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Clarence B. Moore.**

Contributors

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ANTIQUITIES
OF THE
St. Francis, White, and Black Rivers
ARKANSAS

BY CLARENCE B. MOORE

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WRITINGS ON ARCHÆOLOGY.

BY CLARENCE B. MOORE.

- Certain Shell Heaps of the St. Johns River, Florida, hitherto unexplored. *The American Naturalist*, Nov., 1892, to Jan., 1894, inclusive. Five papers with illustrations in text, and maps.
- Certain Sand Mounds of the St. Johns River, Florida, Parts I and II. *Journal of the Academy of Natural Sciences of Philadelphia*, Philadelphia, 1894. Vol. X. Quarto, 130 and 123 pages. Frontispieces, maps, plates, illustrations in the text.
- Certain Sand Mounds of Duval County, Florida; Two Mounds on Murphy Island, Florida; Certain Sand Mounds of the Ocklawaha River, Florida. *Journ. Acad. Nat. Sci. of Phila.*, 1895. Vol. X. Quarto, 108 pages. Frontispiece, maps, plates, illustrations in text.
- Additional Mounds of Duval and of Clay Counties, Florida; Mound Investigation on the East Coast of Florida; Certain Florida Coast Mounds north of the St. Johns River. Privately printed, Philadelphia, 1896. Quarto, 30 pages. Map, plates, illustrations in text.
- Certain Aboriginal Mounds of the Georgia Coast. *Journ. Acad. Nat. Sci. of Phila.*, 1897. Vol. XI. Quarto, 144 pages. Frontispiece, map, plates, illustrations in text.
- Certain Aboriginal Mounds of the Coast of South Carolina; Certain Aboriginal Mounds of the Savannah River; Certain Aboriginal Mounds of the Altamaha River; Recent Acquisitions; A Cache of Pendent Ornaments. *Journ. Acad. Nat. Sci. of Phila.*, 1898. Vol. XI. Quarto, 48 pages. Frontispiece, maps, illustrations in text.
- Certain Aboriginal Remains of the Alabama River. *Journ. Acad. Nat. Sci. of Phila.*, 1899. Vol. XI. Quarto, 62 pages. Map, illustrations in text.
- Certain Antiquities of the Florida West-Coast. *Journ. Acad. Nat. Sci. of Phila.*, 1900. Vol. XI. Quarto, 46 pages. Maps, illustrations in text.
- Certain Aboriginal Remains of the Northwest Florida Coast, Part I; Certain Aboriginal Remains of the Tombigbee River. *Journ. Acad. Nat. Sci. of Phila.*, 1901. Vol. XI. Quarto, 100 pages. Maps, illustrations in text.
- Certain Aboriginal Remains of the Northwest Florida Coast, Part II. *Journ. Acad. Nat. Sci. of Phila.*, 1902. Vol. XII. Quarto, 235 pages. Maps, illustrations in text.
- Certain Aboriginal Mounds of the Central Florida West-Coast; Certain Aboriginal Mounds of the Apalachicola River. *Journ. Acad. Nat. Sci. of Phila.*, 1903. Vol. XII. Quarto, 136 pages. Maps, illustrations in text.
- Sheet-copper from the Mounds is not Necessarily of European Origin. *American Anthropologist*. Jan.—March, 1903. Plates in text.
- The So-called "Hoe-shaped Implement." *American Anthropologist*, July-Sept., 1903. Illustrations in text.
- Aboriginal Urn-burial in the United States. *American Anthropologist*, Oct.-Dec., 1904. Plate.
- A Form of Urn-burial on Mobile Bay. *American Anthropologist*, Jan.-March, 1905.
- Certain Aboriginal Remains of the Black Warrior River [Moundville]; Certain Aboriginal Remains of the Lower Tombigbee River; Certain Aboriginal Remains of Mobile Bay and Mississippi Sound; Miscellaneous Investigation in Florida. *Journ. Acad. Nat. Sci. of Phila.*, 1905. Vol. XIII. Quarto, 206 pages. Maps, illustrations in text.
- Moundville Revisited; Crystal River Revisited; Mounds of the Lower Chattahoochee and Lower Flint Rivers; Notes on the Ten Thousand Islands, Florida. *Journ. Acad. Nat. Sci. of Phila.*, 1907. Vol. XIII. Quarto, 144 pages. Maps, illustrations in text.
- Certain Mounds of Arkansas and of Mississippi (including Doctor Hrdlička's paper on the Crania). *Journ. Acad. Nat. Sci. of Phila.*, 1908. Vol. XIII. Quarto, about 128 pages. Maps, illustrations in text, eight colored plates.
- Antiquities of the Ouachita Valley. *Journ. Acad. Nat. Sci. of Phila.*, 1909. Vol. XIV. Quarto, 170 pages. Maps, illustrations in text, eight colored plates. (In addition in this number is Doctor Hrdlička's paper on the skeletal remains.)
- Antiquities of the St. Francis, White, and Black Rivers. *Journ. Acad. Nat. Sci. of Phila.*, 1910. Vol. XIV. Quarto, 112 pages. Maps, illustrations in text, twenty colored plates.

Antiquities of the St. Francis, White, and
Black Rivers, Arkansas

Part I
ST. FRANCIS RIVER

Part II
WHITE, AND BLACK RIVERS

BY

CLARENCE B. MOORE.

REPRINT FROM THE JOURNAL OF THE ACADEMY OF NATURAL SCIENCES
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MAP OF PARTS OF THE WHITE, BLACK, CURRENT,
ST. FRANCIS AND LITTLE RIVERS

(FOLIOS) (2) ZC. 671

ANTIQUITIES OF THE ST. FRANCIS, WHITE, AND
BLACK RIVERS, ARKANSAS.

BY CLARENCE B. MOORE.

INTRODUCTION.

Our last season's field work, all of it in the State of Arkansas, occupied most of the months of November, 1909, and January and April, 1910, and all of February and March, 1910.

The regions covered by us were: St. Francis river to its union with Little river, 172 miles by water,¹ and up the latter stream to Lepanto, 20 miles further; White river to its union with Black river, 265 miles by water; and Black river to its junction with Current river, a distance of 109 miles.

White river is navigable in favorable seasons from the union with Black river to Batesville, Ark., 37 miles by water; but at the time of our visit the state of White river was not such as to permit us to go much farther up it than its union with Black river, nor had our success on White river been such as to tempt us to do so.

As we have explained in former reports, it is our custom each summer to have Mr. J. S. Raybon, captain of the steamer from which our work in the winter is done, who is deeply interested in our investigations and renders efficient aid, visit in advance such territory as we desire to explore, in order to find the exact situation of all mounds and cemeteries in that territory, with the names of their owners, that we may obtain permission in advance to investigate these sites, that later our work may not be impeded. Incidentally, we may say that owners of property throughout the South are, as a rule, most kind in granting us permission to dig, and the Academy here takes the opportunity to express its sincere thanks to the owners of mounds and of cemeteries along the rivers we have mentioned, for the cordial way their property was placed at our disposal. As much of this property is cultivated ground, and as we were present at many places in the planting season, permission for unlimited digging is certainly a considerable favor, and it is so regarded by the Academy.

The territory explored by Captain Raybon in advance of our coming (see map) was St. Francis river to its union with Little river, and Little river to the foot of Big Lake, Ark., 262 miles by water.

¹ All distances on these rivers kindly have been furnished the Academy by Major M. L. Walker, United States Engineer Corps, Little Rock, Ark., to whom the Academy is indebted for many courtesies.

In addition, Captain Raybon explored White river to the mouth of Black river, and Black river to Poplar Bluff, Mo., a distance of 497 miles by water; and also traversed Current river from its union with Black river to Doniphan, Mo., 53 miles by water.

Work on Black river north of its union with Current river, and on Current river, was abandoned by us on account of the scarcity of artifacts with aboriginal burials and of the inferior quality of such artifacts as were found with them in our investigations.

It is not possible to take a boat on St. Francis river above its union with Little river, but the latter stream at the time of our visit was easily navigable to Big Lake. Our quest, however, which ended at Lepanto, on Little river, came to an end owing to the hostility against negroes, entertained by the natives along the river above Lepanto, who maintain a negro dead-line, permitting no colored person to go among them. As this race prejudice has resulted in the murder of a number of negroes, we did not deem it fair to expose to slaughter men who had served us faithfully for years. Our sole motive for referring to this disagreeable episode is that when an amply equipped expedition abandons a most promising region, a valid reason for doing so should be forthcoming.

As we have explained in former reports, our archæological work in the South is done from a stern-wheel steamer one hundred feet in length and twenty feet beam. This steamer is navigated by a captain, a pilot, an engineer, and a crew of five men. In addition, there were with us the last season, six men to dig, who, aided by three of the crew, made a force of nine men in all for this work.

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

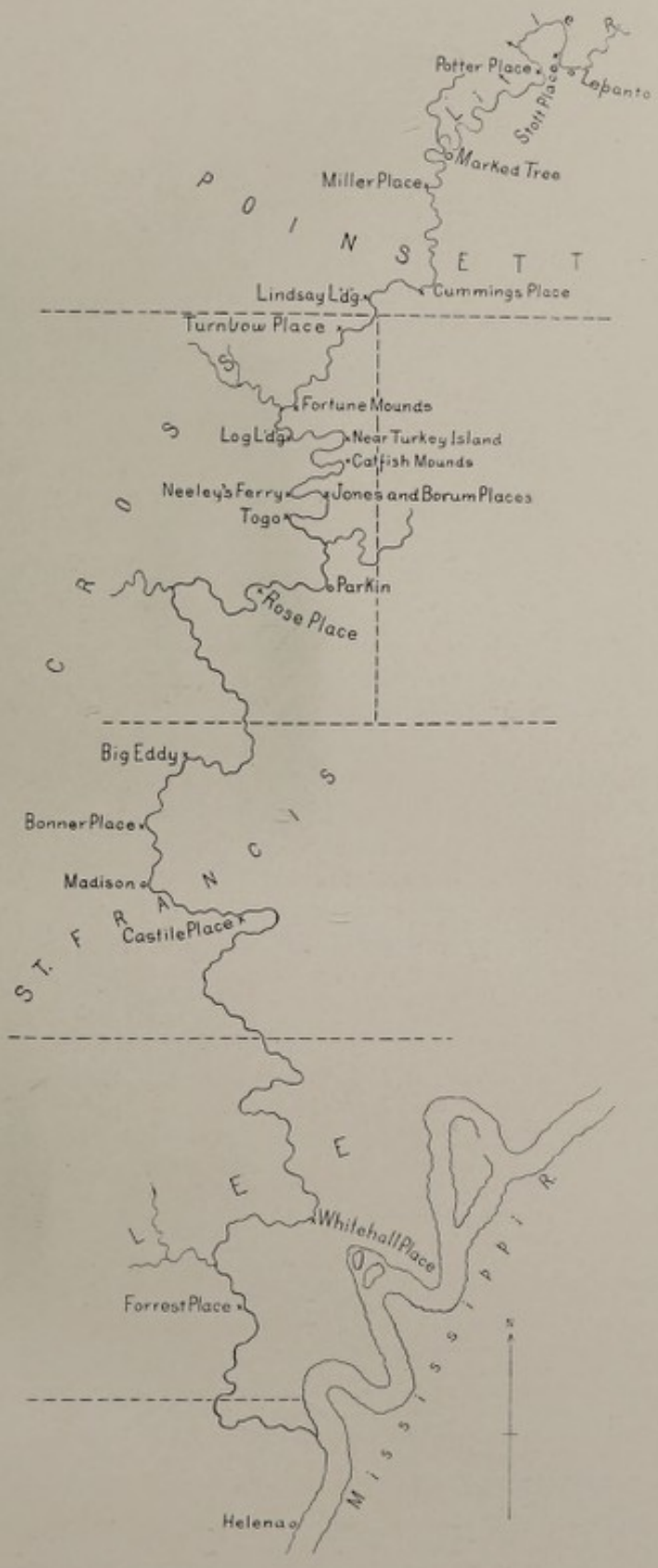
Mr. Arthur W. Clime, with the party for the third year, rendered most efficient aid in a variety of ways.

Our thanks are tendered Prof. F. W. Putnam and Mr. Charles C. Willoughby for much valuable aid in connection with the pottery of the St. Francis river; Prof. F. A. Lucas for identification of bones of lower animals; Dr. H. A. Pilsbry and Mr. E. G. Vanatta for determination of shells; Prof. R. A. F. Penrose, Jr., for identification of minerals and rocks;¹ Dr. H. F. Keller for chemical determinations; Miss H. N. Wardle for valuable suggestions, and aid with the index; and Mr. F. W. Hodge for literary revision of this report.

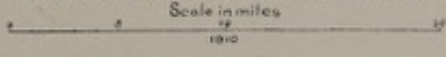
Throughout our season's work thirty-eight boxes and cases of skulls and of other skeletal remains were carefully preserved by us and were forwarded as a gift to the United States National Museum. These remains, at a later period, will be fully described by Dr. Aleš Hrdlička, Curator of the Division of Physical Anthropology in the National Museum.

All measurements of vessels and of other objects described in this report are approximate, and any reduction in size in the illustrations is linear. The vessels and other objects may be seen at the Academy of Natural Sciences of Philadelphia.

¹ As sections for microscopic examination, cut from the various specimens, were not furnished by us, the basis for exact determination was not so ample as it otherwise would have been.



MAP OF PARTS OF THE ST. FRANCIS AND LITTLE RIVERS



PART I.

ST. FRANCIS RIVER.

St. Francis river enters the Mississippi on the western side, about twelve miles above the city of Helena, Ark.

The banks in places are fairly high and are not subject to overflow except on rare occasions. It is not likely that the great aboriginal sites along the river have suffered to any great extent through wash of water.

The principal sites along the St. Francis, although as a rule having mounds in connection with them, are in reality great dwelling-sites which have increased in height gradually through long periods of occupancy, and the aborigines, burying where they lived, have formed, in course of time, great cemeteries in which burials lie at various depths often depending on the period in the growth of the site when the burial was made.

All these burials in the various sites we believe to have been pre-Columbian,¹

¹ The reader is doubtless aware that native copper (which is not found in merchantable quantities in Europe), such as was used by the aborigines in the United States before the coming of Europeans, is far purer than is copper produced by smelting from the ores found in Europe, which are sulphide ores and contain many impurities that cannot be wholly eliminated in smelting.

Three specimens of copper from burial sites in the St. Francis Valley were submitted to Dr. H. F. Keller, who reports as follows:

"Having completed the chemical examination of the materials you sent me May 21st, I would state my results as follows:

"1. The copper bead marked 'Big Eddy, with burial No. 5' consisted of a piece of foil lapped at one edge and rolled into a cylinder. The crust of carbonate, etc., was removed with acid, and the clean metal carefully analyzed. It yielded—

"Copper	99.91%
"Silver	.031
"Iron	.023

"Lead, arsenic, antimony, and other metals were absent. There can be no doubt therefore that the bead was made from native copper.

"2. The smaller bead marked 'Mound on Rose Place, Cross County, Arkansas,' after cleaning with acid, was found to contain 99.9% of copper and traces of silver and iron, but no other metallic impurities.

"3. The fragments of copper marked 'Mounds above Turkey Island, Cross Co., Ark., with burial No. 35' were found thickly incrustated with carbonate of copper and clay. This material contains about 80% of copper, but no trace of lead, arsenic, antimony, or other impurities characteristic of copper extracted from sulphide ores could be detected in it. It showed however a very marked reaction for silver.

"4. The 'red paint' from cemetery on Cummings Place, Poinsett Co., Ark., is a clay colored red by an admixture of about 8% oxide of iron.

"5. The earthy material of very bright red color is similar in composition, but contains 13.3% ferric oxide.

"The tests of the specimens of copper were made with the greatest care, and they leave no room for doubt that these objects were fashioned from the native metal."

We learn also by this report that the red pigments in use by the aborigines along the St. Francis were clays colored with red oxide of iron—a purely aboriginal product.

since in no instance in the digging done by us along the St. Francis was any object found in any way indicating intercourse with Europeans. The St. Francis appears to have been peculiarly secluded. Thomas Ashe,¹ who traveled down the Mississippi so late as 1806, says of the St. Francis, "Near its confluence with the Mississippi, it is subject to inundations but toward the head of its navigation it has high and fertile banks, which are thickly occupied by Indian nations, of whom nothing is known, as there are no white settlers among them, and as they have never been visited by any person disposed to discover their character and history."

Aboriginal burials in the St. Francis region usually had been made extended on the back, and, with the exception of pottery, but little had been placed with them, though there were many exceptions to this rule.

Several instances of cremation of human remains were found by us along the river, and there was one instance of cremated human bones deposited in a vessel of earthenware.

The St. Francis valley forms part of the Middle Mississippi region, which region is defined by Holmes² as follows:

"The geographic distribution of the ware of this group naturally receives first consideration. Apparently its greatest and most striking development centers about the contiguous portions of Arkansas, Missouri, Illinois, Kentucky and Tennessee."

The aboriginal pottery of this Middle Mississippi region is more abundant than is that of any other part of the United States, and this pottery probably has been more fully described and figured than has the ware from any other portion of our country.

The St. Francis valley has yielded more examples of its ware than has any equal area in the United States, and while this pottery has shared in the full description which has been accorded the earthenware of the region to which it belongs, and while we can hope to shed but little new light upon the pottery itself, we shall try to describe in this report the conditions under which the vessels were placed with the dead and the burial customs of the aborigines who made the vessels, details which former seekers of aboriginal remains along the St. Francis have failed to make public.

As the St. Francis (with the possible exception of the Mississippi, a river very many times the length of the St. Francis) long has had the reputation of being richer in aboriginal earthenware than is any other river in the United States, the territory through which the river passes has been for years the headquarters for collectors and for persons wishing to make a livelihood or to increase their means by the sale of Indian pottery, and these individuals have worked for long periods and with indefatigable zeal. Moreover, vast numbers of vessels have been destroyed along the St. Francis in the process of cultivation of the cemeteries in which they lay, while others have been dug out or have been shattered in the digging by

¹ "Travels in America." London, 1809, p. 273.

² William H. Holmes. "Aboriginal Pottery of Eastern United States." 20th An. Rep. Bur. Am. Ethn., p. 80.

unskilled local endeavor. Consequently the limitations of the scientific worker along St. Francis river at the present time are apparent.

Though we were merely gleaners along the St. Francis, so far as the acquisition of pottery there was concerned, and while the number of vessels obtained by us was far smaller than it would have been had the time of our visit been advanced a score of years, yet there seems to be no reason to believe that the average quality of the vessels obtained by us can differ from that of earlier discoveries along the river.

The earthenware is shell-tempered. Quantity rather than quality seems to have been the aim of its makers, for the ware is often insufficiently fired, and the vessels are frequently thick and out of shape—"lop-sided," to use an expression exactly describing them.

The high polish of the surface often found on vessels from Mississippi, Alabama, and Louisiana, is almost absent on the St. Francis.

A very large proportion of the vessels are undecorated or have some trivial form of decoration such as beaded, notched, or scalloped margins, or else loop-handles below the rim or ears projecting from it (if handles and ears, which were used to aid suspension, may be classed as decoration). Superior trailed or incised decoration is almost never seen on the St. Francis pottery, the inferior surface of most of the ware being unsuited to incised decoration of excellent quality, even had it been attempted. When incised decoration is met with on the St. Francis ware, it is as a rule rude and scanty, being confined to parts just below the rim, and usually is restricted to vessels intended for culinary purposes. On the few vessels found by us having incised decoration, it is almost invariably of a kind so elementary in design and execution that the vessels are entirely out-classed in this respect by those found in some other regions. But one really superior piece of incised work was found by us on the whole St. Francis river, and but two or three of even medium quality. This comparative absence of incised decoration on St. Francis pottery is conducive to great monotony in the appearance of its vessels, since very many of them, which would have decoration in other regions, are wholly without it on the St. Francis.

Of course there are some exceptions to the general inferiority of vessels along the river—perhaps about eight per cent.¹ of those found there present other than most minor points of interest as to form or decoration. Vessels of the better class found by us will be fully described and illustrated in this report. As, however, almost none of our vessels are of types wholly new to the pottery of the Middle Mississippi valley region, we feel an explanation to be due for introducing illustrations of them. Many of these vessels present minor points of difference from those which have been figured elsewhere, and illustrations given in some of the earlier works were made at a time when technical methods had not reached the excellence they have attained at present.

¹ Fourteen hundred and fifteen vessels, whole and broken, were found by us on St. Francis river and on the small part of Little river investigated by us. All these vessels were most carefully examined by us before being rejected in place, being given to owners of the lands, being turned over to minor institutions, or reserved for our collection at the Academy of Natural Sciences.

Owing to the widespread attention that the pottery of the St. Francis has received already, we shall omit in the main from our description of the ware the commoner forms of the pottery of this region, and shall have but little to say of the undecorated bottles, pots, and bowls of commonplace form; the bowls and pots with loop-handles or ears, and with trivial decoration, such as knobs, notches, fillets, or rude incised or punctate markings; bowls having rudely modeled heads projecting from one side and conventional tails on the opposite side; many bowls having forms of the fish in profile; bottles with dual necks uniting near the opening or with annular or tripod supports; or bottles having coarse representations of the human head at the opening; vessels bearing in relief representations of the frog; shell forms, fresh-water and marine; various forms of the gourd, including ladles; vessels of ordinary shape with uniform coatings of red pigment.

The great majority of vessels found by us along St. Francis river were in fragments, as indeed we have found the case to be everywhere else. These fragments were carefully gathered and, if found worthy of restoration, were labeled and sent to the Academy of Natural Sciences, where they were cemented together in their original shapes,¹ occasionally with slight restoration. This restoration is never attempted unless it is entirely warranted by the form of the remainder of the vessel, as, for example, the addition of a handle similar to another on the vessel, or the insertion of a portion of the rim or of the body. The restoration, moreover, is made with a material that can be distinguished at once from that of which the vessel is made.

The student of the earthenware of the St. Francis who is not already familiar with that part of Professor Holmes' "Aboriginal Pottery of Eastern United States,"² which treats of the ware of the Middle Mississippi valley, is recommended to accord it careful attention, inasmuch as nearly all the forms and decorations of pottery found along the St. Francis, as well as in adjacent territory, are carefully described and figured in it. Also, "An Analysis of the Decorations upon Pottery from the Mississippi Valley"³ will prove interesting to read in connection with the decoration of vessels figured in this report.

As a general rule the mortuary deposit of pottery along the St. Francis was placed near the head of the skeleton, though there were a number of exceptions to this rule where vessels were found near various parts of the body. In cases of deposits of a considerable number of vessels, the pottery sometimes began at the head and extended downward. In the case of an infant which had eleven vessels with it, the pottery deposit extended almost the full length of the skeleton, if not its entire length. However, in the great majority of cases vessels of earthenware lay at the heads, and "pot-hunters" along the river, having dug down to vessels near skulls, which they had discovered with the aid of sounding-rods, seldom dug out the entire skeletons, realizing that the chance of finding other vessels with them did not warrant their doing so.

¹ The effigy vessel from the Bonner Place, on St. Francis river, was found in ninety-five pieces.

² *Op. cit.*

³ Charles C. Willoughby. *Journal of American Folk-lore*, Vol. X, 1897.

The position of vessels in respect to each other along the St. Francis was the same as we have found it to be elsewhere. Vessels often lay within other vessels or under them, and bottles were often capped by small, inverted bowls which sometimes, in the case of bottles with short necks, covered the neck completely, the rim of the inverted bowl resting on the body of the bottle.

In many vessels, or occasionally placed on the openings of some of them, were mussel-shells which had served as spoons,¹ and sometimes shells carved to represent spoons were present.

In burial sites along St. Francis and Little rivers were found bones from various animals which Prof. F. A. Lucas kindly has determined as dog, deer, otter, beaver, cottontail rabbit, raccoon, wildcat, and probably elk.

We shall now describe certain sites along St. Francis and Little rivers, taken in order going up-stream, introducing only sites where our search was rewarded, though many others were visited by us and much unproductive work was done in them. We believe we had the privilege of examining all the important sites along the St. Francis except two (some were exhausted years ago), and these two sites, the Clay-Luna Place and the Cook Place, both in Cross County, it is needless to say, were not omitted by us without many strenuous efforts for permission to investigate.

SITES INVESTIGATED.

- Forrest Place, Lee County.
- Whitehall Place, Lee County.
- Castile Place, St. Francis County.
- Bonner Place, St. Francis County.
- Big Eddy, St. Francis County.
- Bay Ferry, Cross County.
- Rose Mound, Cross County.
- Parkin, Cross County.
- Togo, Cross County.
- Jones and Borum Places, Cross County.
- Neeley's Ferry, Cross County.
- Catfish Mounds, Cross County.
- Mounds above Turkey Island, Cross County.
- Log Landing, Cross County.
- Fortune Mounds, Cross County.
- Turnbow Place, Cross County.
- Lindsay Place, Poinsett County.
- Cummings Place, Poinsett County.
- Miller Place, Poinsett County.
- Potter Place, Poinsett County.
- Stott Place, Poinsett County.

¹ In this connection it is interesting to note that the Japanese word *kai* stands for both shell and spoon: and that the Chinese ideograph for the word "spoon" is said to have been copied from a shell resembling a pecten. N. Gordon Munro, M. D., "Reflections on some European Paleoliths and Japanese Survivals." Transactions of the Asiatic Society of Japan, Vol. XXXVI, Part III.

CEMETERY ON THE FORREST PLACE, LEE COUNTY.

Going inland from Forrest Place Landing about three-quarters of a mile in a southwesterly course (or considerably more by the winding road), that part of the Forrest Place is reached which belongs to Mr. Stephen Blackstone, of Macomb, Ill.

The surface of the cultivated part of Mr. Blackstone's property is strewn with midden-debris, including numerous small arrowheads of flint¹ and bits of pottery, some of which latter, of thin ware, still are colored a brilliant red.

There is considerable history of the finding of human bones and of pottery vessels all over the Forrest Place, which borders the low hills that there approach the river. Colored tenants showed us two earthenware vessels that had been ploughed up by them, one of which, somewhat broken after its discovery, evidently had been of the "teapot" variety, though the spout was missing when the vessel was recovered by us in the field where it had been left by the discoverer.

This vessel differs somewhat in details from the "teapot" vessel found in regions farther south, in that it has a flat base projecting somewhat, and a neck of the compound form resembling a small cup.

In a part of the field where debris was thickest and where the soil was darkest, considerable digging was done by us, resulting in the discovery of six burials. These burials, however, were so widely separated that the place could hardly be considered a cemetery in the strict sense of the word.

The burials lay in pits, the deepest 3 feet from the surface. The condition of the bones was such that no skulls could be saved, most of the burials, in fact, being hardly more than decaying fragments of bone. Three burials lay closely flexed on the left side, the head of one being bent forward on the chest.

Burial No. 5 lay with the trunk on the back, the thighs flexed upward in a manner to raise the knees considerably above the level of the trunk, the legs flexed closely against the thighs.

Burial No. 6 had the trunk twisted, the lower part being on the back and the upper part on the right side. The thighs were partly flexed and widely everted, while the legs were partly flexed, the feet being together. The head rested on the right shoulder.

One skeleton, that of a child, was badly decayed.

Twelve vessels were found by us in the digging, lying at various parts of the skeletons, never more than two with a burial, though three vessels were found together with no bones in association.

In the soil, apart from human remains, was a pebble of quartzite,² flat, nearly round, about 2.2 inches in diameter and .3 inch in thickness, having near the margin a perforation for suspension.

¹ Unless otherwise specified, the term "flint" is used in this report as a general name for the material of objects made of chert, hornstone, chalcedony, opal, and other silicious materials, including the rock known as novaculite, found abundantly in southwestern Arkansas.

² Professor R. A. F. Penrose, Jr., who for several years was connected with the Geological Survey of Arkansas, and who kindly determined for us the rocks of which the objects of stone found by us last season are made, writes: "It is evident that most of the implements you showed me might have been made from materials found in Arkansas The massive shale, the slate, the limestone, the sandstone, the quartzite, the flint, the chert, the quartz and the calcite, from which many of the implements were made, are found abundantly in that State."

CEMETERIES ON THE WHITEHALL PLACE, LEE COUNTY.

The Whitehall Plantation, one of four kindly placed at our disposal by Messrs. Banks and Harrelson (Lem Banks and W. H. Harrelson), of Memphis, Tenn., is bordered on one side by St. Francis river and on the opposite side by the Mississippi, the rivers at this place not being much more than two miles apart.

About one mile in a NW. direction from Franks Landing on the St. Francis is a mound, 11 feet in height, in a cultivated field belonging to the plantation. The basal outline is irregular, the principal diameters being 105 feet and 125 feet. The summit-plateau is 50 feet by 67 feet. This mound, which has every appearance of having been domiciliary, was dug into by us with negative results in the endeavor to ascertain if superficial burials had been made in the plateau.

Adjacent to the mound is a tract of land said to be above high water at all seasons. In this tract, about 40 yards in a northerly direction from the mound, an earthenware vessel was discovered some distance below the surface by the aid of a sounding-rod, and later, with the help of trial-holes, an area roughly elliptical in outline, 38 feet by 27 feet, was defined as containing burials. This space, rich, alluvial deposit, was practically dug through by us, such parts only being left undug as were too small to contain a burial without discovery.

The burials, twelve in number, lay from 8 inches to 26 inches below the surface. They had suffered through decay to an extent that made preservation impossible. Their positions were as follows:

Partly flexed on the right side (including one adolescent)	4
Partly flexed on the left side	3
Children, position undetermined	3

Burial No. 3 lay with the trunk on the back, the thighs and legs partly flexed to the left side.



FIG. 1.—Pipe of earthenware. With Burial No. 3. Whitehall Place. (Full size.)

Burial No. 12, lying with the trunk on the back, had the knees drawn up toward the chin.

Seven vessels of earthenware came from this little cemetery, six of which were immediately with burials.

Burial No. 3, adult, in addition to a bottle at the left humerus, had, at the left elbow, an interesting pipe of hard, black ware, shown in Fig. 1.

Of the seven vessels from this place, some of which were badly crushed, three were undecorated bottles with wide mouths, and one was an undecorated bowl.

The three remaining vessels merit particular description.

Vessel No. 2, a bottle of yellow ware, decorated with alternate, upright bands of red and cream-colored pigment. The neck of the bottle, the upper part of which is missing, has a uniform coating of red pigment.

Vessel No. 3. This bottle (Fig. 2), rather neatly shaped, has six lobes on the body, each surmounted by a notched band in relief.



FIG. 2.—Vessel No. 3. Whitehall Place. (Height 5.1 inches.)

Vessel No. 1. The vessel shown in Fig. 3 is of a shape somewhat uncommon along St. Francis river, and as the Mississippi is but two miles distant from where the vessel was found, it can hardly be regarded as a St. Francis type. Four heads of frogs in relief adorn the body.

In places on the surface of this plantation were signs of aboriginal occupancy, including a few flint arrowheads, nearly all small and leaf-shaped; numerous fragments of pottery, some of excellent ware bearing well-preserved decoration of red

pigment. A "celt" of volcanic rock, about 6.5 inches in length, was picked up on the surface.

About 35 yards northeasterly from the mound was a small area of sand having a slight admixture of clay, the only soil of this kind we noticed in our search over the higher parts of the plantation bordering the mound. A few small fragments of human bones lay on the surface at this place, which, however, had upon it no midden-debris. Sounding-rods and trial-holes at once came upon burials, and sub-



FIG. 3.—Vessel No. 1. Whitehall Place. (Diam. 8.8 inches.)

sequent digging indicated that the sand deposit, which was about 24 feet square, was crowded with burials extending from the surface to a depth of 4 feet. Nine of these burials removed by us with great care, having in view the preservation of the bones, proved to be closely flexed on the left side in four cases; on the right side in three instances; while two were aboriginal disturbances.

Having ascertained that the condition of the bones was such as to render them unfit for preservation, and having failed to find an artifact of any kind associated with them, we removed in part nine other burials, and finding them almost entirely under conditions similar to those of the burials previously taken out, abandoned the search.

THE CASTILE PLACE, ST. FRANCIS COUNTY.

Just above the landing at the Castile Place, on property belonging to Mr. W. L. McGee, of Grand Junction, Colo., is a quadrangular mound about 300 feet by 350 feet in extent, with the upper surface somewhat rolling. Probably 7.5 feet would be a fair estimate of the average height of the mound.

It was evident from the appearance of the surface that the mound had long been a place of abode, for scattered about was much debris, consisting of bits of flint, fragments of pottery, and small masses of baked clay, which, as the surface of the mound had been under cultivation, probably came from fireplaces broken by the plow. With the fragmentary material on the surface were found several small arrowpoints, a "celt" somewhat broken, and an earthenware pipe of ordinary form.

The mound, which probably had increased in height by stages, was composed of loamy material with a large admixture of ashes and much baked clay in masses, perhaps fireplaces broken through in digging graves—for the aborigines had buried where they lived.

Extensive digging was done by us in this mound, resulting in the discovery of one burial in the southeastern part of it; of two near the northeastern corner; and of twenty-three burials near together in the central part of the western half. In addition, five burials were found, widely apart, in a ridge which forms part of a field to the westward of the mound.

The burials in the mound proper were in graves, from slightly below the surface to a depth of 4 feet. It was impossible to determine if the deeper graves had been made at a period when the mound was of the same height that it was at the time of our visit, as none of them cut through any stratum or fireplace, though probably other of the deeper graves in the mound which were not found by us may do so.

A number of burials had been cut through by later graves. This condition in several instances proved to be unfortunate, as, for example, Burial No. 12 (a well-preserved adult skeleton, the only one the skull of which was in a condition to save), which a later interment had deprived of the bones of the lower limbs.

As a rule, the form of burial was at full length on the back. The exceptions, excluding some burials which had been greatly disturbed, and the remains of several children, were as follows:

Burial No. 5, adult, partly flexed on the left side.

Burial No. 6, adult, the trunk lying on the right side, the lower extremities angling off from it.

Burial No. 14, at full length, face down, the left arm brought up over the head, the forearm closely flexed. A later burial had removed from this skeleton the bones of the legs and feet.

Burial No. 23, adult, trunk on the back, the right lower extremity straight, the left slightly flexed.

Few burials were unaccompanied by objects of any sort, most of them having pottery in association. Incidentally it may be said that several skulls were found crushed by vessels that had been placed against them.

With the exception of pottery, which will be described later, but few objects had been placed with the dead.

Burial No. 3, the remains of an adolescent, which had been somewhat disturbed, had at the right elbow a bottle and, slightly scattered, twelve tubular beads of bone, each about an inch in length.

Burial No. 4, adult, at full length on the back, in addition to one vessel, had, at the side of the right leg, from the knee upward: a "celt" of silicious limestone, about 4 inches in length; three piercing implements of bone, with the articular parts remaining; a number of mussel-shells, decayed and broken; a lot of small, round pebbles, probably from a rattle, the remainder of which had disappeared through decay; the incisor of a beaver, with the root cut off.

Burial No. 6 had in association a section cut from a large and thick mussel-shell (*Quadrula heros*) in a manner to leave part of the valve, projecting like a hook. Though this object has the form of a pendant, it bears neither groove nor perforation. Its position in connection with the body was as follows: near the head of the skeleton was an upright vessel having within it another, also erect; farther down was a single upright vessel, and at the forearm was a bowl on its base, containing a vessel inverted over the shell ornament.

Burial No. 14 had near it an arrowhead wrought from a tine of deer antler which, however, may have been accidentally present in the midden debris. At the skull was an undecorated bottle, and two bowls, one within the other.

Burial No. 16, an adolescent at full length on the back, had, at the head, a single vessel, and near the left humerus a shell of the oyster type (*Exogyra costata*), a cretaceous fossil having a ribbed back, the ribs, however, in this instance, having been removed probably to allow the shell to serve as a spoon.

A single shell bead was found near a burial.

Apart from human remains in the mound were two piercing implements of bone, and a small "celt," seemingly of sedimentary rock; while on the surface of the adjoining field, to which reference has been made, were gathered a number of chisels, some wrought from flint pebbles, some from masses of silicified wood; a few flint arrowheads; a bead of bone; two disks made from fragments of pottery vessels, one with a central perforation, the other about two-thirds perforated centrally.

Sixty-four vessels were found by us at the Castile Place, nearly all associated with burials. As a rule, the pottery lay near the skulls, though there were exceptions to this. At times a single vessel lay with a burial, but more often two were present, usually a bottle and a bowl, sometimes one at each side of the skull. The greatest number of vessels present with one burial was seven, the deposit being arranged in line in the following manner: a large vessel upright, having within it, also upright, a vessel within which was a third vessel inverted over a small one in fragments; a vessel inverted over another one standing erect; a single vessel in an upright position.

Although we have given the number of vessels found by us at the Castile Place as sixty-four, this figure by no means represents the tally of those preserved by us, many of the vessels having been merely disintegrating fragments, while others had considerable parts missing and were in other ways undesirable.

One vessel is superior to the others from this place. This is Vessel No. 37, a bottle 5.5 inches in height, coated exteriorly with red pigment and having traces of the same color within the neck. Modeled in relief on the body of the bottle are the head and legs of a frog.

MOUND ON THE BONNER PLACE, ST. FRANCIS COUNTY.

About one-quarter mile inland, in a straight line, through partly cleared ground, from the landing at the upper end of the Bonner Place, belonging to Mr. Edward Bonner, Sr., of Forrest City, Ark., one comes to the house of the tenant occupying that part of the property. Immediately back of the house is the remnant of a mound which has been much reduced in height and increased in diameter by cultivation. The height at the time of our visit was about 3 feet; the diameter, 45 feet.

This mound has a history as an aboriginal burial place, and fragments of human bone were scattered over the surface when we visited it. What we considered to be the original mound was dug out by us, and subsequently refilled, as the high ground was required for the use of stock in periods of high water.

Human remains in the last stage of decay were present in a number of places in the mound, including a large deposit of long-bones piled parallel to one another, having four skulls at the margin of the pile. Possibly other crania in small fragments were included in this deposit.

No artifacts were found immediately with burials, but scattered throughout the mound were several bowls, two small bottles, a human effigy figure, and an earthenware pipe.

The ware of all these is black, almost without shell tempering, and imperfectly fired. In consequence, several of the vessels were in disintegrating bits, and all but one, a bottle, were very badly broken. No ornamentation of any kind was present on the earthenware of this mound.

Vessel No. 4, a human effigy bottle,¹ found in ninety-five fragments, since cemented together (Figs. 4, 5), has an interesting arrangement of the head-dress and the hair, and is represented as wearing a garment resembling an apron. The tongue protrudes, seemingly; or else some object is represented as held in the mouth.

The pipe, of a common type in Arkansas, has two small projecting feet at the base of the bowl, to enable the pipe to remain upright when placed on a level surface. Supports of this kind are sometimes prominent features on these pipes, as they are on the one figured by us as coming from the Rose Mound (Fig. 8). In other cases, however, the supports are less conspicuous, and in some cases are hardly more than rudimentary.

CEMETERY NEAR BIG EDDY, ST. FRANCIS COUNTY.

Big Eddy, a bay formed by the swirl of the river in periods of high water, is almost surrounded by woodland sloping upward to low hills that at this place nearly approach the water. The territory for a considerable distance around is owned by Mrs. Mary Lee Dennis, of Hot Springs, Ark., and is under the management of Mr. Robert J. Rhodes, of Whiteville, Tenn.

By following for a short distance the county road leading inland (another road

¹ For many effigy bottles described and figured, see Gen. Gates P. Thruston's "Antiquities of Tennessee," 2d ed.



FIG. 4.—Vessel No. 4. Bonner Place. (Height 13.1 inches.)



FIG. 5.—Vessel No. 4. Side view. Bonner Place.

follows the river), one reaches a mound 55 feet in diameter of base and about 8 feet in height, immediately by the roadside.

This mound, of raw clay, probably the site of the wigwam of the chief, from which the superficial deposit of midden-refuse has washed away, yielded nothing to investigation.

Across the road from the mound begins a low ridge of artificial origin, which, running westwardly, borders a shallow ravine and then turning southwardly is cut by the road and ends a short distance beyond it.

This ridge, the level ground near it, and various small rises of the ground in its vicinity (all of which are still in woodland), as well as a field about 200 yards NE. from the mound, for many years have yielded pottery in amounts really surprising, to the efforts of inhabitants and of seekers of relics for the market, some of whom, it is said, devoted long periods of time to the work. The whole territory is literally seamed with traces of digging, except the field where the superficial evidence of search has been obliterated by the plow.

A most careful examination was accorded by us to all this territory, with the aid of sounding-rods and by digging trial-holes, but so extensive had been the work of previous diggers that nothing except remains left by them was found by us, save two burials in the field, and a group of interments at the beginning of the ridge, just across the road from the mound, most of which were at a depth to defy the efforts of the sounding-rods of previous visitors. Unfortunately for us, both in the field and in the remainder of the cemetery in the woodland, the artificial deposit of loamy material and midden-debris was less deep and had offered every opportunity to the pottery-hunters.

Twenty-four burials which came from the extremity of the ridge, and two additional ones from the field—all that were found by us—will be described in detail, with the general statement in advance that though the bones at this place were in fairly good condition, but one skull was uncrushed, and that neither at this place nor at any other place on the St. Francis was noted any orientation of burials.

Burial No. 1, the skeleton of an adult (as are all not otherwise specified by us), lay extended on the back at a depth of 3 feet 9 inches, the measurement being made to the upper surface of the burial, which is the method practised by us in all our measurements of depths of interments. Above part of this burial, but near the surface, was the site of an aboriginal fireplace, marked by a layer of baked clay having a maximum thickness of 6 inches. This layer also extended over parts of other burials (Nos. 2 and 3). It is not our belief that the fireplace, which was far above the burials, had any connection with them, but we consider it to have been incidental to the dwelling-site. Fragments of burnt clay were present in the soil throughout the entire site.

To return to Burial No. 1: at the neck were three tubular beads of shell; two vessels at the left shoulder; two at the left elbow; and one at the right humerus.

Burial No. 2, at full length on the back, 3 feet 8 inches down. Two vessels lay at the right of the pelvis.

Burial No. 3, extended on the back, 4 feet 6 inches down. Vessels lay one at the left hand; one somewhat farther up; one near the left shoulder. At the right humerus were: a "celt" of silicious limestone; two bone implements with rounded points; a flat flint pebble showing marks of use; a flat mass, probably crystallized sandstone; a fragment of pottery; a decayed bit of bone having belonged to a lower animal, part of which had been cut away; a bead of bone, 1.75 inches in length; four small shell beads.

Burials Nos. 1 and 3 were interestingly associated, showing, as they did, distinctly different periods of interment, Burial No. 3 lying below a stratum of clay which locally formed part of the ridge, while Burial No. 1 had cut through this stratum, so that it is clear that one burial had been made before the formation of the stratum, while the other had been made subsequently (Diagram, Fig. 6).

Burial No. 4, a child, 2 feet below the surface. Over the pelvis was an earthenware vessel, alongside of which was another one standing upright (which is the position, unless otherwise specified, of all vessels described by us as coming from this cemetery, but not necessarily the case as to vessels referred to by us in accounts of other places of burial), resting on which was a third vessel, inverted. Near the vessels lay a bone pin.

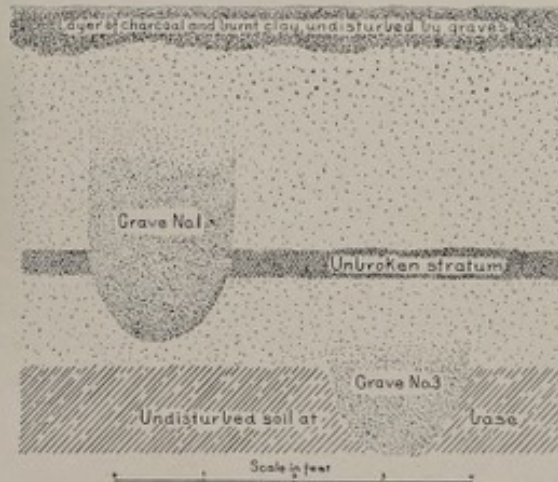


FIG. 6.—Plan of graves. Big Eddy.

Burial No. 5, a child, extended on the back, had at the left knee a bowl which had been covered with an inverted fragment of a large vessel; at the left side of the skull was a pot. At the head and neck were a few shell beads, some of which were small ocean shells (*Oliva literata*), ground for stringing; and three tubular beads of sheet-copper, with overlapping edges, the longest 1.9 inches in length. One of these beads, analyzed quantitatively by Dr. H. F. Keller (see page 258 of this report), proved to be of pure, native copper which could not have been obtained from Europeans.

At the right side of the skull of this burial was a group of five vessels in line: a pot inverted over a bowl; a pot inverted; a bowl turned over a bottle. In addition to all other objects placed with this favored child there lay, on the bottom of the pot which was covered by the bowl, a spoon carved from a heavy mussel-shell (*Lampsilis purpurata*) having the edge of the shell ground away, and a series of neatly-made notches cut at one end to form a handle.

Burial No. 6 lay partly flexed on the left side, 3 feet 9 inches down. Near the skull was a leaf-shaped point of flint, about 1.5 inches in length, while back of the

head was a considerable quantity of ground oxide of iron having a purple hue. At the pelvis were: a bottle, and a bowl having within it another bowl inverted.

Burial No. 7, an extended skeleton of a child, had, near the skull, a bottle with a short neck, which was covered neatly with a small, inverted pot, the rim of which rested on the body of the bottle, thus keeping the neck intact and the interior of the bottle free from clay. Near these was a bowl turned over another bowl, which was itself inverted.

Burial No. 8 lay a little more than 2 feet below the surface, in an extended position so far as it went, the upper part of the thorax and the skull having been cut away by a later burial. This burial (No. 8), it should be borne in mind, though found without associated objects, had lost that part with which artifacts usually are found.

Burial No. 9, at full length on the back, 3 feet 8 inches below the surface, had at the skull a bowl inverted over a bottle. At the left tibia were eight neatly-made projectile points of flint, leaf-shaped, as are practically all arrowheads found along St. Francis river.

Burial No. 10, a child, extended on the back, 3 feet down, had a bowl on one side of the head and a bottle on the other side, the opening covered with a mussel-shell much decayed.

Burial No. 11. This burial, which had been cut away from the thorax upward, formed part of what had been a skeleton extended on the back. At the right knee were two vessels.

Burial No. 12, a young child, 3.5 feet down, had a pot at the left side of the skull.

Burial No. 13, at full length on the back, 42 inches down, had at the right side of the skull, but somewhat above it, five vessels, one of which, a small pot, was inverted over the opening of another vessel, while two of the remaining three vessels had mussel-shells in association. At the left side of the skull was a sixth vessel. Near the greater deposit of pottery was a piercing implement of bone.

Burial No. 14, badly disturbed by a later burial, had, at the left elbow, an earthenware vessel, and near the left foot a pipe of earthenware, having projections extending outwardly from the base of its bowl, a type common in Arkansas.

Burial No. 15, an aboriginal disturbance, 5 feet in depth, had a lot of small, round pebbles at the left hand, and a bowl at the left of the pelvis. Beneath the bowl was an antler of a deer, having two tines cut from it.

Burial No. 16, a child, extended on the back, somewhat more than 3 feet from the surface, was without artifacts—this fact emphasizing their almost uniform occurrence with burials in this cemetery.

Burial No. 17, a small child, lying at a depth of 3 feet, had a pot at the right of the skull.

Burial No. 18, extended on the back, at a depth of 2.5 feet, had at the neck a single shell bead, and at the left hand and forearm a bottle and a bowl.

Burial No. 19, a very young child, somewhat less than 2 feet down, lay with

a small pot, over which, no doubt, the base of another vessel had been turned, though a blow from our digger disarranged the fragment so that it was not seen in place.

Burial No. 20, extended on the back, about 3 feet deep, had at the right elbow a pot, and farther up the arm a bottle. At the skull was a large bowl.

Burial No. 21, a child. At the head was a bottle, near which was a small pot containing a very diminutive bottle.

Burial No. 22, a young child, 2 feet down, with a pot near the skull.

Burial No. 23, an adolescent, extended on the back, more than 4 feet in depth, had, at the right side of the head, a pot, and a bowl at the right humerus.

Burial No. 24, an adolescent, lying in the same position as the preceding burial and at about the same depth. On the right side of the skull, which it had crushed, lay a pot, and on the left side another pot having a mussel-shell within it, as had a number of other vessels at this place. At the right and left of the cranium, just at the ears, one on each side, were ear-plugs of shell, resembling short, thick, blunt pins—a well-known type.

Burial No. 25, partly flexed on the right side, one foot down, had a pot at the left shoulder. This burial and the succeeding one came from the field we have referred to, and lay not far from the surface.

Burial No. 26, a child, with whose bones were a bottle having a shell over the opening, two bowls, and two pots. In one of the pots was a shell spoon which unluckily had been badly broken by one of our sounding-rods. Near the skull, which was crushed, were two ear-plugs made from mussel-shells (*Quadrula heros*). Below the head of each of these ear-plugs is a groove encircling the shank.

Considering the disturbance, aboriginal and recent, that had taken place in the cemetery near Big Eddy, remarkably few objects were found separated from human



FIG. 7.—Vessel No. 41. Big Eddy. (Diam. 8 inches.)

remains. The list of such objects is as follows: a "celt" of flint, about 4.6 inches in length; a small "celt" of sedimentary rock; a shell spoon made from a mussel-shell (*Lampsilis purpurata*); two disks made from fragments of pottery vessels, one with central perforation and one without it; a tine of a deer-antler, separated by circular cutting and subsequent breaking; a few vessels of earthenware.

The pottery found by us in this cemetery, sixty-seven vessels in all, was in many cases so decayed and crushed that little but crumbling bits remained on removal. Among the vessels preserved were few of types not already well-known in the region.

The following vessels are of more interest than are the majority of those from this place.

Vessel No. 18. The vase shown in Plate IX is coated with red pigment and has around the neck four solid projections which are conventionalized loop-handles.

The vessel is supported by four feet whose notched margins, in conjunction with the shape of the feet, probably represent cloud symbols.

Vessel No. 41. This bowl, shown in Fig. 7, is more striking in reality than is the half-tone representation of it, as the profile view introduced to display the heavy coil of hair on the back does not show enough of the face to portray its rather interesting features. The ware is thick. There are two rude, encircling, incised lines around the upper part of the body of the bowl.

MOUND NEAR BAY FERRY, CROSS COUNTY.

In a cultivated field, the property of Mr. R. Block, of Vanndale, Ark., is a mound about one mile in a S. by W. direction from the landing at Bay Ferry. The mound, of clay, 5 feet 9 inches in height and 48 feet in diameter, is in the form of a truncated cone.

Nine trial-holes carried to the base of the mound came upon burials in six instances, all badly decayed.

With three of the burials were six vessels, two to each, of common shape, undecorated and dropping into fragments.

Easterly, in full view from the mound, is a ridge apparently left by wash of water. Trial-holes sunk in this place, which we thought might have been utilized for burials, were unproductive.

THE ROSE MOUND, CROSS COUNTY.

About 3 miles below Parkin is the Rose Place, well-known in the neighborhood, a part of which now belongs to Mr. P. H. Wissinger, of Parkin, Ark., and is called the Mound Field.

This field, in reality a great mound, quadrangular with rounded corners, generally flat, but having many inequalities of surface, lying in woods, about one mile in from the river, seemingly in the past was part of a tongue of land pointing westward. Although the side of the mound nearest the river at the present time is on the north, at the time of the making of the mound the course of the river was to



BIG EDDY, VESSEL NO. 18. (FULL SIZE.)

the westward of it and in the immediate vicinity of the mound. The mound was formed by digging a large trench on the eastern part of the tongue of land and separating this tongue from the mainland on that side. There are also remains of a trench at the western end which cut off the tip of the tongue. The other sides of the mound look out upon swamp, dry at the time of our visit, which is considerably lower than was the tongue of land originally.

The northern, eastern, southern, and western sides of the mound are in length, respectively, about 849 feet, 471 feet, 900 feet, and 270 feet. The eastern side runs almost due north and south.

The height of the mound is difficult to determine. Its altitude on the eastern side, taken from the level of the ground beyond the trench, is from 3 to 6 feet. From the other sides, however, the height is much greater—15 feet or more in places, but this includes much of the original height of the tongue of land. Perhaps the added part may be judged from the present height as taken from the level ground on the eastern side, and this accretion, it is evident by the nature of the soil, slowly developed during a long period of occupancy. The surface of the mound, often to a depth of 5 feet and more, is not the alluvial soil of the surrounding territory and of the lower parts of the mound, but is rich black loam containing midden-debris and many fireplaces which sometimes are marked by great layers of soil blackened by charcoal, and strata of clay burnt almost to the hardness of brick.

Not far from the center of the mound is a conical mound about 4 feet high and 40 feet across the base, which presumably was the site of the chief's residence.

The entire surface of the great mound is scarred with remains of holes made by seekers after pottery, who have so thoroughly dug the burial places of St. Francis river. It was difficult to find an area of even a few square feet on any part of the great mound, which did not show traces of the spade.

Digging was done by us mainly and most successfully in parts of the great upper surface of the mound, where humps and rises above the general level indicated a more prolonged period of local occupancy than there had been on the flatter parts, though there was no portion of the mound in which we dug, level or otherwise, where some hole or holes did not come upon human remains.

Some of the burials lay just below the surface, though, as the mound has been under cultivation, originally they probably had been at a greater depth. A few other burials were so much as 5 feet below the present surface. Some of these deeper burials had been made when the mound was lower than it is at present, as unbroken layers of soil, and sometimes fireplaces, lay considerably above them. Some deep burials, however, were clearly traceable from the present surface of the mound.

Incidentally it may be said that though we carefully avoided digging where superficial signs of the work of others were apparent, we came upon a number of mutilated skeletons, parts of which had been dug out, and we found also pottery and bones which had been pierced by sounding-rods, but which, no doubt, had been in too soft a condition at the time of contact to indicate their presence.

Twelve working days, with nine men to dig and four to supervise, were devoted by us to the Rose Mound. During this time two hundred and seven burials were found by us, no fewer than seventy-one of which were of children or of infants.

The form of burial of some of the interments, especially in the case of children and infants, was not determined by us, but the great majority of burials lay extended on the back. The following exceptions to this rule were noted:

Partly flexed on the right side	15
Partly flexed on the left side	7
Closely flexed on the left side	1
In a squatting position	4

Three burials were as follows:

Burial No. 75, an adult, had the trunk on the back, the thighs somewhat everted and flexed, and the legs flexed, bringing the feet together.

Burial No. 166, a child, had the trunk on the back, the thighs flexed at right angles upward, and the legs flexed on the thighs.

Burial No. 203, an adult, lay closely flexed and semirecumbent on the back, the head considerably higher than the pelvis.

The number of vessels found by us, broken and whole, in the Rose Mound was five hundred and eighty-seven. Very many of these were left in place, their condition being such as to make removal practically impossible, and their quality of a kind to inspire no wish to add them to our collection. Of the vessels taken from the mound by us two hundred and thirty-five were presented to Mr. Wissinger, the owner of the property.

We shall describe the more interesting vessels from this place at the close of our account of the Rose Mound.

A considerable number of objects were found apart from burials in the Rose Mound, including some pottery vessels. In the case of these latter, however, we believe the separation of most of them may be accounted for by the digging, aboriginal and recent, which had taken place in the mound. This applies also to a number of other objects found, but not to smoking-pipes, which in most of the sites along the river, as well as in the Rose Mound, were found away from burials, and probably were lost in the debris by aboriginal dwellers on the site.

Among the objects found apart from burials were seven earthenware pipes, five of which are rudely made, and all undecorated with the exception of one, which has a very irregular and crudely incised swastika design. Two of the seven pipes (one of which is included among those we have described as coarsely made) were found near fireplaces or kilns and bear no mark of use. They are, moreover, light yellow in color, and though fairly hard, indicate by their shade that the process of firing had not been completed. The remaining pipe of the seven (Fig. 8) belongs to a type before referred to by us as common on St. Francis river, and figured¹ by Holmes as coming from Arkansas, on which two feet, or supports, project forward from the base of the bowl to enable the pipe to maintain an erect position when

¹ Plate XXXIII, d. "Aboriginal Pottery of Eastern U. S."

placed on a level surface. It is interesting to note that pipes are on sale at the present day, having precisely similar supports intended for the same purpose. The pipe here shown by us has these supports well defined which display flattening on the under surface as if through wear. Some Arkansas pipes of this type, however, show the projections as mere knobs, as if conventionalizing had begun.

Likewise apart from burials, were found: two earthenware balls similar in size to objects used in our game of "marbles"; one ear-plug of earthenware; a



FIG. 8.—Pipe of earthenware. Rose Mound. (Full size.)

number of disks of pottery, several modeled and fired, but most of them made from fragments of earthenware vessels—the greater number of the latter having central perforations as is usually the case with these disks in northern Arkansas at least; a number of rude objects of earthenware so imperfectly fired that many of them crumbled into fragments on removal. These objects, which may be described as having roughly the shape of a blunt cone, vary in height from 4 to 8 inches and were invariably found apart from burials and in the neighborhood of fireplaces which probably had served for the preparation of pottery.

Cones of this type¹ vary somewhat in minor particulars, some having, and some being without, holes in the apices, and will be referred to in connection with other mounds along the river.

These fireplaces were not characterized by the ordinary debris found near fires devoted to culinary purposes, but contained masses of burnt clay, of irregular shape, ranging in size to double that of a closed hand. Possibly these masses had served in the construction of ovens for firing pottery, as with these masses were found numbers of fragments of vessels, which had a new appearance and did not seem to have been in use, but rather appeared to be parts of vessels that had broken in the process of firing.

Side by side were three objects, similar to one another, of half-fired clay, flat as to the base, with convex upper surface and rounded ends, much resembling certain loaves of bread in shape. Longitudinally, on each upper surface, is a groove .75 inch in width.

Also apart from burials were four tubular beads of copper; one perforated cylinder of charred wood; piercing implements of bone; eight arrowpoints of flint, seven leaf-shaped, one barbed; rude discoidal stones, some made from pebbles; flint knives; chisels wrought from pebbles of flint; pitted stones; seven "celts," five of quartzite, one of igneous rock, and one of flint, ranging from 2.1 inches to 4.5 inches in length.

We shall now turn to artifacts which were associated with burials.

Of the two hundred and seven burials in the Rose Mound there were twenty-two which had with each of them, usually, but not always, associated with a vessel or vessels of earthenware, a single bead of shell, two beads of shell, or a number of shell beads, nearly all of which were badly decayed.

Of these twenty-two burials, four were of adults and eighteen were of children, including infants.

We shall now describe in detail all burials found by us at the Rose Mound that were accompanied with artifacts other than shell beads or vessels of earthenware, but we shall include in our description beads of shell and pottery utensils when they were found with these burials in connection with other objects.

Burial No. 3, adult, partly flexed on the left side, had eighteen curious objects of earthenware, pillar-shaped, flat on what presumably are the bases, and slightly

¹ It is interesting to note that similar cones were in use under like conditions in prehistoric Europe.

In an article on the excavation of stone-age dwelling-pits and cremation-graves in the Hanau region, Prof. Friedrich Heiderich writes—"The second dwelling-pit was likewise round, and of about the same dimensions as the first. A definite fireplace was not recognizable within it [as there was in the first]. There were found a quantity of sherds of large vessels, quite like those of the former pit, but lying scattered throughout. In the center of the pit a well-preserved mealing-stone lay overturned. . . . Further there was found in the vicinity of the mealing stone, a peculiar object of burnt clay, of sugar-loaf form—the use of which is problematical. Its height is 16 cm.; the diameter at the base, 10 cm. This object is not perforated at the point, as are similar ones which have been found in other localities. [Translation]—*Korrespondenz-Blatt der Deutschen Gesellschaft für Anthropologie, Ethnologie und Urgeschichte*, XLI-1-3, p. 11, *Archiv für Anthropologie, N. F.*, B. IX.

With the text is an illustration showing a cone of earthenware greatly resembling some found by us on St. Francis river.

concave on the upper ends. They were distributed in groups along the body, and were so poorly fired that many of them fell apart on removal. Such as were saved range between 3 and 4 inches in length. One of these objects is shown in Fig. 9.

In the Rose Mound and in other dwelling-sites along the St. Francis we found objects similar to these lying singly, but never associated with bones.

Presumably this type of object was used as a support for receptacles placed in fires, to raise them from the ground in order to give the fire full play on the surface of the base.

Doctor Koch-Grünberg¹ figures and describes supports almost exactly similar to these, except the supports are hollow, as in use among modern Indians of north-western Brazil to hold vessels from the ground while cooking is going on.

We are indebted to Mr. Charles C. Willoughby for the information that Dr. W. C. Farabee brought to Peabody Museum, Cambridge, Mass., from his expedition among Indians of the Upper Amazon region, clay standards 10 to 12 inches in length, which were used as supports for a receptacle in which earthenware vessels were fired.

Burial No. 10, a child, had ten vessels, some placed on, some set within, others. Near the head were two shell ear-plugs and three beads of shell.

Burial No. 15, in addition to four vessels of earthenware, had a single shell bead at the neck, and two rude, discoidal stones, each about 3.5 inches in diameter, made, one from limestone, the other from sandstone.

Burial No. 17, an adult extended on the back, had, besides four pottery vessels, a ball of hematite at the left ankle, and two tubes of bone, badly broken.



FIG. 10.—Ornament of shell.
With Burial No. 19. Rose
Mound. (Full size.)

Burial No. 19, a child extended on the back, had three vessels of earthenware; a number of shell beads at the neck, of considerable size and evidently wrought from the columella of a marine shell (*Fulgur*); two ear-plugs of shell; two small, flat, shell ornaments, one triangular with one and three perforations at opposite ends, respectively, the other elliptical, squared at the ends, each of which was perforated; a circular ornament of shell with a perforation through a portion which projects at right angles and another perforation through the body of the ornament; another circular ornament of shell with three perforations, side by side, running through the base of a projecting part (Fig. 10). At the left of the pelvis was a "celt" of quartzite, 3.5 inches in length. Shell beads were at



FIG. 9.—Earthenware support.
With Burial No. 3. Rose Mound.
(Full size.)

¹ "Zwei Jahre unter den Indianern." Vol. II, p. 207, Fig. 125.

the knees, while across the chest was an object of thin sheet-copper, 10.5 inches in present length. This object in shape resembles the head of a lance with part of the point missing. There are two perforations, about one inch apart, centrally placed, approximately. The lower three inches of this object is riveted to the remainder. It is hardly necessary to remind those familiar with aboriginal copper-working that riveting of parts does not imply repair, but rather that nuggets hammered out have been pieced together to obtain a requisite amount of the sheet metal to make the object in view.¹

Burial No. 21, a very young child's skeleton, having traces of sheet-copper on the lower jaw and on two ribs. With this burial were seven vessels of earthenware.

Burial No. 23, a child, with shell beads at the neck and three bone beads on the chest. With it was a single pottery vessel.

A burial comes next in order which was not exactly determined as to the association of accompanying artifacts. That is to say, there being several burials in the immediate neighborhood, we hesitated to attribute the articles found to any particular one. At all events there lay together: ground red oxide of iron; eight vessels of earthenware; four rude discoidal stones; one chipped pebble; two incisors of the beaver.

Burial No. 28, a child having an ear-plug made from the penultimate whorl of the conch (*Fulgur perversum*) at the right temporal bone, and two vessels of earthenware.

Burial No. 29, an adult extended on the back, had four earthenware vessels, one discoidal stone, one pebble, five parts of tines of deer-antlers.

Burial No. 38, a child, had three earthenware vessels; a rude disk of pottery, about 3.5 inches in diameter.

Burial No. 43, a child, had one vessel of earthenware, one shell bead, and two shell ear-plugs, each of the last having a single perforation near the end worn back of the ear, probably for more secure attachment (Fig. 11).



FIG. 11.—Ear-plugs of shell. With Burial No. 43. Rose Mound. (Full size.)

Burial No. 46, a child, had four earthenware vessels and two shell ear-plugs.

Burial No. 47, a child, had five vessels of earthenware; three pottery disks; two round pebbles; one flint disk; shell beads at the neck.

Burial No. 51, an adult extended on the back, was accompanied with one earthenware vessel and one bone bead.

Burial No. 54, a child, had four vessels, and a pipe of earthenware at the head. This pipe (and it is not the first time we have found a pipe with the burial of a child, though the event is unusual) has rude, incised decoration and a slight indication of an animal's head. Four feet have been present on the base of the portion intended

¹See "Metal Work." Handbook of American Indians.



ROSE MOUND, CEREMONIAL SPEARHEAD OF SHEET-COPPER. (LENGTH, 16.25 INCHES.)

to receive the stem, in fulfillment of the animal concept, but all have disappeared through breakage (Fig. 12).

Burial No. 56, an adult, extended on back, had six vessels; near the skull, shell beads and traces of metal hardly more than carbonate of copper.

Burial No. 62, a child, partly flexed on the right side, was accompanied with eight vessels, in one of which was a shell spoon; two shell ear-plugs, spool-shaped, both from the left side of the skull.

Burial No. 78, an adult in a squatting position, the knees turned somewhat to the right. From the right shoulder to the pelvis, point downward, was an unique object of sheet-copper, doubtless a ceremonial spearhead, shown in Plate X. There are single perforations, one at the point and one at the base of the spearhead. The



FIG. 12.—Pipe of earthenware. With Burial No. 54. Rose Mound. (Full size.)

end of the right prong has disappeared through decay. A large part of the left prong had been attached to the rest, as is indicated by perforations. Curiously enough, no earthenware vessels were found with the remains of the person with which this interesting piece was deposited.

Burial No. 84, an adult, extended on the back: two vessels; a mass of red pigment at left shoulder.

Burial No. 86, an adult, in squatting position but somewhat tilted backward: shell beads at neck, thighs, and ankles; four vessels. Conforming to the outline of the left side of the skull was an oblong ornament of sheet-copper, 9.3 inches by 4.1 inches in size. This object of aboriginal make, as the overlapping parts testify, lay directly on the skull, and on the ornament as well as on the skull some hair remains. The upper surface of the ornament (which is undecorated) has been cov-

ered with fabric and with bark. There are two holes centrally placed, some distance apart, which were for attachment by means of a band, part of which remains, extending longitudinally on the inner surface to the first hole, through which it passed, and continuing along the upper surface, entered the second hole. Another sheet of copper, 6.1 inches by 5.6 inches, lay on the thorax. This sheet had been attached in a manner similar to that of the ornament on the head, with the exception that, in place of a band, two parallel cords had been used.

Burial No. 90, an aboriginal disturbance: three pottery vessels, and one drinking-cup wrought from a conch-shell (*Fulgur*). Near the extremity of the beak of the shell is a hole for suspension.

Burial No. 104, a child, the skull lying partly in a bowl with which was a bottle, was accompanied with two ear-plugs of shell.

Burial No. 118, a child, had ten vessels; a mass of red pigment over the skull; a "celt" of dark green, silicious rock, 2.8 inches in length, at left shoulder; shell beads.

Burial No. 122, a child, extended: two vessels; sixty-six pebbles from the size of a rifle-ball to that of a fist; two shell beads; fragments of sheet-copper at the left side of the jaw; a decaying band of sheet-copper fitting on the left central part of the skull.

Burial No. 126, adult, partly flexed on the right side: a small earthenware pendant rudely representing the head of an animal.

Burial No. 127, a child, extended on the back: seven vessels; shell beads at neck; three pebbles artificially rounded.

Burial No. 136, a child: two vessels; two ear-plugs; shell beads at neck.

Burial No. 143, an adult, full length on the back: three vessels; a mass of red pigment at the right hand, which rested beside the thigh.

Burial No. 146, a very young child with which was a rudely hexagonal section of shell, 1.5 inches in maximum diameter, which at one time had a single perforation near the margin at one side. This perforation, having broken through, has been replaced by two holes just below.

Burial No. 150, an adult, extended on the back: three vessels; three bone piercing implements under the back; at feet, sixteen leaf-shaped arrowpoints of flint, some flaked on one side only.

Burial No. 154, an adult, partly flexed on the right: two vessels; a bone pin.

Burial No. 156, a child, extended on the back: four vessels; shell beads at neck; two ear-plugs at the right side of the skull and one at the left side.

Burial No. 164, a child, extended on the back but having the right leg crossing the left at the ankle: one vessel; shell beads at neck, with small perforated disk of shell. Slightly apart from this burial, together, were two disks of shell, each having a most interesting form of perforation for attachment, consisting of a hole entering and emerging from the same side of the ornament (Fig. 13).

Burial No. 165, a child, extended on the back: two vessels; a clay disk 1.5

inch in diameter, modeled, not cut from a fragment; another clay disk in one of the vessels.

Burial No. 169, a child, extended on the back: two vessels, in one of which was a mussel-shell carved to form a spoon; shell beads at the neck.

Burial No. 170, an adult, extended on the back, had seven vessels; two shell ear-plugs found (as these ear-plugs usually are found) one at each ear, but in this case the knob of one of them pointed backward and not toward the front, the direction toward which the knobs of these ear-plugs usually point. However, there was evidence of disturbance with this burial to account for the disarrangement.

Burial No. 172, a child, extended on the back, was accompanied with a single vessel, but the burial was marked by the presence of broken pottery and other evidence of disturbance. Nearby, on bits of a broken vessel, were fragments of what

had been a rude comb of bone. The material is badly affected by time and by moisture. The parts recovered are shown in Fig. 14.

The discovery of this comb is interesting, inasmuch as there has been considerable discussion as to whether or not combs were in use among aborigines of our country before the coming of Europeans.

Inasmuch as we found nothing along St. Francis river, except this comb, that could in any way be regarded as showing intercourse between the aborigines and white people, we believe, considering the number of sites visited, the amount of digging done by us in these sites, and the quantity of artifacts found, that this comb also is prehistoric.

Incidentally we introduce here the representation of a comb (Fig. 15) kindly identified by Prof. F. A. Lucas to be

made probably from horn. This comb, which is the only other one ever found by us in all our digging, is interesting from the fact that though the shape is undoubtedly copied from a European model, the decoration points to Indian workmanship. This comb was found by us in the mound on Murphy Island, St.



FIG. 13.—Ornaments of shell. With Burial No. 164. Rose Mound. (Full size.)



FIG. 14.—Aboriginal comb of bone. With Burial No. 172. Rose Mound. (Full size.)

Johns river, Fla., somewhat above Palatka, and lay with superficial burial deposits of glass, iron, and the like, which distinctly denote a post-Columbian period.

Burial No. 173, a child: seven vessels; a chisel wrought from a pebble, at skull.

Burial No. 176, a child, extended on the back: a mass of red oxide of iron at the outer side of the right tibia. We find in our field notes thirteen vessels credited to this burial, but as by their numbering it is apparent the vessels were not taken out consecutively, there may be an error in regard to the number, and we feel it would not be wise to cite this burial as a record. In one of the vessels were two rude, discoidal stones.

Burial No. 179, a young child: two vessels; two ear-plugs of shell, lying together, a little apart from the skull.

Burial No. 180, a child, partly flexed on the right: three vessels; at the neck thirty tubular beads of bone from 1 to 1.5 inch in length.

Burial No. 191, an adult, full length on the back, had two vessels; a mass of

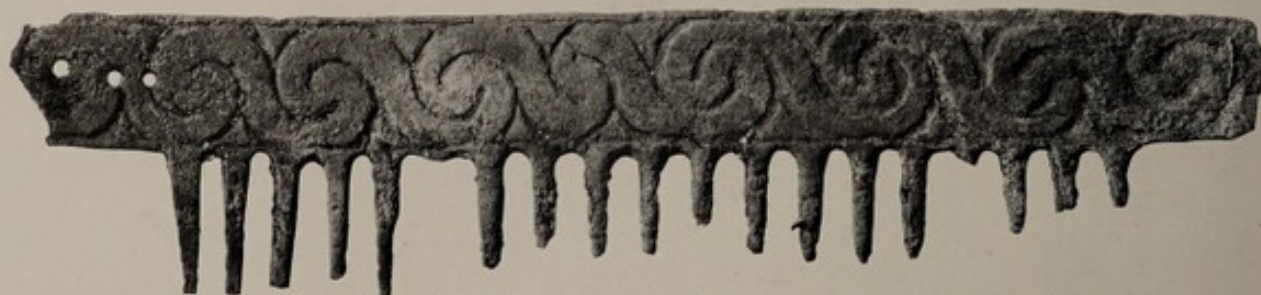


FIG. 15.—Comb of aboriginal make but of post-Columbian period. Mound on Murphy Island, Florida. (Full size.)

red oxide of iron, such as is used for pigment, but wrought into the form of a cone about 5.5 inches in height.

Burial No. 192, an adult, extended on the back: six vessels; seven leaf-shaped points of flint at the right knee and one at the right hand; knife of flint at the right elbow.

Burial No. 203, an adult, closely flexed and semirecumbent on the back, head somewhat higher than the pelvis: one vessel; a shell ornament in small fragments.

Burial No. 205, a child, full length on the back: three vessels; three shell beads at the neck; a shell gorget on the chest (Fig. 16). This gorget, shaped from the body-whorl of a marine shell (*Fulgur*), belongs to a well-known type representing the human face. This type of ornament has been found with aboriginal burials, in the Southern States usually, but has been met with as far north as Manitoba.¹ A series of these gorgets is figured and described in the Second Annual Report of the Bureau of Ethnology.²

¹ Henry Montgomery, "Calf Mountain' Mound in Manitoba." *Amer. Anthropologist*, Jan.-March, 1910. Plate III.

² William H. Holmes, "Art in Shell of the Ancient Americans," Plates LXVII, LXVIII, LXIX.

Near a burial, but not assuredly with it, was a small undecorated bottle containing twenty-six hollow sections of delicate bones, from somewhat more than .5 inch to about 1 inch in length. These objects can hardly be considered beads, as they have been broken rather than cut apart.

While at work in the Rose Mound, it was decided to examine with the utmost care all artifacts found with the next fifty burials, exercising special attention in the case of earthenware vessels which, owing to their commonplace forms and to the paucity or to the entire lack of decoration on them, or else to their very frag-



FIG. 16.—Gorget of shell. With Burial No. 205. Rose Mound. (Full size.)

mentary condition, otherwise might not have had recorded in our notes the most trifling points connected with them.

Accordingly, those fifty burials first found after this decision was made (Burials Numbers 53 to 102, inclusive) were recorded with the fullest detail, and the results give, among other things, a fair idea as to the general character of the pottery on St. Francis river, making allowances, of course, for fashion which varied somewhat in the different sites.

The fifty burials in question were as follows:

Adults	31.
Adolescents	2.
Children, including infants	17.
The following burials had no associated artifacts :	
Adults	2.
Children, including infants	5.
One adult had an artifact but no earthenware.	
Earthenware vessels and other objects were with the following burials :	
Adults	8.
Children, including infants	3.
Burials accompanied with earthenware vessels only were :	
Adults	20.
Adolescents	2.
Children including infants	9.

The number of earthenware vessels found during the unearthing of the fifty burials was one hundred and forty-nine. Thirteen of these vessels were found apart from burials, their position being no doubt due to aboriginal disturbance or to comparatively recent digging.

The one hundred and thirty-six vessels with burials had been placed numerically with the dead as follows: Of the eleven burials with which pottery and other artifacts had been placed, one adult had one vessel; two had two vessels; one, three vessels; one, four vessels; three, six vessels, each, respectively. Two infants had four vessels each and one had no fewer than eleven vessels.

Of the thirty-one burials which had pottery alone in association: one adult had one vessel; eight had two vessels; three had three vessels; seven had four vessels; one had seven vessels, each, respectively. Two adolescents had two vessels each. Of the nine children, including infants: two had one vessel and four had two vessels; one had three vessels; one had four vessels; one had five vessels, to each respective burial.

The one hundred and forty-nine vessels found during the unearthing of the fifty burials were divided as to form as follows:

Bottles	40.
Pots and bowls	104.
Other forms	5.

Of the bottles twenty-one were of ordinary forms and without decoration. Five had trivial decoration, such as notches around the base or at the opening; while fourteen differed more or less from the general average of bottles, either in form or in having a uniform coating of red pigment, or, in one instance, red pigment in bands.

Thirty of the pots and bowls were undecorated, being even without ears, loop-handles, or appendages of that kind; while twelve had loop-handles or ears, but otherwise were entirely plain. Thirty-two of the bowls and pots had only trivial





ROSE MOUND, VESSEL NO. 271. (FULL SIZE.)

decoration, such as knobs, incised lines around the necks, notched or scalloped margins, or fillets in relief near the openings. Nine had trivial decoration in addition to ears, loop-handles, and the like. Five pots and bowls had decoration of a commonplace character on the bodies, such as rudely incised parallel lines or coarse punctate markings; and sixteen vessels of the types in question were somewhat removed from the commonplace by decoration with red pigment or by having, or having had (for many of the bowls of this class were interred after their decorative devices had been broken off and lost) the projecting modeled heads of quadrupeds or of birds, or the heads and tails of fish, often greatly conventionalized.

The five vessels of forms other than bottles, pots, and bowls, will be described and illustrated in the detailed account of the more noteworthy vessels from the Rose Mound, the numbering of the vessels included in this analysis being 175 to 323, inclusive.

Red pigment had been used on twenty-one of the one hundred and forty-nine vessels in question: thirteen times as a uniform coating; five times in bands, with the ware for a background; twice in conjunction with brown pigment; and once in combination with white pigment.

We shall now return to the pottery in general found at the Rose Mound. Vessels of earthenware lay with most of the burials—one infant, as we have said, having had no fewer than eleven.

The arrangement of the vessels was, in the main, as they were found elsewhere on the river—some containing other vessels, some with inverted vessels over them.

Pottery, as a rule, was found in the neighborhood of the skulls, but such was not always the case.

We shall now describe in detail the most interesting vessels from Rose Mound.

Vessel No. 271 (shown in two positions in Plate XI) is a bowl of yellow ware, having projecting from one side the modeled head of a quadruped, which is a rather striking piece of work and considerably superior to most attempts of the kind known in this region. Opposite the head is a flat space which presumably takes the place of the tail. The legs of the animal are indicated by rather rude, incised markings. On the whole, this piece is an unusual one.

Vessel No. 252. This little bottle (Fig. 17), of a known but uncommon type, lay with the bones of a child. The crescentic body recalls the head of a war-club of a type known to our Indians, and it is not unlikely that this was copied in pottery just as the Peruvians embodied their form of war-club in the shape of some of their vessels.

Vessel No. 177. This vessel (Fig. 18), a cup, may have been used as a receptacle for paint, as red pigment remains on one side of the interior. It is just as likely, however, that the presence of this coloring matter arose from accidental contact.

Vessel No. 350, a bottle of dark ware (Fig. 19), having on the body an incised design based on the swastika. Around the neck also is incised decoration (shown



FIG. 17.—Vessel No. 252. Rose Mound. (About full size.)



FIG. 18.—Vessel No. 177. Rose Mound. (About full size.)



FIG. 19.—Vessel No. 350. Rose Mound. (Height 7.25 inches.)

in diagram in Fig. 20) which perhaps represents a highly conventionalized form of the serpent.

Vessel No. 564. A bowl of yellow ware (Plate XII), coated with red pigment



FIG. 20.—Vessel No. 350. Decoration.

on the outside, has by way of decoration on the inside, a curious human figure in red pigment, with extended legs and upraised hands and arms. Below and on each side of this figure, also in red, are stepped designs, or cloud-symbols.

Vessel No. 388. This bottle (Fig. 21), like the one just described, is included



FIG. 21.—Vessel No. 388. Rose Mound. (Height 6 inches.)



ROSE MOUND, VESSEL NO. 564. (DIAMETER, 13.4 INCHES.)



among the very small number of vessels found by us on the St. Francis on which incised decoration of even average excellence appears. The body of the bottle bears a decoration which we consider to have been derived from the crested ser-



FIG. 22.—Vessel No. 528. Rose Mound. (Full size.)

pent. Varieties of this decoration are not uncommon on pottery from parts of Arkansas and of Alabama.

Vessel No. 528. A bottle of coarse, yellow ware, representing a grotesque human figure (Fig. 22). There are two perforations in each ear, through which

possibly the bottle was suspended. At all events, the vessel does not stand without outside support.

Vessel No. 570. A bottle of yellow ware, shown in Fig. A, Plate XIII, has, on the outside, in red pigment, a design based upon the swastika, the symbol of the four winds or directions. There is red pigment interiorly on the neck.



FIG. 23.—Vessel No. 246. Rose Mound. (Diam. 8.5 inches.)

Vessel No. 248, a bottle of yellow ware (Fig. B, Plate XIII), bears exteriorly a design in red pigment also showing wind-symbols. In form this bottle represents a gourd, possibly with part of the blossom attached.

Vessel No. 246. This effigy bottle (Fig. 23), graceful and well modeled, rep-

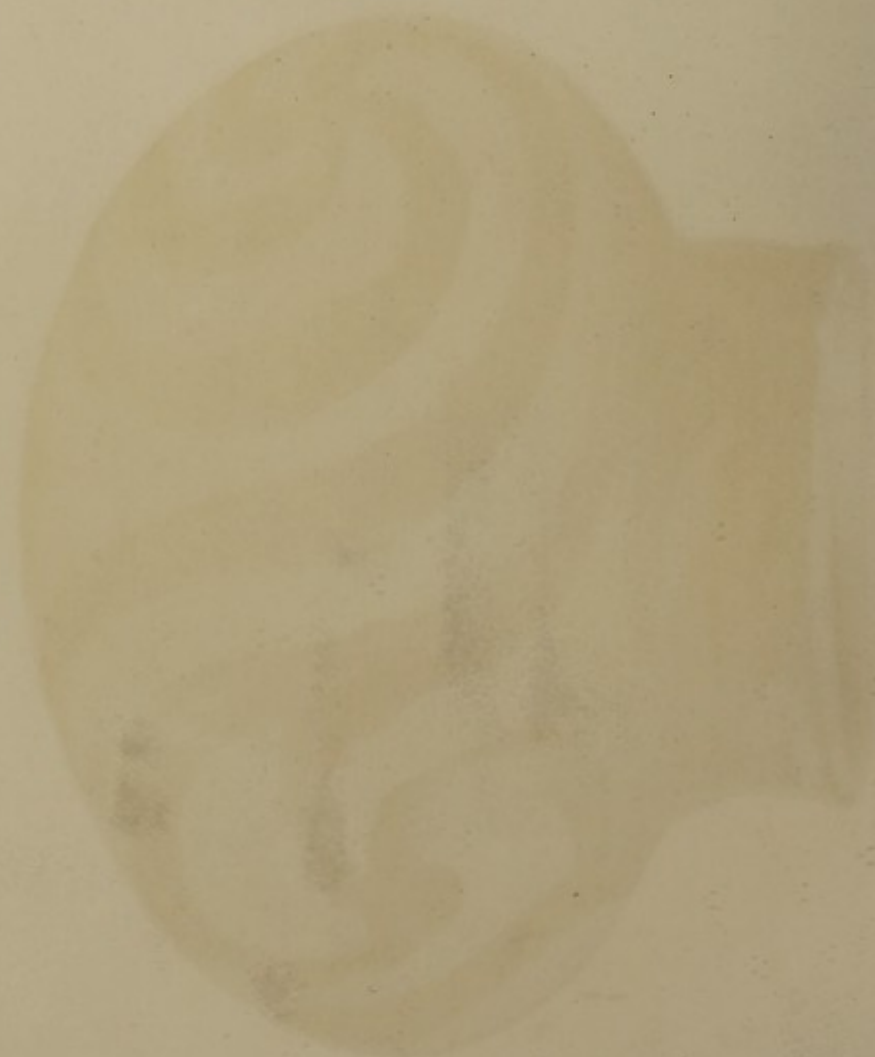


A



B

ROSE MOUND, A, VESSEL NO. 570; B, VESSEL NO. 248. (FULL SIZE.)





ROSE MOUND, VESSEL NO. 280. (HEIGHT, 6.5 INCHES.)

representing a fish, is of beautiful, thin, hard ware, bearing a high polish, and in modeling and in surface is a marked exception to most of the vessels found in the St. Francis valley.

Vessel No. 229. A bowl of hard, yellow ware, 7 inches in diameter, is of interest in that it shows a conventionalized form of decoration based on the animal concept. In diagram (Fig. 24) the inner circle shows the rim of the bowl, outside of which, on two sides, is a pair of eyes. The fore-legs and hind-legs, joined, also appear in relief.

Vessel No. 469. A bottle of dark ware (Fig. 25), having a shoulder or a

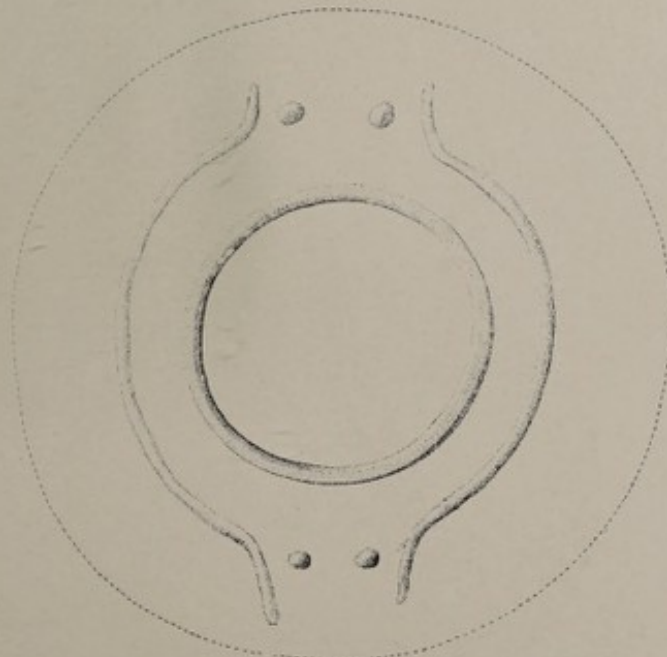


FIG. 24.—Vessel No. 229. Decoration. Rose Mound. (About one-third size.)

collar-like addition below the neck, on which are projections which in a region whose inhabitants had been more given to careful work, presumably would have been loop-handles.

Vessel No. 280. In Plate XIV is shown one of the well-known class of head vessels which are fully described and figured by Holmes in his "Aboriginal Pottery of Eastern United States."¹

These vessels are "found in considerable numbers in graves in eastern Arkansas and contiguous sections of other States," and to our knowledge four belonging to this class have come from the St. Francis valley: one from the mound at Parkin,

¹William H. Holmes. 20th An. Rep. Bur. Am. Ethn., p. 96 *et seq.*, Plates XXIX, XXX, XXXI, XXXII, XLIII.

now in the Cincinnati Art Museum;¹ one from the Fortune Mound, now in Peabody Museum, Cambridge, Mass., and two found by us in the Rose Mound.

The one now under description came from a grave that had been disturbed in aboriginal times, and the vessels present with the burial had been broken and parts of them presumably had been thrown out. At all events, fragments of this head vessel, which had been badly shattered, were found widely scattered in the ground,



FIG. 25.—Vessel No. 469. Rose Mound. (Height 8.75 inches.)

and some parts we were unable to recover, although long search was made with the aid of a sieve and by passing the soil through the hands of a number of men. Fortunately only such parts of the vessel are missing as belong to the back of the head, and to a part of the side of the head, including the right ear. Almost none of that part of the vessel shown in the plate is a restoration. The face has had a coating of pigment, evidently gray clay, much of which still remains on it. The back of the head has had a uniform coating of red pigment. At the outer side of

¹Gates P. Thruston. "Antiquities of Tennessee," 2d ed., pp. 94, 95.



ROSE MOUND, VESSEL NO. 474. (ABOUT FULL SIZE.)

the right eye has been an incised figure which evidently resembled the one on the smaller head vessel from the Rose Mound (shown in the next plate), but, unfortunately, only the two extremities of the figure appear on the original part of the larger head. The reader will note that a number of holes are represented in the cartilage of the ear, instead of the great hole often shown in the lobe, in which some ornament usually is represented as inserted. These holes, as shown in this head, are generally present in the head vessels, however.

In conclusion, we would explain that the representation of the vessel in Plate XIV is slightly larger than the vessel itself, and this arose through the need to tilt the vessel slightly for the camera in order to obtain a more satisfactory photograph for the making of the plate.

Vessel No. 539. This bowl, having the head and legs of a frog modeled in relief on the outside, is of special interest only because the head of the frog, which is hollow, has been filled with objects which rattle when the vessel is shaken. Diameter of bowl, 5.7 inches.

Vessel No. 298, a bowl 12.2 inches in diameter, is of yellow ware and has for decoration on the inside, in red pigment, a swastika, or symbol of the four winds or directions. On the outside, also in red pigment, are three concentric circles, doubtless sun symbols.

Vessel No. 378. A bottle of yellow ware (Fig. 26), with a well-made, incised decoration, the design based on a swastika. This bottle is by far the best example of incised work found by us on St. Francis river.

Vessel No. 474. This vessel, shown in Plate XV, is another example of the class of head vessels, one of which already has been described and figured in this report. The vessel under description differs from the one previously described in that it is considerably smaller and has a coating of yellow pigment on the upper part of the face and red pigment on the lower part. The curious incised marking, parts of which remain at the right eye of the larger vessel, is present around part of the left eye of this one. Presumably a short neck has at one time been present on this vessel, but this we have not attempted to restore. The tip of the nose, missing when the vessel was found, has been replaced, however. The back of the head has a uniform coating of red pigment.

Vessel No. 458. A bottle representing a human figure. The nose has been slightly chipped on the upper part by a blow of a spade. On the back is the curious marking sometimes seen on human effigy-vessels of the Middle Mississippi region, which probably represents the spine. The legs, which are shown with considerable detail, extend beneath the base of the bottle. This bottle is somewhat outside the usual style in that the opening is not at the back of the head, but is in the body of the vessel in front of the face (Fig. 27).

Vessel No. 325. This bowl (Fig. 28), found with another exactly similar in shape but somewhat larger, has four holes for suspension, and horizontal extensions on two sides of the rim, probably conventionalized fins.

Vessel No. 40. This vessel, of coarse, yellow ware, of a fairly well-known



FIG. 26.—Vessel No. 378. Rose Mound. (Height 8.6 inches.)



FIG. 27.—Vessel No. 458. Rose Mound. (Height 7.25 inches.)

type, is made up of three compartments, each representing a pot with three loop-handles, which, however, are decorative only, there being no space for the passage of a cord. Openings in the compartments allow them to contain a liquid in common.

The decoration, consisting of parallel, incised lines on the bodies of two of the compartments, and punctate markings on the body of the third, extends also on the bases in the shape of erratic, incised angles and curves. Height, 3 inches; maximum diameter, 7 inches.



FIG. 28.—Vessel No. 325. Rose Mound.
(Diam. 6.5 inches.)

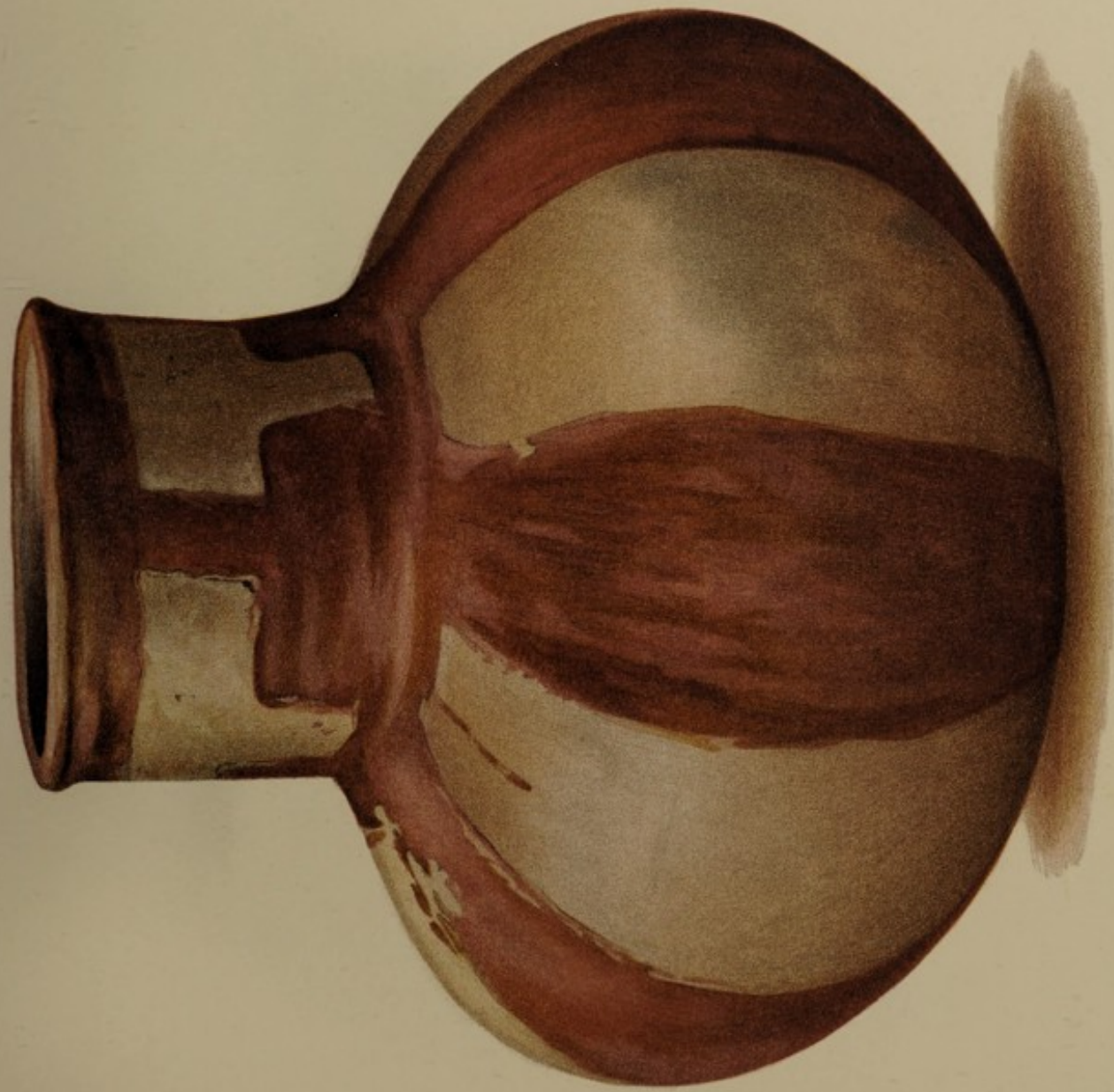
Vessel No. 99. This vessel resembles the one just described, with the exceptions that there are but two compartments; that the decoration, rough incised lines, is confined to the necks; that four small ears project laterally; and that each of the two compartments is somewhat larger than the individual compartments of the other vessel.

Vessel No. 566. This bottle (Plate XVI) has around the body a decoration of alternate bands of red and of light yellow—apparently tinted clays. Around the neck are stepped designs, or cloud symbols.

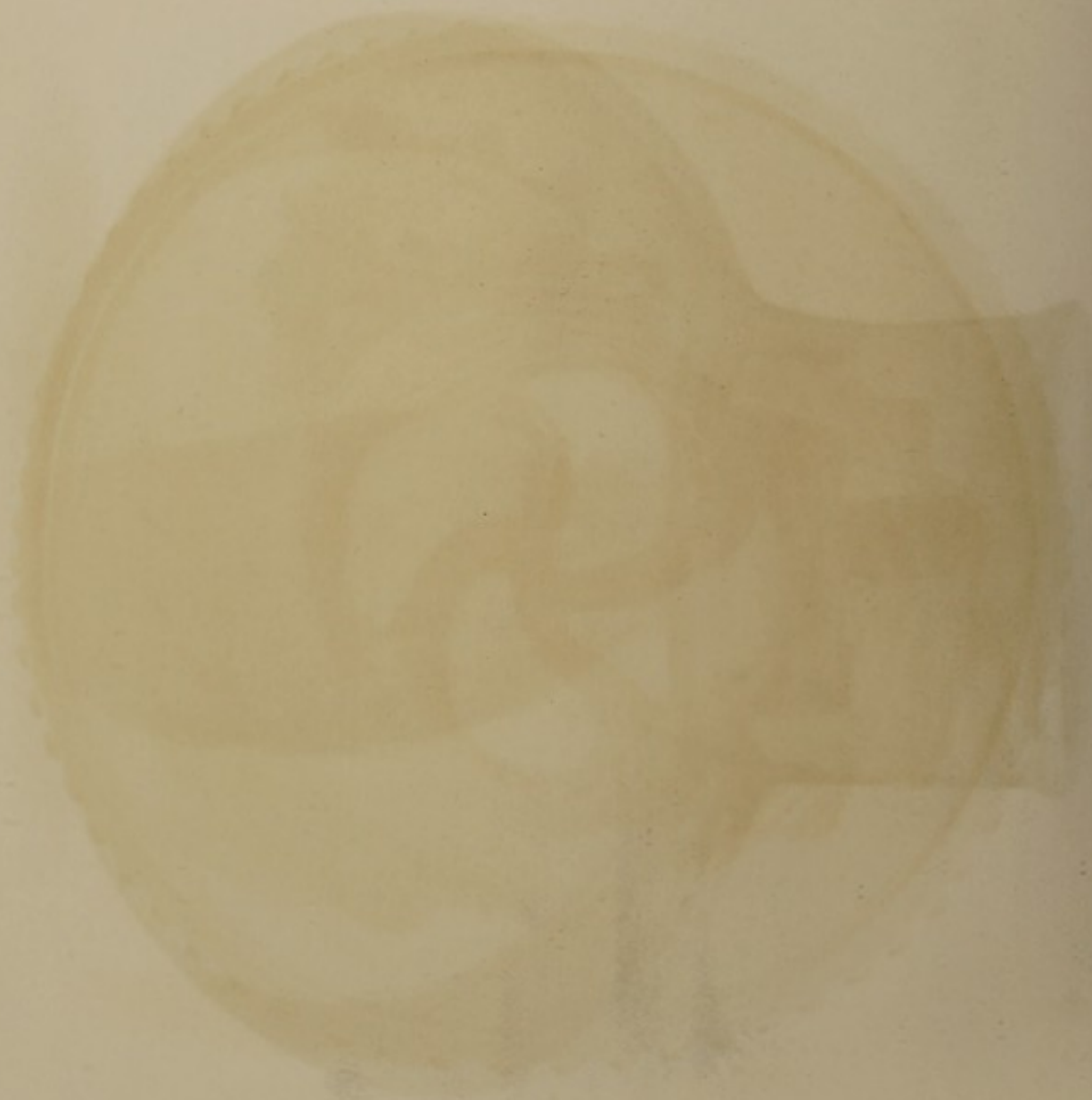
Vessel No. 46. This vessel, shown in Fig. 29, although of ordinary ware, is more graceful in form than are vessels usually found along the St. Francis. On two opposite sides project heads of some animal (perhaps a raccoon), not modeled



FIG. 29.—Vessel No. 46. Rose Mound. (Diam. 9.1 inches.)



ROSE MOUND, VESSEL NO. 566. (HEIGHT, 7.5 INCHES.)





ROSE MOUND, VESSEL NO. 562. (DIAMETER 8.75 INCHES.)



ROSE MOUND, VESSEL NO. 185. (HEIGHT, 4.5 INCHES.)

with sufficient distinctness for positive identification. There is rude, incised decoration on the upper part of the body.

Vessel No. 85, a bottle 6.2 inches in height, with a graceful body, oblate spheroidal, which, by way of decoration below the neck, bears in relief a symbol the meaning of which is in doubt. A similar bottle is figured by Holmes¹ as coming from Arkansas.

Vessel No. 407, a bowl of very ordinary ware, having two rudely modeled animal heads facing each other on opposite sides (Fig. 30).

Vessel No. 404, a bowl with a modeled animal head projecting upward on one side, in which are small objects that rattle when shaken, has, on the side opposite the head, a tail curling upward. Maximum diameter 9.7 inches.

Vessel No. 562. This bowl (Plate XVII), somewhat similar to one from this same mound in the collection of Peabody Museum, Cambridge, Mass., has interiorly an interesting decoration in red pigment on the background of the ware, consisting of a central swastika indicating the four winds, surrounded by three equidistant stepped designs, or cloud symbols. The exterior of the bowl under description is coated with red pigment. The outer margin of the opening is beaded.

Vessel No. 586, a handsome bottle, oblate-spheroidal as to the body, found in many fragments which since have been carefully cemented together. The decoration of the body consists of ten upright bands of pigment alternately red and white. The base, which is flat, and the neck have solid coatings of red. There are punctate markings around the margin of the neck.

Vessel No. 185. This vessel, one of the "teapot" variety (Plate XVIII), which is found in the United States only in eastern Arkansas and nearby regions (its center of discovery being the eastern part of the Arkansas river valley), differs from the usual form of this kind of vessel in that, instead of having a knob at one side and a spout at the other, the head of an animal takes the place of the knob, and the addition of four feet completes the animal form. It has been suggested by Professor Holmes, who figures² a vessel of this class, that the teapot vessel is derived from the animal form, a spout taking the place of a tail. The decoration on the vessel under description consists of partly interlocked scrolls of light pink and of red, on the yellow background of the ware.

Vessel No. 115. This interesting vessel (Fig. 31) is a decided variant from



FIG. 30.—Vessel No. 407. Rose Mound. (Diam. 8.5 inches.)

¹ *Op. cit.*, Plate XIII f.

² *Op. cit.*, Plate XL b.



FIG. 31.—Vessel No. 115. Rose Mound. (Diam. of body 8.8 inches.)





A



B

ROSE MOUND, A, VESSEL NO. 127; B, VESSEL NO. 68. (BOTH FULL SIZE.)

others of the variety of the "teapot" type having animal heads and spouts, in that the head (which is better modeled than those of its class usually are) looks inward. We found teapot vessels on only three occasions on St. Francis river—two in the Rose Mound and one at the Forrest Place, which is almost at the mouth of the river.

Vessel No. 127. This bowl (Fig. A, Plate XIX) shows a fish in profile and belongs to a type of vessel, common in the Middle Mississippi region, the St. Francis valley having its full share. The ware is yellow; the exterior has a uniform coating of red pigment. The interior has, by way of decoration, a figure resembling a swastika with an added arm, which may have been introduced for the purpose of filling space.

Vessel No. 68. This little bowl (Fig. B, Plate XIX) is considerably above the average of the pottery of the St. Francis region, being symmetrical in form and having an interior coating of excellent red pigment. The body is decorated with three encircling lines of small nodes, above which is incised decoration.

MOUND AT PARKIN, CROSS COUNTY.

On the river bank, immediately at the town of Parkin, is a famous aboriginal cemetery belonging to The Northern Ohio Cooperage and Lumber Co., of Parkin, Ark.

About midway on the navigable stream (if we include Little river), the Parkin territory has for years constituted a kind of march to be raided by the pot-hunters of the upper and of the lower river. The principal diggers from above rested not from their labors until Parkin had been visited, while the pot-seekers from below thought not of their journey home until Parkin lay behind them.

After them came the deluge.

The Lumber Company, which later had acquired the property on which the cemetery is, and erected a sawmill nearby, in dull times when the mill was closed, permitted its employes to eke out a livelihood by digging for pots, and this became the avocation of many. Men were actually seen by us at Parkin walking around with sounding-rods in their hands, as elsewhere they might carry canes.

The Parkin Mound, similar in type to the Rose Mound, has a great upper surface, as a rule flat, on which are many humps and rises. According to a rough measurement the sides of the mound are of the following lengths: north, 617 feet; south, 525 feet; east, 938 feet; west, 863 feet. It is surrounded on three sides by depressions whence unquestionably material to make the lower part of it was taken. Subsequently the height of the mound increased by the accumulations due to long occupancy. This made-ground we found to have a depth no greater than 4.5 feet in the various holes sunk by us. The height of the mound above the general level probably is from 3 to 6 feet, though of course it appears considerably greater when viewed from the depressions which partly surround it, or from the river.

There is a pond in the level ground on the northern side of the mound, no doubt caused by the removal of material for its making.

On the western edge of this great mound, on the river bank, is a mound 20 feet in height, on which, doubtless, dwelt the chief who ruled over the great settlement. The diameter of this domiciliary mound was not taken by us, as the base had been greatly impaired in places by the cutting through of a road, and in other parts by the wash of the river.

There are many accounts of discoveries in the Parkin Mound, of earthenware of fantastic forms, and tales related by some of the inhabitants of Parkin descriptive of the pottery found there, show what the Caucasian imagination can do when working in conjunction with that of the African.

No doubt this great site, in times gone by, has yielded vast quantities of pottery, but unquestionably in this site, as in all the other sites on St. Francis river, earthenware of novel designs formed a very small proportion of what was taken from the place.

Much of the work at Parkin, as elsewhere along the St. Francis, had been done by the use of sounding-rods and by subsequent digging of holes of small diameter, down to the pottery when it was discovered. As sounding-rods are often halted by the baked clay of fire-places, and as rods sometimes pass completely through bones and earthenware vessels without meeting with sufficient resistance to indicate their presence, some vessels always remain in sites where search has depended largely on this method. This fact explains why anything was found by us.

The great mound is largely covered at the present time by the small houses of employes of the sawmill and by the gardens and enclosures belonging to these houses, so there remains but comparatively little ground open to investigation.

Nine and one-half hours digging by our force of nine men, wherever an open space was found on the mound, resulted in the discovery of nineteen burials, none more than 26 inches from the surface.

Of these burials fifteen were of adults, three were of adolescents, and one was that of an infant.

All, with three exceptions, lay extended on the back.

One burial was flexed on the left side; another was in a squatting position, the trunk leaning forward, bringing the chin down to the pelvis. The form of burial of the infant was not determined.

Of the nineteen burials, three had been decapitated by former diggers, while in two other cases skulls had been dug down to and the pottery which undoubtedly was with them had been removed.

There were two aboriginal disturbances.

Twenty-five vessels of earthenware rewarded our search, several of which lay apart from burials.

Of these vessels eleven are undecorated bowls and six are bottles which are entirely plain. Two bowls and two bottles have shallow notches on the rim, and one bottle (Fig. 32) has on the body four rudely-modeled human faces in relief, having a seemingly undue development as to the ears. Still another bottle has six

knobs encircling the upper part of the body. One bowl rudely represents a fish in profile, and, finally, one bowl has on two sides conventionalized heads of fish, which are little more than mere projections.

No more than three vessels were found with one burial, and all vessels were in the neighborhood of the skull, except in one case, where a bottle and two bowls lay at the feet of a skeleton. This burial, however, was the one in a squatting



FIG. 32.—Vessel No. 14. Parkin. (Height 6.7 inches.)

position, to which reference has been made, and presumably the feet alone were on the ground when the pottery was deposited.

MOUND NEAR TOGO, CROSS COUNTY.

In a cultivated field, on property belonging to Mr. J. G. Wood, of Togo, is a mound somewhat more than a mile in a westerly direction from that place. This mound, at the time of our visit, had a small wooden building upon it, and in the past had served as foundation for a house. The remainder of the mound had been

under cultivation, and presumably has been much spread, as the cultivated part is considerably lower than that upon which the house had been.

The present height of the mound is 5 feet. The basal area is very irregular—a diameter of one hundred feet may be considered approximate.

As mounds in this region are not supposed to be destroyed by investigators, our search was confined to a large number of trial-holes, which came upon five burials: three of children and two of adults. Of the adults, one lay extended on the back; the other, at full length on the right side.



FIG. 33.—Vessel No. 4. Togo. (Height 7 inches.)

With one child was a small pot with loop-handles; with another, a pot and a bowl, both undecorated. With the remaining child was Vessel No. 4 (Fig. 33), a bottle of compound form representing a bottle standing in a bowl. On four sides around the body, below the base of the neck, are human heads rudely modeled in relief.

With one of the adult burials was an undecorated bowl; and alone in the

mound was a rude pot. All earthenware vessels with burials at this place were in the neighborhood of the skulls.

Apparently this mound has lost many burials during its cultivation. Moreover, a prominent trader in pottery is said to have worked successfully at the place.

THE JONES AND BORUM PLACES, CROSS COUNTY.

About two miles above Togo, but on the opposite side of the river, are two adjoining places, one belonging to Dr. C. C. Borum, of Earle, Ark., extending to the water's edge, the other, the property of Mrs. J. W. Jones, of Jamestown, Ark., lying back of the Borum Place.

Passing through woods belonging to the Borum Place, one reaches the cultivated ground belonging to the two properties, on part of which are many rises and ridges, with a symmetrical mound, 8 feet high and 50 feet across the base, centrally placed. Much of the high ground belonging to these places is artificial, being the slow accumulation of long periods of aboriginal occupancy.

Digging was done by us in a tentative way over the principal high places throughout, and in such places as yielded returns we conducted work as extensive as is permissible in bottom land where mounds may not be permanently interfered with.

Burials were found almost everywhere in the higher ground, but interments had been made singly or perhaps two or three near together, and not in groups.

At this place also traces of the work of others were met with, and it was evident that digging had been carried on here to a considerable extent.

Forty-eight burials were found by us at these places, of which sixteen were of adults; twenty-five were of infants or of older children; two, of adolescents. Four were disturbances, aboriginal or modern. One burial is not particularly described in our note-book.

The form of burial, when determined (with the exception of that of an adult which was partly flexed on the right side), was at full length on the back.

But few artifacts except pottery lay with burials. Under an inverted vessel with the skeleton of an infant, was a small arrowhead of flint.

Burial No. 17, an adult, had at the skull two bottles, one of which had a neck which, broken in aboriginal times, had been neatly smoothed around to remove the rough surface of the break. Across the skull were fragments of sheet-copper, while shell beads were at the top of the head as if possibly they had been connected with the copper ornament. At both wrists were beads of shell.

An adult skeleton had a mass of red clay lying at the left wrist.

The skeleton of a child had at the skull a bottle and a bowl. In the latter vessel was a rudely pitted discoidal stone.

Burial No. 40, a child, which lay 40 inches below the surface (as deep as any burial at the Jones and Borum places), had with it a bottle and a bowl. Shell beads were at the neck, with which was a marine shell, a young *Fulgur perversum*, perforated at the beak.

Shell beads of ordinary form, in addition to those already noted, lay with two other burials.

Apart from burials were: four pipes of earthenware, all coarsely made and none presenting any distinctive feature; a piercing implement of bone with the articular part remaining; a small dumb-bell shaped object of earthenware, probably an ear-plug; two spheres of clay, each about an inch in diameter, resembling our "marbles" and probably used in a game, like those found in the stone-graves of Tennessee;¹ one small, imperforate disk of earthenware, modeled from clay and not shaped from a fragment of a vessel; a similar disk, only larger, and having a central hole; a perforated disk wrought from a fragment of pottery; a cone of half-fired clay, found in a fire-place; two small earthenware columns similar to those from the mound on the Rose Place but more thoroughly fired.

Ninety-two vessels came from the Jones and Borum places, all but three or four associated with burials and as a rule lying near the skulls. In three instances skulls rested directly in large bowls; and in one case on, and partly in, a bowl that was too small to receive the entire head.

In the cemetery at this place, which, like other places of burial along the St. Francis, contained so much pottery of mediocre interest, it was a genuine relief to come upon Burial No. 14, that of a child, having at the neck a few spool-shaped beads of shell; at the shoulder a fine effigy vessel which will be particularly described later in this account, and a small bowl coated with red paint inside and out and having two holes on each side for suspension. Near these vessels, upright, were two small bottles, one inverted in the opening of the other.

The vessels of this place, many of which were not in a condition to preserve, did not, as a rule, present features of interest. But four had decoration with pigment, in each instance consisting of a uniform coating of red. Descriptions of the more interesting vessels from the Jones and Borum places, follow.

Vessel No. 22. This fine human effigy figure, of yellow ware (Plate XX), presumably has had a coating of red pigment over the entire surface, though much of this coating is now missing. The ears show the same form of piercing as do the well-known head vessels which we have already described. Effigy vessels are occasionally found on St. Francis river, but are not numerous there, though more abundant than in the lower Mississippi region. Vessels modeled after the human form seem to be most abundantly found in southern Missouri and in Tennessee. In describing the effigy figure from the Bonner Place reference has been made to the variety of effigy vessels figured in General Thruston's "Antiquities of Tennessee." A number from Missouri are shown in "Archæology of Missouri," by Dr. Edward Evers.

Vessel No. 64. A bottle of inferior, yellow ware (Fig. 34), having a body formed of three compartments connected interiorly.

¹ Gates P. Thruston. "Antiquities of Tennessee," 2d ed., p. 164.



JONES AND BORUM PLACES, VESSEL NO. 22. (HEIGHT, 8.7 INCHES.)



MOUNDS AND CEMETERY AT NEELEY'S FERRY, CROSS COUNTY.

At Neeley's Ferry is the plantation of Mr. Starland W. Wood, of Earle, Ark., which is known as the Starwood Place in contradistinction to that of Mr. J. G. Wood, of Togo, of whom we already have had occasion to speak.

The Starwood Place for years has been famous for the number of antiquities found there, and in consequence it has been for an equal period a Mecca for collectors and for dealers in aboriginal pottery, who have been far from idle while visiting the place.

About eighty acres are said to be under cultivation at the Starwood Place, much of which consists of ridges and of rising ground, including several irregular mounds, all of which, no doubt, had their origin through long-continued aboriginal occupancy.

The principal mound at this place, near the river bank, is 18 feet in height, measured from the road on the west. The mound has suffered to such an extent by the making of this road (which partly surrounds its base) and through wash of water, that a statement as to the present diameter of the mound would be misleading.

Owing to its use as a place of burial in recent times, but little digging in this mound was attempted by us. We found in it, however, one burial with shell beads at the neck and ear-plugs of shell near the skull.

Over all the surface of the cultivated ground at the Starwood Place (and the entire place is under cultivation except the upper parts of two mounds) are fragments of bones, human and of lower animals, and innumerable bits of pottery and other debris from dwelling-sites.

Evidently many burials and their accompanying artifacts have been destroyed at this place during years of cultivation, while the work of curiosity seekers was too often evident throughout our investigation.

The very size of this site stood in the way of a thorough search, for, as was evident, the aborigines had lived over most of it and had buried beneath their dwellings and not in any particular spot.

Digging was done by us in all places that seemingly offered promise of reward (except in considerable areas devoted to the cultivation of alfalfa and where build-



FIG. 34.—Vessel No. 64. Jones Place. (Height 6.25 inches.)

ings were), and burials were found in all such places, even in the barnyard and under the stable, sometimes scattered, sometimes a few together, in one instance the remains of four children, separate but within the limits of a single trial-hole somewhat enlarged.

At the Starwood Place, as elsewhere, was noted the growth of the site above the earlier burials. For instance, the skeleton of an infant lay just 5 feet below the surface. Sixteen inches above this burial was a great fire-place of burnt clay, the hard material being somewhat convex at the under surface. Above this fire-place was a thin stratum of clay and then another fire-place. Above this latter fire-place was a stratum of clay surmounted by a layer of clay and charcoal combined. Finally, there was a thick stratum of clay extending to the present surface of the ground. All these strata were unbroken and had their origin after the time of the burial.

It is not at all likely that the first fire-place above the burial of the child had any connection with it, inasmuch as other burials on the place were not found immediately beneath the fire-places, and moreover, the thickness of the baked clay of the fire-place and its extent, argued a more long-continued fire and a larger one than would have been accorded a single burial.

Presumably a large fire-place for culinary purposes had been made by scooping out a certain amount of soil (hence the convex lower surface of the baked clay), and the presence of the skeleton of the child beneath was purely an accident.

Ninety-five interments were encountered by us at the Starwood Place, of which fifty-three were of adults, thirty-nine were of infants or of older children, and three were of adolescents. Included in these burials were several aboriginal disturbances.

We omit from the enumeration a number of recent disturbances where parts of burials had been cut to pieces by seekers after pottery.

With the exception of the aboriginal disturbances, and of some of the children's burials which could not be determined, all interments encountered by us at the Starwood Place were at full length on the back with two exceptions, to which we shall refer later.

Three of the extended burials had the legs crossed at the ankles; one, at the knees; one, the thighs crossed above the knees.

Of the two burials spoken of as exceptions to the form prevailing at Neeley's Ferry, one lay at full length, face down, while the other cannot be proved to be the burial of a human being, though it seems to us most probable that it was so, and hence we have included it in our list of burials from this place.

In a little heap were finely burnt bone-dust and a few small fragments of calcined bone, much smaller than such fragments left after aboriginal cremation usually are. If the cremation included the entire skeleton of an adult, the work had been very thoroughly performed. Probably the ashes were what was left from the incineration of a child. This little pile of burnt bones lay partly covered with an inverted bowl, on the base of which, standing upright, was a bottle. This whole deposit lay at the feet of a skeleton.

With the exception of pottery, objects placed with the dead at this place were unimportant. In one vessel were a number of flint chips and one flint pebble; under another vessel lay a small flint arrowhead.

Burial No. 13, in addition to a bowl and a bottle, had, in a little pile, a large number of pharyngeal teeth of the fresh-water drum-fish, which Prof. F. A. Lucas kindly identified for us.

At the right of the skull of Burial No. 14 was a pot containing a number of bones of a small fish. Under the right shoulder was a bottle; and under the right elbow, a bowl inverted over one dumb-bell shaped shell bead, a large bone bead, and many fragments of small dumb-bell shaped objects of half-fired clay.

With Burial No. 31, an adult, were at the skull, a bowl, a bottle, and an earthenware pipe (Fig. 35) having hardly more than rudimentary supports projecting from the base of its bowl.

With Burial No. 48, a child, was a marine shell, a young *Fulgur perversum*, perforated at the beak.

With eight burials were shell



FIG. 35.—Pipe of earthenware. With Burial No. 31. Neeley's Ferry. (Full size.)

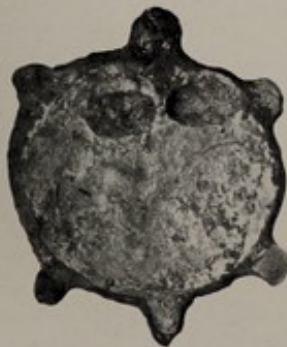


FIG. 36.—Ornament of shell, representing a turtle. With Burial No. 98. Neeley's Ferry. (Full size.)

beads, a few to each burial, nearly all badly decayed. With two of the burials having beads of shell, both of children, were in one instance, the canine tooth of a bear, perforated for suspension at the proximal end; and in the other (Burial No. 98), a gorget of shell shaped to resemble a turtle (Fig. 36) and having an interesting perforation for attachment, namely, where the hole enters and leaves the ornament on the same side. We had occasion to speak of this form in connection with two objects from the Rose Mound.

Each of two burials had an ear-plug of shell. Presumably the mates to these escaped our search or had been lost through previous disturbance.

One burial had a pair of shell ear-plugs, and two interments had each a gorget of shell, decayed

and broken beyond restoration.

With one burial was a small bead of sheet-metal, decayed through and through, coated with carbonate of copper, and having bones near it, colored green as if other beads had disappeared leaving only this trace behind.

With the skeleton of an infant were two ear-plugs of earthenware, and the burial of a child had a chisel made from a quartz pebble, lying below two bowls.

There were found also, though not in connection with human remains, five disks made from fragments of pottery vessels, each with a central perforation, and one disk of the same material having two holes; a piercing implement of bone and a bone implement having a rounded point; six bone piercing implements with the articular parts remaining; a tubular bead of bone; two small arrowheads of flint; two ear-plugs of pottery, of the type resembling a short, blunt pin,—found separately,—one decorated as to the upper surface of the head, with numerous imprints of a pointed implement; a flat pebble neatly worked to form a chisel, the sides originally curved, having been squared; three small "celts" respectively of quartz, silicious limestone, and dark-green silicious rock; a pipe of earthenware, coarsely modeled, showing a frog in relief (Fig. 37).



FIG. 37.—Pipe of earthenware. Neeley's Ferry. (Full size.)

There were found also, in each instance near a fireplace, three cones of half-fired clay of a type similar to that referred to in connection with objects found by us at the Rose Mound. One of the cones from the Neeley's Ferry site is 6.5 inches in height with a basal diameter of 5 inches. Extending downward from the apex is a circular hole 2.5 inches deep and somewhat more than half an inch in diameter. The second of these cones resembles the first, but the third has three holes, one on top, like the others, but with the addition of two shallow ones on opposite sides somewhat below the apex.

One hundred and seventy-five vessels of earthenware, broken and whole, many hopelessly crushed, were found by us at this place. Of the vessels recovered seventy-one were left with Mr. Wood, the owner of the property, who is interested in archæological research.

A considerable number of burials at this place were without artifacts of any



FIG. 38.—Vessel No. 61. Neeley's Ferry. (Height 8.5 inches.)

sort; others had numerous vessels, eight being found with the skeleton of a child. As is usually the case in aboriginal cemeteries, vessels lay near the skulls, but were found exceptionally at all parts of the skeleton, as for instance, in the case of the skeleton of an adult extended on the back (Burial No. 18), where single vessels lay over the left hand, the upper part of the left thigh, the left knee, the left ankle, and over the feet.

The more interesting vessels from this place will now be described in detail.

Vessel No. 61. An effigy bottle (Fig. 38) representing a human figure having the legs extending back across the base of the vessel.

Vessel No. 115. A bottle with short and comparatively wide neck (Fig. 39), being, in our opinion, a highly conventionalized fish-form. The tail and the dorsal and ventral fins are indicated, while the details of the head are dispensed with. This omission of the head from conventionalized animal forms is occasionally found along the St. Francis.



FIG. 39.—Vessel No. 115. Neeley's Ferry. (Diam. 6.5 inches.)

Vessel No. 118. A bowl of yellow ware, with maximum diameter of 10.3 inches and a height of 4 inches, having by way of decoration interiorly, in red, a cross of the four directions, with spaces between the arms occupied by terraced designs

representing clouds. On the upper part of the outside of the vessel are four cloud symbols similar to those on the inside. Extending horizontally from four equidistant points on the rim are small projections centrally notched on the margins, conventionalized heads or tails of fish.



FIG. 40.—Vessel No. 2. Neeley's Ferry. (Diam. 6.25 inches.)

Vessel No. 2. This vessel (Fig. 40), representing a frog (a common type in the Middle Mississippi region), is shown here only because the modeling differs from that usually found on similar vessels from this region, in that the legs are more massive and the relief is higher. Moreover, the legs do not seem to have been modeled separately and impressed upon the body of the vessel, as is the case with so many vessels of this kind. It is impossible, however, to determine just



FIG. 41.—Vessel No. 120. Neeley's Ferry. (Diam. 5.3 inches.)



FIG. 42.—Vessel No. 58. Neeley's Ferry. (Height 6.7 inches.)



FIG. 43.—Vessel No. 30. Neeley's Ferry. (Height 6.4 inches.)

how the legs were made. If they were *repoussé*, as the head is, the spaces inside have been carefully filled and show no hollows, though one is present at the head.

Vessel No. 102. A bottle of ordinary dark ware, having a kind of collar in relief below the neck, and three rounded feet at the base, forming a tripod support. Apparently these feet were added after the bottle was otherwise complete, as holes have been roughly knocked in the base of the bottle where the feet join the body to enable the feet, which are hollow, to share in the holding capacity of the vessel.

Vessel No. 120. An interesting little bowl (Fig. 41), having on one side an animal head, and a conventionalized tail on the opposite side. Fore and hind legs appear on the vessel; these are connected on each side by a festooned band in relief, on which are notches.

Vessel No. 58. A bottle of compound form (Fig. 42) representing a bottle placed in a bowl which rather rudely represents a frog. The ware is most inferior.

Vessel No. 30. A bottle, shown in Fig. 43, having a neck leaving the bottle on opposite sides and joining above, a type well known in the Middle Mississippi region and elsewhere. This bottle is shown here not because it presents any novel feature, but for the reason that it is a good example of the asymmetry which to such a marked extent characterizes the vessels of the St. Francis region. We have said so much of the "lop-sidedness" of these vessels and have shown so few of them in this report that it seemed to us that an example might reinforce our statements on the subject.

CATFISH MOUNDS, CROSS COUNTY.

On the right bank of the river, on property of Mr. R. R. Rodgers, of Smithdale, Ark., is a cultivated field about ten acres in extent, surrounded by forest except on the river side. The field is covered with humps of artificial formation, the largest about 5 feet in height and 75 feet across the base. A circular depression, dry at the time of our visit, is at the northwestern side of the mound, while a short distance to the eastward is another depression, circular and filled with water when we were there. Similar humps and pools occur in numbers in the surrounding woods. This place is known as the Catfish Mounds.

Comparatively few signs of early occupancy were on the surface of the field, though fragments of flint and bits of pottery were noticed here and there, and the burnt clay usually present on aboriginal sites lay scattered around. There is little history of the discovery of aboriginal objects at this place, but as few persons live nearby, and as none of these has been there a long time, it is likely that former diggers got their full share without those at present on the spot having heard anything of it.

The principal mound was as thoroughly examined as is permissible in a region subject to overflow, where mounds are a valuable asset, nine trial-holes having been put down and all subsequently greatly enlarged.

Two burials were found, adults at full length on the back. With them were four pottery vessels, three of ordinary shape and undecorated, the fourth a bottle standing on a tripod support.

Various other humps in the field were examined, as were a number of others nearby in the woods. But two burials were found: that of a child and indications of a full-length burial much decayed. With these were two undecorated vessels, and two other vessels also without decoration were found apart from bones.

It is our belief that the field, which is a comparatively small one, has been almost deprived of relics by former diggers and by long-continued cultivation.

A part of a day spent by us among humps and mounds in woods some distance back of the Catfish Mounds was without success.

MOUNDS ABOVE TURKEY ISLAND, CROSS COUNTY.

On the eastern side of the river, about 200 yards above Turkey Island, in woods, is a group of low, irregular mounds and rises, beginning immediately on the river's bank and extending a short distance inland. Our estimate was that the site covered about seven acres.

These various rises of the ground, all artificial as their composition testified, had been subjected to the usual onslaught from seekers after pottery in former years, and in consequence were pitted in every direction. The elevation farthest up stream (the most northerly of the various rises) was on ground sloping toward the water, so that, on the river side, the mound appeared much higher than the artificial part of it really was. A measurement taken when the mound was in course of total demolition by us, from the summit to the base, showed the artificial elevation to be 5 feet in height. The diameter of the circular base was about 35 feet. This was the most symmetrical mound on the site.

Two days with nine men to dig were devoted by us to this mound. During this time forty-two burials were encountered, as follows:

Adults	25
Adolescents	3
Children	12
Not determined	2

Of the undetermined burials, one consisted of small fragments of bone surrounded by the roots of a large tree, which apparently had absorbed the bony material to a large extent. Presumably, however, the burial was that of a child.

Of the other undetermined burial particulars are wanting in our notes.

With the exception of remains of small children, whose form of burial was not determinable, all burials but one were extended on the back. This exception, Burial No. 28, consisted of calcined fragments of human bones, evidently adult, deposited in a mass 11 inches by 14 inches by 5 inches thick. A bowl had been placed with this burial.

Included among the adult burials are two aboriginal disturbances and three recent disturbances. Recent disturbances at this place consisted of beheaded skeletons where former visitors, having reached the skull or the accompanying pottery by the aid of sounding-rods, had dug down to remove the earthenware.

During the digging were found, apart from burials: a canine tooth of a bear, perforated for suspension; a small "celt"; two mussel-shell hoes, one *Quadrula heros*, the other somewhat broken; two piercing implements of bone; an object about 3 inches long made from half of a hollow bone, probably of a bird; three of the pillar-shaped supports of pottery, similar to ones found elsewhere along the river.

Exclusive of pottery there were with burials: fragments of sheet-copper in three instances (that with Burial No. 35, analyzed by Dr. H. F. Keller, proving, as we have stated elsewhere, to be a purely aboriginal product); three antler-points found together; two shell beads; three shell beads and two shell ear-plugs; the scapula of a Virginia deer, perforated at the side and at the end in a manner to make the holes meet at right angles.

Sixty-three earthenware vessels came from this mound, four being the greatest number with any one burial. Red pigment had been used on but one vessel, a bowl having a uniform coating inside and out.

The general character of the vessels was the same as that commonly found on the St. Francis, being as a rule without decoration. One bottle, originally mounted on a tripod, showed where the legs having broken, the base of the vessel had been smoothed to allow its continued use. A small bottle, also with tripod support, had been intended to have a spherical body, which, however, was flattened on one side as if the vessel, while still in a plastic state, had been placed on its side in a way to impair its roundness of outline, and in that condition had been fired.

Somewhat more than three additional days were devoted to the remainder of our digging near Turkey Island.

There seemed to have been no general place of burial at the aboriginal settlement other than the mound we have described. Burials had been scattered and were comparatively few, even making allowance for those which had been disturbed before our coming.

Apart from the mound, fifty-two burials were encountered, as follows:

Adults	21
Adolescents	4
Children, including infants	25
Not determined	2

Of the last two burials one had been almost absorbed by the roots of a large tree and the other was a deposit of calcined bones, about 1 foot in diameter and 3 inches thick. The bones had been so reduced by the action of fire that it was not possible to say with certainty if they were human or not, but as deposits of this kind in aboriginal sites almost invariably are of human bones, we have included this one in our enumeration.

The form of burial was at full length on the back, with the possible exception of remains of several infants, as to which we were unable to determine, and the remains of an older child and of an adolescent, both of which burials lay flexed to

the right. Two other burials, namely, that in the roots of the tree and the calcined deposit, of course, are excepted also. The deepest burial among those outside the mound was somewhat more than 4 feet down, but the burial originally had not been of this depth, as it lay beneath unbroken strata which had formed after the time of the burial.

Lying apart from burials in the various sites outside the mound were: a perforated disk made from a fragment of a pottery vessel; two chisels wrought from pebbles of flint; a small "celt" of disintegrating sandstone; a discoidal stone; a cone of half-fired clay, 6 inches in height and 4.5 inches in basal diameter, having two holes opposite each other about two inches above the base; an ellipsoidal object of earthenware with a shallow groove around the middle, slightly ridged longitudinally, 3.75 inches long, 2.5 inches maximum diameter. Objects much resembling this one are figured by Professor Holmes¹ as having been for use in slings among California aborigines.

There were also found singly, in the various sites, four pipes of earthenware, one of which is shown in Fig. 44.



FIG. 44.—Pipe of earthenware. Mounds near Turkey Island. (Full size.)

Apart from any burial was an earthenware pot containing seventeen decaying mussel-shells, arranged side by side on edge, five of which had been perforated for use as hoes. Other hoes and mussel-shells were found during the digging.

The following burials had accompanying artifacts other than pottery:

Burial No. 69, a child, had a shell gorget (Fig. 45) of the type representing a human face, and somewhat similar to the one already described and figured in the account of the Rose Mound. This gorget lay on the right side of the thorax, the engraved side down. A bowl also had been placed with this burial.

¹ William H. Holmes. Report U. S. Nat. Museum for 1900, Plate XXVI.

Burial No. 72, a child, had two vessels at the head and two shell beads at the neck.

Burial No. 77, an adolescent, had a bowl at the left side of the skull with a bottle lying on its side upon it. At the neck were a number of shell beads; at each ear was an ear-plug of shell of the blunt pin type, the head directed to the front.



FIG. 45.—Gorget of shell. With Burial No. 69. Mounds near Turkey Island. (Full size.)

Burial No. 82, an adult, had two masses of red pigment, oxide of iron, one at the right side of the pelvis, over the lower part of the forearm; the other on the lower part of the humerus, which, together with the radius and the ulna, was dyed a brilliant red. Slightly beyond the skull were a bottle and a bowl, having between them a mass of scarlet pigment.

Burial No. 86, a child, lay with two bowls near the skull. On the chest was a shell gorget in many disintegrating fragments.

Burial No. 88, an adult, with two bottles near the head, had a number of shell beads at the neck and two at the pelvis.

Crossing and fitting to the curve of the upper part of the frontal bone was a band of copper about 7 inches long and .8 inch in maximum width, tapering somewhat toward the extremities. In one place the sheet-copper forming this band had

been joined together probably by tying, as four holes are present, but no rivets. On the inner surface of the sheet-metal ornament was a band of split cane, much of which still remains. This cane formed part of the ornament, as is shown by the fact that single perforations at each end of the ornament, no doubt for attachment, pass through the cane also. On the upper part of the ornament is matting which, no doubt, is part of the covering of the entire burial, locally preserved by the salts of copper. The skull below this ornament is colored green.

Burial No. 90, an infant, had beads at the neck, and a shell gorget representing the human face, but inferior to the one figured previously as coming from this place.

Exclusive of the pottery taken from the mound, eighty-two vessels of earthenware came from the sites near Turkey Island. Among these are four vessels formerly having had tripod supports, but from which these supports having been broken off, the area of contact with the body of the vessel had been carefully smoothed.

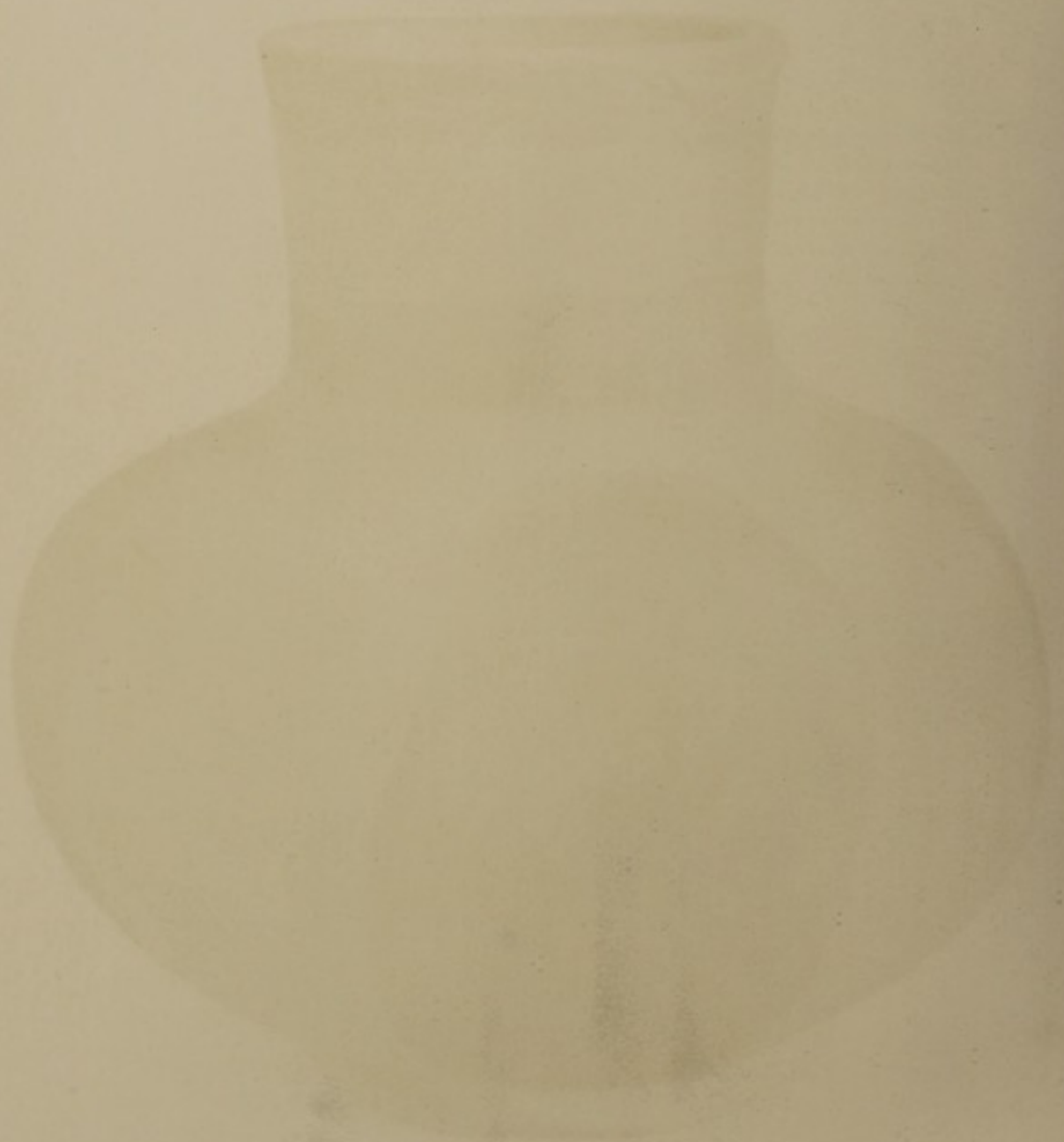


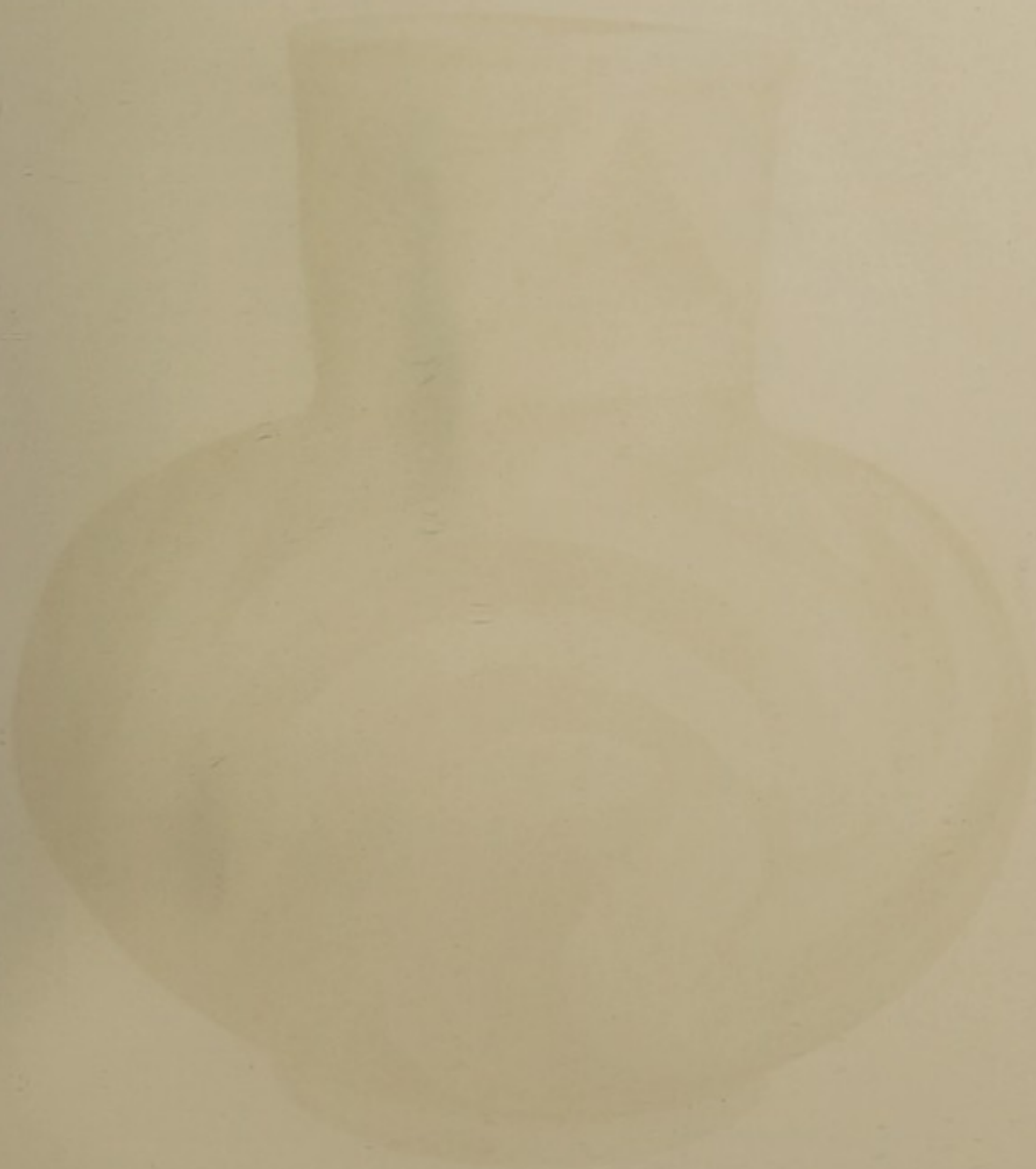
FIG. 46.—With Burial No. 94 (an infant). Mounds near Turkey Island. (Full size.)

Six of the eighty-two vessels bore decoration with red pigment. Three of these, with a uniform coating of red, were respectively a bowl from which an animal head had been broken, but on which the tail remained, and two wholly asymmetri-



MOUNDS NEAR TURKEY ISLAND, VESSEL NO. 125. (HEIGHT, 7.2 INCHES.)







MOUNDS NEAR TURKEY ISLAND, VESSEL NO. 117. (HEIGHT, 7.7 INCHES.)

cal bottles. The three remaining vessels had designs in red. Two of these will be particularly described, and figured in the plates, in connection with this place; the third, a rough, heavy bottle with a circular, flaring base, has the paint scaled from it to such an extent that the design is greatly impaired.

The following burials present features of interest in connection with the arrangement of vessels.

Burial No. 52, an adult skeleton, had near the head an upright bottle, over the neck of which a bowl had been turned so that the neck was entirely covered, the rim of the bowl resting on the body of the bottle. Another bowl was nearby.

Burial No. 71, an adolescent, had an inverted bowl partly covering the skull and giving to the burial the appearance of a certain form of urn-burial. Upon examination, however, it became apparent that this position of the vessel was incidental and that the bowl had been inverted to cover a smaller bowl which had been placed upon the skull.

Burial No. 94, a very young infant, had near it a small bowl in which, upright, was a little effigy bottle. The bowl and the bottle are shown in Fig. 46, in which, however, the bowl has been tilted slightly from the upright position in which it was found, in order to give a better view of the bottle.

We shall now describe certain vessels from the aboriginal site near Turkey Island.

Vessel No. 125. This bottle (Plate XXI) has four equidistant bands of red pigment running vertically on the body. The background is a coating of gray clay. Around the neck are two circles of red pigment.

Vessel No. 15. A bottle of coarse ware (Fig. 47), of a fairly common type in the region, having a collar modeled around the neck, and a tripod support.

Vessel No. 84. A clumsily made, asymmetrical bottle, 8 inches in height, having a body formed from three lobes, and an annular, projecting base or foot.

Vessel No. 117. This bottle (Plate XXII), of yellow ware, has had, as a background for a design in red pigment, a coating of light gray clay. The design consists of a four-pointed star, the extremi-



FIG. 47.—Vessel No. 15. Mounds near Turkey Island.
(Height 10 inches.)

ties directed downward from the base of the neck, and a similar figure with the arms pointing upward from the base of the vessel. Around the body is a design seemingly based on the swastika, four times shown, with a modification in one instance where the figure has five arms, this fifth arm connecting with one of the points of the upper star. The decoration on the neck seems to consist of a zigzag of gray pigment running between series of triangles in red.

MOUNDS NEAR LOG LANDING, CROSS COUNTY.

Near the river bank, at a log landing, the name of which, if it has one, we did not learn, on the western side of the river, are three low mounds, one of which is crossed by teams hauling timber, and another is partly traversed by the road. In these two mounds but little digging was done, owing to our wish to avoid injuring roads over which heavy loads must pass.

Digging in one of the mounds and in part of another resulted in the discovery of four burials of adults, all extended on the back. With each of these burials, near the skull, were a bottle and a bowl, all undecorated with the exception of one bowl which had loop-handles, and on the body rude imprints probably of a section of a reed.

FORTUNE MOUNDS, CROSS COUNTY.¹

The Fortune Mounds, as the place is called, the property of Mr. W. S. James, of Bay Village, Ark., consist of ridges of the ground and one flat mound on the river bank of the type with which the reader is familiar. This mound, presumably quadrangular in the past, is now of irregular outline through wash of water. Its area is probably about two acres. The height of the mound varies greatly. The upper surface, which is strewn with dwelling-site debris, slopes slightly downward toward the northern, or river, side. The other sides have suffered to such an extent through wash, and so much surrounding soil has been carried away by the river, that the height of the mound varies at almost every part. Probably originally its altitude did not exceed 6 or 7 feet.

This place bears a great reputation for the discovery of human skeletons and accompanying pottery in the past, and evidently it had been most persistently sounded and dug previous to our coming. It was from here that the head vessel in Peabody Museum, Cambridge, Mass., was taken.

Considerable digging on our part resulted in the discovery of one skeleton at full length, having an undecorated vessel at the head.

THE TURNBOW PLACE, CROSS COUNTY.

About one-quarter mile in from the river is a tract of cultivated ground, about fifty acres in extent, known as the Turnbow Place, and belonging to Mr. W. N. Turnbow, who resides upon it. Part of this place is made up of a number of ridges and high places, and is similar to other aboriginal sites along St. Francis river. Most of the elevated ground at this place, however, had little superficial sign of

¹ This place was in Poinsett County until a part of that county, including the Fortune Mounds, was taken to complete Cross County.

former occupancy, and digging in these parts did not indicate a great depth of midden deposit.

The westernmost elevation, however, a ridge about 6 feet high and 125 feet by 225 feet in extent, had over the surface bits of pottery and fragments of human bones, and Mr. Turnbow told of burials that had been uncovered there by the plow.

Eighteen trial-holes in this ridge came upon only a single burial, with an undecorated bottle at the skull.

It is probable that this ridge, which the owner informed us had been under cultivation for more than forty years, had, in the course of time, yielded to the plow, and perhaps to curiosity hunters, most of the burials it once contained.

MOUND ON THE LINDSAY PLACE, POINSETT COUNTY.

The Lindsay Place, which has been recently cleared of timber, belongs to Mr. J. W. Lindsay, who lives upon it. A short distance from the landing, in a cultivated field and near the road which borders the river, is a flat mound about 3 feet in height and 30 feet in diameter.

Eight out of nine trial-holes in this mound reached raw clay containing no mixture of midden-refuse, when at a short distance from the surface. The ninth hole, when about 16 inches down, came upon a large fireplace marked by clay burnt almost to the hardness of brick. This clay in places had a maximum thickness of about 4 inches.

The bed of burnt clay had upon it, in one place, a layer gray in color, composed of ashes with a slight admixture of clay. This deposit, irregular in outline, was about 2 feet square, roughly speaking. Its maximum thickness was about 5 inches, though the deposit became much thinner toward the edges. This deposit of ashes did not cover the fireplace, but was found on it only in one place.

Just beside the deposit, but not in it, resting on the fireplace in an upright position, was a pot having the lower two-thirds filled with very dark clay and fragments of the cremated bones of a child—a cremation which had been thoroughly done, compared with many aboriginal ones, as the major part of the deposit was hardly more than powder, while the larger fragments were less than an inch in diameter and were exceptional.

The upper third of the vessel was filled with the ordinary clay from the mound, and the part below, much darker than the clay above, presumably was made up of a mixture of the cremated bones, ashes, small fragments of burnt clay from the fireplace, and a slight infiltration of clay from above.

Beside this urn-burial were the fragments of a bowl.

Considerable digging was done in connection with this burial to discover whether other burials had been made in its vicinity, but none was encountered.

We are unable to determine if the fireplace in this mound was simply one similar to so many fireplaces found in this region, where the aborigines have lived, and the urn-burial was placed upon it merely by accident, or if the fireplace marked the site of the cremation, and the fireplace and the mound itself were made expressly for the one burial.

CEMETERY ON THE CUMMINGS PLACE, POINSETT COUNTY.

The Cummings Place, belonging to Mr. C. C. Cummings, who resides on the plantation and at Marked Tree, has at the landing considerable high ground of artificial origin, through which a road has been cut, and on which is Mr. Cummings' home and also a large barn and various other outbuildings, and an enclosure for stock, in which a building formerly stood.

The Cummings Place has been long famous for the aboriginal pottery found there, and we were informed that a person whom we knew to be a prominent vendor of aboriginal relics, and to have passed many years on St. Francis river in pursuit of his vocation, had spent much time at that place and had gathered an abundant harvest there.

Our successful digging at the Cummings Place was done in that part of the enclosure where a house had been at the time of the visit of the person to whom we have referred, and also in an extension of the raised ground, about 40 by 75 feet in size, immediately across a fence bordering the northern side of the enclosure.

Our work, which consisted of digging here and there and enlarging the holes when burials were encountered, resulted in the discovery of forty interments and of sixty-six vessels of earthenware, nearly all of which were with the burials.

Of the forty burials, thirty-one were of adults; five, of children; two, of adolescents; and two were aboriginal disturbances. One of these latter, Burial No. 15, was interesting in that the legs showed marked disparity of development, the individual in life having been decidedly lame.

With the exception of the burials of two or three children (the form of which was not determined) and of one burial which lay at full length face down, all interments from the Cummings Place were extended on the back, with three slight variations, as follows:

1. The right leg crossing above the left knee.
2. Trunk on back, thighs flexed upward with legs partly flexed on the thighs.
3. The left ankle crossed over the right one.

Three skeletons lay with the skulls resting in bowls.

While pottery lay with nearly all the burials found, but few other artifacts had been placed with them. With a child's skeleton were five beads of shell; an earthenware pipe of ordinary type lay near the burial of an adult.

With Burial No. 36 was an earthenware bottle at the skull, and at each side of the cranium, an ear-plug of shell of the type having the shank made from the penultimate whorl of the *Fulgur* (conch shell) and the mushroom-shaped head from parts of the shell on each side of the suture. On page 295 of our "Certain Aboriginal Remains of the Alabama River" we figure a shell and show exactly from what parts ornaments of this kind were cut.¹ This form of ornament often has been considered a pin, but as we have frequently found such ornaments at each side of the head at the ears, some with grooves just back of the heads

¹The same type of ornament is figured by Professor Holmes in "Art in Shell," Plate XXX, fig. 10.





CUMMINGS PLACE, VESSEL NO. 59. (HEIGHT, 7.9 INCHES.)
SERPENT EXTENDED. (ABOUT TWO-THIRDS SIZE.)

of the ornaments and some with perforations in the ends for attachment, we are strongly inclined to consider them ear-plugs.

Burial No. 11, the skeleton of a child, had at the neck three marine shells (*Oliva literata*), cut to permit stringing as beads; one shell bead at the right wrist; a mussel-shell hoe above the pelvis; slightly to the left of the pelvis a small bowl and a bottle, and an undecorated pot in which was a small bone. With these vessels was a rudely modeled head that belonged to a vessel not present with the rest. Three shell beads were at the ankles.

With a few disturbed bones not recorded as a burial, were two fragments of sheet-copper; some shell beads; a number of pillar-shaped supports for receptacles, lying in a mass together, similar to others we have referred to with the exception that these, while modeled, had not been fired.

Scattered through the debris at this place were the usual piercing implements of bone, and disks made from fragments of pottery vessels, some perforated, and some not; also one perforated earthenware disk about 2 inches in diameter, which had been shaped and fired.

There were found also several small arrowheads of flint; a diminutive ear-plug of earthenware, coated with red pigment; several antler-points, cut squarely off, and in several instances having a boring in the proximal end, which, however, was not of sufficient size to have chambered the shaft of an arrow.

One earthenware pipe and part of another one, both of ordinary type, were found apart from burials.

The sixty-six vessels found by us, broken and whole, were in the main undecorated and of ordinary forms. As a rule, earthenware lay near the skulls, but no burial had more than four vessels.

The use of red paint was six times noted on the pottery at this place, three times in uniform coating.

The order of arrangement of vessels at the Cummings Place presented no new feature. In one instance a small bowl, erect, was completely covered with the inverted base of a large vessel that had been broken into a circular form for the purpose.

Mussel-shells, usually badly decayed, were present in some of the vessels, as was one shell spoon in fragments.

In one vessel were many decaying fish bones.

The thrifty natives who formerly inhabited the Cummings Place had been quick to utilize broken vessels for interment with the dead. In no fewer than four instances there, where interesting vessels were found, important parts were missing, though in three cases (as in the case of broken feet) the area of fracture had been smoothed to render the vessel efficient.

We shall now describe the more interesting vessels from the Cummings Place.

Vessel No. 59. This bottle, shown in Plate XXIII, is of yellow ware, having on the body in red pigment, as decoration, an arrangement based on the *triskele*, much in the manner of many of the swastika designs from St. Francis river.

Around the neck, also in red pigment, is a serpent which is shown extended on the same plate with the bottle. To any one familiar with the markings on the diamond-back rattlesnake (*Crotalus adamanteus*) there can be no question that this serpent was intended to be represented on the vessel.

But here an interesting point arises. The diamond-back rattlesnake, found chiefly in Florida, though its habitat extends along the Gulf coast westward to the Mississippi (some of these snakes having been found near New Orleans), is practically unknown in Arkansas, though one specimen is reported to have been met with there.¹ Even if this single doubtful case was correctly reported, presumably its occurrence was in southern Arkansas, while the region whence the bottle bearing the serpent came is well to the northward in that State.

The rattlesnake known to Arkansas is the banded rattlesnake (*Crotalus horridus*), and one of these snakes was killed by us at the Rose Mound on St. Francis river. The markings on the banded rattlesnake have nothing in common with those on the diamond-back variety.

In connection with this bottle, with its pictured diamond-back rattlesnake, three hypotheses can be formulated:

1. That the bottle was brought from regions to the southward: though we consider this most unlikely, as the decoration on the remainder of the bottle is of the type found in the St. Francis region and not of the kind found farther south.

2. That as the aborigines were constantly traveling, and often moving from place to place, the bottle was made in northern Arkansas by some one familiar with the diamond-back rattlesnake of more southerly regions.

3. That the *Crotalus adamanteus* inhabited northern Arkansas at the period when the bottle was made, but since has disappeared from so northern a territory.

Vessel No. 61. This vessel, a bowl 11 inches in maximum diameter, has projecting upward from one side what is intended to represent the neck and head of some animal whose teeth are roughly indicated by imprints in the clay. On the opposite side of the bowl is a conventional tail. This type of bowl with animal head and tail is common enough in the Middle Mississippi region, though vessels in which the head is hollow and contains small objects that rattle when shaken, as is the case with the vessel under description, are only exceptionally found there.

Vessel No. 7. A graceful bottle, coated with brilliant red paint, having a globular body and a slender neck. A projecting basal support had been broken from this vessel and the area of union with the body had been carefully smoothed to permit the vessel still to retain an upright position.

Vessel No. 54. This bottle, of black ware, had originally possessed three globular supports at the base, one or all of which having been broken off, the bottle had been treated in a way to enable it to continue in use.

Vessel No. 43, a compound form resembling three pots joined, though interiorly there is but little separation of the bodies. Traces remain of where probably an

¹ Leonhard Stejneger. "The Poisonous Snakes of North America." Rept. U. S. National Museum for 1893, p. 435.



CUMMINGS PLACE, VESSEL NO. 39. (HEIGHT, 8.5 INCHES.)

upright neck and head, modeled after those of some animal, have been. The ware of the vessel is very coarse, and the outside is covered with soot, showing it to have been in use for culinary purposes. Two small ears project horizontally from opposite sides of each of the three openings. Maximum diameter, 13 inches; height, 7.8 inches. The outlines of a type of vessel somewhat similar to this one are figured by Professor Holmes.¹

Vessel No. 39. This bottle (Plate XXIV), with double neck uniting in a single one above, belonging to a type not uncommon in the Middle Mississippi region, bears on the body a decoration consisting of six spaces coated with red and white pigment alternately, on a background of brown pigment. The neck, apparently, has been covered with red paint, now largely worn away. The appearance of the vessel, as shown on the plate, suggesting a lobed body for the bottle, is shared by the original vessel, but is not based upon fact, the lobed appearance being caused by the heavy bands of brown between the spaces of red and of white. A part of the neck is missing through breakage in early times. The restoration, shown in broken lines on the plate, is based on comparison with other bottles of the same type from the same region, though this double-neck type from Peru and elsewhere often has a longer upper portion to the neck. The asymmetrical shape of this vessel, which has been faithfully reproduced in the illustration, is typical of a great number of vessels along the St. Francis.

THE MILLER PLACE, POINSETT COUNTY.

The Miller Place, a short distance below the town of Marked Tree, but on the opposite, or western, side of the river, is the property of the Messrs. Bennett Brothers (T. J., J. F., and W. W. Bennett), who reside on the plantation and at Marked Tree.

In the Twelfth Annual Report of the Bureau of Ethnology, for 1890-91,² is a description of this place and a plan from which one who has lately visited the place can see how much cultivation has changed it in later years.

Though much digging was done at the Miller Place in earlier times, for the last ten years, at least, indiscriminate work on the place has been prohibited, though there has been surreptitious search, and, according to all accounts, a great amount of pottery has been uncovered in the course of cultivation. In fact, at the time of our visit there, two skeletons, one with two earthen vessels, were ploughed up within a few feet of where we were at work.

Immediately at the landing at the Miller Place are extensive high places of artificial origin, on which are a dwelling, a large barn, and various smaller buildings, with fenced ground pertaining to them. All this ground, of course, was closed to us.

Leading back through cultivated fields toward woods which surround the place are two parallel ridges of rich, black soil, both of which have long been under cultivation. It was in these ridges that practically all our quest was conducted.

¹ *Op. cit.*, Plate VII, a.

² Page 207 *et seq.*

Somewhat back from the landing, but in full view from it, are two mounds surrounded by cultivated ground. One of these, doubtless quadrangular in the past, has now the outline of a triangle with extremities somewhat blunted. Its height above the general level is 12 feet, though if measured from positions where it is evident that soil has been removed, the height is considerably greater. The diameters are 175 and 140 feet. The summit-plateau is about 100 feet by 70 feet. This mound was dug into superficially with negative results.

The other mound, a truncated cone and very symmetrical, rises about 13 feet above the general level of the surrounding fields. Its diameter is 112 feet.

This mound, so far as we could determine, is composed of raw-looking, tenacious clay. Almost at the surface of the summit was a burial accompanied with four bottles.

It is most unlikely that this mound contains burials throughout, and it was not in our power to determine the matter with the force of diggers under our control, even if the destruction of a mound which might prove a place of refuge at a time of unusually high water were permissible or if the proposal to scatter quantities of raw clay over fertile ground could have been entertained by the owners.

An excavation, partly filled with water at the time of our visit, whence, no doubt, material for the mounds had been taken, is near the ridges of which mention has been made.

Three days were spent by us in digging at the Miller Place. Burials were encountered in all parts of the ridges, though they were somewhat scattered and never in large groups.

Fifty-eight burials were encountered, excluding recent disturbances. Of these burials two were of adolescents, eighteen or possibly nineteen were of children, the remainder being of adults.

With one exception, that of a child lying partly flexed on the right side, all burials when determined were at full length on the back, two having the feet crossed at the ankles.

One skeleton lay with the head resting in a large bowl.

The custom along the St. Francis of depositing few objects except pottery with the dead (and the natives there certainly fulfilled their duty in respect to pottery) was emphasized at this place. Shell beads (in one instance a single bead) were with six burials. In several cases small shells perforated longitudinally, badly decayed as a rule, lay with other beads. A single tubular bead of sheet-copper rested on the thorax of a skeleton.

Burial No. 36, an adult, had at the right shoulder a pot, and a bottle farther down near the right humerus. At the left elbow were a bowl and a pot, the latter containing a large number of minute chips of flint.

Burial No. 41, an adult, had a bowl at the skull, and at the outer side of the left thigh, four arrowheads made from antler-points, and two projectile points of flint of the elongated, leaf-shaped variety. Incidentally, it may be said that barbed arrowheads or any arrowheads of stone, except of the type to which reference has



MILLER PLACE, VESSEL NO. 1. (HEIGHT, 9.7 INCHES.)







MILLER PLACE, VESSEL NO. 42. (HEIGHT, 10.8 INCHES.)

just been made, are uncommon along the St. Francis. On the other hand, arrow-heads wrought from antler-points are more numerous in the St. Francis region than we have found them to be elsewhere.

Burial No. 44, the skeleton of a child, had near the upper part of the skull a bowl in which was a small pot inverted. Also near the skull were two bottles. At the right and on the left of the cranium was an ear-plug of shell of the blunt pin variety, while beads of shell, including one perforated marine shell (*Oliva literata*), lay at the neck. Square beads of shell having carved line decoration were on the upper part of the thorax. At the left shoulder was a bottle, its opening covered with a small bowl inverted.

Burial No. 49, an adult, in addition to pottery, had, at the neck, one large, spherical shell bead, and seven tubular beads of bone, each about one inch in length.

Throughout the digging were found, apart from burials, and probably lost while the site was inhabited: a spade of flint, 7 inches long and 4 inches in maximum diameter; three small ear-plugs of earthenware; several piercing implements of bone; antler-points; earthenware disks made from broken pottery, perforate and imperforate; one bone bead; a small "celt," probably of sedimentary rock; one pipe of earthenware, of ordinary type.

One hundred and twelve vessels of earthenware were found on the Miller Place, fifty-eight of which were presented to the owners. A large proportion of the remainder, undecorated and hopelessly crushed, was not available for removal.

In eight of the vessels found were mussel-shells—two in one instance. Bones of small fish were in four vessels.

The maximum number of vessels found with one burial was six, in one instance; but, as a rule, one, two, or three vessels lay with the dead, though occasionally burials were found unaccompanied with any artifact. As is usually the case, small vessels as a rule had been placed with burials of children.

Paint had been used as a decoration for pottery in nine instances, three times consisting of a uniform coating of red.

In three cases at the Miller Place incised decoration over the bodies of vessels which had not been intended for culinary purposes had been attempted, but was of the rudest character. It was noted here also, as elsewhere, that a marked tendency on the part of the aborigines had existed to place imperfect vessels with the dead.

The following vessels from this place seem worthy of special mention.

Vessel No. 1, a bottle of yellow ware (Plate XXV), has in red pigment two parallel bands around the neck, and on the body, also in red, a combination based on the swastika, the symbol of the four winds or directions.

Vessel No. 42. This bottle (Plate XXVI), originally with a tripod support, which had been lost through breakage in aboriginal times, has a decoration consisting of a number of stepped or terraced figures representing cloud-symbols, done in red pigment on a background of white material, doubtless kaolin such as we found had been used for pigment along Arkansas river. The neck of the bottle shows much wear, and the designs formerly upon it are hardly distinguishable at the pres-

ent time. We have noticed this worn condition on the necks of many bottles, and believe it may have arisen from abrasion by a cord used for suspension. We have found in several instances bottles whose necks plainly showed slight grooves left by a cord or thong.

Vessel No. 67. This bottle (Plate XXVII) has, by way of decoration on the body, diamond-shaped figures in red pigment enclosed in diamonds composed of pigment of a yellow tinge. The space encircling the base of the neck is not decorated with this pigment, but is the yellow ware without the addition of coloring material. On the neck of the bottle, on a background of red, is an angular meander of the same shade of pigment as appears on the body of the vessel.

THE POTTER PLACE, POINSETT COUNTY.

The Potter Place, on Little river, owned by Mr. W. M. Potter, who lives there, borders the stream and is made up of considerable high ground of the same character as we have described as being along the St. Francis. This place was occupied for two years by a very energetic dealer in Indian pottery, who covered the upper St. Francis and Little rivers in his work, almost as thoroughly as did another dealer, whom we have mentioned, that part of the St. Francis below Marked Tree.

Considerable digging at random by us in a part of the plantation not occupied by houses and fenced enclosures, came upon ten burials: five of adults; three of children; two of adolescents.

The usual extended position for burials had exceptions at this place as follows: one burial in a squatting position; one in a similar position except the body was somewhat tilted to one side; one burial extended, face down.

With one interment was a bead of bone; with another, a shell hoe; and two shell beads were with a third.

Burial No. 10, an adult, extended face down, had at the left elbow a bottle with a bowl inverted over the opening. At the right of the pelvis was an arrowpoint of deer-antler. A piercing implement of bone lay at the left thigh. At the left knee were four arrowpoints of antler and one of flint. Somewhat above the left knee was an earthenware pipe having in front of the bowl a rudely modeled human head in relief. At the front of the base of the bowl are two projections to hold the pipe in an erect position (Fig. 48).

A small "celt" lay apart from burials.



FIG. 48.—Pipe of earthenware. Potter Place. (Full size.)



MILLER PLACE, VESSEL NO. 67. (HEIGHT. 6.5 INCHES.)

All burials but two were accompanied with pottery, and one of these two showed signs of disturbance, which may have removed accompanying vessels.

Eighteen vessels in all, presenting no feature of interest, with one exception, were with the burials. A bowl on which had been two loop-handles, one on each side below the rim, had lost one handle in aboriginal times. This handle had been replaced by a perforation presumably to enable the vessel to be continued in use. Evidently the loop-handles, so common on aboriginal pottery in certain regions, were not, as some have thought, simply ornamental, but served a practical purpose. Red pigment had been employed on but one of the eighteen vessels.

THE STOTT PLACE, POINSETT COUNTY.

The Stott Place, belonging to Mr. Frederick M. Stott, who lives on it, also had undergone careful search by the diligent worker to whom we have referred in our account of the Potter Place.

There are no especially high places on the Stott property, but the surface of the land is slightly rolling, owing its irregularities to aboriginal deposit.

Considerable digging came upon six burials—four of adults, two of children. Where determined, the extended form of burial had been practised.

Burial No. 1, the skeleton of an adult, which was saved almost entire, and with the skull in good condition, presents pathological features of much interest, including a reunited fracture. In addition to three vessels, a chisel chipped from a flint pebble, 5.25 inches in length, lay with the remains.

Thirteen vessels were found with the burials, nearly all of them undecorated, two or three having trivial ornamentation.

In one instance two large fragments of pottery had been placed over a skull.

At the Stott Place, which is on the outskirts of the town of Lepanto, our journey up Little river ended, for reasons given in our introductory remarks.

In the cemeteries of St. Francis river, as in many other parts of the Middle Mississippi valley, the fish, as is well known, was a favorite concept in connection with pottery and is found as a decoration on the ware in various degrees of convention. As a series of bowls from the St. Francis, showing gradations from the fish to a highly conventionalized decoration, may prove of interest, such a series is given in Figs. 49 to 56, inclusive.

Through the courtesy of Prof. F. W. Putnam and Mr. C. C. Willoughby, of Peabody Museum, Cambridge, Mass., we have received nineteen photographs representing the most interesting vessels in the collection of pottery made on the St. Francis, in 1880, for Peabody Museum.

In Figs. 57 to 63, inclusive, are reproduced (about one-third size) seven of these vessels, all but one decorated with red pigment, which least resemble others found by us on the St. Francis, though some of the vessels from the Peabody Museum collection, which we figure, rather nearly approach in appearance certain ones found by us.



FIG. 49.—Jones Place. In this figure we have a bowl representing a fish, with some attempt at modeling the head and tail, which are placed considerably below the rim.

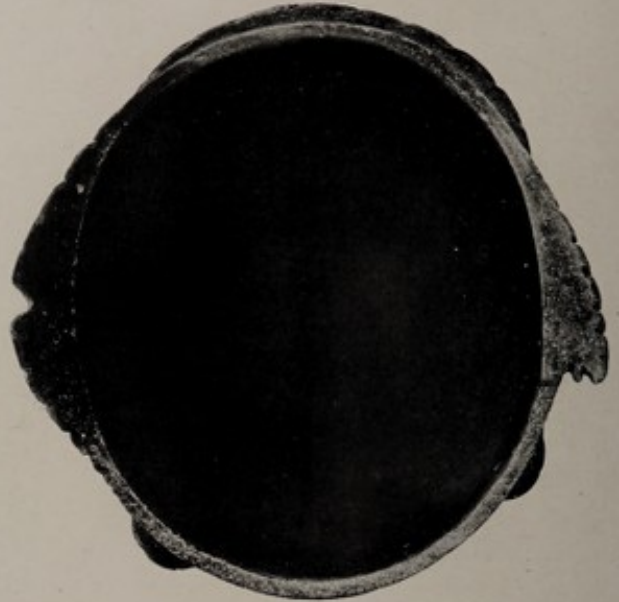


FIG. 50.—Near Turkey Island. Next we see a more conventionalized head and tail, and notice that both have been placed at the level of the rim.



FIG. 51.—Miller Place. The next step in the evolution is simplification in the rendering of the head and tail.



FIG. 52.—Jones Place. We now see the head and tail of the fish without detail and appearing more like handles, though the dorsal and the ventral fins still remain on the bowl.



FIG. 53.—Near Turkey Island. The convention is now further advanced. In addition to the plain and uniform appearance of the head and tail, we see the dorsal and ventral fins resembling handles, and without attempt at detail.



FIG. 54.—Rose Mound. The fins have disappeared. The head and tail are uniform or perhaps simply the tail of the fish has been duplicated.



FIG. 55.—Jones Place. Here we have a further step in convention, two tails with but little resemblance to those seen in the early stage of the evolution are present on the bowl.



FIG. 56.—Near Turkey Island. Lastly we have a bowl with a uniform decoration encircling the rim, based upon the tail shown in the preceding figure.



FIG. 57.—Peabody Museum Collection. Rose Mound.



FIG. 58.—Peabody Museum Collection. Rose Mound.



FIG. 59.—Peabody Museum Collection. Rose Mound.



FIG. 60.—Peabody Museum Collection. Rose Mound.



FIG. 61.—Peabody Museum Collection. Halcomb Mound.

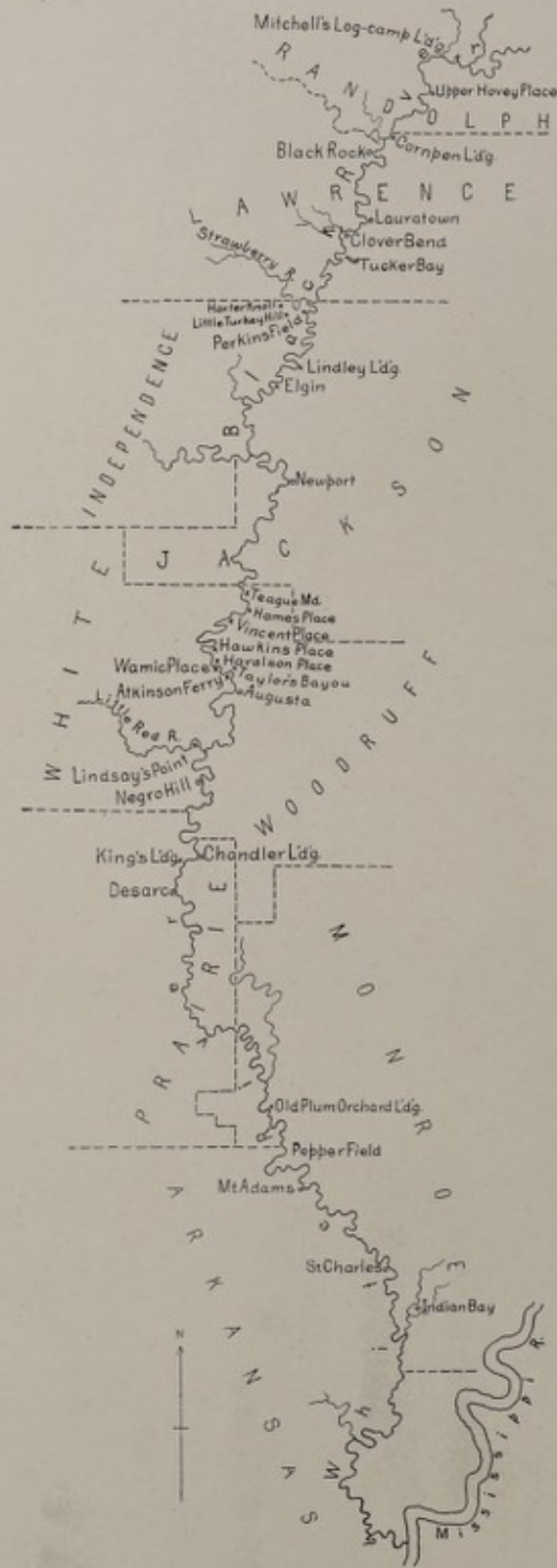
We are unable to identify the Halcomb Mound, whence came one of the vessels from the Peabody Museum collection. The mound is referred to as being "two miles above Neeley's Ferry." This is about the location of the Catfish Mounds (described in our report), and perhaps thirty years ago they bore the other name.



FIG. 62.—Peabody Museum Collection. Fortune Mound.



FIG. 63.—Peabody Museum Collection. Stanley Mounds.



MAP OF PARTS OF THE WHITE AND BLACK RIVERS

Scale in miles
1870

PART II.

WHITE, AND BLACK¹ RIVERS.

As stated in our introductory remarks, 265 miles of White river (which takes its name from the beautiful clearness of its water) and 109 miles of Black river, in both instances from the mouth up, were investigated by us last season.

The lower part of White river to St. Charles, 60 miles by water, had been carefully searched by us without result in the spring of 1908, the only high ground within reach having been Indian Bay, a description of which site may be found in a report of the Bureau of American Ethnology.²

Still farther up, White river runs through overflow country where sites of aboriginal occupancy if present, were not within working distance from the water. In fact the entire stream, so far as investigated by us, is lined by much low ground where archaeological research is not likely to be rewarded. Knowing this in advance, and that, with a few trifling exceptions, no aboriginal objects had been obtained from the White and Black river regions, in Arkansas, we nevertheless decided to search the territory thoroughly in order that a region so favorably situated geographically in the midst of a territory filled with Indian remains could be placed on record, though realizing that the quest might be a fruitless one.

While most of the owners of sites along White and Black rivers granted cordial assent to our request to investigate their properties, some failed to make reply, though addressed a number of times on the subject. We mention this fact in no spirit of adverse criticism, but simply to explain the omission on our part of more complete investigation. However, presumably, enough work was done by us to determine the nature of the territory, for with one exception no site of interest was found along White river, and but three vessels of earthenware were encountered along the stream.

Along Black river, while some vessels were found, not one was of a character to warrant its transportation home.

On both rivers, though burials were fairly numerous, they were almost invariably unaccompanied by artifacts, a remarkable fact considering the custom of lavishing deposits upon the dead as practised by aborigines of nearby regions.

As a rule, we shall describe all mounds visited by us along White and Black rivers, but shall give details only of such dwelling-sites as yielded burials to our search, though many other sites were investigated.

¹ The Black river of Missouri and Arkansas should not be confounded with the Black river of Louisiana or the Big Black of Mississippi.

² Third An. Rep. Bur. Ethn., p. 487 *et seq.*

SITES INVESTIGATED.

WHITE RIVER, ARKANSAS.

Mt. Adams, Arkansas County.
 Pepper Field, Monroe County.
 Old Plum Orchard Landing, Monroe County.
 King's Landing, Prairie County.
 Chandler Landing, Prairie County.
 Negro Hill, White County.
 Lindsay's Point, White County.
 Atkinson Ferry, White County.
 Taylor's Bayou, Woodruff County.
 Wamic Place, White County.
 Haralson Place, Woodruff County.
 Hawkins Place, Woodruff County.
 Vincent Place, Woodruff County.
 Hames Place, Woodruff County.
 Teague Mound, Woodruff County.

BLACK RIVER, ARKANSAS.

Elgin, Jackson County.
 Lindley Landing, Jackson County.
 Perkins Field, Independence County.
 Little Turkey Hill, Independence County.
 Harter Knoll, Independence County.
 Tucker Bay, Lawrence County.
 Clover Bend, Lawrence County.
 Lauratown, Lawrence County.
 Cornpen Landing, Lawrence County.
 Upper Hovey Place, Randolph County.
 Mitchell's Log-camp Landing, Randolph County.

MOUND NEAR MT. ADAMS, ARKANSAS COUNTY.

About one-quarter mile NW. from Mt. Adams, in sight of the road which passes through woods on property of Mr. Richard McRee, who lives at Mt. Adams, is a mound 20 feet high and 138 feet in diameter of base. A number of trial-holes showed the mound to be, as far as dug, composed of river deposit. No sign of burial was met with, and no artifact with the exception of a single arrowhead of flint.

MOUND NEAR PEPPER FIELD, MONROE COUNTY.

A tract near the river bank, formerly under cultivation, said to belong to the State, is known as Pepper Field. In this field is a low mound of sand, much

worked away through cultivation, on part of which is a house occupied by a colored family. Considerable digging in the unoccupied part of the mound yielded, in three instances, skeletal remains very badly decayed. With one burial was a rude vessel of earthenware, badly crushed.

MOUND NEAR OLD PLUM ORCHARD LANDING, MONROE COUNTY.

Following the road in from Old Plum Orchard Landing, the residence of Mr. J. T. Evans is reached, on whose property is a small mound. This mound, which is much spread and is but a few inches above the surrounding level, yielded neither skeletal remains nor artifact.

CEMETERIES NEAR KING'S LANDING, PRAIRIE COUNTY.

At King's Landing is a plantation belonging to Mr. J. A. King, of Desarc, Ark. In a field back of the plantation house, which is near the landing, were a few scattered signs of aboriginal occupancy. Considerable digging in this field, at a place where the soil seemed darker than elsewhere, unearthed a number of skeletons, nearly all badly disturbed by the plow, and all very much decayed. With one skeleton was a large, tubular, shell bead; with another, below the knee, were many small, discoidal beads, also of shell.

About 1.5 mile N. by W. from King's Landing is a small cottonfield, also property belonging to Mr. King, where, in two places, were visible on the surface many fragments of human bones and dwelling-site debris.

Considerable digging in these sites yielded fourteen burials: partly flexed on the right, and on the left; at full length on the back; and disturbances, aboriginal and recent. In addition, two skeletons lay extended, face down; and another was on the back, partly flexed, with the thighs widely everted, the legs crossing at the feet.

The burials at this place presented no fixed orientation; nor did they at any other point, so far as our investigation on White and Black rivers extended.

MOUNDS NEAR CHANDLER LANDING, PRAIRIE COUNTY.

About 1.25 mile almost due E. from Chandler Landing is a farm about fifty acres in extent, most of which is beyond reach of the river, though around it is woodland which is inundated in periods of high water.

The farm and the surrounding forest land are the property of Mr. E. W. Grove, of St. Louis, and are under the management of Mr. R. D. Caldwell, of Desarc, Ark., who kindly placed them at our disposal.

MOUND A.

A few feet from a farm house by the roadside, which is occupied by an intelligent colored man, who cultivated the farm, was a mound 7 feet 6 inches high, and 65 feet across its circular base.

The tenant informed us he had dug into the mound, intending to make a receptacle for potatoes, but coming upon human bones he had abandoned the project. With these bones, he told us, was a ball of stone and a grooved axe, which latter he presented to us.

The mound was practically leveled by us with the aid of from eight to twelve men, in twenty-nine working hours. While a mound of sand the size of this one could have been demolished with an equal force in half the time, this tumulus of loamy material, owing to long continued drought, was, with the exception of superficial parts, dried to a degree of hardness requiring constant use of the pick. This condition was not only a cause of delay, but made the recovery of objects difficult without subjecting them to breakage.



FIG. 64.—Vessel of earthenware. Mounds near Chandler Landing. (Height 3.4 inches.)

Human remains in this mound were often only decaying fragments—sometimes mere particles of bone—and were present throughout, but less frequently than would be expected in a mound of the size of the one in question were it not borne in mind that, presumably, many burials had entirely disappeared.

The condition of the bones and the character of the material in which most of them were embedded made determination of the form of burial impossible, though in several instances the burial at length was indicated. In one case a layer of bones was present, apparently consisting of skeletons and parts of skeletons mingled, many bones, however, being missing and others being out of place.

The artifacts in this mound, and in a small neighboring one to be described later, show that a culture tending toward the use of stone exclusively had prevailed at the place, a fact quite exceptional in all our work in Arkansas.



FIG. 65.—Pipe of earthenware. Mounds near Chandler Landing. (Full size.)

One vessel of earthenware lay with a burial. This vessel, shown in Fig. 64, is of no special interest except that it is practically the only one found by us on White river, the two others referred to elsewhere having been represented by undecorated fragments of inferior ware.

With another burial was a pipe of earthenware, 5.3 inches in length (Fig. 65), the only other object of earthenware present in the mound. This pipe, like all others found at this place, has the bowl and the stem in one piece. Vertical and

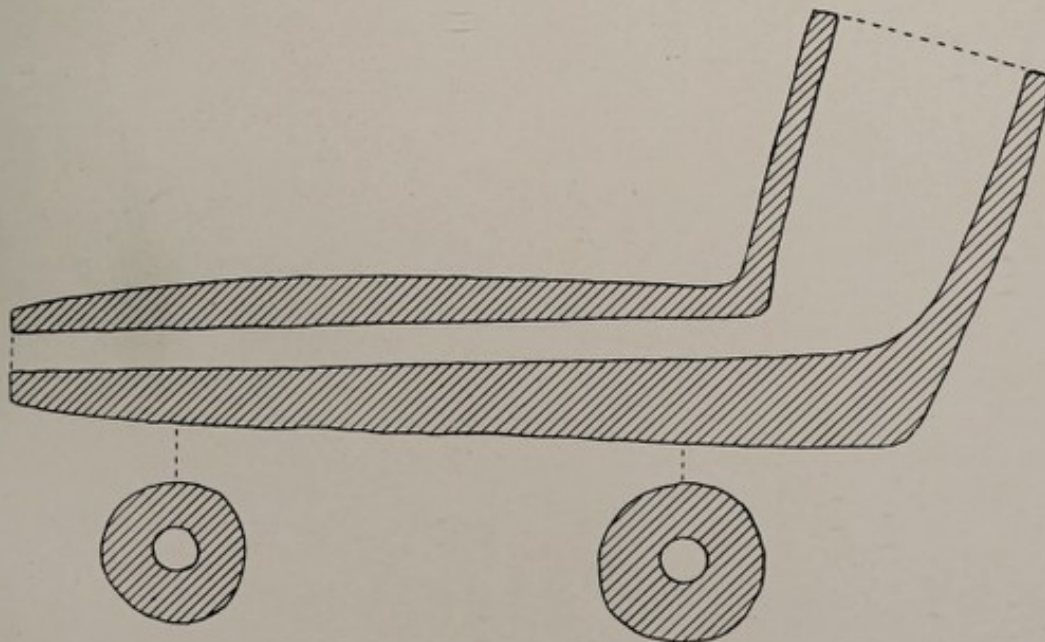


FIG. 66.—Vertical and cross sections of pipe shown in Fig. 65.



FIG. 67.—Pipe of shale. Mounds near Chandler Landing. (Full size.)

cross sections are shown in Fig. 66. There came from this mound also, both near human remains, two monolithic pipes, similar in shape, of massive shale (as were all the stone pipes from these mounds), one 7.25 inches in length (Fig. 67, vertical and cross sections in Fig. 68), the other unfortunately deprived of part of its stem by a blow from a pick which ground the part that was struck into irrecoverable fragments. There was also present in the mound the stem of a stone pipe which

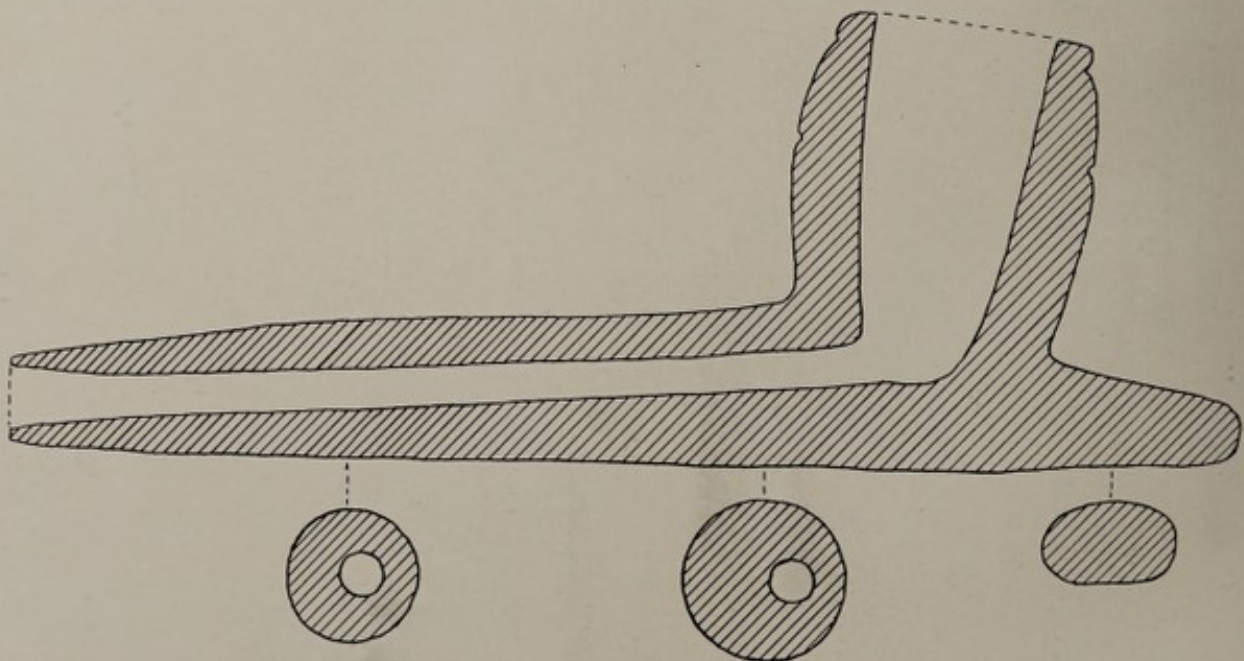
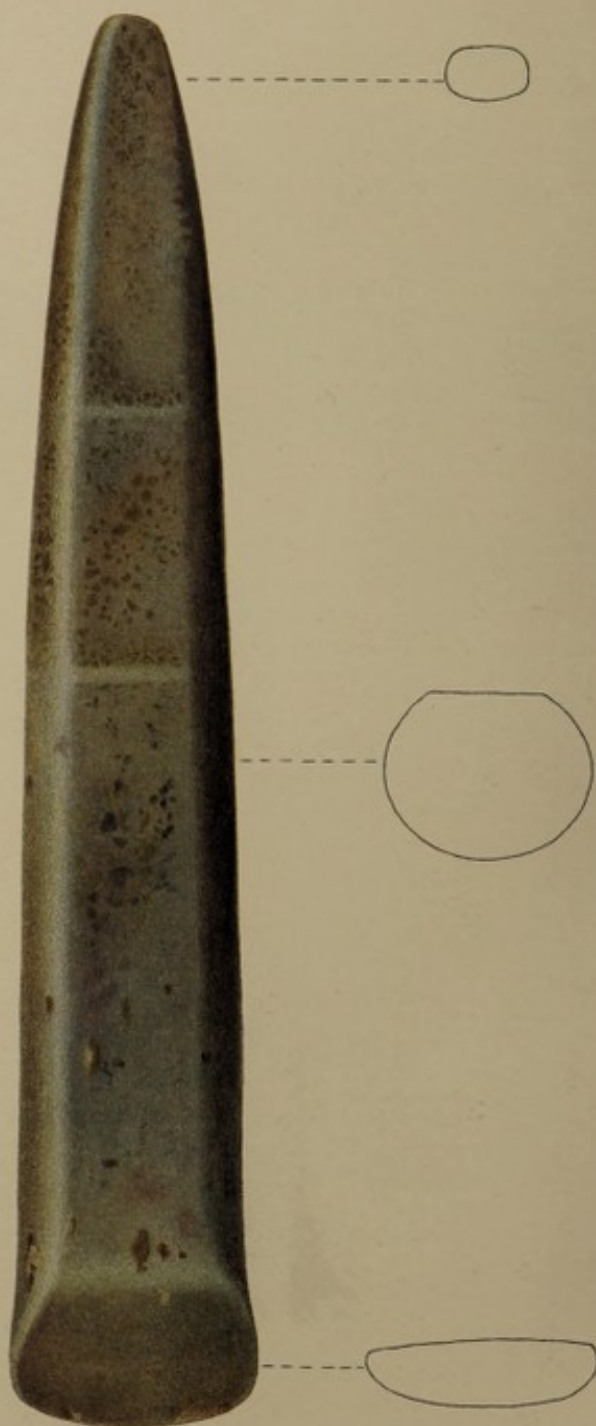


FIG. 68.—Vertical and cross sections of pipe shown in Fig. 67.



NEAR CHANDLER LANDING, CEREMONIAL AXE. (FULL SIZE.)

had been similar to the two already described. Its base is flat like that of the pipe from Mound B.

Half-tone representations of the earthenware pipe and the stone pipe, from Mound A, were submitted by us to Mr. Joseph D. McGuire whose report on these pipes, based on his great experience in such matters, is highly valued by us.

The pipes, according to Mr. McGuire, seem to be extremely interesting specimens of the Monitor type and certainly would be classed as such if only their bases were flat—especially in the case of the stone pipe which apparently has some features belonging to the Siouan type. Mr. McGuire, however, does not know of the occurrence of the Siouan type so far west as Arkansas, though pipes of this type are common from Maine to Georgia along the Atlantic seaboard, and as far west as the mountains, as may be seen by Mr. McGuire's "Pipes and Smoking Customs of the American Aborigines."¹

The earthenware pipe from the Chandler Landing mound, according to Mr. McGuire, apparently belongs to the same type as does the one of stone, and is unique so far as Mr. McGuire recalls. The large bowl, as is well known, is common to the Arkansas pipes, but the small perforation in the stem appears to be typical of the Monitor type. While the earthenware pipe is in its exterior similar to pipes found from South Carolina to New Jersey, the perforation of the bowl and the stem in the earthenware pipe is different in proportions from those found in the others.

Also Mr. McGuire considers the finding of the earthenware pipe and the stone pipe in the same mound to be an extremely interesting thing.

Unfortunately the half-tone representation of the stone pipe from Mound B near Chandler Landing was not prepared in time for us to submit it to Mr. McGuire. While the stone pipe from Mound A shows a flattening of the base, a broken pipe from Mound A as well as the pipe from Mound B show a more decided flattening and seem to be still more confirmatory of Mr. McGuire's belief that the pipes from this place are of the Monitor type.

Four boat-stones came from this mound. Of these we shall speak later in connection with two others found in Mound B nearby.

Throughout the mound, usually apart from burials but sometimes with them, were eighteen lanceheads and arrowheads of flint, all found singly with one exception where four lay side by side with a burial. Also with a burial lay a finely wrought leaf-shaped blade of flint, 9.75 inches in length and having a maximum width of 2.3 inches.

Near the leaf-shaped blade was a rare form in stone (Plate XXVIII), 8.3 inches in length. The material is probably green quartzite. This object, which resembles a chisel in shape, is in reality a ceremonial axe, as is evident from the mark left plainly upon it by the handle.

Not far from this ceremonial object, and also in association with bones, was another, of slate, of the same type, 10.5 inches in length.

¹ Rep. U. S. Nat. Mus., 1897.

In the present connection it may be said that the so-called hoe-shaped implements which some writers had supposed to be ceremonial axes, have been demonstrated to be such,¹ inasmuch as a number of these "implements" found by us plainly show where and how their handles had been placed; and the soft stone from which these objects often have been fashioned and the absence of chipping at the cutting-edges clearly indicate their ceremonial character.

The "celts" of copper, and the long, slender implements of the same material, found at Moundville, Ala.,² were all set in handles in a manner similar to that of the so-called hoe-shaped implements; and it is our belief that objects of the type of those from Moundville, and also the chisel-like implements of stone found by us in the mound at Mount Royal, Florida, and at this place, as well as the objects generally known as spade-shaped, or spuds, are neither more nor less than ceremonial axes.

To return to the contents of this mound, fragments of much-decayed wood stained by copper lay near a burial; while dissociated were half a "celt" of sedimentary rock and a small flint implement with rounded ends.

MOUND B.

About 400 yards in a northwesterly direction from Mound A, in the same field, was a mound 4.5 feet in height and 40 feet in diameter of base. This mound, largely of clay, had been much plowed away at the sides, so that by the complete excavation of the central part, 28 feet by 38 feet in diameter, we demolished practically all that had been left of the mound.

Fragments of bone were met with at intervals throughout the excavation, crushed flat and broken into many fragments.

Pottery was absent.

Lying with a burial were three lancepoints of flint, the largest 4.25 inches in length; and a handsome monolithic pipe, 7.25 inches long (Fig. 69, vertical and cross sections in Fig. 70).

With a skull were one shell bead and four perforated pearls, much decayed.

There came from this mound two boat-stones apart from bones, but which doubtless had been interred with them.

Of the six boat-stones from this place, two are made possibly from a green igneous rock, one from a ferruginous rock, one from gray shale, one from earthy limonite on which a hard ferruginous coating has formed, and one from rock crystal. They range in length between 2.5 inches and 3.7 inches, have no perforations or grooves, and but one shows a hollowing out of the base.

The boat-stone, the use of which is problematical, "found sparingly in most of the states east of the Mississippi,"³ and here met with but slightly west of that

¹ "The So-called 'Hoe-shaped Implement.'" *Amer. Anthropologist*, July-Sept., 1903.

² "Certain Aboriginal Remains of the Black Warrior River." *Journ. Acad. Nat. Sci. Phila.*, Vol. XIII, p. 154, Figs. 27 and 28.

³ "Handbook of the American Indians." *Bur. Am. Ethn. Bul.* 30, Part I.



FIG. 69.—Pipe of shale. Mounds near Chandler Landing. (Full size.)

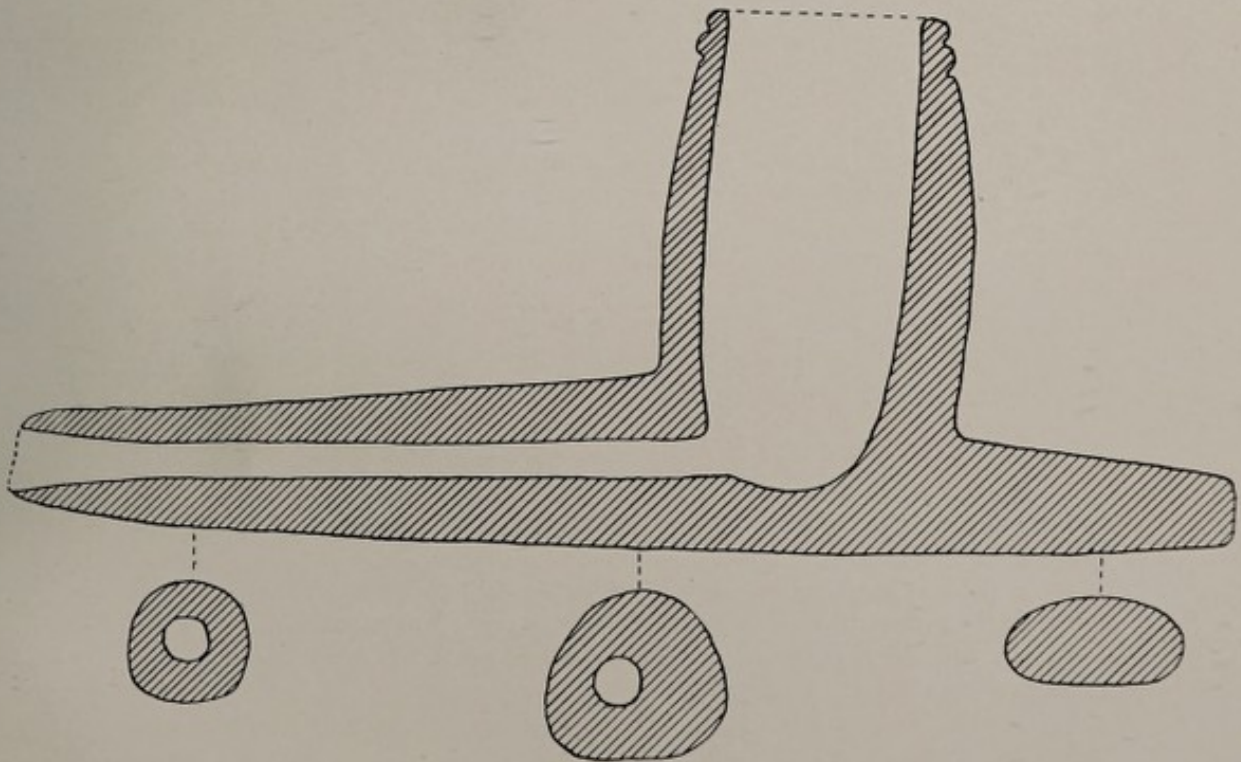


FIG. 70.—Vertical and cross sections of pipe shown in Fig. 69.

river, is usually, though not invariably, hollowed as to the base, and grooved or perforated. Wisconsin specimens, however, show some with flat bases, and one having a flat base with neither groove nor perforation.¹

It would be untenable, we think, to suppose the superb boat-stone of rock crystal, with its beautifully beveled upper edge (Figs. 71, 72), which was found by us with a burial near the base of the larger mound, to be an unfinished object. Probably, as has been suggested, boat-stones without means of attachment were carried in the bags of shamans.



FIG. 71.—Boat-stone of rock crystal. Mounds near Chandler Landing. (Full size.)



FIG. 72.—Boat-stone of rock crystal. Side view. (Full size.)

In the field in which were the mounds were several sites which, by the color of the soil, led us to believe they might prove to be cemeteries, though on them were no debris indicating aboriginal occupancy. Trial-holes in these places proved unavailing.

MOUNDS NEAR NEGRO HILL, WHITE COUNTY.

On property belonging to the Stoneman & Zearing Lumber Company, of Devall Bluff, Ark., in woods subject to overflow, on the western side of, and some in sight from, a trestle that forms the western approach of a railroad bridge crossing the river below the settlement of Negro Hill, are two low ridges and two low, flat-topped mounds, of sandy soil. Careful investigation of the two mounds and one of the ridges yielded neither bone nor artifact.

On the eastern side of the trestle and in sight from it is another low, flat-topped mound. Nine trial-holes in this mound produced in only one instance, near the surface, a few scattered human bones and fragments of an earthenware bowl.

CEMETERY AT LINDSAY'S POINT, WHITE COUNTY.

Lindsay's Point, the property of Mr. W. A. Haley, who lives on the place, may be reached from White river but is more conveniently approached by running up Little Red river about 2 miles.

The point is high ground surrounded by woods. Near the river is a strip of soil black from admixture of organic matter and having on the surface many small fragments of pottery, pebble-hammers, and other debris. It is said that human bones have been ploughed up at this place.

Careful investigation yielded scattered human bones and four burials, two of

¹ Charles E. Brown, "Wisconsin Archaeologist," Oct.-Dec., 1909, pp. 147, 148.

which latter were disturbed skeletons, another lay at full length on the back, and one was partly flexed lying on the left side. With this last burial, near the knees, was an arrowhead or knife of flint.

Little Red river was carefully searched by us to West Point, about 18 miles up, by water. There is much high ground along the banks, which seems well fitted to have served as places of aboriginal abode. No mounds or cemeteries were met with, however, except the small site at Lindsay's Point.

It is possible that what we sought may be found in the high ground at a distance from the river, but unfortunately beyond our reach.

MOUNDS NEAR ATKINSON FERRY, WHITE COUNTY.

On property of Mr. T. E. Stanley, of Augusta, Ark., about 3 miles by water above Augusta, but on the left side of the river, going up, are several low mounds, one of which serves as a site for a stable. Considerable digging in these mounds yielded nothing.

MOUNDS NEAR TAYLOR'S BAYOU, WOODRUFF COUNTY.

Taylor's Bayou (locally called Taylor's Bay) enters White river a short distance above Augusta. About 2 miles up the bayou, on the eastern side, is a plantation belonging to Mr. T. E. Stanley, of Augusta, owner of the place at Atkinson Ferry, to which reference has just been made.

At the southeastern end of the Taylor Bayou plantation, in a cultivated field, are two mounds within a few yards one of the other, both much spread by the plow.

MOUND A.

This mound, about 4 feet in height and 47 feet across its circular base, of dark, sandy clay, had nine trial-holes sunk into it by us. These trial-holes (supposed to be 5 to 6 feet in length and 3 feet across, but which are sometimes not fully this size) were first carried to the base of the mound and then extended to include a considerable part of it.

Four burials were encountered, as follows: an adult and an adolescent, both partly flexed and lying on the right side; a small child; an adult at full length on the back.

The bones of the three skeletons first named, though found less deep, were badly decayed and fragmentary. On the other hand, the extended skeleton, which was at a depth of 40 inches, was well preserved.

No artifacts lay with the burials; indeed, the only ones found in the mound were a small flint arrowhead, and a fragment of pottery, square with rounded corners, having a countersunk perforation in the center from which, on one side, incised lines radiate to the margin.

MOUND B.

This mound, about 2 feet high and 45 feet in diameter, was tentatively investigated by means of nine trial-holes which afterward were greatly enlarged. It became apparent that the central part of the mound had been used for burials; consequently a median portion, 24 feet in diameter, was completely dug out by us.

Sixteen burials, all badly decayed, were found, none deeper than 2 feet from the surface. The burials were as follows: some closely flexed, some partly flexed, sometimes to the right side, sometimes to the left; a skull with scattered bones; a skull with a single thigh bone; a flexed skeleton without a skull, though an isolated cranium was found at a distance of 4 feet from it.

But one artifact lay with these burials. Burial No. 4, the skull and thigh bone to which reference has been made, had with it a neatly-made pipe of massive red shale.

Apart from burials were a rude mortar represented by a flat stone slightly concave, and a long, irregularly shaped mass of stone which evidently had served as a grinder.

A mass of quartzite, also from this mound, irregularly pitted in two places on one side, has on the opposite side a circular concavity 5.25 inches in diameter and 1 inch in depth.

MOUNDS ON THE WAMIC PLACE, WHITE COUNTY.

At this place, in full view from the river, are a low mound on which is a small building, and two small rises of the ground in a field nearby.

The owner of this place did not live upon it, and failed to reply to our request for permission to investigate.

MOUNDS ON THE HARALSON PLACE, WOODRUFF COUNTY.

On property of Mr. John G. Haralson, of Fitzhugh, Ark., in swamp dry at the time of our visit, are five low, flat-topped mounds, all near the border of Buckle Lake, a former course of White river.

These mounds, which had every appearance of having been domiciliary, were all dug into by us without discovery of anything indicating their former use as places of burial.

MOUNDS ON THE HAWKINS PLACE, WOODRUFF COUNTY.

On the Hawkins Place, near the river, are two low, flat mounds, one of which is now in use as a cemetery. These mounds were not investigated by us, permission to dig not having been obtained.

MOUND ON THE VINCENT PLACE, WOODRUFF COUNTY.

About one-quarter mile ESE. from Vincent Landing is a mound about 2.5 feet high. It is known as the Hickory Mound throughout the surrounding country. Conditions were imposed as to opening this mound, which we did not see our way clear to accept.

MOUND ON THE HAMES PLACE, WOODRUFF COUNTY.

The Hames Place, belonging to Mr. and Mrs. W. N. Hames, residing on the property, has a history of human bones found while sinking postholes and in the course of agricultural work. In the garden and in the barnyard is raised ground, apparently what is left of a ridge or of a low mound. The soil in this elevation is black from admixture of organic matter.

Considerable digging in the garden unearthed six skeletons at a depth of from 15 inches to 2 feet from the surface. The bones were in bad condition, one skull and a few long-bones only being saved.

The burials, four of adults and two of children, were as follows:

Closely flexed on the right side	4
Partly flexed on the right side	1
Partly flexed on the left side	1

With one skeleton were shell beads at the neck, and the skeleton of a child had at the waist a pebble, a small quantity of powdered hematite, and discoidal beads of shell. These beads, in a double string, had been worn as a girdle.

In an adjacent field are a few small elevations on most of which were masses of baked clay bearing imprint of wattle, no doubt fragments from burnt wigwams. Three of these rises of the ground were dug into by us without success.

THE TEAGUE MOUND, WOODRUFF COUNTY.

The Teague Mound, on the old Snapp Place, belonging to Messrs. Fitzhugh Brothers & Haralson, of Fitzhugh, Ark., is widely known on White river, and the fact that a mound of this size is famous shows how unimportant as to size the mounds on this river are.

The Teague Mound is in the form of a ridge (perhaps a mound and a cause-way) 210 feet in length, extending almost due N. and S. From the southern extremity, where the height is 6 feet and the breadth 58 feet, the ridge slopes gradually upward to an altitude of 10 feet at the northern end, where it is 100 feet in transverse measurement.

This mound, which has suffered greatly through wash of rain, has every appearance of having been built for domiciliary purposes. Considerable digging into the raw clay of which it is made yielded nothing.

We shall now consider the sites on Black river.

MOUND AND CEMETERY AT ELGIN, JACKSON COUNTY.

About one-quarter mile below Elgin, a small settlement on Black river, on the same side of the stream, immediately on the bank, is a mound slightly eaten into by the river and much spread by cultivation. This mound, on property belonging to Mr. J. O. Taylor, living near Newport, Ark., is but little above the general level, and is circular in outline, with a diameter of about 100 feet. It is composed of rich, loamy sand. Considerable digging yielded one badly decayed skeleton, closely flexed on the right side.

In cultivated land, also belonging to Mr. Taylor, in a part of a field bordering the wood, about 250 yards west from the settlement, in rich ground somewhat above the general level of the field, is a dwelling-site having on the surface arrowpoints and fragments of flint, hammerstones, and debris of aboriginal occupancy, but almost no pottery.

Twenty-one trial-holes sunk in this site came upon six skeletons seemingly in good condition as they lay in the ground, but which on removal proved to be friable and on the point of disintegration. All skulls had given way through decay and pressure of the soil.

The burials, which were widely scattered, were as follows:

Closely flexed on the right side	1
Partly flexed on the right side	1
Closely flexed on the left side	1
Partly flexed on the left side (a child)	1
Aboriginal disturbance from the pelvis down	1
Infant	1

In another part of the field, somewhat nearer the settlement, was a slight rise of the ground, which evidently had been a dwelling-site, but in which no burials were found by us.

With other midden refuse were three disks of pottery, each having a perforation in the center, and part of a similar disk.

The reputation of Elgin as a site where human bones are discovered in cultivation is rather wide-spread. The territory bordering the settlement is said to be out of reach of high water and consequently offered to the aborigines an attractive place of abode. Unfortunately we were unable to find other dwelling-sites in the vicinity, though careful search was made.

MOUNDS NEAR LINDLEY LANDING, JACKSON COUNTY.

On property of Dr. L. G. Slaydon, of Tuckerman, Ark., is a mound in a cultivated field, about one mile S. by W. from Lindley Landing.

The mound, of clayey sand, has been greatly spread by the plow, at the expense of height, which is now 5 feet. The diameter of the irregularly circular base is 84 feet. We were unable to find in this mound any sign of its having been used for burial purposes.

About one-half mile in a southerly direction from Lindley Landing is a mound much spread by the plow, also in a cultivated field, belonging to Mr. D. C. Dowell, of Tuckerman. This mound, irregularly circular, has a diameter of 47 feet. Its height was 3 feet above the general level, but measured from the summit to the base while digging was under way, the height seemed to be somewhat in excess of the figure named. On the surface of the mound (which was almost entirely of sand) were many small fragments of human bone.

Trial-holes at once came upon burials, and vessels of earthenware, and hence

it was determined to dig out along the base a part of the mound 42 feet in diameter, which seemed to represent its original size, the rest of the present diameter probably being due to cultivation.

Burials, all badly decayed, were found in forty-two places, from just below the surface to a depth of 4.5 feet, one burial being in a pit extending 10 inches into yellow, undisturbed sand which lay under the dark sand of which the mound was composed.

In many instances the form of interment was not apparent owing to the decayed condition of the bones; occasionally, however, the nature of the burial could be identified, and included the burial at full length on the back and the flexed burial.

There were also, at the very base of the mound, some of the bones of a single skeleton, including the skull, in such arrangement that no form of burial other than the bunched variety was possible. The bunched burial was met with by us in this instance only on White and Black rivers.

Four and one-half feet down was a deposit of calcined fragments of human bones, 12 inches by 8 inches and 2 inches in thickness. Placed vertically on this deposit was a vessel of earthenware.

In another part of the mound were fragments of calcined human bones, not arranged in a mass but scattered. With this burial also, was an earthenware vessel. These were the only instances of cremation encountered by us along White and Black rivers.

Sixty-one vessels of earthenware lay with the burials in this mound, almost invariably near the skulls, but in several cases in the neighborhood of the pelvis. The vessels had been placed singly, in pairs, and in one instance three together.

These sixty-one vessels,¹ all of medium size, with the exception of several diminutive ones which were evidently toys, and some of which were found with skeletons of children, are of inferior ware. Shell tempering is present in some instances, but the pounded shell is often unevenly distributed, and the firing of the clay must have been imperfectly done. Many of the vessels were crushed to fragments when found, and the majority of the remainder fell into bits on removal.

In form the vessels, save in two instances where the cup is represented, are pots, bowls, and bottles, these last having in some cases short, wide necks, and in others long and narrow ones.

With a single exception, that of a cup with two encircling, incised lines, no attempt at decoration is apparent on the body of any vessel. A number of pots and bowls have loop-handles; and a few have projecting animal heads so rudely modeled that they barely escape being classed as knobs. On such vessels are conventional tails extending from the sides opposite the heads. Three or four of the bowls have small, flat ears extending laterally; these ears, in the case of one vessel, are decorated with rude, parallel, incised lines. Two or three of the loop-handle vessels have small, vertical projections on the sides not occupied by the handles.

¹ Each vessel, no matter how fragmentary its condition when found, is included in the enumeration, our object being to note what number originally had been placed in the mound by the aborigines.

No attempt at decoration in color is anywhere shown.

We are fully aware that in mounds and cemeteries vessels commonplace in form and decoration predominate, but we do not recall in any previous investigation in which any considerable number of vessels was found, having met with pottery which indicated such lack of skill or ambition on the part of its makers.

A ring of earthenware, possibly an ear-plug, rudely wrought, with an encircling groove, was found apart from human remains.

The only artifact present in the mound, with the exception of pottery, was a single arrowhead of flint.

In the same field in which was Mr. Dowell's mound, and about one-quarter mile in a southwesterly direction from it, was a slight rise in the ground, circular in shape, which at one time may have been a small mound. On the surface lay fragments of human bones and two beads of shell. Fourteen trial-holes came upon a disintegrating skeleton lying partly flexed on the right side, 10 inches below the surface. At the skull was an undecorated bowl of inferior ware.

In a field about one mile to the north of the Dowell Place are several dwelling-sites on which were arrowpoints, fragments of flint, and other midden debris, including parts of two earthenware disks, each of which had possessed a central perforation.

MOUND NEAR PERKINS' FIELD, INDEPENDENCE COUNTY.

About one-half mile through woods, in a NW. direction from Perkins' Field, which is near the river bank, is a mound on property belonging to the Barnett Lumber Company, of Batesville, Ark. This mound, of rich, black loam, circular in outline and about 85 feet in diameter, has a height of 3 feet, approximately.

It is not a burial mound, strictly speaking, that is, it is not a mound built exclusively for burial purposes, but rather a dwelling-site which formed gradually during long occupancy and in which the dead had been interred.

Ten trial-holes, which were subsequently enlarged, some to double and some to almost treble their original size, resulted in the discovery of thirty-one burials of the customary closely-flexed or partly-flexed forms, and a few aboriginal disturbances which, the reader will recall, are caused by graves in aboriginal times being dug through earlier burials.

The interments lay from 8 inches below the surface to a depth somewhat more than 3 feet, the deepest being not in the mound proper but beneath it, in tenacious clay on which the mound was built.

The bones of all these burials were badly decayed. With them were: a lance-point of flint; several masses of stone; a lot of flint chips somewhat scattered, which may have been simply midden refuse lying in the neighborhood of bones.

There was also with a burial a pipe of soft claystone, 1.8 inches long and 1.3 inches in diameter, having a hole in the base in such a position that a stem inserted in it would have the bowl not at right angles but extending in the same axis with it.

Here and there in the soil, apart from burials, were a number of arrowpoints and knives, all of flint, and all rather coarsely chipped and lacking in finish. Also in the midden debris were: hammer-stones; a circular pebble, pitted on both sides; and four piercing implements of bone, one, 5.8 inches in length, double-pointed, and very neatly made.

LITTLE TURKEY HILL, INDEPENDENCE COUNTY.

Little Turkey Hill, as this mound is locally known, is on property belonging to the Barnett Land Company, who also are the owners of the Perkins' Field mound.

Little Turkey Hill is most conveniently reached by going up Strawberry river about one mile to a log landing and then proceeding inland another mile approximately in a westerly direction, through the woods.

The "Hill," in woods said to be subject to overflow, irregularly circular in outline, is of dark loam and is of the same character as is the mound near Perkins' Field. The diameter of Little Turkey Hill is 120 feet; its height, a little more than 3 feet. A hole about 7 feet by 18 feet, about in the center of the mound, had been made previous to our visit.

Fifteen trial-holes, some of which were greatly enlarged in the form of trenches extending along the base of the mound, came upon eighteen burials from a few inches to a trifle more than 3 feet in depth. These burials lay some closely flexed, some partly flexed, on the right side and on the left side. There were several aboriginal disturbances of skeletons.

No bones were in a condition to save.

Superficially few, if any, fragments of pottery were seen, and, while digging, almost none were encountered. Several very roughly made arrowheads or knives lay in the soil, apart from burials.

With a burial, at the right elbow, were a rude flint knife and three fragments of flint, and the inverted carapace of a tortoise; and these were the only artifacts found with burials, with the exception of those in a grave-pit about to be described.

In this pit, near together, were five skeletons of adults. One lay about 30 inches down (the measurement being taken to the upper surface of the skeleton as it lay), while the other four were 38 inches down, in clay beneath the mound proper. All these five burials had accompanying artifacts, a noteworthy fact in view of the paucity of such deposits in other parts of the mound.

Burial No. 7, closely flexed on the right side, had, at the neck, a considerable number of discoidal beads of such diameter that it is apparent they must have been made from the axis of a marine shell. Moreover, their structure is of a density to indicate their origin from the columella of a large ocean shell rather than from a river shell, which, having less solidity of material, tends to disintegrate.

With these discoidal beads, which are remarkably well preserved, were many other beads made by grinding down parts of small fresh-water shells (*Anculosa*), a variety related to *A. prerosa*, which latter shells have not been reported hitherto west of the Mississippi.

With all these beads, and no doubt used as central ornaments, were two barrel-shaped beads, one of claystone, one of red jasper, each about .8 inch in length.

Burial No. 16,¹ closely flexed on the left side, had many shell beads extending from the chin to the pelvis, most of them very badly decayed, as was the case with the shell beads found with four of the five skeletons in this grave.

With the ordinary beads along with Burial No. 16 was a considerable number of other beads, in a better state of preservation, made by suitably grinding a small river shell (*Neritina lincolata*).

Evidently as a central piece with the beads with Burial No. 16 was a curious tube of claystone, 2.5 inches in length and .7 inch in diameter, the diameter of the hole being .4 inch. At intervals over the outer surface of this bead were semi-perforations made with a pointed drill, as is indicated by the absence of cores and the presence of a deeper central part in each semi-perforation. That this bead at one time had been of greater length is shown by the presence at one end, of two remaining halves of these markings left by a drill.

Burial No. 17, lying closely flexed on the right side, had a number of shell beads with which were two tubular beads of jasper, one red, the other yellow with a mingling of red, 1.2 inch and .8 in length respectively, both highly polished.

Below the chin was a small drinking-cup wrought from a marine shell; and with the concave side against the skull was a badly decayed shell drinking-cup bearing incised decoration of a rather rude character (Figs. 73, 74, see p. 357).

A drinking-cup of shell from Harrisburg, Ark.,² with engraved exterior decoration, is shown in Plate XXIII of the Second Annual Report of the Bureau of Ethnology.

With the two remaining burials in this grave were shell beads only, which, as we have said, were badly affected by decay.

HARTER KNOLL, INDEPENDENCE COUNTY.

The landing on Strawberry river, to which reference has been made, has two roads leading from it, one of which we followed to reach Little Turkey Hill.

By going out the other road, which pursues a W. by N. course, about one mile through the woods, one comes to Harter Knoll, which is immediately on the left side of the road.

The Knoll, as it is called in the neighborhood, though it is of artificial origin, being of the same class of mounds as are the one near Perkins' Field, and Little Turkey Hill, is under the same ownership as are these two mounds. It is 3.5 feet in height and 115 feet, approximately, across its circular base, and is made of rich, dark soil, scattered through which we found hammer-stones, a few bits of pottery, and other midden debris. Thirteen very rude arrowpoints and knives were encountered also apart from human remains.

¹ Burials are numbered in the order of their discovery and not according to proximity.

² About forty miles in a straight line from where our cup was found.

³ William H. Holmes, "Art in Shell of the Ancient Americans."

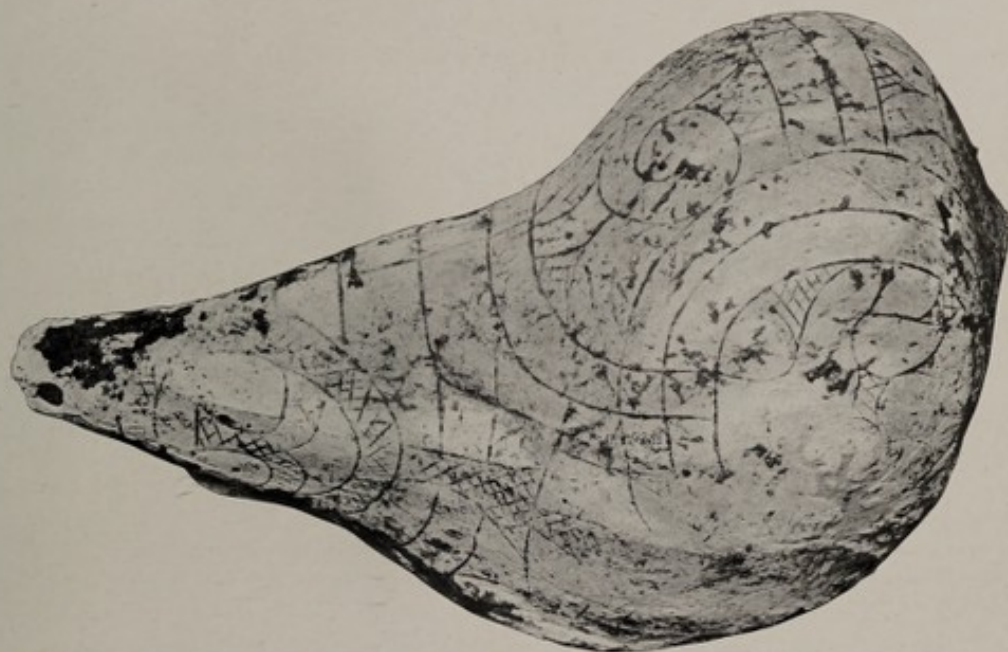


FIG. 73.—Shell drinking-cup with engraved decoration. With Burial No. 17. Little Turkey Hill. (Length 9.2 inches.)



FIG. 74.—Shell cup. Decoration. (One-third size.)

Thirteen trial-holes, some of which were enlarged, came upon twenty-one burials, all so badly decayed that no bones could be saved. These burials lay from near the surface to the very base of the mound, and in form were similar to the others found in this region, namely, the flexed burial. Likewise among the burials were several aboriginal disturbances, and also recent disturbances where postholes for the supports of a house that formerly had been upon the mound, and where small holes, probably dug by the inhabitants of the house, had disarranged parts of burials. Into these holes, which subsequently had been filled but which were still clearly traceable in the mound, recent material had fallen, such as bits of iron, a fragment of glass, and the like.

If we exclude a rude arrowhead of flint found near the left elbow of a skeleton, which may have had an accidental proximity, artifacts were present with but three burials, as follows:

Burial No. 7, a skeleton of an adolescent, lying closely flexed on the left side, had some beads of shell near the pelvis or perhaps associated with wrist bones which were near by.

With Burial No. 18, an aboriginal disturbance, was a banner-stone of altered igneous rock, 1.8 inches in length, in form resembling a prism, triangular with rounded corners. This banner-stone, when found, lay near the knee of the skeleton, though probably its position there may be accounted for by a disturbance which the skeleton had undergone.

Burial No. 20, lying closely flexed on the right side, had shell beads near the pelvis and similar beads which apparently had gone around the neck and which included two tubular beads of claystone, each about 1.25 inch in length.

MOUNDS NEAR TUCKER BAY, LAWRENCE COUNTY.

Near a part of a former course of the river, known as Tucker Bay, and about one mile in a southwesterly direction from Clover Bend, in woods on property of Messrs. F. W. Tucker & Co., of Clover Bend, is a mound 5 feet in height and 47 feet across the base. This mound, of clay, had been dug into to some extent previous to our visit. Owing to the presence of trees and the need to keep the mound intact for the use of stock in times of high water, a central portion only, having a diameter of 25 feet, was removed and subsequently replaced.

In the portion dug by us were found eighteen burials, of which no fewer than nine were of children, including infants. Thirteen burials lay closely flexed, eight on the right side and five on the left. One was partly flexed on the right side; the form of burial of three was not determined owing to their decayed condition; and one was a recent disturbance.

The burials lay from near the surface to the base, one even being in a grave extending 10 inches into the clay underlying the mound. Curiously enough, while the bones of all other burials found by us in this mound were so decayed that their preservation was out of the question, the bones of this skeleton (Burial No. 12) were in fairly good condition, though the skull, unfortunately, was crushed.

Six vessels of earthenware came from this mound.

One from near the surface apparently was not associated with human remains. Its body, hemispherical, is surmounted by a short, slightly everted neck. The ware is inferior and no decoration is present.

Another vessel, or large part of a vessel, had been decorated with deep, parallel, encircling lines; two loop-handles were on opposite sides below the rim.

With a burial were fragments of an undecorated vessel of poor ware, having loop-handles; and with another burial, which had a few shell beads at the neck, were two vessels near the skull. One of these, undecorated, was in many small, disintegrating fragments. The other, badly broken and of soft, inferior ware, had been a bottle with the head of an owl forming the neck. The modeling is rude; the horns of the bird are missing through breakage. There are traces of red paint in places on the vessel.

Another burial had fragments of an undecorated pot, lying near the skull.

Burial No. 2, closely flexed on the left side, had, back of the spine, a mass of calcite wrought in the form of a cone 4.5 inches in length.

Not in connection with burials, though possibly at one time they may have been so, were a rude arrowhead of white flint, a "celt" of medium size, and a gouge 6 inches in length. The two latter objects were presented by us to the owners of the mound.

Two small, flat mounds in the neighborhood of the one just described were dug into by us without success.

MOUNDS NEAR CLOVER BEND, LAWRENCE COUNTY.

About three-quarters of a mile in a southerly direction from Clover Bend, in woods, but immediately on the border of a cultivated field, is a mound about 7 feet in height and 60 feet in diameter, on property of Messrs. F. W. Tucker & Co., whose mounds near Tucker Bay have just been described.

This mound had been dug into extensively prior to our coming. No bones or fragments of pottery were to be seen in the material thrown out from previous excavations or in the holes.

When nine trial-holes had been sunk by us to depths between 3 and 5 feet without encountering bone or artifact, further search was deemed unnecessary.

Three other small, flat mounds in the neighborhood yielded nothing to indicate other than a domiciliary use.

MOUNDS NEAR LAURATOWN, LAWRENCE COUNTY.

In a field of the Lauratown Farm, which belongs to Mrs. John K. Gibson, of Black Rock, Ark., about 200 yards from the river, are six mounds extending about one-half mile in a straight line in a southerly direction from Lauratown Landing.

These mounds, ranging in height from 2 to 10 feet, have been greatly spread by long-continued cultivation. No fragment of human bone or of pottery was apparent on their surfaces.

All were dug into by us to a considerable extent. In one was a skull in decaying fragments, near the surface, and in another part of the mound was an undecorated bottle of shell-tempered ware (as was all the ware found by us on the Lauratown Farm), having a stone pitted on each side over the opening where a neck formerly had been.

In another of these mounds were fragments of a skull associated with a pot and a bottle, both undecorated, each having parts missing.

About one-quarter mile in a southerly direction from this series of mounds is another, 3 feet in height and 50 feet in diameter, also greatly extended by cultivation. On its surface were numerous bits of pottery, and we were informed that vessels had been taken from this mound. If such is the case, the mound presumably had been a domiciliary one with superficial burials, all of which were removed by former diggers or else by cultivation, for all that rewarded our search, which was a thorough one, were fragments of an undecorated vessel with loop-handles.

The southernmost field of the farm, which adjoins the field in which is the mound last described, is thickly strewn with midden debris, including great quantities of pottery in small fragments, none of which, however, bears decoration of any interest, with the exception of several bits colored bright red.

From the surface of this field was gathered a considerable collection of arrow-heads and small chisels, some neatly made. There was also picked up an ear-plug of pottery of a well-known form, namely, that of a pin with thick body and large head.

In the southern part of the field, where debris lay thickest, nine trial-holes were put down without result in a slight rise of the ground which it was hoped might prove to be a cemetery.

Forty trial-holes, some of which were considerably enlarged, were sunk in the extreme southwestern corner of this field, and came upon four burials which were, with one exception, so widely apart, and were accompanied by artifacts of so little interest, that the digging was discontinued.

In a pit, about 2 feet down, lay a skeleton at full length on the back, whose lower extremities had displaced the upper part of a skeleton also originally extended. With this latter burial was a rude, asymmetrical, wide-mouthed water-bottle without decoration, and 2 feet from it a bottle which had been turned on its side at the time of the disarrangement of the burial to which it belonged. This bottle, undecorated, with a long and slightly flaring neck, was carelessly made, being irregular in form as to both body and neck. On the right shoulder and chest of the disturbing burial was a rude bowl whose sole decoration was a series of notches placed obliquely around the rim.

Another burial, an adult at full length on the back, was without artifact.

The skeleton of a child, somewhat disarranged by a blow from a spade in the hands of one of our diggers, had at the skull a pot and a bowl, both small. The bowl bears traces of red pigment inside and out. The pot has two loop-handles at opposite sides, and vertical, notched fillets opposed to each other, above one of which are two slight projections of the rim, while the other has but a single one.

All vessels from this place seemingly were the work of potters without artistic ambition and lacking in care or skill.

MOUND NEAR CORNPEN LANDING, LAWRENCE COUNTY.

This mound, about one mile in an ESE. direction from Cornpen Landing, the property of Mr. Clay Sloan, of Black Rock, Ark., shows no traces of the plow. Its height is 5 feet 3 inches; its diameter, 45 feet. The sides are comparatively steep, giving the mound the appearance of a cone truncated near the base. In the summit-plateau are two comparatively recent graves.

Nine trial-holes, extending to the base of the mound, were without result, save in one instance. Eighteen inches from the surface, below the central part of the summit-plateau, was an ornament of sheet-copper, 4.3 inches by 3.8 inches, having a central concavo-convex boss surrounded by a circle of depressions, which had been placed upon a human skull lying face upward, and had preserved parts of the upper and lower jaws with their teeth, which were stained bright green. No trace of the remainder of the skull was evident, and presumably all other parts of the burial, which probably had been that of a child, judging from the teeth, had disappeared through decay.

The trial-holes in this mound covered it fairly well, and presumably no other burials were in it, though it is impossible to say if originally there had been but a single central burial, or if a number of other burials had been in the mound, all of which had gone without leaving a trace of bone behind, though in this latter event one might have expected to find some artifact.

In three places in the field in which the mound was, where the soil seemed dark and debris of aboriginal occupancy lay upon the surface to a limited extent, unsuccessful digging was done by us.

MOUNDS ON THE UPPER HOVEY PLACE, RANDOLPH COUNTY.

In woods, on the banks of a "lake," or former course of the river, about one-quarter mile northeasterly from the landing on the Upper Hovey Place, the property of Mr. G. H. Hovey, of Pocahontas, Ark., are two small mounds, the larger less than 4 feet in height and about 40 feet in diameter. In this mound, almost entirely dug out previous to our visit, were sunk by us a number of trial-holes in places left by former digging. No results were obtained except to find several small fragments of human bones in material thrown out from earlier holes.

The smaller mound was investigated by us without success.

CEMETERY NEAR MITCHELL'S LOG-CAMP LANDING, RANDOLPH COUNTY.

About 1.5 mile in a northerly direction through the woods from Mitchell's Log-camp Landing, is the house of Mr. William Anderson. In an enclosure adjoining his house, used for the cultivation of flowers and vegetables, bones had been brought to light in the course of cultivation. Some digging had been done by members of the family.

Many trial-holes sunk by us yielded two skeletons of adults, both closely flexed, one on the right side, the other on the left. There were found also disturbed bones belonging to the skeleton of an adult and to one of a child.

At this point, owing to ill success and on the assurance of our agent, who as we have said, had searched the territory for us in advance, that the region to the northward was not more promising than that we had been over, we abandoned further search on Black river.

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