopper would be needed for each one. Moreover, we do not recall having found at Pecan Point bottles with necks sufficiently slender to accommodate these mushroom-shaped objects, which, by the way, we have found in regions where bottles with slender necks are not known.

Burial No. 124, adolescent, had a pot, a bowl, and a bone implement doubtless used in basketry.

Burial No. 138, a child, had two shell beads at the neck.

Burial No. 150, an aboriginal disturbance of the skeleton of an adult, had shell beads at the neck, and was accompanied with two bottles, near one of which lay half of a flinty concretion that had been broken open and apparently polished along the surface of the fracture, giving the object the appearance of a diminutive bowl. At the right hand were three flint chisels and a celt of the same material. A handsome leaf-shaped weapon of flint, 12.5 inches in length and having a maximum thickness of one inch, lay at the left humerus. A beautiful discoidal stone of banded silicious rock was at the inner side of the right forearm, while a wing-bone of a swan lay near the skull.

Burial No. 152, adult, was accompanied with one bottle; near the skull was red pigment.

Burial No. 160, adolescent, had near the skull a bowl in which were two flat, circular pebbles. Lying inverted upon these was a spoon cut from a mussel-shell, above which was a large mussel-shell. With this burial also was a bowl rudely representing a fish.

Burial No. 162, adult, had at the right shoulder a ceremonial axe of the "hoeshaped" variety, made from earboniferous slate, a material so soft that no imple-

<sup>&</sup>lt;sup>1</sup> William H. Holmes. "Aboriginal Pottery of Eastern United States," Plate XXXV.

Twentieth An. Rep. Bur. Am. Ethn.

<sup>2</sup> Gates P. Thruston. "Antiquities of Tennessee," Second ed., p. 161, Fig. 65.

<sup>3</sup> Gerard Fowke, citing Cristopher Wren. Proc. and Coll. Wyoming Hist. and Geol. Soc., IX, 156.

ment intended for practical use would be shaped from it. At the left forearm was a flint chisel, and at the left of the skull, a bottle.

Burial No. 164, adult, had as mortuary deposit, a bowl, a bottle, and seven badly decayed mussel-shells arranged in a pile, one within the other.

Burial No. 167, a child, had two pots, one on the right and one on the left elbow. A bottle was over the right shoulder. At each side of the head was a shell ear-plug, and at the neck were a small conch-shell perforated at the beak for suspension, and the spires of three similar shells each with a hole for suspension. Below the chin, on the chest, was a shell gorget of triangular form, which one usually finds decorated with a representation of a human face. In this instance, however, only holes for suspension are present. At the right forearm were two discoidal stones, each about 2.5 inches in diameter, and a small, flat, circular pebble.

Burial No. 168, adult, had at the right of the skull a tortoise shell, and at the left of it two bottles and a bowl.

Burial No. 171, adolescent, accompanied with seven vessels, one of which, a bowl, contained a pot in which was an astragalus of a deer, carefully smoothed as to some of its sides. In the containing bowl was a small pebble. Another bowl of this group held a pot in which was another astragalus of a deer, also squared for use in gaming. At the right side of the pelvis was a piercing implement of bone.

Burial No. 182, a child, in addition to a bottle and a bowl over the pelvis, had on the chest the remains of an undecorated gorget of shell.

Burial No. 185, adult, had near the skull a bottle, and at the right elbow a bottle and a bowl. Under the bottle was a flat pebble.

Burial No. 188, an adult with lower extremities cut away through aboriginal disturbance, had a cup and a bottle at the right humerus, and at the right shoulder, a bowl. At the left shoulder was a perforated disk made from a fragment of pottery vessel, and a wing-bone of a bird.

Burial No. 202, adult, had shell ear-plugs, one at each side of the head, with a perforation for attachment at the end of the shank of each.

Burial No. 222, adult, had a small quantity of red pigment near the skull. A bowl and a pot were with this burial.

Burial No. 228, a child, in addition to a bottle, a pot, a bowl, and a toy pot, had two ear-plugs of shell, of the kind almost universally found at Pecan Point, but having at the end of each shank a hole to fasten the ornament more securely. In addition this burial had a pair of the blunt-pin, or nail-shaped variety of ear-plugs, short with rounded head. At the neck were shell beads and a small pendant of talc (?), roughly three-sided, tapering slightly toward one end and having a perforation for suspension.

Burial No. 254, adult, had as mortuary deposit, a bowl, a bottle, and two shell beads.

Burial No. 272, adolescent. One shell bead lay at the neck of this burial, with which also one bottle had been deposited.

Burial No. 300, adult. At the right humerus was a leaf-shaped weapon of

chipped flint, 5 inches in length, and at the right femur, erect. edge downward as if it had been deposited with the hand grasping the handle, was a handsome, chocolate-colored, ceremonial axe of ferruginous shale (Fig. 64), 6.1 inches in length, and 2.6 inches in maximum breadth. In this axe is a perforation for attachment, rather irregularly made by boring from opposite sides. This type of ceremonial axe, oblong in outline, is seldom encountered. One, of lignite, from the St. Francis river, Arkansas, is in Peabody Museum, Cambridge, Mass., and two were found by us at the Keno Plantation, northern Louisiana, one of sandstone and one of metamorphic rock.

Burial No. 302, adult, had at the right elbow a small amount of red pigment and a chisel wrought from a flat pebble, by sharpening one end. A bowl and a bottle lay with this burial.

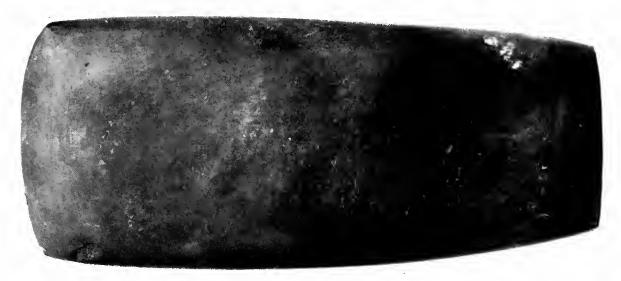


Fig. 64.—Ceremonial axe of ferruginous shale. With Burial No. 300. Pecan Point, Ark. (Full size.)

Burial No. 305, a child, had a small bottle representing a fish, a diminutive bowl in the form of a frog, and a bowl having conventional head and tail on opposite sides, in which were a mussel-shell and a round, flat pebble.

Burial No. 309, adult, had in addition to a bottle, red paint at the left humerus; a gorget of shell made from a triangular section of a conch, without decoration; and a curious object of bone at the left forearm, so badly decayed and broken that its former size and shape could not be determined. It seemed, however, to have been a receptacle made from part of a large bone, split and hollowed. The thinness of the walls and the length of the hollowed space seem to discredit the idea that the object had served as a handle.

Burial No. 311, a child, had a bowl, a bottle, and a small, oval, undecorated ornament of shell, with two perforations.

Burial No. 325, adult, had a bowl at the right of the skull and a bottle at the right shoulder. On the upper part of the thorax, the broad end under the chin,

lay a disappointment in the shape of a perfectly preserved gorget of shell somewhat more than 7 inches in length and 6 inches in maximum breadth, having two perforations in the upper, or broader, part, and one near the opposite end. This gorget, of a type so often representing the human face, is without decoration of any kind.

Burial No. 326, the skeleton of an adult, showing slight disturbance, had at the right of the skull, one within the other, two earthenware vessels representing shell forms, and a bottle at the right humerus. Near this bottle were a small quantity of paint; three cylinders shaped from tines of antler; a piercing implement about 6 inches in length made from a section of a bone, having at one end nine notches on one side.

Burial No. 333, adolescent, had two rude, discoidal stones at the left of the pelvis.

Burial No. 340, adult, had a small quantity of red pigment near the skull and two shell beads at the neck. A bowl and a bottle also were with this burial.

Five hundred and thirty-five vessels of earthenware, broken and whole (two hundred and sixty-three of which were left with Mr. Friend, the owner of the Pecan Point Plantation), were found by us during our investigation. Of these, eleven were apart from burials, probably as a result of aboriginal disturbance.

The vessels from this place, as a rule (with many exceptions), lay near the skulls, and often a deposit consisted of a bowl and a bottle. A number of burials, however, were without deposits of earthenware, while some had only one vessel and a few had each a considerable number of them. The arrangement of vessels in respect to each other was simple. A few lay within others, but cases of surmounting vessels, inverted or otherwise, were rare.

The earthenware from Pecan Point is shell-tempered as a rule, but on the other hand, often it is not of the shell-tempered kind. The ware is of fairly good quality. The forms are almost invariably confined to the bottle, the bowl, and the pot, and these, as a rule, vary but little from standard shapes.

Bottles almost universally are of the wide-mouthed variety, and, save in a few instances, without superficial decoration, though many of them have an added attraction in the form of a projecting annular or discoidal base which, incidentally we may say, was often, if not always, made separately from the body of the vessel and added to it previous to the firing.

Strangely enough, the bottle with the tripod support, a not uncommon form in the Middle Mississippi region, was not found by us at Pecan Point.

Though the surface of much of the ware from Pecan Point could readily have lent itself to engraved, incised, or trailed decoration, such decoration is seldom found upon it, and when present it is almost invariably of the rudest kind. However, incised decoration on earthenware, as the reader knows, is not looked for to any extent in the Middle Mississippi region. On the other hand, the use of pigment for decoration of earthenware was a favorite method in that region and was extensively practised by the potters of the St. Francis river sites to the westward of Pecan Point. Taking this into consideration it is rather a surprise to know that

but twelve vessels decorated in color were found by us at Pecan Point, and these, with the exception of the head bottle to be described later, show little variety in design.

Many mussel-shells, separately or occasionally in pairs, lay within or beside vessels at this place.

We shall now consider earthenware from Pecan Point, having features of interest

Vessel No. 31, a bottle, has four equidistant depressions in the body, but is otherwise undecorated. This form of decoration in regions where potters were given to the use of incised designs would have, in addition, much incised decoration in which the depressions would occupy central positions.

Vessel No. 330, a bottle of ordinary form as to the body, but showing markings whence a head, a tail, and four legs apparently had been broken away. Animal forms and pots with the additions we have named occasionally are found in the Middle Mississippi region, but a bottle with a globular body, with head, tail, and legs is rare indeed. A fine bottle bordering on this class, though the body is not entirely globular, is in the collection of Mr. E. E. Baird of Poplar Bluff. Mo.<sup>1</sup>

Vessel No. 333, a pot of ordinary ware, having around the portion below the rim a decoration of upright fillets in relief. On the body are vertical, parallel, incised lines, very rudely executed. On the base of the vessel is a circle containing a swastika.

Vessel No. 463, a bowl almost 4.5 inches in diameter of body, having on one side, projecting outward and upward, the modeled head of a bird. On the opposite side is a tail extending horizontally, having six deeply incised, parallel lines on the upper surface. In this tail are two holes for suspension; a single hole traverses the neck of the bird on the opposite side.

Vessel No. 475, a pot about 6 inches in diameter, has on opposite sides a conventional head and tail of a fish; on two other opposite sides, dorsal and ventral fins are represented. On one side of the vessel are two holes for suspension, while on the opposite side are the same number of semi-perforations which, for some reason, have not been completed.

Vessel No. 229. This bottle, shown in Plate XXXV, received a blow from a spade on one side, the restored part showing somewhat to the left in the illustration. The body is decorated with vertical bands, white and red, the red bands being of different widths alternately. The neck has had a uniform coating of red pigment, much of which has disappeared through wear.

Vessel No. 160. A bottle of coarse, shell-tempered ware, of a well-known type in the Middle Mississippi region, has a double neck arching to form a short, vertical one at the union of the two.

Vessel No. 173. A bottle of hard, black ware, 7.2 inches in height, having in relief on the upper part of the body, surrounding the neck, the symbol shown in

<sup>1</sup> W. K. Moorehead. "The Stone Age in North America," Vol. II, p. 281.



PECAN POINT, ARKANSAS, VESSEL NO. 229. (HEIGHT, 8.6 INCHES.)

Fig. 65, the meaning of which, as we have said, is in doubt, though its use in



Fig. 65.—Symbol of unknown meaning.

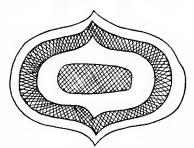


Fig. 66.—Symbol of unknown meaning, from a vase, Moundville, Ala.

aboriginal times was comparatively widespread. We find it engraved on pottery and repoussé on sheet-copper from the great site at Moundville,1 Ala., and carved on stone from the region bordering the lower Arkansas river.2 It is seen in relief on pottery from Arkansas,3 and we have found the symbol in that State, forming the outline of bowls, along the St. Francis and Mississippi rivers.

Incidentally it may be said that the symbol in question, when it does not appear in relief on a bottle or as an outline of a bowl (in which case no particular position can be assigned to it), is almost invariably represented with the pointed parts vertically placed and also has centrally an elliptical figure perhaps representing an orifice. In Fig. 66 is shown one of these symbols which is engraved on a vase from Moundville, Ala.

Vessel No. 144. We show here in Fig. 67 a bowl shaped in outline to resemble the symbol to which reference has just been made.

Vessel No. 459. This bottle, 3.9 inches in height, has lost much of its neck in aboriginal times, though the margin of fracture has been

smoothed down by the aborigines to allow continued use of the vessel. The decoration has consisted of a considerable number of vertical bands alternately red and black, though on some of the bands little trace of the black remains.

Vessel No. 136. This interesting pot (Fig. 68), a life form representing a quadruped of some kind, is of hard, black ware showing considerable polish. The type is unusual, and resembles somewhat that of a vessel found by us on the lower Arkansas river, which, however, is inferior in some respects to the one under description. The decoration on this vessel consists of designs based on the swastika and of swastikas enclosed in circles.

Vessel No. 317. In Fig. 69 is shown a very interesting bottle. On two opposite sides, in relief, are modeled human faces, while on two other opposite sides,

Amer. Anthropologist, Jan.-Mar., 1906.

W. K. Moorehead. "The Stone Age in North America," Vol. I, p. 452.

William H. Holmes. "Aboriginal Pottery of Eastern United States," Plate XIIIf. We found this symbol in relief on no fewer than eight bottles at Pecan Point, Ark.

"Certain Mounds of Arkansas and of Mississippi," Fig. 7. Journ. Acad. Nat. Sci., Phila.,

Vol. XIII.

<sup>&</sup>lt;sup>1</sup> Clarence B. Moore. "Certain Aboriginal Mounds of the Black Warrior River" and "Moundville Revisited," passim. Journ. Acad. Nat. Sci., Phila., Vol. XIII.

<sup>2</sup> William H. Holmes. "Certain Notched or Scalloped Stone Tablets of the Mound Builders."

also in relief, human hands are represented. Between the hands and the faces are four long-bones, in relief. This decoration, which must be very unusual 1 on pottery in this region, calls to mind the human long-bones engraved on bottles found by us in the great site at Moundville, Ala.2



Fig. 67.—Vessel No. 144. Pecan Point, Ark. (Diam, 9.75 inches.)

In the collection of Mr. I. McGirk Mitchell of St. Louis, Mo., is a fine bottle said to have come from near Blytheville, Ark., which bears in relief three hands, three faces, and seven long-bones, all very similar to those shown on the vessel under description.

<sup>2</sup> "Certain Aboriginal Remains of the Black Warrior River," p. 226 et al.

"Moundville Revisited," p. 369. Journ. Acad. Nat. Sci., Phila., Vol. XIII.



Fig. 68.—Vessel No. 136. Pecan Point, Ark. (Height 5.5 inches.)



Fig. 69.—Vessel No. 317. Pecan Point, Ark. (Height 9 inches.)

Vessel No. 228. The human effigy bottle shown in Fig. 70 is devoid of especial interest save that incised lines appear on the face and probably represent a decoration painted or tattooed.<sup>4</sup>



Fig. 70.—Vessel No. 228. Pecan Point, Ark. (Height 8.2 inches.)

Vessels Nos. 267 and 296. In Figs. 71 and 72 are shown two human effigy bottles which are of interest simply as coming from the great Pecan Point site.

For method of tattooing among Indians of the Mississippi Valley, see John R. Swanton, "Indian Tribes of the Lower Mississippi Valley and adjacent Coast of the Gulf of Mexico," pp. 56, 57, Bul. 43, Bur. Am. Ethn.

Vessel No. 176. This human effigy bottle (Fig. 73) varies from the general type of such bottles from this region in that a space for suspension is provided on each side of the bottle, below the shoulder of the figure.



Fig. 71.—Vessel No. 267. Pecan Point, Ark. (Height 8.75 inches.)

Vessel No. 206. This graceful bottle of polished, black ware (Fig. 74), having the aperture at the back of a representation of a human head modeled in relief, is not of an unusual type in this region, but is shown here on account of its grace of form.



Fig. 72.—Vessel No. 296. Pecan Point, Ark. (Height 4.9 inches.)



FIG. 73.—Vessel No. 176. Pecan Point, Ark. (Height 6.9 inches.)
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Fig. 74.—Vessel No. 206. Pecan Point, Ark. (Height 5.3 inches.)

Vessel No. 202. A small bottle of yellow ware, similar to others figured as coming from this region. The aperture is placed at the back of the modeled head of some quadruped (Fig. 75).



Fig. 75.—Vessel No. 202. Pecan Point, Ark. (Height 3.8 inches.)

Vessel No. 497. A bottle (Fig. 76) having by way of decoration, modeled in relief at the base of the neck, a cross of the four directions, each arm of which is the well-known step-design, or cloud-symbol. As this design, being of the same shade as its background, the body of the bottle, did not lend itself to successful photographic reproduction, the half-tone illustration is made from a wash-drawing of the vessel.



Fig. 76.—Vessel No. 497. Pecan Point, Ark. (Height 5.9 inches.)

Vessel No. 91. A bottle 4.7 inches in height, of light-brown ware, with short, wide neck, having in red pigment on the body four volute designs based on the swastika. On the neck are step-patterns, or cloud-symbols, in the same color.

Vessel No. 254. A bottle 7.75 inches in height, to which a wide and slightly flaring neck contributes 3.5 inches. On the body is a design somewhat similar to the one on the vessel just described—a well-known decoration on earthenware from this part of the Mississippi river and from the St. Francis river, Ark., to the westward. The design on this bottle, however, differs from the other in that, instead of having a back-ground of the ware, all space between the red pigment markings is filled in with white, or, perhaps more properly speaking, a cream tint. On the neck has been a decoration in red pigment, now almost obliterated. There is a discoidal, projecting base.

Vessel No. 272. A bottle 5.8 inches in height, of a rather common type, representing a fish with head, tail, and fins, in relief. The only feature of particular interest of this vessel is that its short, wide neck has two loop handles on opposite sides.

Vessel No. 283. A life-form representing a shell drinking-cup wrought from the conch (Fulgur), the beak and the spire being clearly indicated. Height, 2.5 inches.

Vessel No. 531. This bottle of compound form, having three encircling lines of punctate markings around the lower part of the neck, above which are four conventional handles without openings, and an annular base, belongs to a class of which a number of examples were found by us at Pecan Point. A similar vessel is figured by Holmes.1

Vessel No. 68. A bottle 6.7 inches in height, also similar to one figured by Professor Holmes, having an animal head projecting from the neck, the opening being at the back of the head.

Vessel No. 464. A bottle 3.6 inches in height, whose body is a life-form representing a fish seen in profile. The head, tail, and dorsal and ventral fins are represented, but with no high degree of excellence. An interesting and unusual feature is the vent in place, clearly modeled in relief.

Vessel No. 55. A bottle very rudely made, 4.2 inches in height, the body having the form of a fish on which, in relief, are the usual head, tail, and fins. A noteworthy variant, however, is the head of some animal indistinctly modeled on the neck of the bottle.

Vessel No. 88. This pot, rather coarsely made, has on one side, in relief, a modeled head representing that of a raccoon. On the opposite side is a conventional tail. The body of the bowl has very roughly executed incised decoration. A vessel in many respects similar to this one is figured by Holmes 3 as coming from Arkansas, and a vessel also recalling this one, with a modeled raccoon head on each of two opposite sides, was found by us at the Rose Mound, 4 St. Francis river, Ark.

Vessel No. 246. A bowl 6 inches in maximum diameter, having a rim projecting horizontally. On one side, extending upward, is a modeled representation of a human head, from which the features have partly disintegrated. On the opposite side, extending horizontally, is the modeled figure of a quadruped, from which the tail is missing. This figure has projections along the back such as are seen on many human effigy bottles, and which, as we know, are introduced to indicate the vertebræ.

Vessel No. 230. A pot having in relief the head and legs of a frog. is represented by a disk in relief.

Vessel No. 431. A bottle 7.3 inches in height, with wide neck about 3 inches

<sup>&</sup>lt;sup>1</sup> Op. cit., Pl. XIIId. <sup>2</sup> Op. cit., Pl. XXVa. <sup>3</sup> Op. cit., Pl. XXIVb.

<sup>&</sup>lt;sup>4</sup> "Antiquities of the St. Francis, White, and Black Rivers, Arkansas," Fig. 29.



PECAN POINT, ARKANSAS, VESSEL NO. 13. (HEIGHT, 7.6 INCHES.)

high, having around it a decoration consisting of a uniform coating of red paint, has a painted design on the body, based on the swastika, with spiral arms. The spirals in this case, however, show less curve than usual, and have a somewhat squared appearance.

Vessel No. 13. In Plate XXXVI is shown a head bottle, a variant from the well-known and interesting type of head vases which we believe (speaking of the United States) are found only in northeastern Arkansas and in southeastern Missouri. At the time when Professor Holmes wrote his "Ancient Pottery of the Mississippi Valley," he had met with but eight head vases, all of which had been found in this Pecan Point site. In later years other head vases have been discovered, but in comparatively small numbers; so the vessels are as rare as they are interesting.

We have been enabled to trace the present ownership of the following specimens of the head vessel type:

Eight in the National Museum, Washington, D. C., and in the Davenport Academy of Science, Davenport, Iowa; all from Pecan Point, Ark.

One in the collection of the Cossitt Library, Memphis, Tenn., said to have been found at the Bradley Place, which is not far from Pecan Point.

One in the collection of Mr. I. McGirk Mitchell of St. Louis, Mo., and another belonging to Mr. H. M. Braun of East St. Louis, Ill.; both from a site near Blythe-ville, northeastern Arkansas, not far from the Missouri line.

One "from Mississippi County, Ark.," the property of Mr. E. E. Baird, of Poplar Bluff, Mo.

One in Peabody Museum, Cambridge, Mass., from the Fortune Mound, St. Francis river, Ark.

One in the Cincinnati Art Museum, Cincinnati, Ohio, from the mound at Parkin, St. Francis river, Ark.

Two in the Academy of Natural Sciences of Philadelphia, Pa., from the Rose Mound, St. Francis river, Ark.

Several in the collection of the Missouri Historical Society, St. Louis, Mo., described as coming from southeastern Missouri.

A handsome bottle with faces and ears modeled in relief on two opposite sides in the collection of Mr. George J. Mepham of St. Louis, Mo., who informs us that it came from a mound in Mississippi County, Mo.

The head bottle under description, from Pecan Point, Ark., now in the

Academy of Natural Sciences of Philadelphia, Pa.

There is also a class of vessels found near Little Rock, Ark. (and possibly elsewhere), which can hardly be called head vases or head bottles but which nearly approach such vessels. The vessels in question bear faces modeled in low relief, and little effort has been made to have these vases conform to the shape of the human head. In fact, the face does not always seem to have been intended to represent the human features. The faces, moreover, sometimes occupy but a small

<sup>&</sup>lt;sup>1</sup> William H. Holmes. Fourth An. Rep. Bur. Ethn., 1882-83, p. 406 et seq.

space on the vessels on which they are modeled. Examples of this class of vases are figured by Holmes.<sup>1</sup>

In a small collection of aboriginal pottery in the Courthouse 2 at Little Rock, Ark., was a vessel of the "teapot" type having on one side a face modeled in relief. We have in vain attempted to obtain a photograph of this interesting vessel.



Fig. 77.—Vessel No. 218. Pecan Point, Ark. (Height 7.8 inches.)

As we have said before in this report, the "teapot" vessel and the head vase, both specialties of Arkansas (though a few "teapot" vessels are found in Mississippi and some head vases come from southeastern Missouri), are not, as a rule, found in the same parts of the State, the southernmost discovery of head vases and the northernmost occurrence of "teapot" vessels being, we believe, the Rose Mound, on the St. Francis river, Ark.

William H. Holmes. "Aboriginal Pottery of Eastern United States," Pl. XXIXa and b.
 At the time of our visit in 1908.

In speaking of head vases and "teapot" vessels, be it remembered, we have reference only to territory included in the United States.

In Professor Holmes' "Ancient Pottery of the Mississippi Valley" and in his "Aboriginal Pottery of Eastern United States," the subject of head vases is exhaustively treated and fully illustrated. The question of head vases also is considered in "Prehistoric Art."

We shall now end this digression and return to the head bottle from Pecan Point.



Fig. 78.—Vessel No. 97. Pecan Point, Ark. (Height 5.5 inches.)

The ware is light brown, containing a certain amount of shell-tempering. The base of the bottle projects downward and seems to have been modeled to represent the human neck, while the body of the bottle has been given the shape of the head. The face, including the ears, is modeled on it in relief. The face, ears, and neck have a coating of red pigment, but the remainder of the vessel is without the addition of coloring. Each ear shows two perforations, a number smaller than head vessels usually have, though the ears of human effigy vessels from the Middle Mississippi region are, as a rule, shown as having but one perforation, which is

<sup>&</sup>lt;sup>1</sup> Fourth An. Rep. Bur. Ethn., p. 406 et seq.
<sup>2</sup> Twentieth An. Rep. Bur. Am. Ethn., p. 96 et seq. Pls. XXIX, XXXI, XXXII, XXIIII.

Thomas Wilson. Rep. U. S. National Museum, 1896, p. 475 et seq.

placed in the lobe of the ear. The ears on some head vessels show a vertical row of perforations near the posterior margin of the cartilaginous part of the ear, somewhat similar to perforations found in the ears of some of our modern Indians. In a recent work is a photographic portrait of a Crow Indian having three perforations placed vertically, two near the margin of the cartilaginous part of the ear and one in the lobe.



Fig. 79.—Vessel No. 304. Pecan Point, Ark. (Height 4.2 inches.)

Vessel No. 218. This bottle (Fig. 77) is shown to illustrate a class of wide-mouthed bottles with long necks, found in the Middle Mississippi region.

Vessel No. 97. A bottle of compound form (Fig. 78), rather graceful in outline, having around part of the neck a decoration composed of incised, vertical lines, above which is a series of conventional handles, solidly placed on the neck.

Vessel No. 304. A bottle of thin, dark ware, shown here on account of its grace of form (Fig. 79).

Vessel No. 43. This bottle (Fig. 80) has by way of decoration on the body, alternate vertical bands of red and of white pigment. On the neck are shown step-designs, or cloud symbols, in white and in red, the white upright, the red inverted.

Vessel No. 386 is a bowl (Fig. 81) with a rude animal head and tail, to which are added in relief the fore-legs and hind-legs of the quadruped intended to be represented.

Vessel No. 123. This pot (Fig. 82), with incised decoration made up of series of parallel lines running diagonally, alternately reversed, is interesting as showing

<sup>&</sup>lt;sup>1</sup> James McLaughlin. "My Friend the Indian," plate facing p. 40.



FIG. 80.—Vessel No. 43. Pecan Point, Ark. (Height 7.8 inches.)



Fig. 81.—Vessel No. 386. Pecan Point, Ark. (Height of bowl 3.7 inches.) 60 JOURN. A. N. S. PHILA., VOL. XIV.

the usual style of incised decoration which prevailed in the Middle Mississippi region. A series of conventional handles surrounds the neck.

Vessel No. 328. This handsome bowl, without decoration on the inside, has

exteriorly a striking incised design exceptionally well-executed considering the region whence it came. The design consists of a cross surrounded by current scrolls. Below the margin of the bowl is a series of conventional handles (Fig. 83).

It is interesting to note, in connection with the site at Pecan Point, the almost total absence of decoration on objects other than vessels of earthenware, which were found at the place.



Fig. 32.—Vessel No. 123. Pecan Point, Ark. (Height 41 inches.)

Numbers of piercing implements of bone were unearthed there by us, but only one of these bears decoration of any importance. But the objects from Pecan Point on which lack of embellishment is most noticeable are the shell gorgets. These objects, unlike the bone implements, served no utilitarian purpose, their function being purely ornamental, and when on objects of this kind no decoration is present, as is the case with those from Pecan Point, the omission is striking, especially as gorgets of shell from Tennessee and even from sites on the St. Francis river, Ark., not far westward from Pecan Point, often bear interesting designs.

Another fact worthy of remark is that throughout all our work at Pecan Point, but one pipe was encountered.

## THE STOFFLE PLACE, MISSISSIPPI COUNTY, ARK.

About five miles NNE, from the landing whence a road leads to the town of Wilson, is a mound about 8 feet in height, two hundred yards from the river, approximately. This mound, 100 feet and 75 feet in basal diameters, has been used as a cemetery in recent times. It is on the plantation of Mr. T. M. Stoffle, who resides on the place.

In the cultivated field surrounding the mound is ground somewhat higher than the rest of the adjacent land, and from this area it was said, a mixed-blood Indian, a dealer in aboriginal pottery, had taken many relics. Traces of his work were found throughout it by us.



Fig. 83.—Vessel No. 328. Pecan Point, Ark. (Diam. 975 inches.)

Trial-holes, sunk by us in this ground, resulted in the discovery of twenty-three burials, some of which had been badly disturbed, while deposits of pottery with the skulls of others, which had been discovered by the aid of the sounding-rod, had been dug down to and removed.

Burials were as follows:

Adults, 10

Infants and children, 7

Disturbances, aboriginal and recent, 6

Of the ten adult burials, nine lay extended on the back; one was rather closely flexed on the left side with the trunk so turned as to have the face directed downward.

In the soil, apart from burials, but perhaps separated from them through previous disturbance, were a celt of igneous rock, pecked on parts intended to enter a handle, and an astragalus of a deer, carefully smoothed on some of its sides.

Burial No. 4, adult, had a bowl at the left of the skull; at the outer side of the femur, a bone pin with a head, and a considerable number of very slender implements of bone, originally about the size of wooden tooth-picks in use at the present time, only much more delicately shaped. Many of these were badly broken, but some have since been repaired. Just such a deposit of small, bone implements is described by General Thruston 1 as having been found in an aboriginal cemetery in Middle Tennessee.

Burial No. 7, a child, was without artifacts with the exception of a large disk shaped from a potsherd, which lay near the skull.

Burial No. 10, a child, had a pot over the right femur. With this vessel was a sphere of pottery about .75 inch in diameter. Similar objects have been found in other parts of Arkansas and in Tennessee.

Burial No. 12, a child, had two discoidal stones rudely shaped from pebbles originally flat, and two astragali of deer which, however, show no sign of workmanship. With this burial also were a bowl and a bottle.

Burial No. 16, a child, had two pots at the left of the skull, and on the chest, a canine tooth of a bear, perforated at one end for suspension.

Burial No. 17, adult, had in association a pot over the left humerus; a bottle and a bowl at the pelvis; a thin and graceful leaf-shaped implement of flint, 8.5 inches in length, across the pelvis; and two carefully-made piercing implements of bone, each with a hole for suspension at the blunt end.

Twenty-four vessels were found by us at the Stoffle Place, which, however, must be a considerably smaller number than originally had been placed with the burials we discovered. These vessels, which are of inferior ware, present no feature of especial interest. A small bottle with a band of red and a band of white pigment around the neck, and alternate upright bands of red and of white around the body, was the only example of color decoration on the pottery found by us at this place.

<sup>&</sup>lt;sup>1</sup> Gates P. Thruston. "Antiquities of Tennessee," Second ed., p. 306.

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