



Certain Aboriginal Mounds
OF THE
Central Florida West-Coast

Certain Aboriginal Mounds
OF THE
APALACHICOLA RIVER

By CLARENCE B. MOORE







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CERTAIN
ABORIGINAL MOUNDS

OF THE

FLORIDA CENTRAL WEST-COAST

BY

CLARENCE B. MOORE.

REPRINT FROM THE JOURNAL OF THE ACADEMY OF NATURAL
SCIENCES OF PHILADELPHIA, VOLUME XII.
PHILADELPHIA, 1903.

PHILADELPHIA :
P. C. STOCKHAUSEN,
1903.

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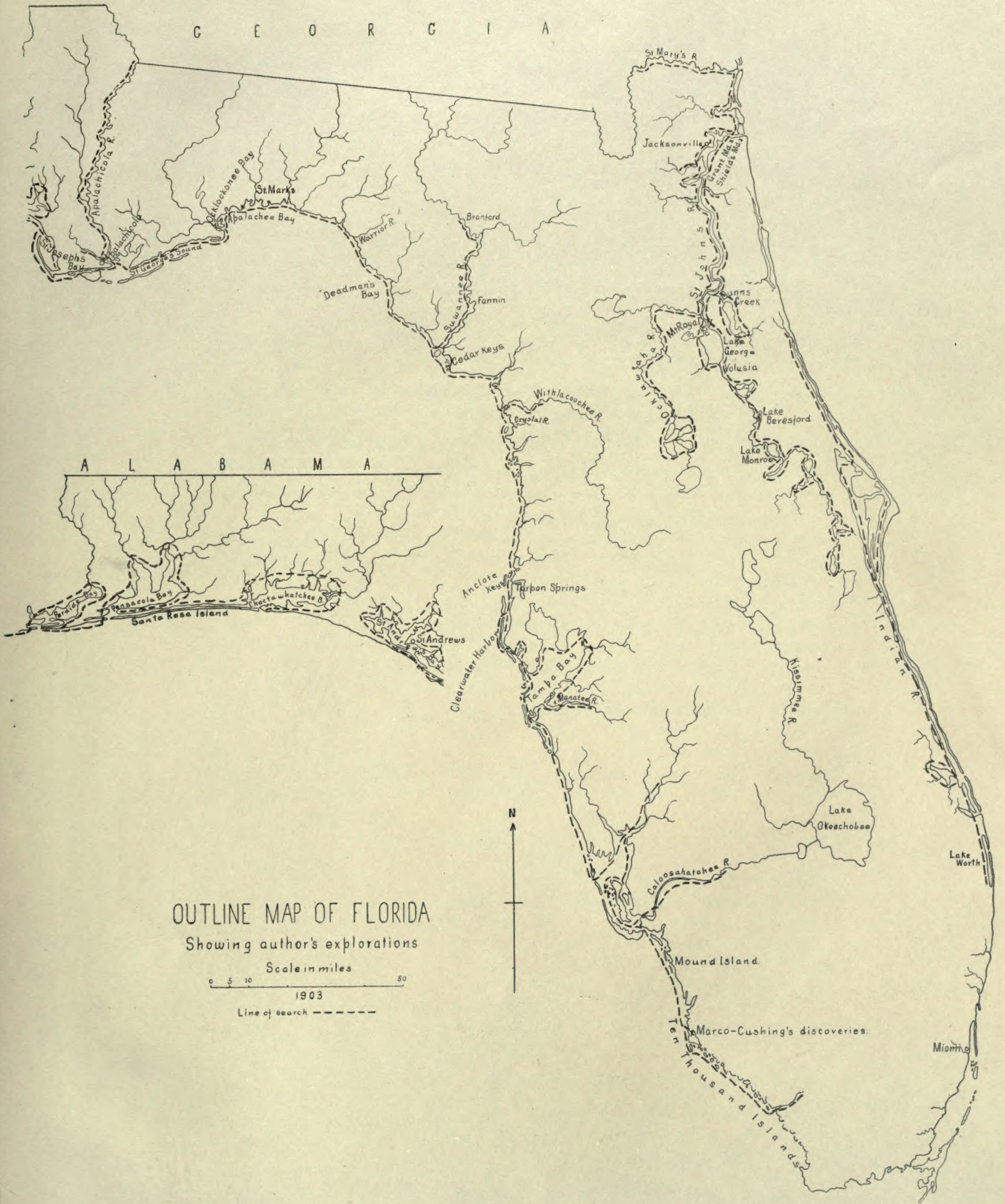
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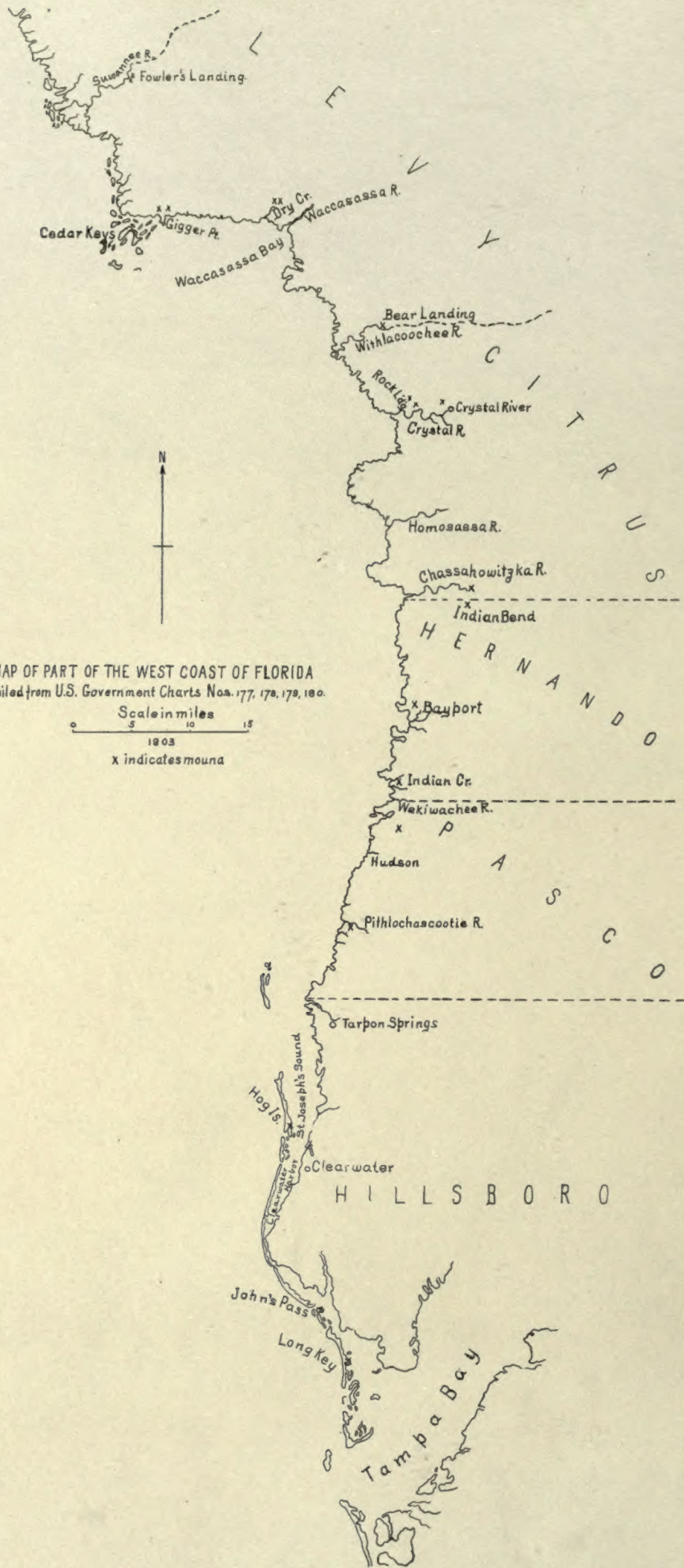
OUTLINE MAP OF FLORIDA

Showing author's explorations

Scale in miles
0 5 10 50

1903

Line of search - - - -



MAP OF PART OF THE WEST COAST OF FLORIDA
 Compiled from U.S. Government Charts Nos. 177, 178, 179, 180.
 Scale in miles
 0 5 10 15
 1903
 x indicates mound

CERTAIN ABORIGINAL MOUNDS OF THE CENTRAL FLORIDA
WEST-COAST.

BY CLARENCE B. MOORE.

During the seasons 1901 and 1902 we investigated the aboriginal remains of the northwest Florida coast, beginning at Perdido bay, the coast-boundary between Alabama and Florida, and ending at the town of Cedar Keys¹ (see outline map).

This season (1903), our work was directly continued down the west coast of Florida, beginning at the Suwannee river, just above Cedar Keys, and continuing through Waccasassa bay, Withlacoochee bay, Crystal bay, Homosassa bay, Chasahowitzka bay, St. Joseph's sound and along the Gulf coast and islands to Tampa bay, including short journeys up the various rivers along the route.

Much of the territory covered by us is sparsely settled, so that information as to the locality of mounds is difficult to obtain and, therefore, although search had been made in advance for us by two agents, and over part of the distance by four, yet we doubt not that some mounds have escaped us, as, no doubt, have numerous cemeteries. By cemeteries, we mean where burials have been under level ground, unmarked by mounds. We do not believe these burials were enclosed in urns.

As we had anticipated, the yield of earthenware from the mounds of the central west-coast of Florida did not equal that from the mounds of the northwest Florida coast, though a few vessels found intact and many sherds, showed that the aborigines of the central west-coast had been possessed of some excellent ware bearing decorations showing no mean ability. Life-forms in earthenware were conspicuous by their absence.

In reference to the earthenware described in this report we quote from our report of last season.

"All measurements of earthenware reported in this volume are approximate.

"It must be borne in mind in respect to process work that reductions in size are made with regard to diameter and not area. If a diagram four inches by two inches is to be reduced one-half, each diameter is divided by two and the reproduction, which is called half size, is two inches by one inch. The area of the original diagram, however, is eight square inches, while that of the so-called half-size reproduction is two square inches, or one-quarter the area. To find the actual size of a design shown in diagram, multiply the length and the breadth by two, if the diagram is given 'half size;' by three, if 'one-third,' and so on.

¹ "Certain Aboriginal Remains of the Northwest Florida Coast," Parts I and II. Journ. Acad. Nat. Sci. of Phila. Vols. XI, XII.

"In a few cases partial restoration of vessels has been attempted, but always in a material differing in color from the original, so that the restoration may be readily recognized, and it has been done only when the remainder of the vessel clearly indicated the size and shape of the missing part."

All objects found by us, with the exception of certain duplicates sent to the Museum of Phillips Academy, Andover, Mass., may be seen at the Academy of Natural Sciences of Philadelphia.

Dr. M. G. Miller, who has aided us in all our previous mound work, determined as to human remains this season as before, and assisted us in a general way in the field work and in putting this report through the press.

Our warm thanks are tendered owners of the mounds investigated by us, who, to a man, when requested, accorded fullest permission to dig.

Mounds Investigated.

- Mounds near Fowler's Landing, Suwannee river (2).
- Mound near Cedar Keys, Gulf coast.
- Mound near Gigger Point, Gulf coast.
- Mounds near Dry creek, Waccasassa bay (2).
- Mound near Bear Landing, Withlacoochee river.
- Mound near Rock Landing, Crystal river.
- Mound near the Shell-heap, Crystal river.
- Mound near Crystal river settlement, Crystal river.
- Mound near Chassahowitzka river.
- Mound near Indian Bend, Gulf coast.
- Mound near Bayport, Gulf coast.
- Mound near Indian creek, Gulf coast.
- Mound near Wekiwachee river, Gulf coast.
- Mound near Pithlochascootie river.
- Mound on Hog island, St. Joseph's sound.
- Mound near Clearwater, Clearwater Harbor.
- Mound near John's Pass, Gulf coast.
- Mound on Long Key, Gulf coast.

MOUND NEAR FOWLER'S LANDING, LEVY COUNTY.

Fowler's Landing is about sixteen miles above the mouth of the Suwannee river, on the right-hand side, going up, though but a short distance, by land, from the waters of the Gulf, so the mound may be fairly classed as belonging to the coast. It was in thick scrub, on property of the East Coast Lumber Co., about one-quarter mile in NE. direction from the landing. Adjacent, were excavations whence material for the mound had been taken. This mound, of sand, as were all investigated by us along the coast, unless otherwise described, was circular in outline; was 7 feet high and 50 feet across the base. It had suffered considerably

from previous digging. In addition to a number of smaller holes, a trench about 4 feet deep and 11 feet wide had been dug from the western margin about 20 feet in toward the center. Over the surface of the mound were fragments of human bone and bits of earthenware. This mound, which was completely dug down by us, had a clearly defined base-line, marking the original surface upon which the mound had been piled. No grave-pits were present, and of the forty-seven burials found by us, none lay upon the base and none was over 3.5 feet from the surface.

Burials were encountered near the margin and were not confined to any part or parts of the mound. They increased in number as the digging progressed, the majority of the burials being in the body of the mound. In form, the burials were of the bunched variety and consisted of certain bones without the cranium; bones with one, two or three skulls; and, in one case, a bunch with four skulls. The bones were all badly decayed. No crania were in a condition to keep, though a few calvaria, which held together temporarily, showed no cranial flattening.

Objects deposited with the dead were singularly few. Near a burial, lay fragments of a marine shell (*Fulgur*).¹ With another burial was part of an earthenware vessel having a bird-head handle but, as sherds were scattered throughout the mound, the proximity of this one may have been accidental. Hammer stones, pebbles and the like were conspicuously absent. Two "celts," not associated with burials, fell with caving sand.²

In the extreme edge of the mound, on the west, was an undecorated pot of very inferior ware, badly broken. With it was a vessel with globular body and upright neck around which was a complicated stamp decoration. Both these vessels had the usual mortuary mutilation made by knocking out a part of the bottom, as had all vessels met with by us in this mound.

It is interesting to note the occurrence here of the complicated stamp, the specialty of Georgia. It is frequently met with to the northward in Florida, as the readers of our two reports on the northwest coast may recall, and its occurrence much farther south along the coast will be described in this report. On the St. John's river, however, it was found by us no farther south than about ten miles above Palatka, about on a line with this Fowler's Landing mound.

Also in a marginal part of the mound, to the southeast, were many large fragments of vessels, undecorated, all of inferior ware, water-soaked and crushed. In addition, four vessels were recovered, nearly whole, with the exception of the basal perforation. Of these, Vessel No. 4, undecorated save for several encircling incised lines, somewhat resembles a dumb-bell in shape, though the base has been perfectly flat. A vessel much like this one is shown in Fig. 151 in the second part of our report on the northwest Florida coast.

¹ All determinations of shells have been made by Dr. H. A. Pilsbry and Mr. E. G. Vanatta, of the Academy of Natural Sciences of Philadelphia.

² Thanks are due for determination of rock material, from which objects mentioned in this report are made, to Dr. E. Goldsmith and Mr. S. H. Hamilton, of the Academy of Natural Sciences of Philadelphia. As it has not been deemed advisable to mutilate specimens, identifications are approximate only. It has not been thought necessary to give the rocks from which the "celts" found by us were manufactured. None seemed to present new features, and many were given to owners of mounds.



FIG. 1.—Vessel No. 5. Mound near Fowler's Landing. (Full size.)



FIG. 2.—Vessel No. 5. Decoration. Mound near Fowler's Landing. (Half size.)

Vessel No. 5, shown in Fig. 1, has an interesting incised decoration shown diagrammatically in Fig. 2, where restored portions are given in broken lines. There are two holes for suspension.

With these vessels was one entirely undecorated and another with a complicated stamp decoration around the neck.

Vessel No. 6, found alone in the western margin of the mound, is of most excellent yellow ware and of interesting shape and decoration. The vessel, shown in Fig. 3, is intact, save for a small basal perforation. The decoration is given in diagram in Fig. 4.



FIG. 3.—Vessel No. 6. Mound near Fowler's Landing. (Full size.)

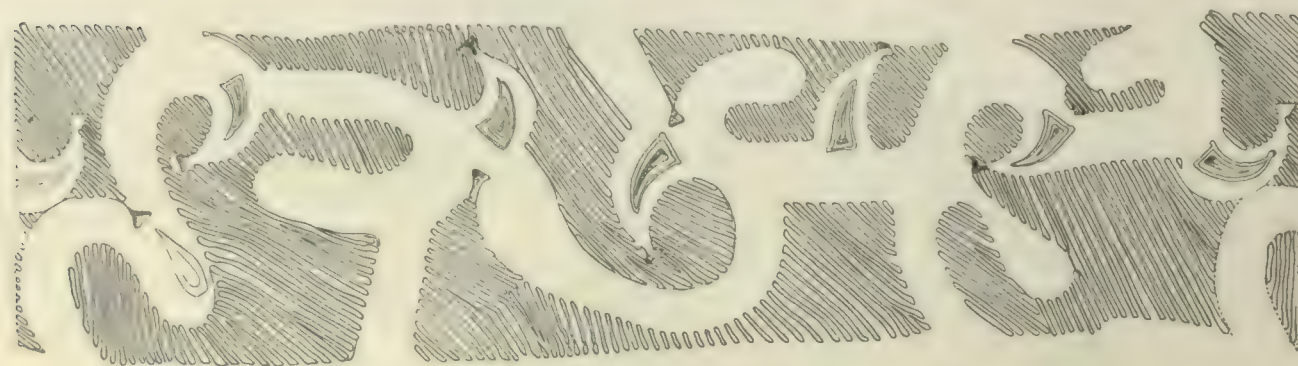


FIG. 4.—Vessel No. 6. Decoration. Mound near Fowler's Landing. (One-third size.)

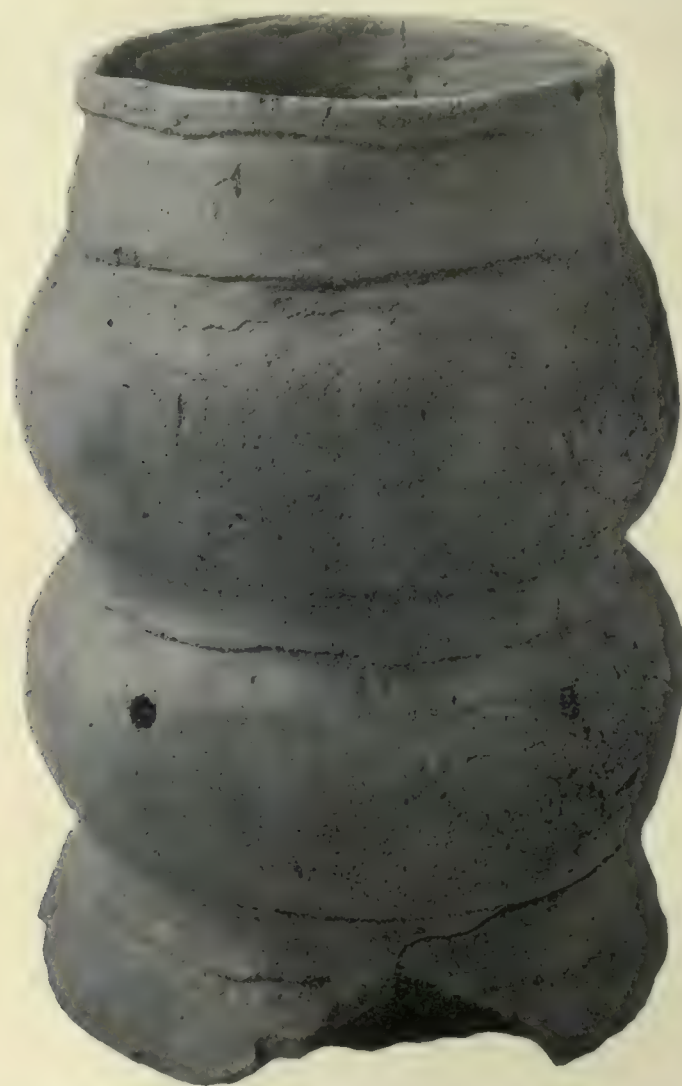


FIG. 5.—Vessel No. 7. Mound near Fowler's Landing. (Two-thirds size.)

In the margin of the eastern part of the mound were several undecorated sherds and Vessel No. 7 (Fig. 5), having two holes for suspension, on the same side and so near the base that it is plain the vessel was either ceremonial or, at all events, not intended for liquids. A part of the rim has been restored.

From near the base came an undecorated vessel in the form of a much-truncated cone.

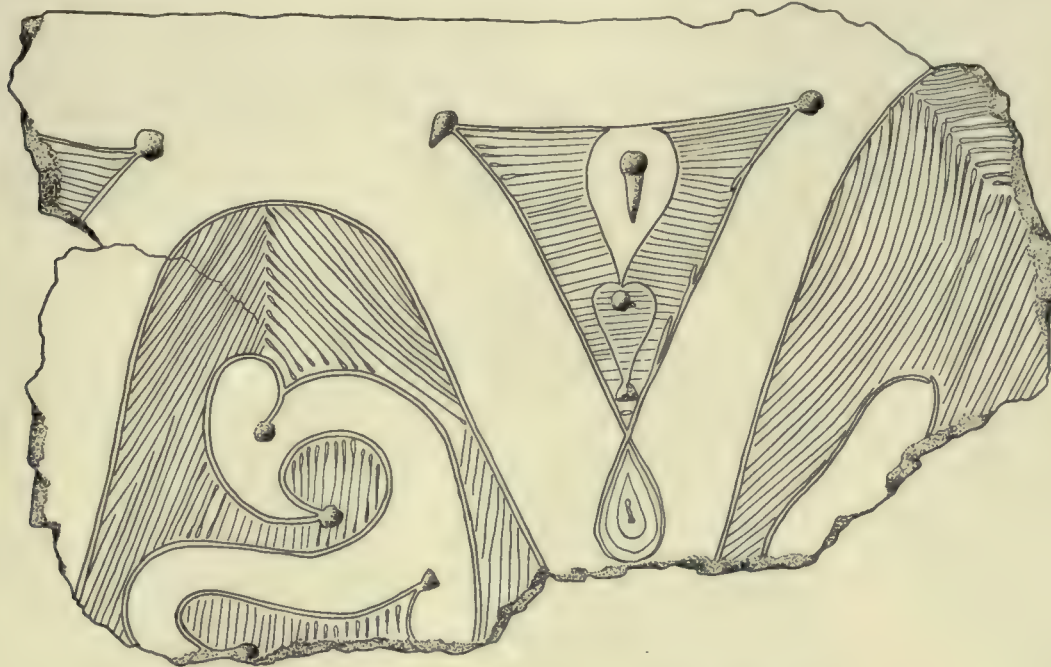


FIG. 6.—Sherd. Mound near Fowler's Landing. (Half size.)

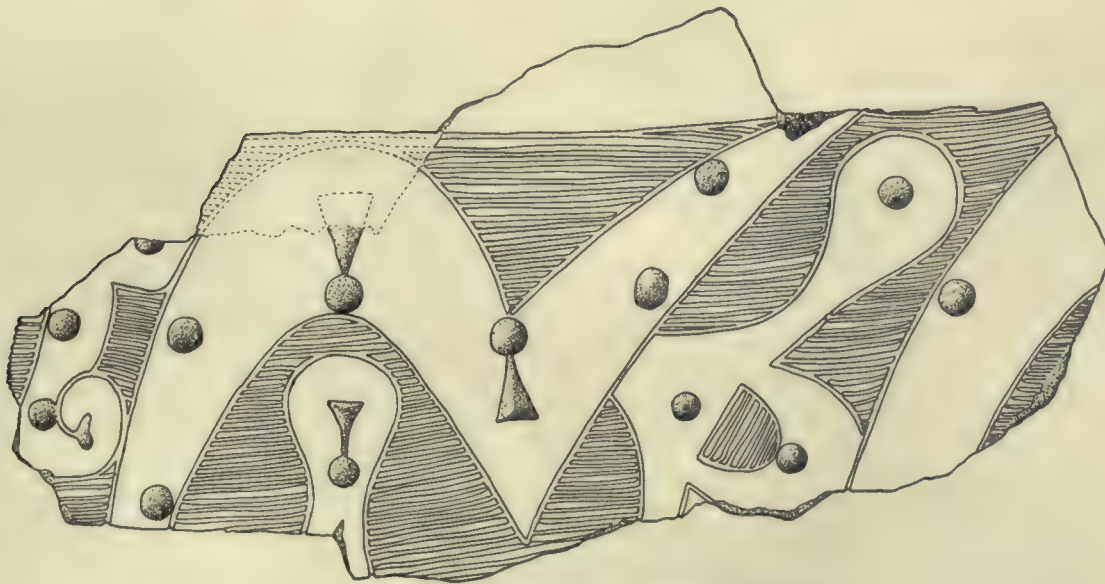


FIG. 7.—Sherd. Mound near Fowler's Landing. (Half size.)



FIG. 8.—Selection of shards. Mound near Fowler's Landing. (Half size.)

SMALLER MOUND NEAR FOWLER'S LANDING,
LEVY COUNTY.

About 75 yards in a SW. direction from the other, was a low mound of irregular shape, literally dug to pieces, presumably by the ubiquitous treasure seeker, as one great central excavation extended considerably below the base. So great was the wreck that no conclusion as to the original height, diameter or shape could be arrived at. Though the surface was covered with sand from the former excavations, no fragment of bone or of earthenware was apparent and considerable digging, here and there, by us yielded but a single fragment of earthenware. Presumably, this mound was of the domiciliary class.

Near the surface were scattered parts of a human effigy-vessel. Most diligent search failed to recover the facial parts which, possibly, had not been placed in the mound.

Throughout the mound were various sherds, as a rule of inferior ware, though occasionally of excellent quality, in no case showing sand-, grit-, or shell-tempering. No small check-stamp was present, and but few sherds showed the complicated stamp.

In Figs. 6, 7, are shown, diagrammatically, two sherds from this mound, while in Fig. 8 a selection of sherds from the mound is given. It is evident that the makers of this mound favored the incised and punctate decoration.

In the mound were no masses of sand artificially colored and surrounding deposits of earthenware, such as we found in the mounds of the coast, to the northward.

The record of the discovery of a fish-spear of native copper will be given here, incidentally, as the place where the spear was found is too far up the Suwannee river rightly to be included in a description of the coast-territory.

FIG. 9.—Fish-spear of native copper, from near Fannin, Suwannee river. (Full size.)



During our visit to Cedar Keys we met Decatur Pittman, Esq., of that place, Justice of the Peace, and a collector of aboriginal relics. By him we were shown a copper fish-spear 11.5 inches in length (Fig. 9), of which Mr. Pittman gives the following history:—

About seven years ago as Mr. John Clark, his father and his brother were digging in the garden of their place which is two miles below Fannin (see outline map), on the Suwannee river, they found the spear about eighteen inches below the surface.

Somewhat over two years ago Mr. Pittman heard of the finding of the spear and, at a later period, acquired it.

The value of this implement of native copper, coming from Florida, was fully appreciated by Mr. Pittman, who relinquished the spear to the Academy of Natural Sciences of Philadelphia, only because he realized, with true scientific spirit, that such a specimen was more fittingly placed in a museum in perpetuity than in a private collection.

This spear, a unique discovery as coming from Florida, would not be of unusual rarity in Wisconsin, according to Mr. H. P. Hamilton, of Two Rivers, Wisconsin, the well-known expert and collector of "coppers."

There is one point about the spear which deserves close attention. By examining the cross-sections the reader will see that a small semi-enclosed space has been left on one side of the spear, which might appear as though intended for a shaft, and yet that this space is too restricted to hold a wooden shaft of a size necessary for the work required of the spear. Neither Mr. Hamilton nor Mr. David Boyle, of the Provincial Museum, Toronto, who is very familiar with "coppers," believes that this space was intended for the insertion of a shaft. Mr. Boyle writes:

"As to the drawing you send of the fish-spear found in the Suwannee River and the question you propound respecting the small space apparently left for the insertion of a handle, I beg to give it as my opinion that it was never the intention of the maker so to use the narrow channel. The spear or harpoon has been made from a thin piece of copper and the maker had sufficient gumption, no doubt as the result of experience, to know that a piece of native copper of the size your diagram shows this to be, would bend when an attempt was made to employ it in giving an effective stroke. He has, therefore, hammered down both edges for the purpose not only of strengthening his tool, but of giving it a tolerably uniform breadth, and this shank was no doubt inserted *in* a handle rather than having been prepared for the insertion *of* a handle. Perhaps it was with only the latter object in view (*i e.* giving it a uniform breadth) that the hammering was done at all because he could reduce his material to a regular form by beating down the edges much more rapidly than by cutting away the superfluous material. I think, however, there can be little doubt that the ancient coppersmith had arrived at the knowledge that hammering the metal gave it stiffness apart from any other reason why, as in this case, such work was performed. If this tool had been inserted in a handle I sup-

pose the handle was split, the tool being placed in the cleft, and then securely bound with either animal or vegetable fibre."

Although other mounds on the Suwannee river may not be considered coast mounds, yet, as no mound should be investigated without a public record of the fact, it has been thought best to give here, incidentally, certain work done by us on the river.

A mound near Jennings' Landing, Lafayette Co., about thirty miles by water from the mouth of the river, just bordering the swamp, about a quarter of a mile in a westerly direction from the landing, was 4.5 feet high and 62 feet across the base. Careful trenching yielded: four small bunched burials and a few scattered bones, near the surface; a few uninteresting sherds; a mass of chert; a rude arrow-head or knife, of the same material.

Fannin is at the NW. corner of Levy County (see outline map). About one-third of a mile in a northerly direction from the landing is a mound on property of Messrs. R. L. Tison & Co., of Fannin. The mound, 2 feet 8 inches high, from 46 feet to 56 feet across the base, variously measured, was carefully dug and trenched by us. One or two sherds only, were met with.

About one-half mile in an ENE. direction from Fannin is a mound showing much previous digging. Its height is 4.5 feet; its basal diameters are 46 to 64 feet. Thorough trenching yielded absolutely nothing.

At Fayetteville, Lafayette Co., about 12 miles above Fannin, is a mound on property of Mr. John E. Moriarty. The mound showed traces of previous digging in almost every part. Its height is 4 feet 8 inches; its basal diameter, 64 feet. Practically, every untouched portion of the mound was demolished by us. Remains of a disturbed skeleton were found at the beginning of the body of the mound and, farther in, were four small bunched burials, three with a single skull each, and one with two crania. Another burial consisted of a single skull with another skull immediately below it. These burials ranged from 3 feet to 4 feet 3 inches in depth. With one was a "celt" of hard rock, about 5 inches in length, and a single chip of chert. Near the base, in two places, were deposits of mussel-shells (*Unio infucatus*), unassociated with bones. There were in the mound also several flakes of chert, and two sherds, one with incised, dentate marking in a punctate field, another with rude line and punctate decoration.

Within sight of Rocky Landing, Lafayette Co., is a mound of sand, as are all we investigated on the Suwannee river, which had seen much previous digging. Its height is 4 feet; its basal diameter, 40 feet. All untouched portions, practically, were dug through by us. Near the center of the mound, 3.5 feet down, was a skull in fragments and about 1 foot distant, small fragments of bones with sand tinged with hematite, and a neatly made lance head of chert, 4 inches long. Near bits of skull and decayed fragments of other bones, with charcoal nearby, was a "celt." Another "celt" was found in sand thrown out by one of our diggers. In the SW. part of the mound, about 6 feet from the extreme margin, 3 feet 4 inches down, was a coarse bowl of somewhat over 1 pint capacity, of ordinary form and with the usual basal mutilation. The decoration consists of incised encircling lines below the rim with two additional encircling lines beneath, made up of punctate markings. With this vessel was a mass of fragments mostly of undecorated ware, among which was all or nearly all of a large bowl. There were also parts of a vessel with a decoration of rudely made incised encircling parallel lines.

The investigation was continued to Branford with negative results.

The Suwannee river, famous in song, has flat swampy banks, save in places, as far up as Branford. Beyond this point, we are informed, the river is narrow with less marshy surroundings. We have crossed the river at Ellaville, much farther up, where the stream is picturesque and the banks rise considerably above the level of the water. This portion of the stream no doubt invited aboriginal occupation.

MOUND NEAR CEDAR KEYS, LEVY COUNTY.

This mound, in hammock¹ land, at the edge of the salt marsh bordering the Gulf, is about 3 miles in a NNE. direction from Cedar Keys, on property of Hon. E. J. Lutterloh, mayor of that place. Great excavations near by, whence sand for the mound was taken, give to it an appearance of considerable altitude but, measured from the general level, the height is 8 feet. In shape the mound is irregular, with basal diameters of 85 feet and 133 feet.

¹ As to the meaning of the word "hammock" see pg. 140 of our second part of "Certain Aboriginal Remains of the Northwest Florida Coast."

This mound, which had every appearance of belonging to the domiciliary class, was carefully trenched by us without the discovery of even a remnant of bone or a fragment of pottery.

MOUND NEAR GIGGER POINT, LEVY COUNTY.

Gigger Point, which extends into the Gulf, is about three miles in a NE. direction from Cedar Keys. At the rear of this point is the property of Mr. A. M. Dorsett, resident on the place. The mound, circular in outline, was in a cultivated field, and itself had been ploughed over for a considerable period. There had been much previous digging in various parts of the mound, but in a superficial way only. The diameter of base was 46 feet. The height, at the time of the total demolition of the mound by us, was 5 feet, but the original height had been lessened at least 2 feet by recent digging, as was shown by partly uncovered roots of a palmetto on the upper part of the mound. Fragments of human bones and bits of undecorated earthenware were scattered over the surface in every direction.

Burials were met with in every part of the mound, from the margin to the center, the great majority being skeletons which had been buried denuded of flesh, but held together by ligaments. This was shown in various cases where bones were inverted or otherwise out of their proper position. Two burials lay in shallow graves beneath the base. Three were associated with oyster-shells, not heavy masses of shell, but thin deposits above and on the sides. Sand, crimson from hematite, was with one burial.

Forty-six of the skeletons were flexed on the right; 34 on the left. There were also 3 skeletons full length on the back; 3 squatting; one partly flexed on the left side; and the bones of an infant. In addition, there were in the mound: many bones scattered by previous diggers; several aboriginal disturbances made by cutting through skeletons to make way for others; several skulls, each with a few small bones in association; one single skull near the base, which may have been an aboriginal disturbance. There were also several masses of bones which fell in caving sand, and three or four burials which resembled the bunched variety, but may have been aboriginal disturbances.

The bones in this mound were in excellent condition, comparatively, which may be accounted for by a deposit of shell extending through about one-half the mound, as though a smaller mound had been covered with shell and then enlarged as to height and area. It has ever been our experience that presence of shell in a mound acts as a preservative to bones, doubtless through infiltration of lime-salts.

Ten skulls were saved in good condition (Acad. Nat. Sci. Catalogue Nos. 2196 to 2205, inclusive). Neither these skulls nor any in the mound, noted by us, gave evidence of cranial compression.

Considering the number of burials present in the mound, artifacts met with were few and unimportant. Unassociated, but perhaps separated from burials by previous digging, were: one lance-head of chert; mica, in two places; a clam-shell with a neatly made circular hole near the center, probably for the insertion of a handle; a

chert hammer-stone carefully worked; a shell gouge; part of a lance-head of chert, 5.6 inches long, 2.5 inches in maximum breadth, the point of which, broken by the blow of a spade, was not recovered; two masses of lime-rock, each with a circular hole, probably used as sinkers; a cigar-shaped object neatly made from the columella of a large marine univalve (Fig. 10); a columella wrought to a cutting edge at one end.

With burials were: a chert arrowhead and a shell drinking cup with perforate base; an arrowhead, of chalcedony; a conch-shell and several sherds; a shell drinking cup without the basal perforation; two ornaments of shell (Figs. 11, 12).



FIG. 10.—Cigar-shaped object of shell. Mound near Gigger Point. (Full size.)



FIG. 11.—Pendant of shell. Mound near Gigger Point. (Full size.)



FIG. 12.—Ornament of shell. Mound near Gigger Point. (Full size.)



FIG. 13.—Object of fossil material. Mound near Gigger Point. (Full size.)

stone; the end of an implement of bone; a small mass of serpentinous rock; two nodules of hematite; two silicious clay pseudomorphs; a bit of sandstone.

With another burial were: a bit of earthenware; mica given the outline of an arrowhead; an ellipsoidal pendant of igneous rock, with one end grooved and partly covered with bitumen, the other end broken.

An unidentified object of fossil material (Fig. 13) we are confident came from this mound, though we do not find it described in our field-notes.

With a skeleton in a shallow grave were several mussel-shells, some on one side of the skull, some on the other; a turtle-shell with no pebbles within; parts of a conch-shell or shells; five sandstone hones; a fragment of chert; a mass of chert, about 2 inches in diameter, chipped into a circular shape; one smoothing

At the extreme margin of the northeast part of the mound, with a burial, were two vessels of earthenware, both of which have the mortuary perforation, with this difference that, instead of the usual knocking out of part of the base, or of all of it, a carefully rounded hole is present as though, after a piece had been broken out, the edges had been worked to give a symmetrical outline.

One of these vessels had four roughly circular compartments around a larger circular one on a higher plane, almost exactly as shown in Fig. 268 of our second part of the report on the mounds of the northwest Florida coast. The vessel from the Gigger Point mound is covered with crimson pigment on the inside and on the upper half inch of the outer portion. The central compartment alone has the basal perforation.

The other vessel (Fig. 14), an oblate spheroid of about one gallon capacity, has a rather striking decoration consisting of seven encircling rows of wedge-shaped impressions between the rim and a circular band in relief.

There were in the mound, also, here and there, a moderate number of sherds, including one example of the small check-stamp, three or four of the complicated



FIG. 14.—Vessel of earthenware. Mound near Gigger Point. (About two-thirds size.)

stamp, one with ornamentation apparently made by impression of a finger-nail, and a small portion of a graceful vessel of excellent ware covered with crimson pigment, inside and out, and ornamented in places with fine, punctate markings.

One fragment of earthenware in this mound had a mingling of white material, here and there, giving it the appearance of shell-tempered ware. Expert examination, however, showed it to be pounded lime-stone, probably, since it was largely carbonate of lime, and showed no lamination under the glass. Shell-tempered ware is very unusual in Florida at any distance from Alabama where that ware was used. The material of which we speak, however, also, is exceptional in pottery of the peninsula.

MOUNDS NEAR DRY CREEK, LEVY COUNTY.

Dry Creek enters Waccasassa bay about three miles to the westward of Waccasassa river. By following the course of the creek about 1.5 miles through the salt marsh, the Gulf Hammock is reached. The territory thus known is a strip of hammock land of varying breadth lying back of the salt marsh which borders the Gulf, between the Suwannee and Withlacoochee rivers.

Following a road entering the hammock, about .75 of a mile, we came upon a mound by the road-side, on property of Mr. Arthur T. Williams, of Jacksonville, Florida, about 2 feet high and 25 feet across the circular base. On the mound was a giant live-oak. We were unable to find either bone or artifact in this mound, in which there had been much previous digging.

About 300 yards farther along the road is an "old field," fallow for years. In this field, bordering a pond, is a mound 34 feet across the base and about 2.5 feet in height, also on property of Mr. Williams.

The mound, which was dug through by us about as extensively as a great oak growing upon it permitted, was composed of black loam from the nearby swamp. In this were masses of lime-rock similar to many in the surrounding field.

Many human bones, probably scattered by the plough, as the mound had been under cultivation, were met with by us, also three flexed skeletons and a number of bones of lower animals.

MOUND NEAR BURNS' LANDING, LEVY COUNTY.

Burns' Landing is about seven miles up the Waccasassa river. Following a road leading into the Gulf Hammock from the landing, about 1.5 miles, we came to a small mound in sight of the road. This mound, about 25 feet in diameter and 18 inches in height, at the time of our visit, had been so thoroughly dug through that no work by us was attempted.

MOUND NEAR BEAR LANDING, LEVY COUNTY.

This mound, about 200 yards in a northerly direction from the landing, which is about six miles up the Withlacoochee river, following the course of the stream, was in hammock land near the edge of the pine woods, on property of Mr. W. R.

Hodges, of Cedar Keys. The mound was literally honeycombed with pits and trenches, some of which, as we discovered, had been dug a second time, material from one trench filling a former one, which had again been dug by later disturbers. In fact, a strip on one side of the mound and a small portion near the base, at the center, were the only undisturbed parts. Trees growing near the top, by exposed roots, showed the mound to have been, at one time, about 2.5 feet higher than at the time of our visit when its height was about 3 feet. Its basal diameters were 58 feet by 45 feet.

The mound, new material and old, was dug through by us to the lime bed-rock found in these parts, with the exception of small portions around three trees.

Thirty-two undisturbed burials were met with by us. Twenty-eight were of the bunched variety. One skull lay with part of an ulna. One skeleton was closely flexed on the right side and two were closely flexed on the left side. One of these lay in a shallow pit, the only one met with in the mound, and had above it dark sand with scattered oyster-shells. All bones were badly decayed and no skulls were preserved. Large fragments, however, showed no cranial flattening.



FIG. 15.—Part of vessel of earthenware. Mound near Bear Landing. (Half size.)

With burials were some bits of pot, in one instance, and a "waster" of chert, in another. There were also in the mound two flakes of chert, evidently used as knives; one clam-shell; several small masses of lime-rock; a pebble with one end smoothed, as by use as a polisher; one pebble-hammer; two chert arrowheads found separately; two clam-shells with depressions at opposite sides, as for a handle.

In the SW. margin of the mound, placed in the lower part of an undecorated vessel of inferior ware, was a bowl which fell into fragments upon removal, a part having been crushed by roots. On one side of this bowl, rudely done, was part of an incised design, as though the decoration of the bowl had been started and abandoned (Fig. 15). Near this bowl were various scattered fragments of inferior ware. Two feet away was a burial.

There was also in the mound various undecorated sherds, and fragments constituting the upper part of a bowl with thickened rim, which had been decorated with red pigment.

MOUND NEAR ROCK LANDING, CITRUS COUNTY.

Crystal river is the output of a great spring about seven miles, by water, from the Gulf.

Rock Landing is about 3.5 miles from the mouth of the river.

In scrub, about 1.5 miles in a NE. direction from the landing, on property under control of Mr. R. J. Knight, of Crystal River, was a mound 3 feet 3 inches in height, with basal diameters of 40 and 50 feet.

Thorough investigation showed this to have been a domiciliary mound.

MOUND NEAR THE SHELL-HEAP, CRYSTAL RIVER, CITRUS COUNTY.

In full view from the river, about 4.5 miles from the mouth, on the left-hand side going up, is a great, symmetrical shell-heap, on property under control of Mr. R. J. Knight, of Crystal River.

This shell-heap, marked A on the plan (Fig. 16) is 28 feet 8 inches in height, is oblong in horizontal section and has basal diameters of 182 feet NW. and SE. and 100 feet NE. and SW. The summit plateau is 107 feet and 50 feet in the same directions, respectively. A graded way 80 feet long and from 14 feet to 21 feet across, ascends from the level ground to the summit plateau on the NE. side of the mound.

Beginning at the NW. corner of this mound is a low, irregular shell deposit, marked B on the plan, extending to the northward then curving to the eastward and extending for a distance along the river bank.

About 115 yards in a northerly direction from the great shell-heap is a circular embankment of sand, marked C on the plan, of irregular height and width, the maximum, respectively, being 6 feet and 75 feet. Within this circle is certain territory on the general level, marked D on the plan, and an artificial elevation of sand, irregularly sloping (E). This elevation culminates in a mound of sand, marked F on the plan. While difficult to determine where the artificial elevation ended and the mound proper began, to call the diameter of the base of the mound 70 feet, would be a fairly correct estimate. The height of the mound proper from the east, where it bordered the level ground, was 10 feet 8 inches. Cross sections of the elevated ground and the mound proper are shown in Fig. 17.

In a northerly direction from the circular embankment are two ridges of shell, one (G) low and irregular, the other (H), 12 feet in maximum height, with a graded way.

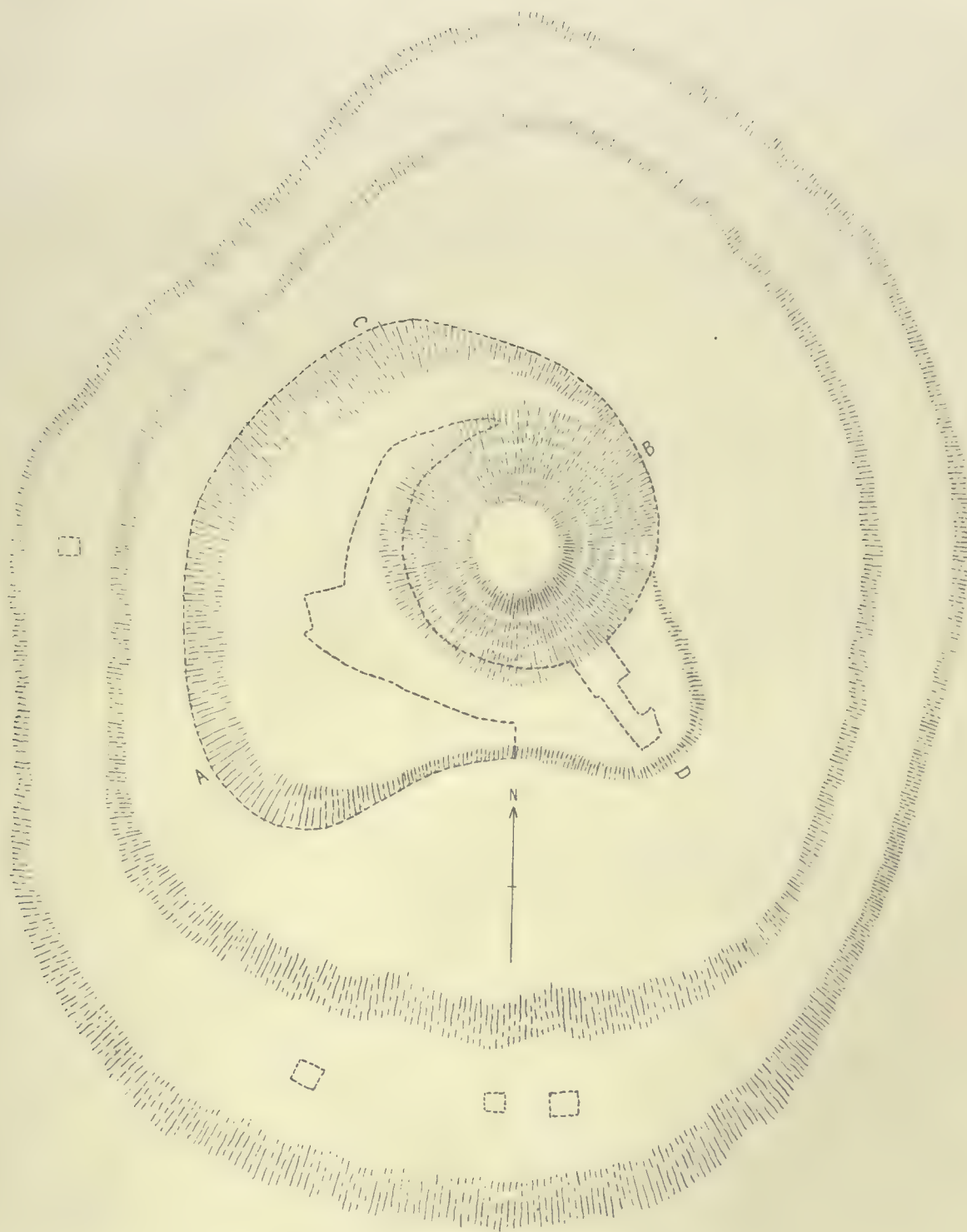
Certain excavations made in the level ground outside and inside the circular embankment, yielded negative results.

Excavations in the embankment showed burials in the southerly portion where the embankment was highest and one burial in the western part. Our work, however, on the level ground and in the embankment was not exhaustive.

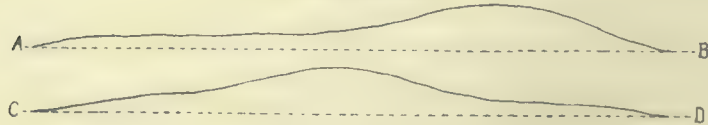
Eighteen men, with four men to supervise, dug seven days, demolishing the entire mound and going through much of the elevated ground surrounding it. The



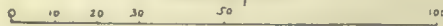
FIG. 16.—Plan. Mounds, shell-heaps and causeway. Crystal river.



Elevations



Scale in feet



----- = Excavation

FIG. 17.—Plan and elevations. Place of burial. Crystal river.

work done by us is shown in broken lines on plan (Fig. 17). where, however, many small excavations made in the level ground and in the embankment are not given.

Though the shell-heap on Crystal river is a famous one, the sand mound was unknown to the inhabitants of the town of Crystal River, even the owner being unaware of the existence of this mound. Absolutely no digging had been done previous to our visit, which is a most important feature, and especially so when we note the interesting objects found by us and the fact that no object indicating European provenance was met with throughout the entire investigation.

In the artificial elevation, burials were very numerous, and to so great an extent had the ground been used that many graves, passing through earlier ones, had caused great disturbance. In addition, numbers of disconnected bones lay, here and there, in the sand as though they had been gathered from the dead-house and scattered while the making of the elevation was in progress. Hence, exact classification as to form of burial was impossible, nor could any estimate be arrived at as to the number of individuals originally interred, as all bones met with were so decayed that the skulls were often in small fragments. Our enumeration of burials, that is of where bones were encountered, certainly falls far short of the number of individuals interred.

The mound proper, of gray sand in the upper part and of white sand in the lower, had, running through it, along the base, from the eastern margin to the center, approximately, a ledge of shell about 2 feet high and 20 feet broad. This ledge seemed to have no particular connection with the burials.

Running for a distance of many feet into the mound were several streaks of sand dyed with hematite. One, in the southern part of the mound, from 2 to 8 inches in diameter, especially persistent, extended from the outer slope to the center. The intensity of the coloring varied considerably.

There were also pockets of scarlet sand, but these were local and in connection with burials. Once a pocket of scarlet sand was associated with sand dyed yellow by powdered limonite.

What has been said as to the difficulty of count and of classification of the burials in the elevated ground applies equally to the mound though from a different cause, in part. While burials in the mound were not unusually numerous, the height of the mound and the extreme dryness of the sand of which it was built, caused much caving and consequent disarrangement of burials.

In the elevation and in the mound, were about 225 burials, including:

Bunched burials,	42
Full length on back,	63 ¹
Closely flexed on the right side,	31
Closely flexed on the left side,	26
Partly flexed on the right side,	2
Partly flexed on the left side,	7
Lone skulls,	11
Skeletons of infants, badly decayed,	7

¹ Four of these lay side by side in a single grave; seven had lower extremities cut off by later interments.

Special burials not included in the above were as follows :

Two skulls, a femur and a radius.

Four skulls with two long-bones.

Three skulls and scattered bones.

A skeleton without pelvis or lower extremities. Beneath the place where the pelvis should have been was another skull, probably an aboriginal disturbance.

Two skulls with scattered bones.

Four skulls with scattered bones and, nearby, the lower extremities of a skeleton. In place of the pelvis was a skull and beneath it another skull.

A skeleton lying on the back with the legs flexed upward.

Three skulls and one humerus.

In a grave was the skeleton of a child at full length on the back and another child's skeleton lying flexed to the left. Above these were many oyster-shells and numerous masses of lime-rock, from 3 to 8 inches in diameter.

A bunched burial with four skulls.

Various unclassified burials.

In the elevated ground surrounding the mound, masses of oyster-shells almost invariably lay above the burials and sometimes extended well to the sides. To this rule there were but three exceptions.

In the mound proper, on the other hand, forty burials unassociated with oyster-shells were noted, though there, also, many burials were covered by them.

While no crania were in a condition to save, parts of many showed no cranial flattening.

Many of the bones bore marks of pathological lesions.

Artifacts were very numerous in the elevation and in the mound, though those from the mound proper were of much higher grade, as a rule, than were the artifacts from the sloping ground around it. There was no general deposit of earthenware or of other objects. While certain artifacts were found unassociated, there was every indication that most of them had lain with burials which had suffered aboriginal disturbance.

In this place of aboriginal abode it was evident we were no longer among the mounds of the northwest Florida coast, with their great deposits of earthenware placed for the dead in common, in the eastern part of the mound. Here the vessels were widely scattered and were found singly. Outside the mound but few vessels were met with, though little piles of sherds, bits of inferior ware from various vessels, were numerous.

There were present in the elevated ground, as well as in the mound, a limited number of sherds bearing the complicated stamp, the design being chiefly one of concentric circles, a popular pattern along the central west-coast of Florida, and which we found in the great shell-heap at Cedar Keys.

From the mound proper came a number of vessels, some of inferior ware, others of excellent material.

The most striking object in earthenware met with during the investigation is

part of a cylindrical vessel (Fig. 18) of excellent ware, bearing an incised design showing part of the human hand, remarkable for its boldness of execution. On the back of the hand is a curious figure which many authorities agree is not a known totemic symbol or design of any sort, hitherto met with. Some have suggested its origin from heraldry and hence early European sources, while a still greater number see nothing in the design that suggests other than an aboriginal origin. To us the figure has an aboriginal look, and as nothing of European provenance was met with during our investigation of the mound—and this counts for so much in determinations—

we believe the symbol to be aboriginal in origin. Other designs, perhaps equally interesting, have been on the remainder of the vessel, which a diligent search failed to discover.



FIG. 18.—Sherd. Mound near Crystal river. (Full size.)

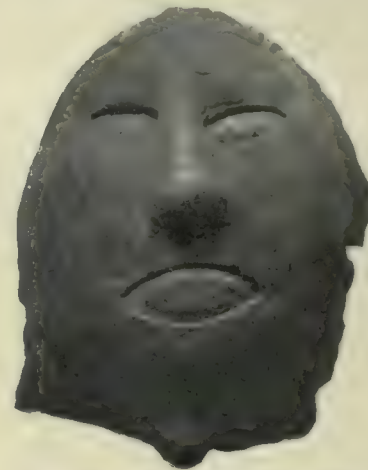


FIG. 19.—Part of earthenware vessel. Mound near Crystal river. (Full size.)

Throughout the mound were vessels with feet, and parts of vessels indicating the presence of feet when the vessels were whole. There was also found a part of a vessel, showing a human face (Fig. 19).

A selection of sherds found during the investigation is given in Fig. 20. The third from the left-hand upper corner shows punctate decoration between bands of crimson pigment. The sherd in the lower right-hand corner has part of another open hand.

We shall describe the vessels in detail.



FIG. 20.—Selection of sherds. Mound near Crystal river. (Half size.)

Vessel No. 1.—An oblate spheroid, of good ware (Fig. 21) lay with a burial in the northwestern border of the artificial elevation. It is entirely covered with incised and punctate decoration shown diagrammatically in Fig. 22 where the cross on the base of the vessel is spread in order to show the design in diagram. This cross is given with the remainder of the basal decoration in Fig. 23. There are two holes for suspension in the vessel, and the usual mortuary perforation.



FIG. 21.—Vessel No. 1. Mound near Crystal river. (Full size.)

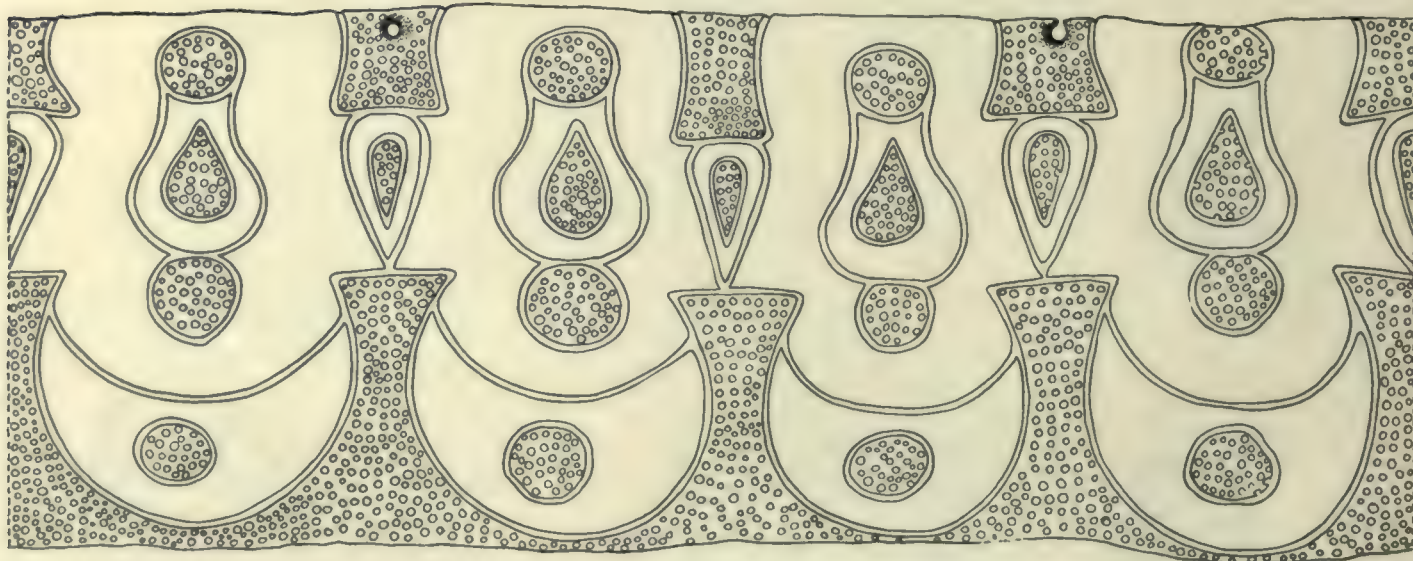


FIG. 22.—Vessel No. 1. Decoration. Mound near Crystal river. (Half size.)

Vessel No. 2.—An undecorated bowl, of most inferior ware. There is a small basal perforation, which is the case with all vessels in this mound unless otherwise described.

Vessel No. 3.—A broken bowl of inferior ware, undecorated.

Vessel No. 4.—Similar to Vessel No. 3.

Vessel No. 5.—This vessel, of dark ware, which lay about one foot from the skeleton of an infant, had with it a small, imperforate, shell drinking cup. The basal perforation had carried away two of the feet which have since been restored and a certain amount of restoration has been done to the rim. The interior of the dentate design has been colored with red pigment (Fig. 24).

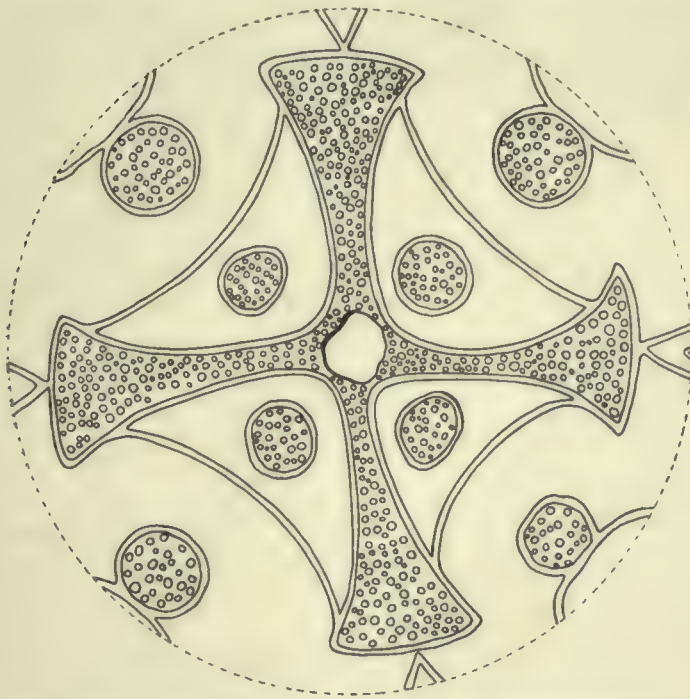


FIG. 23.—Vessel No. 1. Decoration of base. Mound near Crystal river. (Not exactly on scale.)



FIG. 24.—Vessel No. 5. Mound near Crystal river. (Full size.)

Vessel No. 6.—An undecorated, cylindrical jar of about one quart capacity, slightly contracted toward the base, which is flat and imperforate.

Vessel No. 7.—A toy pot of poor ware, undecorated save for notches around the margin. Two holes for suspension, on opposite sides, have been enlarged by the pulling through of the cord or sinew used. There is a carefully broken circular hole in the base. This little vessel has six feet, one somewhat within the line of the other five.

Vessel No. 8.—A bowl of excellent ware, with protruding rim (Fig. 25).

Vessel No. 9.—This vessel, undecorated, of excellent ware, lay with bones in the mound proper whence came all vessels yet to be described. In shape it is a much flattened sphere. There is a carefully rounded hole in the base and small holes for suspension on opposite sides of the opening.



FIG. 25.—Vessel No. 8. Mound near Crystal river. (Half size.)

Vessel No. 10.—A small, imperforate, undecorated bowl.

Vessel No. 11.—A pot of inferior ware, badly broken by roots, having traces of red pigment, and rough incised decoration similar on two opposite sides.

Vessel No. 12.—In fallen sand was an undecorated, imperforate vessel with ovoid body, flat base, and flaring neck, broken but since cemented together (Fig. 26).

Vessel No. 13.—A bowl of about one quart capacity, of beautiful, smooth, red ware, with thickened rim projecting slightly, horizontally (Fig. 27). The decoration, in black pigment, was not continued around the vessel, or has disappeared through wear.



FIG. 26.—Vessel No. 12. Mound near Crystal river. (Full size.)



FIG. 27.—Vessel No. 13. Mound near Crystal river. (Two-thirds size.)

Vessel No. 14.—The upper part of a vessel of beautiful red ware, with certain lower portions decorated with bands of black pigment (Fig. 28), which would give quite a classical appearance were it not for the scalloped rim.

Vessel No. 15.—Unassociated in the mound, was part of a curious vessel originally annular in shape. On the fragment is one upright neck and parts of two others. The vessel, when whole, probably resembled that shown in Fig. 164 in Part II of our "Aboriginal Remains of the Northwest Florida Coast," though in this case the body of the vessel is not flattened.

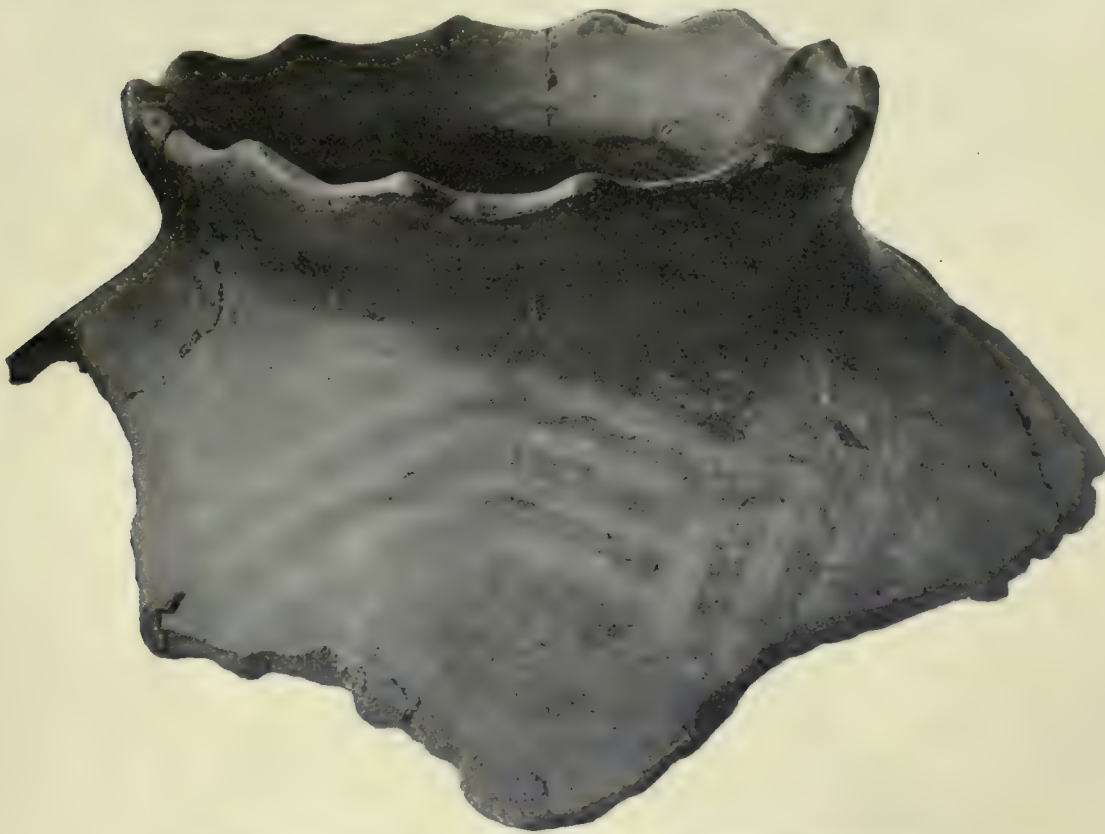


FIG. 28.—Vessel No. 14. Mound near Crystal river. (About two-thirds size.)

Vessel No. 16.—A vessel, badly broken, originally with four feet, two of which were lost at the time of the basal mutilation (Fig. 29). These feet, with certain parts of the body, have been restored.

Vessel No. 17.—A vessel of excellent ware, undecorated save for the scalloped rim. At the base, which is rounded, has been a flat, circular space in relief, 1.25 inches in diameter, which enabled the vessel to stand upright. A circular perforation has been made through this flattened part (Fig. 30).

Vessel No. 18.—A rough, undecorated vessel.

Vessel No. 19.—A wide-mouthed water-bottle, undecorated, with a portion missing.



FIG. 29.—Vessel No. 16. Mound near Crystal river. (Two-thirds size.)



FIG. 30.—Vessel No. 17. Mound near Crystal river. (Full size.)



FIG. 31.—Vessel No. 20. Mound near Crystal river. (Two-thirds size.)

Vessel No. 20.—This interesting vessel, a bowl, of superior ware, of about two quarts capacity (Fig. 31), has had for decoration a design in black pigment which, apparently, having grown faint in course of time, has had painted above it designs



FIG. 32.—Vessel No. 21. Mound near Crystal river. (Full size.)



FIG. 33.—Vessel No. 22 Mound near Crystal river. (About five-sixths size.)



FIG. 34.—Vessel No. 23. Mound near Crystal river. (About three-fourths size.)

in two shades of red. Our artist has well shown in stipple the design in black, and in lighter and darker "wash," the two shades of red. The lightest shade of all on the vessel, of course represents the natural shade of the ware. About one-third of this vessel was missing when found. There has been restoration of the missing part, but no attempt to replace the complicated design.

Vessel No. 21.—Undecorated, save for four repoussé lobes each ending at the base in a foot for the vessel's support (Fig. 32).

Vessel No. 22.—An imperforate bowl of excellent ware, undecorated. A thick rim projects laterally (Fig. 33).

Vessel No. 23.—A vessel of about three pints capacity, with a neck, first constricted, then expanded. The decoration consists of a small check-stamp. One of four feet, missing through basal perforation, has been restored (Fig. 34).

Vessel No. 24.—A vase with rude, incised and punctate decoration, shown in Fig. 35.

Vessel No. 25.—Of inferior ware, undecorated, with semi-globular body, and long neck first constricted, then flaring.



FIG. 35.—Vessel No. 24. Mound near Crystal river. (Full size.)



FIG. 36.—Vessel No. 26. Mound near Crystal river. (Full size.)

Vessel No. 26.—A toy vessel, undecorated, imperforate, with four feet, shown in Fig. 36.

A sherd from this mound is shown in Fig. 37.

Seven smoking pipes, all or nearly all from the mound proper, were met with during the investigation. Three are of soapstone, all of the familiar type with rectangular cross-section of the part having the bowl and of the part holding the stem. One of these pipes, showing faint incised decoration, is shown in Fig. 38. At the base of the bowl is a small circular orifice. In the second part of our "Certain Aboriginal Remains of the Northwest Florida Coast," page 256, we speak of a pipe with a basal perforation.

A rude pipe of earthenware, also of common type, has the bowl slightly flaring.

Part of a pipe of earthenware, similar in shape to those of soapstone, came from the mound. There was found also a small "Monitor" pipe of earthenware, somewhat broken. This is the first example of this type of pipe met with in penin-

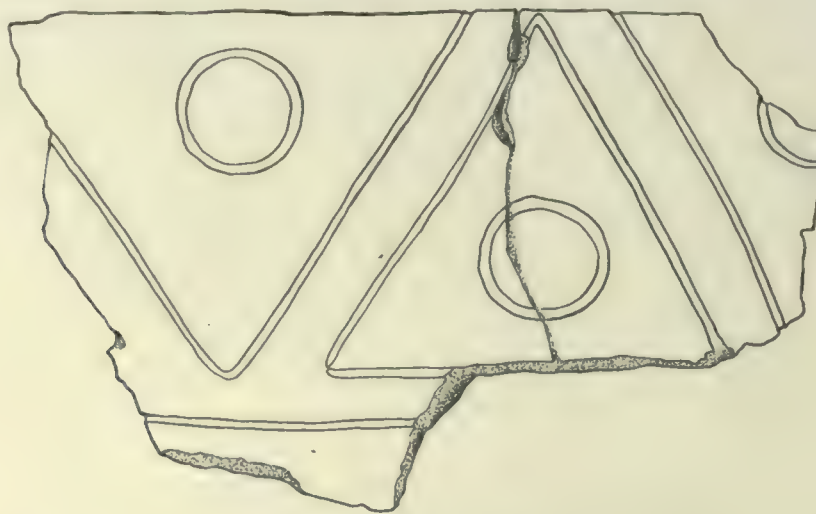


FIG. 37.—Sherd. Mound near Crystal river. (Half size.)

sular Florida. There was also in the mound a great pipe of soft lime-rock, found in pieces, but since restored. In shape it is the same as those of soapstone. Each arm is 5.5 inches in length. The measurement across each end is 2.25 inches; the openings are about 1.25 inches each, in diameter.

A flat tube of earthenware, perhaps used for a ceremony with smoke, came from the mound proper (Fig. 39).

Throughout the investigation were met with, in the elevated ground and in the mound proper, a large number of shell cups wrought from *Fulgur perversum*; some imperforate, but the great majority with the mortuary perforation. There were also eight or ten drinking cups made from what is known as the "horse-conch" (*Fasciolaria*) along the Florida coast. One of these cups is shown in Fig. 40. We do not recall before having met with a drinking cup made from this shell, although the shell was largely used in the manufacture of implements in aboriginal times.

One drinking cup wrought from *Melongena corona*, the first we have seen, was found during the investigation.

During our work, there were met with sixty columellæ of large marine uni-valves, sometimes a considerable number with a single burial. These columellæ had been at times ground squarely across one end to serve as chisels, and sometimes given a circular edge for use as gouges. Occasionally, a wing, or flange, was left to increase the gauge of the edge.

There were found also ten gouges made from triangular sections of the body-



FIG. 38.—Smoking-pipe of soapstone. Mound near Crystal river. (Full size.)

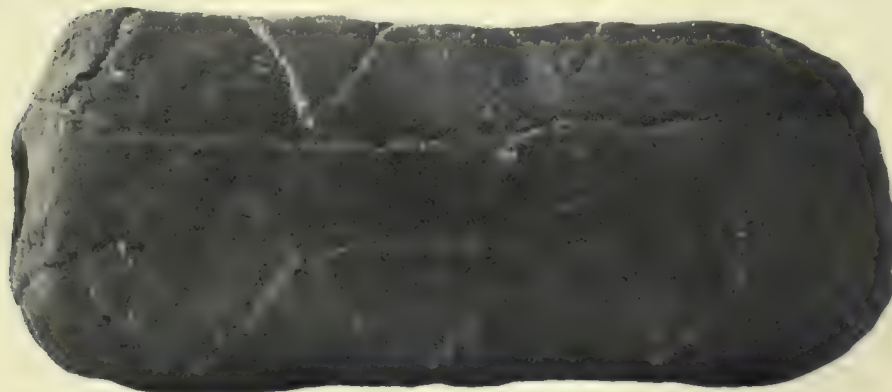


FIG. 39.—Tube of earthenware. Mound near Crystal river. (Full size.)

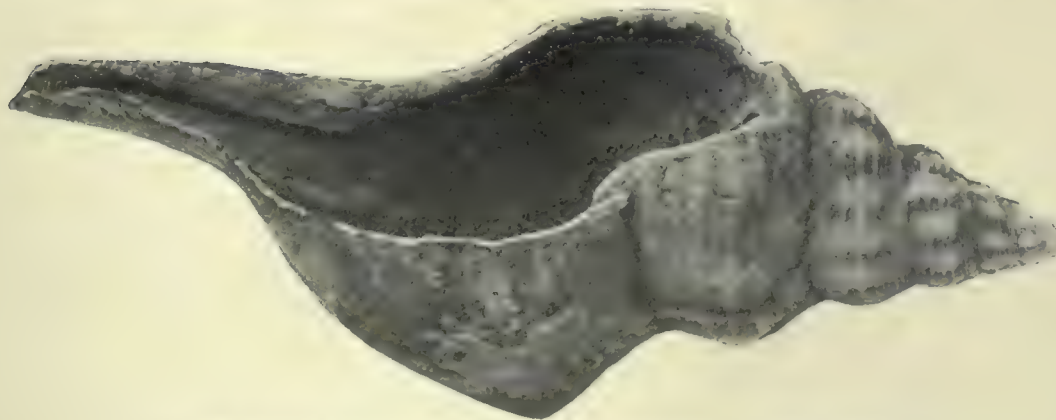


FIG. 40.—Shell drinking cup. Mound near Crystal river. (Two-thirds size.)

whorl of *Fulgur perversum* and one rectangular chisel likewise wrought from *Fulgur*, also seventeen "celts" made, as a rule, from the lip of *Strombus gigas*, 2.5 to 7 inches in length. All implements of shell from this mound were badly weathered.

Three large shells (*Cardium*) were met with, each with a hole in the centre to allow the insertion of a handle, and a number of large clam-shells, some showing wear. There were, also, triangular sections of clam-shells, doubtless tools, when hafted. Among the clam-shells was a large marine shell of the clam family (*Callista gigantea*).

There were found also three conchs (*Fulgur perversum*) variously treated for the reception of handles, and worn down at the beak by use as hammers, hoes, etc.¹

Eleven gorgets wrought from the body-whorl of *Fulgur perversum* came from the mound, almost invariably associated with other objects near burials or near where burials had been disturbed. Only one shows decoration and none is engraved.



FIG. 41.—Gorget of shell. Mound near Crystal river. (Full size.)

Four are roughly circular, ranging in diameter from 2.25 to 3.5 inches. The smallest has a circular perforation in the center, about .12 of an inch in diameter. The next in size has, in the middle, three small holes in line. Two have single holes centrally, one, in addition, having two perforations side by side, at the margin. Four others are sections of the body-whorl of *Fulgur*, scoop-shaped, each with a central perforation, three about 1 inch in diameter, the fourth much smaller. One, in addition, has two small holes side by side on the broadest portion. One of these gorgets lay with the concave side upon a skull.

Two gorgets, one a curved band of shell, about 1.5 inches wide, having a hole

¹ For description and figures of many implements of this sort, see our "Certain Antiquities of the Florida West-Coast," page 380 *et seq.* Journ. Acad. Nat. Sci., Phila., Vol. XI.

for suspension and showing where another has been (Fig.41), the other, fragmentary, probably like the one just described, were found in the mound.

There was also a handsome little gorget with six rounded points, and a central perforation, shown in Fig. 42.

A small number of shell beads were present with one burial, and with another were a discoidal bead of shell, about half an inch in diameter, and an imperforate shell disc of the same size. This scarcity of shell beads in a burial place teeming with objects of shell, is remarkable, and equally noticeable was the absence of shell hair-pins, which class of objects was represented by certain fragments of what may or may not have belonged to a hair-pin of shell.

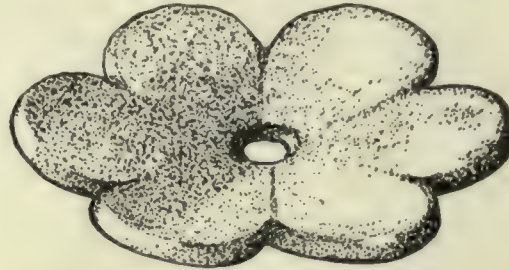


FIG. 42.—Ornament of shell. Mound near Crystal river. (Full size.)

Near the skull of a child, lay two shells pierced for suspension (*Oliva reticularis*, and *Cerithium*, a fossil, a large undescribed variety from oligocene beds).

Those who lay in the burial place near the great shell-heap had, in life, been given to the wearing of pendent ornaments—of shell, of stone, of copper.

Those of shell met with by us, 105 in number, were, as a rule, much affected by disintegration, and hence it is hard to say how finished their original appearance may have been. Doubtless they varied. On many is bitumen. One deposit, with a burial, consisted of ten pendants of shell, each about 5.5 inches in length. Another deposit of pendants consisted of one of lime-rock and five of shell, one being 9.25 inches in length. A selection of pendent ornaments of shell, found during the investigation, is shown in Fig. 43.

During the digging there were found: hammer-stones of chert, and several of quartz, fairly well rounded; pebble-hammers, including several of sandstone and pudding-stone; hones of sandstone and of ferruginous sandstone; flakes, and small, partly chipped, masses of chert; a "waster," of chert, 5.5 inches long; and various other fragments, and material of the class usually found in mounds. There were also fourteen entire "celts," of various rocks and a large number of "celts" badly broken. Some of these parts were afterward fitted together, which led us to believe that perhaps, also, these "celts" had been ceremonially broken before placing them in the mound. In length the "celts" varied from 2.5 to 12.5 inches. Incidentally, 13 inches is the greatest length of any "celt" met with by us in the south.

Thirty-one lance-points, arrowheads and knives, all of chert, were found during the digging, often associated with other objects. Many of these were rude, though a few were of excellent workmanship. In addition to these, from the same part of the mound whence came a number of "celts" in fragments, was a deposit of three lance-heads of brown chert, each broken in two parts; the lower half of a similar lance-head; two upper halves of lance-points of dark brown chert; three rude chert arrowheads, four chips of chert; the canine tooth of a large carnivore. Presumably the lance-heads in this deposit had been broken ceremonially.



FIG. 43.—Selection of ornaments of shell. Mound near Crystal river. (Full size.)

A neatly made blunt-pointed implement of fossil material, from the mound, with incised decoration on one side, is shown in Fig. 44. Two cigar-shaped implements, also of fossil material, are given in Fig. 45.



FIG. 44.—Object of fossil material. Mound near Crystal river. (Full size.)

A carefully smoothed ellipsoidal hammer-stone of lime-rock, about 4 inches long, shows marks of considerable use. Two bar-amulets, one of lime-rock, one of thin, banded slate, came from the mound and many sheets of mica were found during the entire investigation. None of these had any particular shape and none was perforate.

One hundred and eleven pendent ornaments of various rocks were met with during the investigation. As mutilation of the specimens was not deemed advisable, there has not been an exact determination as to material. Many are of the lime-rock, and some, of the ferruginous lime-rock, of the district; others are of igneous rocks; two long ones are of slate. One is of calcite and doubtless there are other rocks not included in this enumeration. Several are of quartz, including two beautifully made of rock-crystal, one of which has, presumably, a conventionalized bird-form (Fig. 46).

Ten well-made pendants, shown in Fig. 47, lay with a burial with which was sand dyed with hematite.

A selection from the various stone pendants found by us is given in Figs. 48, 49, 50, 51, among which are shown a long slate pendant similar to those found by us the preceding year along the northwest coast, one pendant with a central perforation, and several doubtless intended to represent conventionalized birds.

On the base of the mound, in the southern slope, was the skeleton of an adult, lying full length on back. Extending across the pelvis, sagging down somewhat, was a row of pendants of stone, among which were three of copper, 4.7 inches, 5.75 inches, 6 inches long, respectively, of the same type as the long ones of slate from this mound, one of which has already been figured. Seemingly, all these pendants had hung from the waist in the manner shown by Le Moyne on aborigines of the St. Johns river, Florida. Along the lower part of the left arm, which lay extended down the left side of the body, were other pendants, or charm-stones, which may have fallen over from a belt at the waist. Exclusive of the copper, 39 pendants,



FIG. 45.—Objects of fossil material. Mound near Crystal river. (Full size.)

mostly of lime-stone and of ferruginous lime-stone, and a long one of slate, were in this interesting deposit. With them were two parts of the lower jaw of a puma, each with three molars, and each part having a hole artificially made near the foramen to aid in suspension or attachment. With these were two canines of a black bear, having the bases much ground away, and two molars, also of the bear, ground down, not on the base alone, but on certain of the sides also.¹

About 5 feet down, in the southern side of the mound, near a skull belonging to a bunched burial, were three quartz crystals and one twin crystal of quartz, from 2.5 to 4 inches in length. The three crystals have grooves for suspension as pendants. On the twin crystal no groove is apparent, though there are traces of bitumen, at one end, where a cord has been attached.

With the crystals were sixteen ornaments of various rocks, including a small pendant of amethystine quartz,² a perfect gem, a triumph of aboriginal endeavor, shown fourth from the left-hand side of the upper row in Fig. 52 where all this deposit is given.

The rocks of which these ornaments are made, which include beads, imitations of canine teeth of carnivores, and other forms, are impossible to name with any certainty, without mutilating the specimens to obtain slides for the microscope. One is surely of banded, ferruginous slate; others are of catlinite; several resemble hematite in appearance, but are not this material since they make a mark too light in color upon porcelain and do not respond to the magnet. Others are of fine-grained, igneous rock.

¹ *Vide*, "Certain Aboriginal Remains of the Northwest Florida Coast," Part II, Journ. Acad. Nat. Sci., of Phila., Vol. XII, pg. 240 *et seq.*

² We are indebted to Mr. Warren K. Moorehead for the following details of the discovery of a pendant of amethyst found in 1898, in a grave at the mouth of the Wabash river, west side, southern Indiana, by Mr. Clifford Anderson, acting under instructions from Mr. Moorehead. About 150 burials were found in graves at this place, having with them pottery, pipes, copper objects, etc. The graves, 2 to 4 feet below the present surface, were not stone lined. According to Mr. Moorehead, they mark the northernmost extension of the southern (Missouri-Arkansas) type of pottery. Mr. Moorehead kindly sent the pendant for our inspection. It is of a deep violet, pear-shaped, and has a perforation for suspension. It is about the same size as ours, but it is much more rudely made, showing a scratched surface without polish. The catalogue number of this specimen is 15,400, Museum, Phillips' Academy, Andover, Mass.



FIG. 46.—Pendants of rock-crystal. Mound near Crystal river. (Full size.)



FIG. 47.—Pendants of stone, found with a single burial. Mound near Crystal river. (Full size)



FIG. 48.—Selection of pendants of stone. Mound near Crystal river. (Full size.)



FIG. 49.—Selection of pendants of stone. Mound near Crystal river. (Full size.)



FIG. 50.—Selection of pendants of stone. Mound near Crystal river. (Full size.)



FIG. 51.—Selection of pendants of stone. Mound near Crystal river. (Full size.)



FIG. 52.—Ornaments found with a single burial. Mound near Crystal river. (Full size.)



FIG. 53.—Pendent ornaments of copper. Mound near Crystal river. (Full size.)

The perforations in these ornaments are countersunk and from large openings at the surface meet at the center in a much smaller aperture. On some are scratches which probably would be called file-marks by those disbelieving in any proficiency obtained by the natives through ages of aboriginal culture, which marks are exactly similar to those noted on certain ornaments of red jasper found by us in Florida, on which material the file leaves no mark and which was no doubt worked with the aid of hard, cutting sand.

In the southern part of the mound, whence, with the exception of two copper pendants and the deposit of ten pendants of rock, came practically all articles of especial interest met with during the investigation, were found ten copper pendants, including the three already referred to, making twelve in all from this mound, shown in Fig. 53. Three pendants were twice found together, and three times, two pendants were in association, always, of course, with burials. All came from considerable depths in the mound, from 4 to 8 feet, and nearly all were wrapped in fabrics and in bark, as is customary with "finds" of copper.

An especially noteworthy feature connected with these pendants, which are of native copper, is that all are of the same type as other pendants of stone and of shell found in this mound, even the conventional bird-form being represented.

The method of wearing these pendants was interestingly shown. Apparently, certain material, seemingly hide, was cut into a small circle. A cord was run through the center of this and knotted on the lower side. The hide was then adjusted on the end of the pendant, like a cap, and the lower portion of the hide was bound around with a cord and fastened with bitumen. The cord which ran through the hide, when fastened to a belt, would allow the pendant to hang true, which it could not do had the hide not been used and a cord been tied around the end of the pendant and knotted at one side.

But once in the elevated ground surrounding the mound proper, was copper met with, and this was so greatly corroded that it was hardly more than a paste-like substance.

Upon several occasions in the mound, copper was found in a like condition.

About 8 feet from the surface of the mound, near one of the streaks of sand dyed with hematite, to which reference has been made, was a flat mass of bitumen, about 6 inches by 8 inches and 1.25 to 2 inches in thickness. Imbedded in this was an oblong bit of sheet-copper, about 1 inch in length by .5 of an inch in breadth.

During the excavation of the mound proper there were found, always with burials, three pairs of ear-plugs of sheet-copper.

One pair has the upper and the lower discs of a similar pattern, consisting of open spaces made with considerable regularity (Fig. 54). There is a circular concavity at the center of each disc. Careful measurements show that while the four discs closely resemble each other, the openings do not exactly coincide in size or in shape, thus precluding all chance of their having been made with a die or stamp. These discs, each about 3.5 inches in diameter, were wrapped in bark. With one set of discs was a vertebra of a fish, which probably had been used to hold the pair

together. The second vertebra was not found, but may have been lost in the excavation.

The interesting design of these discs was shown to Mr. Charles C. Willoughby, of the Peabody Museum, Cambridge, Mass., who writes: "Regarding the enclosed



FIG. 54.—One of four copper discs, forming a pair of ear-plugs. Mound near Crystal river. (Full size.)

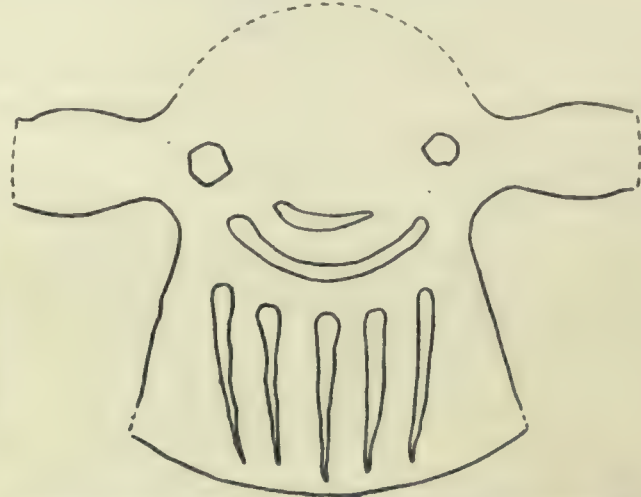


FIG. 55.—Part of copper disc showing animal head, with bear-symbol beneath. (Full size.)

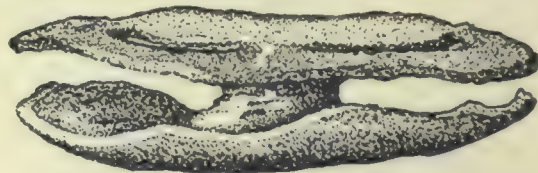


FIG. 57.—Silver-coated ear-plug of copper. Side view. Mound near Crystal river. (Full size.)

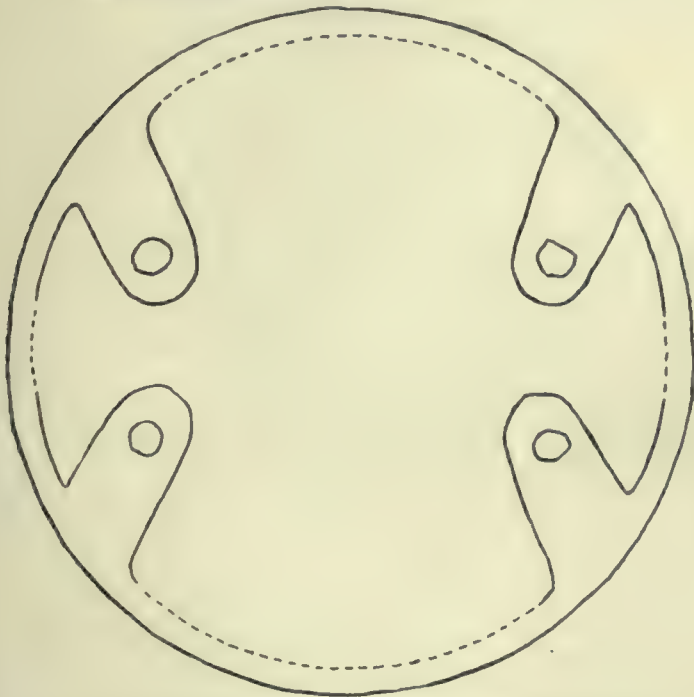


FIG. 56.—Copper disc with animal symbols removed, leaving the cosmic sign. (Full size.)

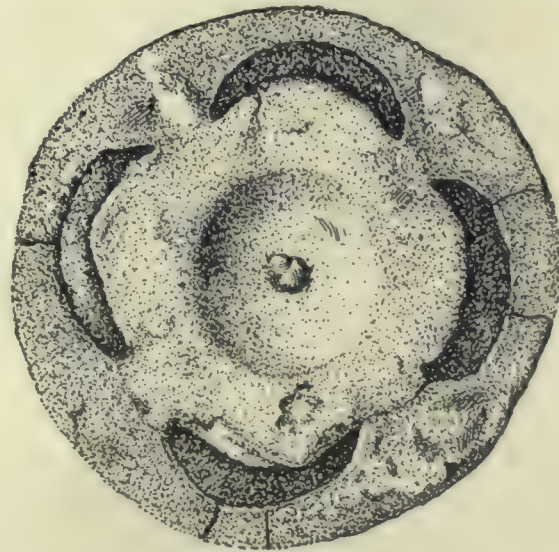


FIG. 58.—The same. Top view. (Full size.)

photograph of the copper disc from Crystal river. This seems to belong to the same type of symbolic forms as many of the sheet-copper objects from the Hopewell and Turner mounds,¹ although the mechanical execution of your ornament is inferior to similar objects from these groups.

"This may well be symbolic of an animal god, probably the bear, combined with the cosmic sign. The animal's head is drawn double, and the design appears the same when reversed. One pair of ears, two eyes and one head answer for both animals, but there are separate mouths, nostrils and necks. The five nearly parallel perforations upon the neck, also duplicated upon the opposite side, doubtless represent the claws of the bear. This symbol occurs several times in modified form in objects of bone and copper from the Hopewell group, and is still used as a bear sign by modern Indians. It seems to me that this mark may be the distinguishing mark of the animal represented.

"The outer circle and four perforated arms doubtless form a cosmic symbol representing the horizon and four directions. The central perforation may also represent the central circle usually present, especially as it seems to have no connection with the head of the animal. The arms representing the four quarters are pushed out of their normal position to make room for the central head."

In Figs. 55, 56 are given, from Mr. Willoughby's designs, part of the copper disc, showing the animal head with the bear symbol beneath, and the copper disc with the animal symbols removed, leaving the cosmic sign.

Another pair of ear-plugs, side and top views of which are shown in Figs. 57, 58, where two missing parts are represented in broken lines, had for decoration on



FIG. 59.—Silver-coated ear-plug of copper. Upper and lower parts. Mound near Crystal river. (Full size.)

top, a thin coating of sheet-silver,² hammered on. There is a concave circle in the center and four crescent-shaped open spaces.

The third pair of ear-plugs, wrapped in bark or vegetable fiber and in a woven

¹ For farther information on this interesting subject we would call the reader's attention to "Symbolism in Ancient American Art," by F. W. Putnam and C. C. Willoughby, "Proceedings of the American Association for the Advancement of Science." Vol. XLIV, 1896.

² Sheet-gold, sheet-silver, sheet iron (meteoric) have been found in various mounds in Ohio, in which no objects distinctly of European provenance have been met with.

fabric, has circular, concave spaces in the center of the upper and lower portions. The whole outer surface of the upper halves is coated with thin sheet-silver, which, loose in places, has turned up and over. The upper and lower discs were separated by a mass of vegetable fiber through which ran a cord. This cord, passing through a perforation in the middle of the central concavity, on the outside of each upper part is knotted around a pearl which is pierced. The upper and the lower part of one of these ear-plugs is shown in Fig. 59.

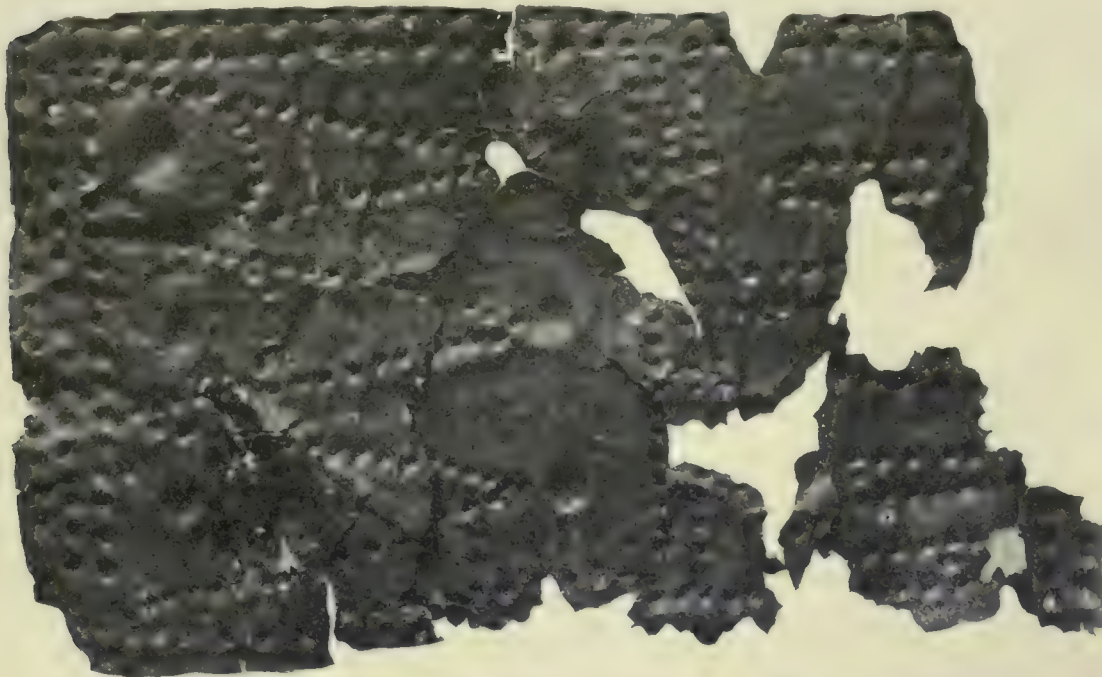


FIG. 60.—Ornament of sheet-copper. Mound near Crystal river. (Three-quarters size.)

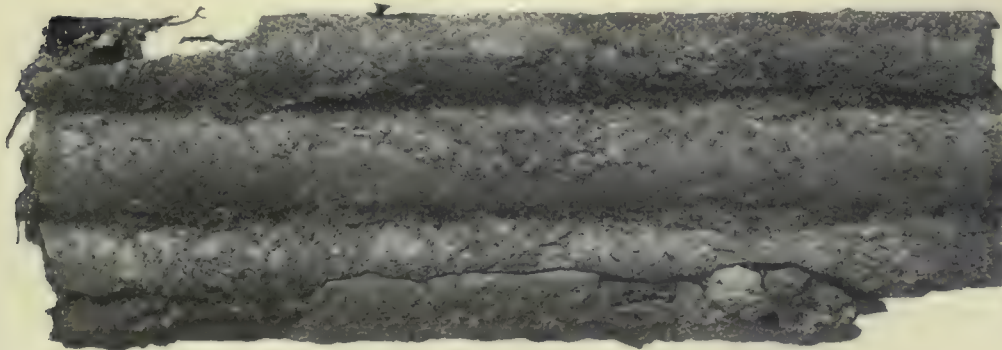


FIG. 61.—Ornament of sheet-copper. Mound near Crystal river. (Full size.)

Badly broken when found, was an oblong ornament of sheet-copper (Fig. 60), rather rudely decorated with punctate markings and showing a cruder form of aboriginal effort in repoussé decoration, though in direct line with more ambitious work.

An ornament of fluted sheet-copper, badly broken, came from this mound (Fig. 61). This pattern was a popular one among the aborigines. We have met with it at least twice before, once at Apalachicola and once in the fine mound on Murphy Island, Fla.

Two tubular beads of over-lapping sheet-copper were found in caved sand.

A portion of a second ornament of fluted sheet-copper from this mound was submitted to Prof. Harry F. Keller, Ph.D., who reported on it as follows :

“As to the sheet-copper from the Crystal river mound, it is certainly made from the native metal; a very searching qualitative analysis of the cleaned specimen gave only silver and iron as metallic impurities, and demonstrated the entire absence of lead, arsenic, antimony and zinc.”

Here we have native copper such as was used by the aborigines, previous to the coming of the Europeans, which copper was not obtainable in Europe in quantities sufficient for commercial purposes and which is most distinctly different from the copper brought to this country by Europeans, the European copper being the product of arsenical, sulphide ores, and teeming with impurities.

Three pointed implements made from cannon-bones of deer, and three shark's teeth of the present geological period, lay with three arrowheads or knives. Such teeth were found by Mr. Cushing at Marco, in the Ten Thousand Islands, Fla., and were shown by him to have been used for the carving of wood.

In one deposit were a number of pointed implements of bone, fragments of other bone implements of various kinds, and a fish-hook of bone, from which the pointed end, broken by the blow of a spade, was lost. With these was an object of bone, perhaps used in basketry (Fig. 62).

Half of a tooth of a fossil shark was met with in the mound.

As to note the exact association of all objects from this mound would unduly occupy our space, a few groups of artifacts, only, will be given as they were found.

With a burial were: one canine tooth of a large carnivore; two “celts” of polished rock; two sheets of mica; three lance-heads of chert; two sandstone pebble-hammers; four shell gouges; four shell “celts;” parts of other “celts” of shell; two sandstone hones; several bits of clayey material.

Together were: two pendants of shell; two pendants of igneous rock; a knuckle-bone of a deer.

Three knuckle-bones of the deer lay with two shell pendants.

With the skeleton of a child were: two pendants of rock; one pendant of shell; a knuckle-bone of a deer.



FIG. 62.—Implement of bone.
Mound near Crystal river.
(Full size.)

In one deposit were: half of a bar-amulet of slate; two smooth, flat fragments, one of banded slate, one seemingly of fine-grained sandstone; one pendant of sedimentary rock; one of igneous rock; one of quartz; a beautifully made one of quartz, somewhat worn.

Again we would call the attention of the reader, before ending the account of this interesting investigation, to the fact that nothing showing white provenance was met with during the work and that the entire area gone over by us was absolutely virgin.

MOUND NEAR CRYSTAL RIVER SETTLEMENT, CITRUS COUNTY.

The settlement is at the head of Crystal river.

About 1.5 miles in a NNW. direction from the town, on property of Mr. Herman Miller, of Crystal River, in pine woods bordering a hammock, was a sand mound 4 feet 9 inches high and 70 feet across the circular base.

Thorough trenching showed this mound to belong to the domiciliary class.

MOUND NEAR THE CHASSAHOWITZKA RIVER, CITRUS COUNTY.

The river has its source at a large spring, or boil, about eight miles from the Gulf.

The mound, in pine woods, about one-half mile in a E. by S. direction from the landing at the river's head, was in full view from the road. Though but comparatively little dug into before our visit, seemingly, it had been much trampled by cattle, and bits of human bone and fragments of earthenware were scattered here and there over the entire surface. It was evident that the diameter of the mound, 75 feet at the time of our visit, had been extended at the expense of the height, which was 4 feet.

Fifteen trenches were started inward from the margin and continued until human remains were encountered, when all trenches were joined and the remaining part of the mound, which had a diameter of from 50 to 54 feet, probably about the original diameter, was demolished.

Eighteen burials, all very badly decayed, including the lone skull, were met with. The bunched burial, also, was represented, sometimes without a skull, sometimes with one, and once with two.

With one burial were bits of pottery and fragments of chert. With another was an imperforate pot of inferior ware, bearing a small check-stamp. Certain decaying fragments of bone had with them bits of different vessels. The following vessels were in the mound, not as a general deposit but here and there, singly, perhaps interred with burials since decayed; a small, undecorated, imperforate vessel modelled after a gourd; an undecorated bowl with a basal perforation, having a small depression below the rim at opposite sides; a small vessel without decoration, a flattened sphere in shape, having the usual mortuary mutilation; an undecorated vessel badly broken.

A handle of a vessel, representing the head of a predatory bird (Fig. 63), was

found unassociated with other ware. In the beak is a circular hole which would allow the use of the head as a pendent ornament. We got, on the Island of Marco, one of the northern-most of the Ten Thousand Islands (see outline map) a bird-head handle of a vessel, with a groove around the neck, showing the use of the head as a pendant.

Sherds in the mound were numerous but did not lie in deposits. The great majority are of ordinary ware and undecorated. Some, however, are of excellent material. Red pigment had been used in several instances and punctate markings and the check-stamp are represented. The complicated stamp was not met with.

There were also in the mound, unassociated: a small hatchet, seemingly of igneous rock; a triangular weapon or tool, of chert; a bit of fossil wood; a number of flakes and chippings, of chert; a pendant of volcanic rock (Fig. 64).

MOUND NEAR INDIAN BEND, HERNANDO COUNTY.

This name is given to a bight in the swamp bordering the Gulf, around which grow pine trees, and oaks in places. The mound at Indian Bend is about two miles in a straight line almost due south from the landing at the head of Chassahowitzka river. It had been dug into in a limited way before our visit and seemed, in addition, to have been greatly trampled by cattle. Its height was 4 feet. It was 48 feet across its circular base. Fifteen trenches were dug in toward the center until, at the union of these trenches, a portion from 32 feet to 34 feet in diameter remained. This part was entirely demolished.

Burials, eight in number, in the last stage of decay, were: two lone skulls; four small bunches, each with a skull; one bunch without a skull; and, centrally, a skeleton flexed on



FIG. 63.—Handle of vessel. Mound near the Chassahowitzka river. (Full size.)

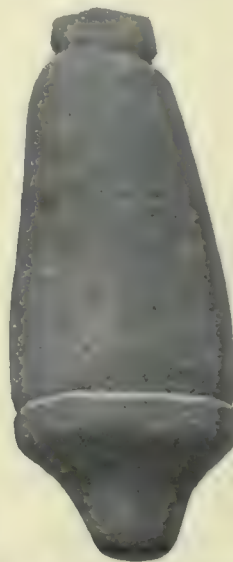


FIG. 64.—Pendant of stone. Mound near the Chassahowitzka river. (Full size.)

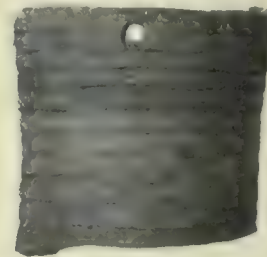


FIG. 65.—Sherd. Mound near Indian Bend. (Half size.)

the right side with a few shell beads at the wrist.

Exceptionally few sherds were met with in this mound. Most were undecorated; some had the check-stamp; one had encircling, parallel lines incised (Fig. 65) which gave the ware the appearance of the coil method of manufacture.

No whole vessels were found, but a portion of one, undecorated, had a basal perforation carefully rounded after the fracture.

Here and there in the mound, unassociated, were several flakes and fragments, of chert, an arrowhead or knife, and a lance-head, of the same material.

Running through the mound for a number of feet, was a deposit of sand dyed red with hematite.

MOUND NEAR BAYPORT, HERNANDO COUNTY.

Bayport is at the mouth of the Wekiwooshee river.

The mound, owner unknown, lay in scrub and pine, about one mile in a northerly direction from the town. One small hole was the only previous digging noticed by us, but, at the center, there seemed to be a certain flattening as though a building had been there, and that such had been the case was the belief in Bayport. As the mound was on a natural elevation and no base-line was at any time apparent, we found it impossible to decide as to height. Judging from appearances, the altitude was 3 feet 7 inches, but as nothing showing human origin is believed to have been found during the digging, at a depth greater than 2 feet, the mound may have been lower than it appeared. The diameters of base, as taken by us, were 84 feet N. and S., and 76 feet E. and W., but here again, our judgment may have been at fault. At all events, one burial and sherds at various points, were found soon after digging began. The area as given above was completely dug through.

Burials were found marginally in various parts of the mound and continued to be met with, occasionally, until the more central parts of the mound were reached, when they were fairly numerous. All were so badly decayed that no bones were saved. Such crania as were sufficiently preserved to allow determination showed no sign of flattening. In all but three cases, the form of burial was of the ordinary bunched variety. Of these bunches, thirty-four had one skull; four bunches had two skulls; four bunches had three skulls; one had four skulls; one had six skulls; one bunch had seven skulls. Three bunches had no crania with them.

Three other bunches had with them small deposits of fragments of calcined human bones. Twice the deposits were mingled with some unburnt bones belonging to the bunched burials. In these cases the calcined fragments were so few in number that a fractional part of the skeleton only was represented. The third deposit, near a burial, but not in contact, was somewhat larger, perhaps amounting to several quarts.

With various burials were: three conch-shells and bits of pottery; certain fragments of earthenware; two earthenware vessels in fragments; a bit of chert; six conch-shells; two implements made from marine univalves (*Fulgur perversum* and *Fasciolaria*) by removing part of the body-whorl; sand dyed with hematite; sand less deeply tinged with the red oxide; two small shells much decayed; one "celt."

Over one burial was a large fragment of what must have been a bowl of great size, of inferior ware, roughly decorated. On the fragment was one large loop-shaped handle.



FIG. 66.—Selection of sherds. Mound near Bayport. (Half size.)

There were also in the mound: marine shells, more or less broken (*Fulgur*, *Fasciolaria*) with the lower outer portions removed, and sharpened at the lower end of the columella so that, when the upper part of the shell was held in the hand, they could be used to bore or to pierce with; chips, flakes and fragments, of chert; several arrowheads or knives, also of chert, some of which were broken, some only rudely blocked out; four "celts," one showing marks of service in a handle; two very diminutive "celts;" a few fragments of what had been an ornament of sheet-copper.

At the very margin of the mound, in various directions, were small deposits of sherds made up of parts of different vessels, while single sherds and smaller deposits were met with throughout the mound. The ware, as shown by these fragments, is, in most cases, inferior, though some is of excellent quality. Much is undecorated. One sherd, seemingly, is cord-marked, though this decoration is hard to determine. A few bear traces of crimson pigment; many have the check-stamp of various sizes; several have the complicated stamp, including the design of concentric circles, so much in vogue in this district. One has a complicated pattern shown by us in Fig. 66, Part II, of our "Certain Aboriginal Remains of the Northwest Florida Coast." Some sherds from this investigation bear incised decoration alone; some, punctate decoration, in addition, but the specialty of the builders of the mound was the punctate impression in various combinations. A selection of sherds from the mound is shown in Fig. 66 and others are given in Figs. 67, 68, 69, 70.

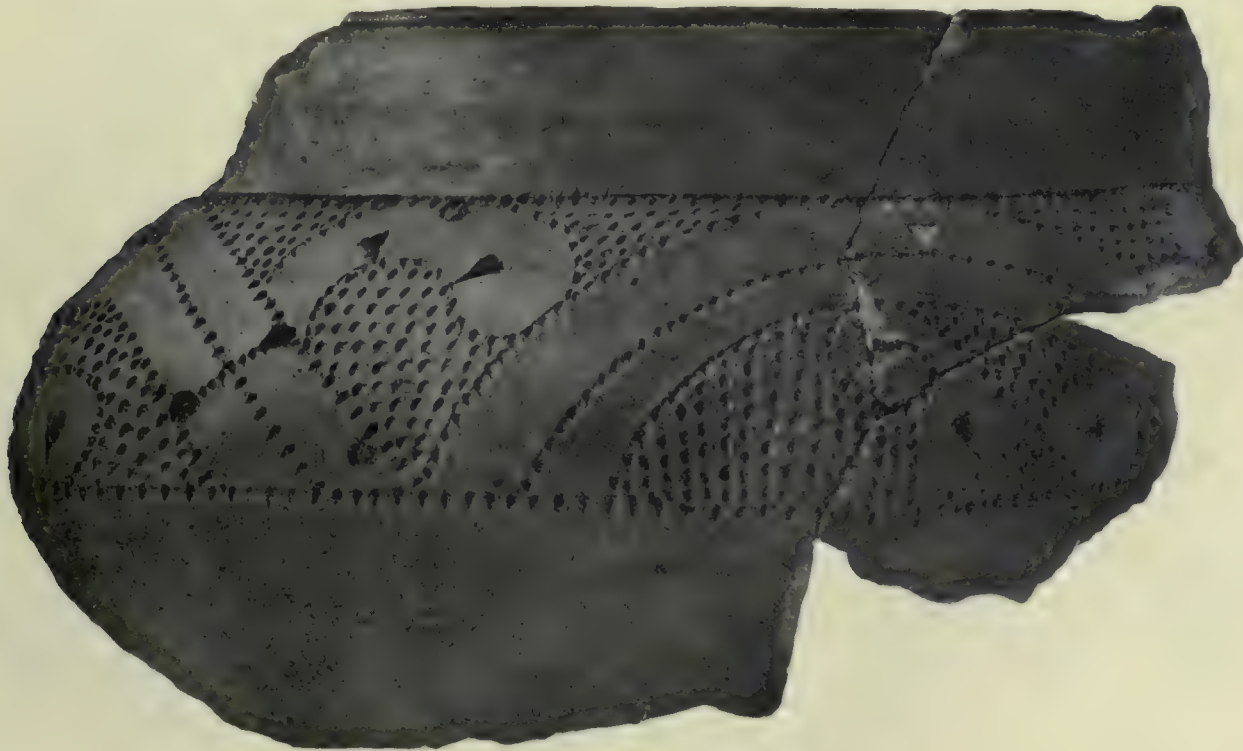


FIG. 67.—Sherd. Mound near Bayport. (Three-fourths size.)

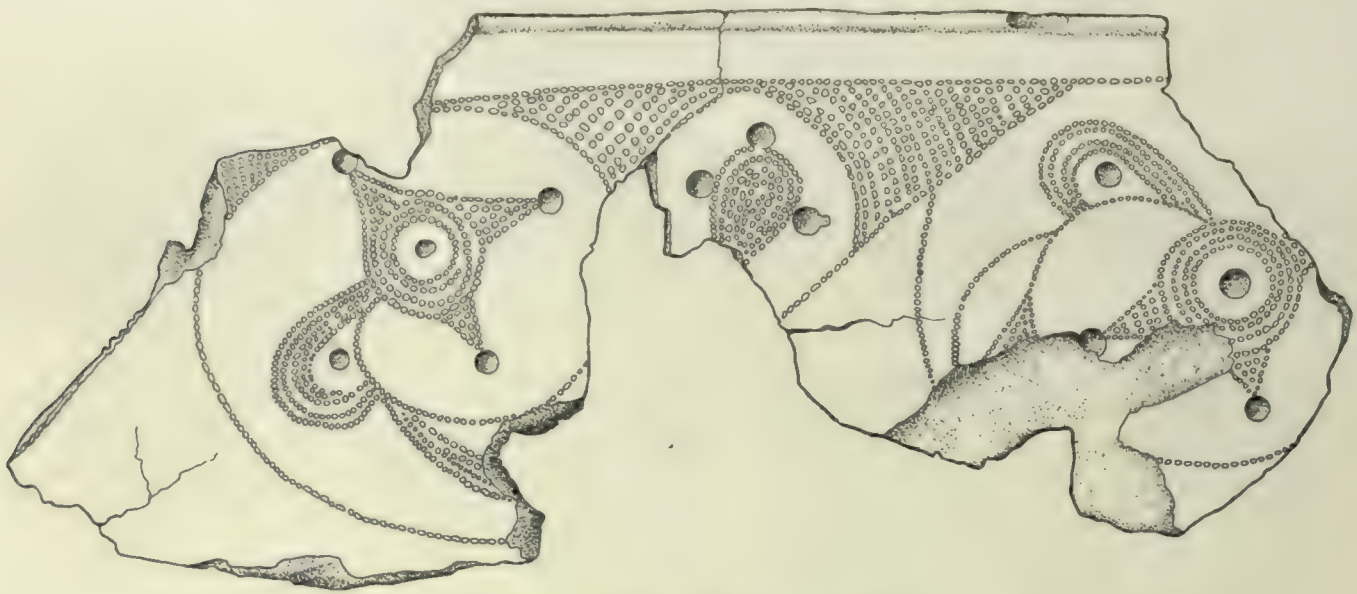


FIG. 68.—Sherd. Mound near Bayport. (Half size.)

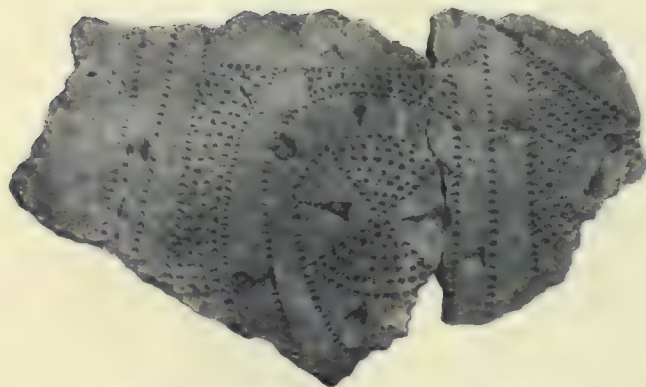


FIG. 69.—Sherd. Mound near Bayport. (Half size.)

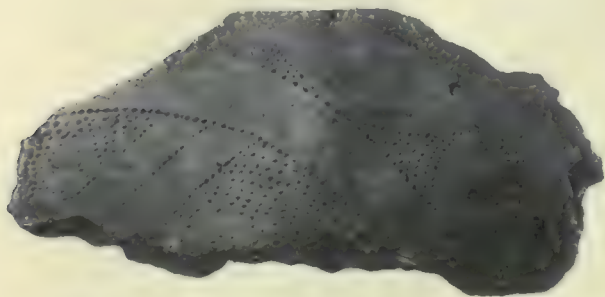


FIG. 70.—Sherd. Mound near Bayport. (Half size.)



FIG. 71.—Part of vessel of earthenware. Mound near Bayport. (About four-fifths size.)

Part of a vessel, found in several bits, shows an interesting decoration and indicates a graceful form though, unfortunately, the entire base and most of the neck, are wanting (Fig. 71). The sand for some distance around these fragments was carefully sifted without discovery of farther trace of the vessel and it became evident that the pieces had been interred as fragments only.

In view of the evidence furnished by some of the sherds that the makers of the mound possessed ware superior as to quality, form and decoration, the entire vessels met with by us were doubly disappointing.

Soon after the digging began, in the eastern margin of the mound, at a distance from human remains, evidently placed in the mound for the use of the dead in common, as were all deposits of vessels in this mound, with one exception, was Vessel No. 1 (Fig. 72), of most inferior ware, with six projecting knobs, undoubtedly



FIG. 72.—Vessel No. 1. Mound near Bayport. (About two-thirds size.)

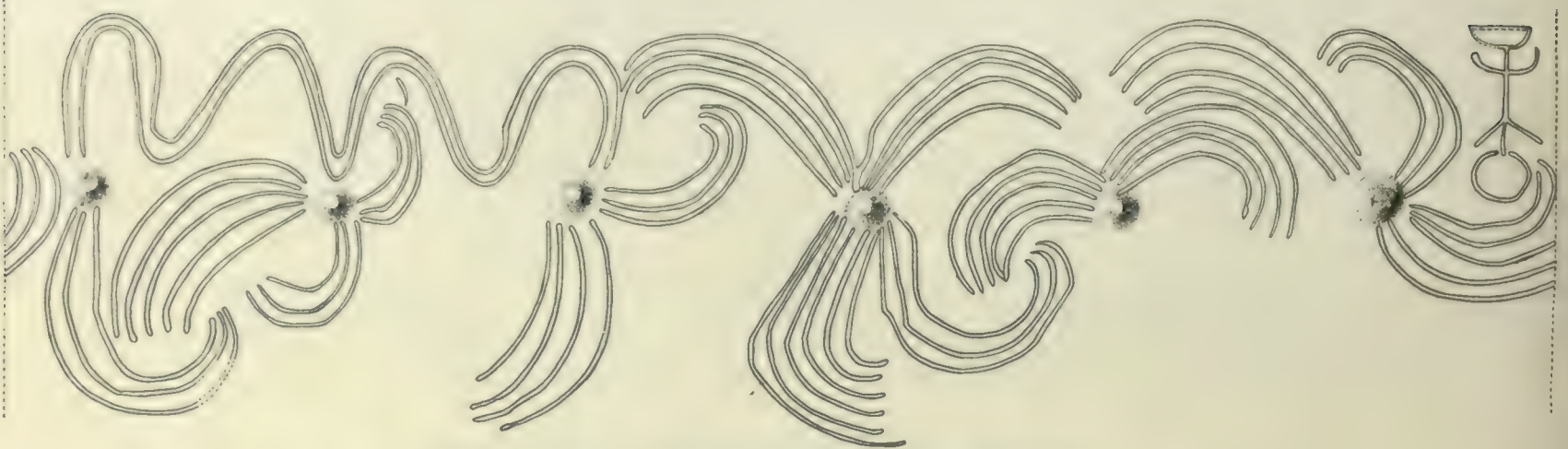


FIG. 73.—Vessel No. 1. Decoration. Mound near Bayport. (One-third size.)



FIG. 74.—Vessel No. 2. Mound near Bayport. (Full size.)

highly conventionalized head, tail and legs of a life-form. The decoration, traced on the clay before firing, is rude (diagram, Fig. 73). In the base is a carefully rounded perforation made after baking, as was the case with all vessels in this mound, except such as are described to the contrary.

With this vessel, in fragments which have since been put together, was Vessel No. 2, of excellent ware (Fig. 74), with incised and punctate decoration shown diagrammatically in Fig. 75. There are duck-head handles.

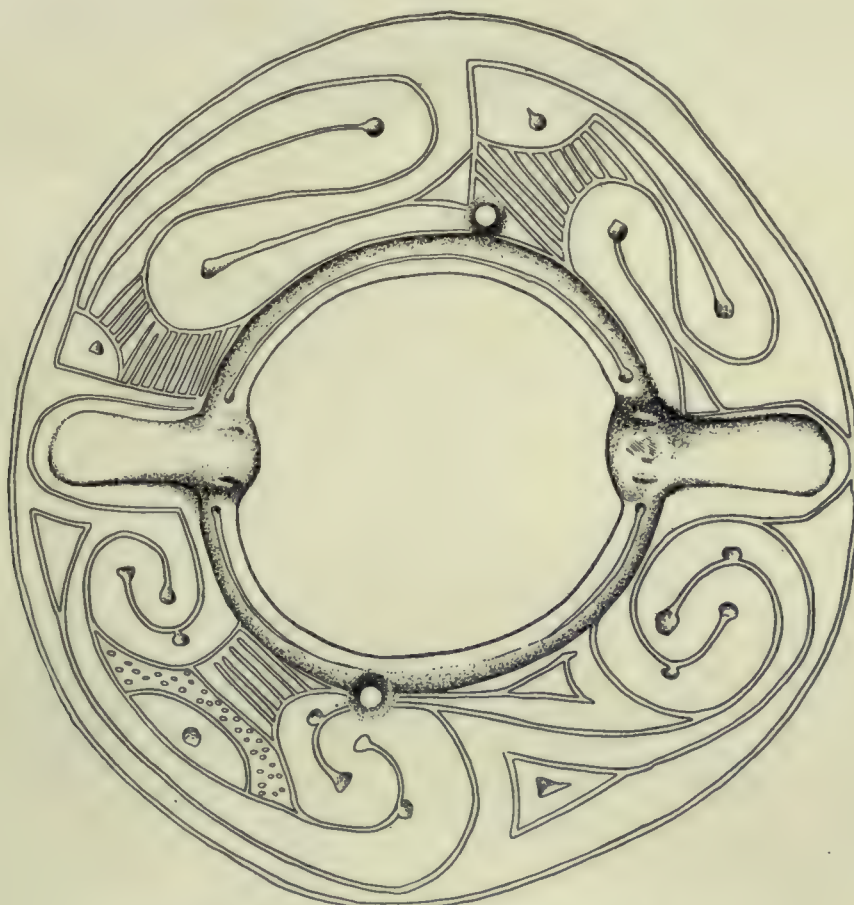


FIG. 75.—Vessel No. 2. Decoration. Mound near Bayport. (Half size.)

Somewhat farther in, still in the eastern part of the mound, unfortunately shattered by the blow of a spade, was a vessel, an inverted, truncated cone in shape, with a check-stamp decoration. This vessel was too badly broken to determine as to basal perforation.

A little later, in the same direction, an undecorated, globular vessel was met with.

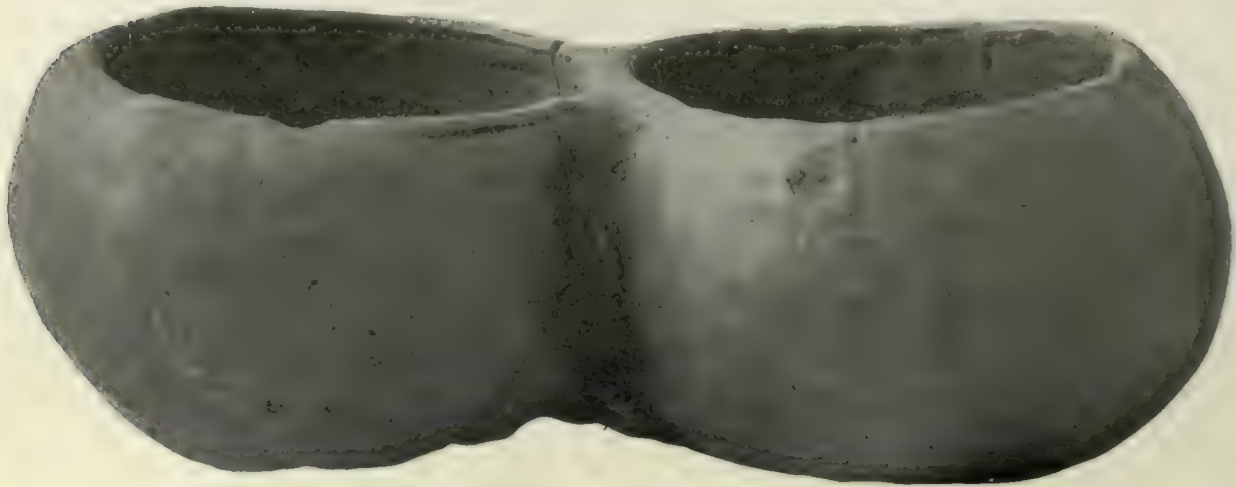


FIG. 76.—Vessel No. 5. Mound near Bayport. (About two-thirds size.)



FIG. 77.—Vessel No. 6. Mound near Bayport. (About three-fifths size.)

From the southern part of the mound came Vessel No. 5 (Fig. 76) which formerly had had double, circular compartments. The greater part of one compartment has been restored.

Still in the marginal part of the mound, the northwestern portion, but farther in than the vessels already described, together, were nine vessels, Nos. 6 to 14, inclusive, all of most inferior ware, some upright, some lying on the side, some inverted.

Vessel No. 6.—A jar of about 3 quarts' capacity (Fig. 77), undecorated, has a curious projecting base in which is a perforation made before baking. Three other vessels of this type came from this mound. Almost, there would seem to be cause to doubt whether these curious, open, projecting bases entitle the vessels to which

they belong to be classed among the ready-made mortuary variety. Possibly the vessels may have been used as sieves or strainers with a fabric inserted on the bottom.

Vessel No. 7.—A globular vessel of about 6 quarts' capacity, undecorated, with a small vertical rim, a part of which was missing when the vessel was found.

Vessel No. 8.—A quadrilateral vessel with rounded base, shown in Fig. 78.

Vessel No. 9.—This vessel, similar to Vessel No. 6, was sent to the Peabody Museum, Cambridge, Mass.

Vessel No. 10.—A large bowl in many fragments, having the upper part faintly decorated with a complicated stamp composed of concentric circles.

Vessel No. 11.—A pot of about 3 gallons' capacity, having on the upper part of the body a faint check-stamp.



FIG. 78.—Vessel No. 8. Mound near Bayport. (About four-fifths size.)

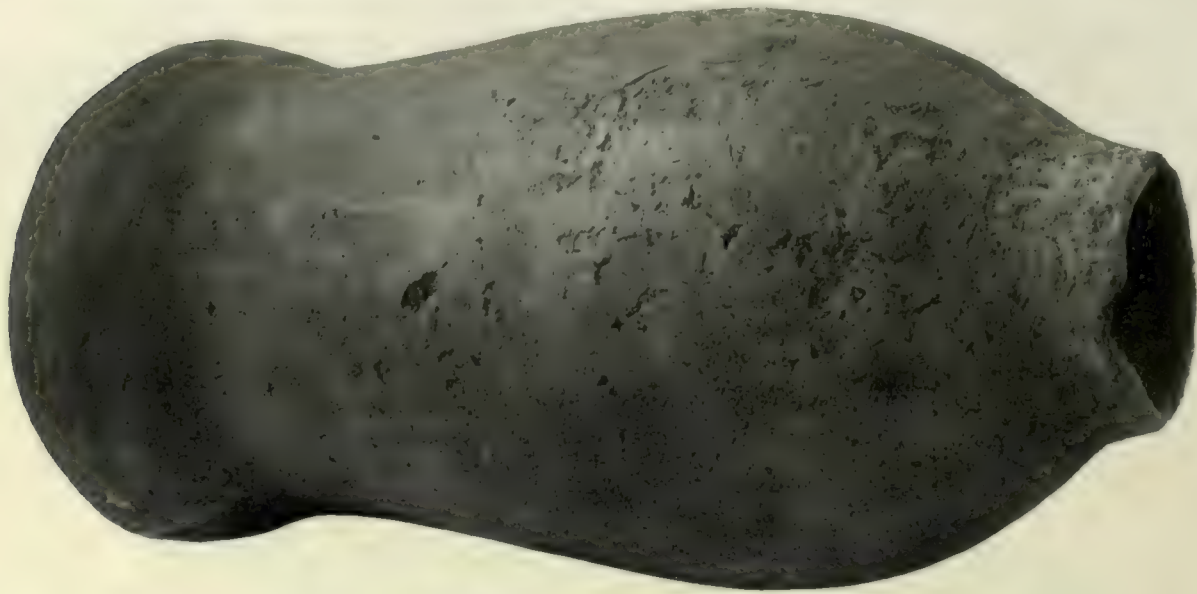


FIG. 79.—Vessel No. 12. Mound near Bayport. (About three-fifths size.)

Vessel No. 12.—A jar of the same type as Vessels Nos. 6 and 9, with protruding base and ready-made perforation, shown in Fig. 79, but differing slightly in outline. The reader will bear in mind that properly to show the base, the aperture of the vessel has been turned away.

Vessel No. 13.—Badly broken, similar to Vessels Nos. 6 and 9.

Vessel No. 14.—A badly broken vessel having a check-stamp decoration.

Vessel No. 15.—Alone in the sand was a small vessel, oblate spheroidal, undecorated, with narrow, upright rim. The carefully-made, circular hole in the base, looking as though, after a small piece had been broken out, the margin of the break had been rounded by a cutting implement, was not present in this case, the entire bottom having been knocked out.

In the body of the mound, NE. part, with a burial, were two large, undecorated vessels in fragments (Numbers 16 and 17).

MOUND NEAR INDIAN CREEK, HERNANDO COUNTY.

Indian creek enters the Gulf about five miles south of Bayport.

Surrounded by marsh, about 400 yards ENE. from the mouth of the creek, on property of Mr. Richard A. Ellis, of Aripeka, is a small patch of solid ground on which grow a few palmettoes and pines. In the center, was an artificial elevation about 2.5 feet high and 42 feet across the base. Previous digging had been confined to a small, central hole.

The mound was entirely demolished by us except portions around several trees. The material was tough, clayey sand.

Near the center were two bunched burials, each with a skull, and a skeleton closely flexed on the right side.

No artifacts of any sort were met with.

MOUND NEAR THE WEKIWACHEE RIVER, PASCO COUNTY.¹

The mound, in pine woods, in full view from the Tampa road, was about two miles in a SSE. direction from the mouth of the Wekiwachee river, also called Hammock creek.

At one side of the mound was a depression whence the sand had been taken, and about 100 yards distant was a fresh-water pond where the aborigines found a supply of water.

The mound had been dug into, centrally, to a certain extent before we came and bits of bone and fragments of pottery were scattered on the surface. The area of the base, which seemed to have been extended somewhat by the trampling of cattle, was 86 feet by 64 feet. The height of the mound was a trifle over 4 feet. What seemed to be the mound proper, was entirely dug down by us, except small parts around certain trees. Sand, apparently washed and trampled from above, presumably not belonging to the mound, though in appearance a part of it, was excluded from the investigation.

Burials were met with from the very start and continued in until a deposit of bones, spread in a layer, was encountered, which occupied all the central part of the mound, at a depth of about two feet from the surface. In this layer, with other bones, were seventy-six skulls, and, doubtless, the digging preceding our own removed certain others.

The sole, and rather incommensurate, votive offering with this great deposit of bones was a vessel of earthenware, of about one quart capacity, a flattened sphere in shape, having traces of red paint on the exterior and a small mortuary perforation in the base.

There were also in the mound :

Bunched burials each having one skull,	40
Bunched burials with two skulls each,	11
Bunched burials with three skulls each,	2
Bunched burials with four skulls each,	2
Skeletons closely flexed on the right side,	5
Skeletons closely flexed on the left side,	3
Bunched burial with no skull,	1

Four additional burials, each with a single skull, fell with caved sand.

There was also a small pocket of calcined fragments of human bone, perhaps about one quart in all, present in the mound.

The condition of the bones was such that no skull was saved. No cranial flattening was noticed on any of the fragments.

The aborigines who built this mound were not liberal in offerings to the departed, as was indicated by the comparative lack of artifacts with the great deposit. The skeleton of a child had three shell drinking-cups and two unwrought

¹ This river must not be confounded with the Wekiwooshee river, some eight miles away.

conchs (*Fulgur perversum*), while two shell-cups lay each with another burial. With one burial was sand dyed with hematite.

With a bunched burial was a gracefully made "celt;" with another, two equally as well-made.

Not immediately associated with burials were: one hammer-stone; two lance-heads, of chert, each about 3.5 inches in length; a well-made spear-head of chert, about 5 inches long and about 2 inches in maximum diameter. A grooved pendant, rather roughly made from a pebble, lay alone in the sand.

In the southern margin of the mound was a small deposit of sherds and, here and there in the mound, fragments were met with singly, bearing red pigment, the



FIG. 80.—Selection of sherds. Mound near the Wekiwachee river. (Half size.)

check-stamp, punctate markings. There were several fragments with a complicated stamp in which the concentric circle figured. A selection of sherds from this mound is shown in Fig. 80.

Part of a vessel was met with showing a basal perforation made before the firing of the clay.

MOUND NEAR THE PITHLOCHASCOOTIE RIVER, PASCO COUNTY.

This river, variously spelled on maps and charts, is commonly spoken of as the "Kootie."

About three-quarters of a mile from the mouth of the river, on the S. side,

visible from the water, on property of Mr. E. B. Liles, of Ehren, Fla., is an oblong mound running almost north and south, 142 feet along the base and 70 feet across it. The summit plateau is 91 feet long and 19 feet in width. The height is 9 feet. The mound, composed of alternate layers of sand and of shell, as is shown by former excavations, is probably domiciliary.

Mr. S. T. Walker, in the *Smithsonian Report* for 1879, page 392, *et seq.*, has described, and given plans of, this domiciliary mound and of the burial mound nearby, a description of which we are about to give.

About 100 yards in an easterly direction from the domiciliary mound is a mound of sand, of irregular outline (see Plan, Fig. 81), also on property of Mr. Liles. The mound, narrowest at its western end, slopes gently upward for 58 feet,



FIG. 81.—Plan. Mound near Pithlochascotie river.

when the maximum height, 4 feet, is reached. There is then a decline of 65 feet to the level ground at the eastern extremity of the mound. Mr. Walker is in error in ascribing to the sand mound a height greater than that of the domiciliary mound, and in his plan of the burial mound has reversed the position of its ends, putting the broader end at the western extremity.

There had been comparatively little previous digging, considering the size of the mound. Mr. Walker's digging, amounting to but little, was plainly traceable.

The western, or narrower part of the mound, which, however, included the highest part, was entirely dug through by us to include 76 feet of the length of the base. The remaining, or eastern portion of the mound, 47 feet in length along the base, was dug through by us with the exception of the outer parts, in which neither burials nor artifacts were found by trenching. The total area of our investigation is shown in broken lines on the plan. The arm, or causeway (see plan) having been dug by Mr. Walker, was not investigated by us.

The mound, of sand, rested upon a foundation of clay on which, here and there, were masses of lime-rock. Whether these masses were put in place by aborigines at the making of the mound, we are unable to say, though it is our opinion they were not, as an excavation made by us at some distance from the mound yielded similar masses of rock.

There were in the mound, locally, along the base, deposits of oyster-shells. These deposits had no direct connection with the burials.

Mr. Walker says, in speaking of this mound: "Excavations systematically conducted revealed human remains in vast quantities in every part of the mound."

Burials were numerous in places but were not present in others. Some of our men dug through undisturbed sand during many hours without coming upon a single bone. Mr. Walker says also, "The mode of burial was interment at full length, with the heads directed toward a common center, the body reclining on its right side; I discovered three of these circles of bodies, each containing from seven to fourteen adult skeletons."

We met with nothing in the mound to indicate this method of burial, and we may say, incidentally, we have not found it in several hundred mounds opened by us in the southern United States.

Human remains were found in the mound at sixty-two places.

The skeletons in the mound lay as follows:

Partly flexed on the right side,	5
Partly flexed on the left side,	6
Closely flexed on the right side,	13
Closely flexed on the left side,	7
Full length on back,	2

The heads of the skeletons pointed as follows: E., 4; E. by S., 1; ESE., 3; SE., 3; SSE., 3; S., 1; WSW., 3; W., 1; W. by N., 1; WNW., 1; NW., 1; NE., 2; ENE., 5; E. by N., 4.

The upper half of a skeleton, perhaps an aboriginal disturbance, had the cranium directed toward the south.

It was noted as an invariable rule in this mound that the skeletons lay on the base, while the lone skulls, of which there were seven, and the bunched burials, of which eighteen were met with, were considerably higher in the mound.

The bunched burials were as follows :

With no skull present,	1
With one skull,	8
With two skulls,	2
With three skulls,	4
With five skulls,	1
With eight skulls,	2

A number of scattered bones found by us at one point in the mound, was perhaps an aboriginal disturbance.

There were included in our enumeration also one recent disturbance, and one burial details as to which we do not find in our note book.

About two-thirds the length of the mound from the western extremity, well in toward the median line and continuing inward and eastward, not always in close contact but spread, was a deposit of bones with which were fifty-seven skulls. With this great mass, were three small deposits of calcined human bones. All this was scored as one burial and completes the sixty-two burials counted by us.

No skulls were saved from this mound. Judging from large fragments found, cranial compression had not been practised.

With burial No. 1, a recent disturbance, were Vessels Nos. 1, 2 and 3, all of most inferior ware, and in fragments.

A conch-shell lay with a lone skull, and similar shells were with burials or unassociated.

Burial No. 22, a skeleton closely flexed on the left side, had on the pelvic portion a beautiful pendant of slate (Fig. 82).

With a bunched burial was a graceful arrow- or lance-head of chalcedony, while a flake of chert, evidently used as a knife, lay with another bunched burial.

A skeleton closely flexed on the right, Burial No. 32, had with it : one hammer-stone ; four small masses of cherty material ; part of a lance-head or of a dagger, of chert ; five fragmentary objects of shell, chisels, etc. ; one tibia and one humerus, belonging to the deer ; three deer tibiae and one humerus, in fragments ; one astragalus of a deer ; bits of bone mainly belonging to the deer ; part of a jaw of a small mammal ; fragments of pointed implements of bone ; five entire implements wrought from leg-bones of deer, and two, each broken into two parts ; three tubes of bone, each about 1.5 inches in length.

FIG. 82.—Pendant of slate. Mound near the Pithlochascotie river. (Full size.)



Near Burial No. 33, a skeleton closely flexed on the right side, were three piercing implements wrought from cannon-bones of deer, and a number of fragments of bone, probably parts of implements.

In the southern part of the mound, with Burial No. 30, a skeleton flexed on the right side, was an inverted bowl, Vessel No. 4, oval in horizontal section, 13.8

inches by 15 inches in maximum diameter, 8.5 inches high, 6.5 inches by 7.5 inches in diameters of aperture, with in-turned rim and rude, incised decoration shown in Fig. 83. So stout was the ware that it resisted a number of blows of a spade, aimed at neighboring palmetto roots. There is a rounded perforation in the base, made after the completion of the vessel, and another in the side.



FIG. 83.—Vessel No. 4. Mound near Pithlochascotier iver. (About half size.)

On the base of the mound, as was the other, and about 6 feet east of it, inverted, with Burial No. 42, a skeleton closely flexed on the right side, was Vessel No. 5, a bowl of excellent yellow ware, 18 inches in diameter, 7.75 inches high and 13.8 inches across the opening. This vessel (Fig. 84) has red pigment interiorly and red coloring matter within two of each of the four triangles which make up the oblong spaces between the groups of parallel vertical lines of the decoration. With Burial No. 42 was also a small pendant of sedimentary rock, having a conventional bird-form, shown in two positions in Fig. 85, while a well-made pendant of metamorphic rock (Fig. 86) lay with another burial.

CERTAIN ABORIGINAL MOUNDS, CENTRAL FLORIDA W.-COAST. 431

A bunched burial had near it an ungrooved quartz crystal, and a rather rude lance-head of chert was with another bunched burial.

With the large deposit were two "celts," a conch-shell, a long pendant made from a columella of a marine univalve, and three pendants of lime-rock, much the worse for age.



FIG. 84.—Vessel No. 5. Mound near the Pithlohascotic river. (About two-fifths size.)



FIG. 85.—Pendant of sedimentary rock. Two positions. Mound near the Pithlohascotic river. (Full size.)



FIG. 86.—Pendant of metamorphic rock. Mound near the Pithlohascotic river. (Full size.)

At places throughout the mound, usually singly, was a considerable number of fragments of chert, also flakes of chert, evidently used as knives, and many cutting

tools of chert, half wrought or very rudely worked, if complete. There were also several implements made from columellæ of marine univalves. Apparently unassociated, were: one "celt" showing much wear where the handle had been; two roughly chipped cutting implements of cherty material, each about 7 inches long and each somewhat broken at the smaller end; one graceful pendant of shell; two stone pendants found separately; seven arrow- and lance-heads, of chert, some barbed and beautifully pointed; one drill of chert; and several small cutting tools of the same material; two arrowheads which, partly broken, had been rounded for use as scrapers; the lower part of a fine lance-head of chert; an implement 5 inches long, of smoothed quartz material.

In this mound were no deposits of sherds other than, possibly, two or three fragments lying together though, here and there, sherds were met with unassociated. Some were undecorated and of inferior ware; others gave evidence that vessels of excellent ware and superior decoration had been possessed by the makers of the



FIG. 87.—Selection of sherds. Mound near the Pithlochascootie river. (Half size.)

mound. Many sherds bore the ever-present check-stamp; the complicated stamp was on one sherd only. Some had a decoration of crimson pigment; others, incised and punctate designs. A selection is shown in Fig. 87. The reader will note in the right hand upper corner a sherd, handsomely decorated, where a portion of the design is carried above the rim. One interesting sherd, of excellent ware, shows the head of a bird with peculiarly shaped bill beneath which is a perforation which may be one of two made for the suspension of the vessel, or a single hole to allow the fragment to be worn as a pendant.

MOUND NEAR TARPON SPRINGS, HILLSBORO COUNTY.

This mound is referred to, incidentally, as it belonged to those of the district of which we are writing.

The mound is described by Mr. S. T. Walker (*op. cit.*, page 394 *et seq.*) under the heading of the Ormond mound on the Anclote river. Such digging as was done by Mr. Walker, after members of Mr. Ormond's family had tried their hands at it, yielded nothing of importance.

In 1895, what remained of the mound was totally demolished by the late Mr. Frank Hamilton Cushing, who reported¹ the discovery of many burials and also of a pendant of crystal, a pendant of copper and many fragments of earthenware. These fragments will be figured and described in Prof. W. H. Holmes' "The Pottery of the Eastern United States," which will be published as the Twentieth Annual Report of the Bureau of American Ethnology.

MOUND ON HOG ISLAND, HILLSBORO COUNTY.

Hog Island lies between part of St. Joseph sound and the Gulf.

The mound, on property of Mr. Henry Scherrer, living nearby, is about one mile in a northerly direction from the southern extremity of the island. It lies on low ground which is entirely surrounded by water at high tide, and seems a curious selection for a place of burial.

The mound, composed of a mixture of sand and of small marine bivalves (*Venus cancellata*), the same genus as our round clam, had been woefully dug into, centrally, and from the sides, previous to our visit, when it was completely demolished by us, with the exception of parts surrounding two trees.

Burials in this mound lay, as a rule, near the base and in graves below the base. Many skeletons, we were told, had been removed by former diggers and many others, remaining, showed great disturbance.

Thirty-three skeletons were met with by us, buried as follows:

Closely flexed on the right side,	21
Closely flexed on the left side,	7
Partly flexed on the right,	1
Closely flexed, face down,	2
Closely flexed on the back,	1
Disturbance by our diggers,	1

¹ "Proceedings of the American Philosophical Society," Vol. XXXV, No. 153, Phila., 1897.

Two of these burials had above them a skull, and a skull with a femur, respectively, aboriginal disturbances.

There was also in the mound a burial, presumably intrusive, as it was but 2 feet below the surface and was in a better condition than the other burials, although they, owing to the infiltration of lime-salts, were in a state of preservation much superior to that usually met with.

Nineteen skulls were saved from this mound, none showing cranial flattening. Three of these, showing marked pathological changes, were sent to the United States Army Medical Museum, Washington, D. C.; four are now in our Academy of Natural Sciences (Catalogue numbers 2206 to 2209, inclusive); nine probably will be added to the collection, later. Three of the nineteen skulls subsequently fell into fragments.

In the count of burials found by us, bones scattered by former diggers are not noted. In addition, we may have passed over certain burials in graves, if any lay beneath trenches put in by former diggers.

This mound, in a negative way, is about the most remarkable one in our experience for, in the parts dug down by us, not a single fragment of pottery was met with, nor was any artifact of any sort discovered, with the exception of part of a small implement, probably of coralline lime-stone. Neither was there in the mound, according to the reports of our diggers, over whom was close supervision, in addition, any unworked pebble, conch-shell, or fragment of chert. In a word, practically nothing imperishable had been placed with the dead, if we except powdered hematite, in several instances.

MOUND NEAR CLEARWATER, HILLSBORO COUNTY.

The mound, in sight from St. Joseph's sound, and but a few feet from the N. end of the bridge across Steven's creek, about 2 miles in a N. direction from Clearwater, is 75 feet across the base and 5 feet in height. Fifteen excavations in various parts of the mound strongly suggested a domiciliary character for the mound.

MOUND NEAR JOHN'S PASS, HILLSBORO COUNTY.

This mound, described by Mr. S. T. Walker (*op. cit.*, page 401 *et seq.*) lay near the SE. end of a nameless key which, extending east and west, lies just inside of John's Pass. The mound, on a low ridge, a portion of which had been dug into to make it, had sustained considerable investigation before our visit, when it was completely demolished. The diameter of the circular base was about 35 feet; the height, 2 feet 4 inches. The mound was composed of sand and of broken shells, not shell-heap material, but fragments of shells, washed up by the sea.

Although, as we have said, there had been much previous digging, a large percentage of the area of the mound was intact and afforded a good idea of what the mound and its contents had been. Burials extended more than one foot below the base, into broken shell material of the kind we have described, mixed with a little sand. In addition to disturbances by comparatively recent diggers, we noted six

skeletons, three flexed on the right side, three on the left side. Also, there was on the S. side of the mound, a great number of bones, including a large number of crania, spread along the lower part of the mound. So thickly were these bones placed, at times, that eight or ten skulls were in sight within a comparatively small space. Unfortunately, though the admixture of shell in the mound tended to preserve the bones, close packing of long-bones against crania had crushed the facial bones of most of the skulls. Twelve crania, none showing flattening, were saved from this mound, six of which are now in the Academy of Natural Sciences (Catalogue Nos. 2210 to 2215, inclusive), and six, we trust, will be added later.

With certain burials, was sand dyed with hematite but no artifacts lay with the dead, though throughout the mound, were ten or a dozen shell drinking-cups (*Fulgur perversum*), some neatly made. Curiously enough, none had the usual basal perforation.

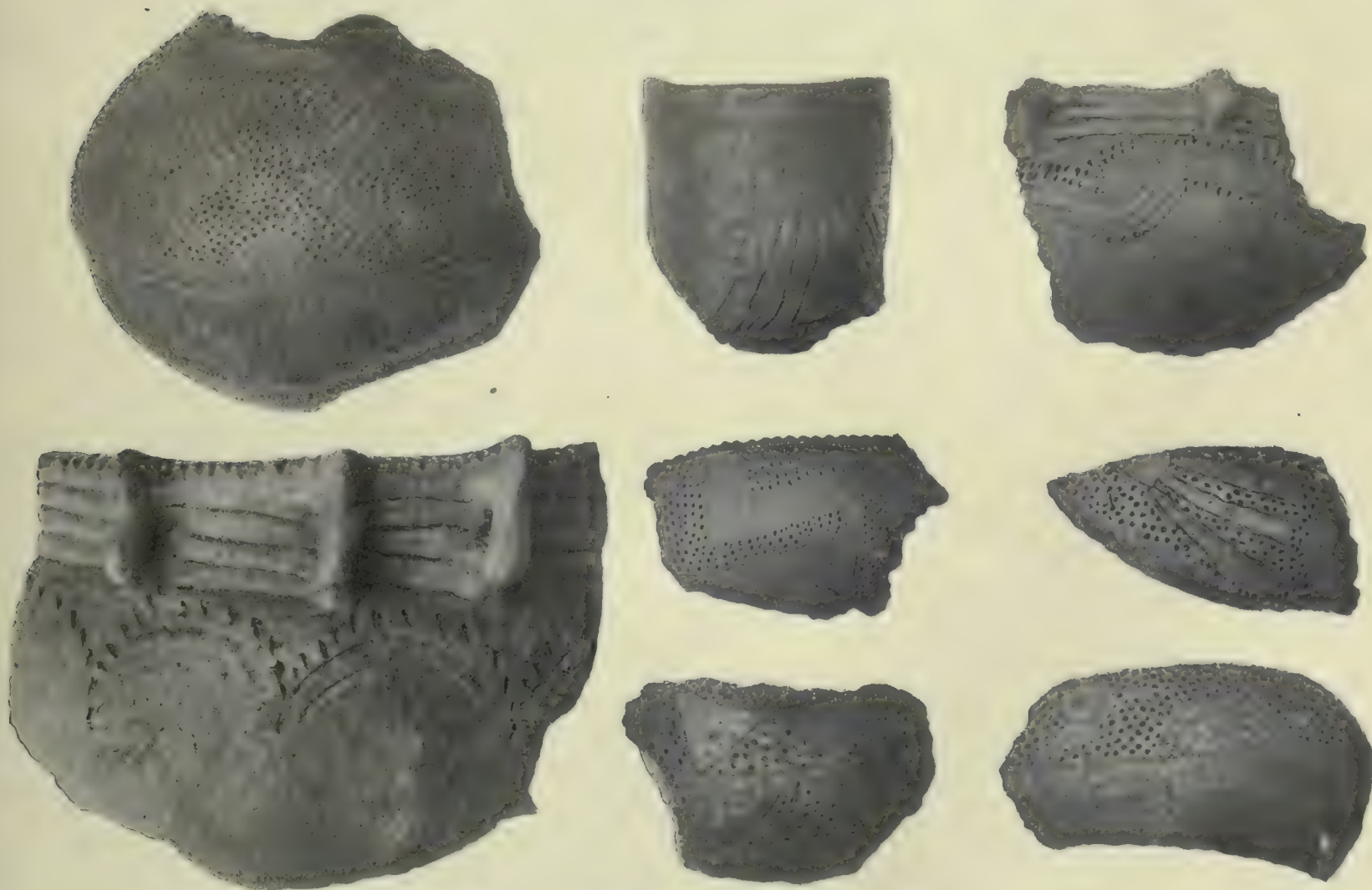


FIG. 83.—Selection of sherds. Mound near John's Pass. (Half size.)

Mr. Walker says of this mound, "The surface about the base was thickly strewn with fragments of pottery; in fact it seemed that the whole foundation of the mound was covered with broken pottery previously to the interment of any of the bodies."

There were a number of sherds in the mound, here and there, at various depths, but we saw nothing to bear out Mr. Walker's statement on the subject. These sherds, the only artifacts in the mound, except the drinking-cups, were of inferior ware and rudely decorated, when at all. The check-stamp was present in several instances, but the prevailing form of decoration was incised and punctate. A few loop-handles were found. A selection of sherds from this mound is shown in Fig. 88.

In this mound were several large fragments of shell-tempered ware, belonging to one vessel, the first we recall having met with in peninsular Florida, if we except two handsomely made bird-head handles from the Island of Marco, which had been worn as pendants, and were, doubtless, importations. Even on the Florida mainland shell-tempered ware is rarely met with until the district bordering Alabama is reached.



FIG. 89.—Plan. Mound on Long Key.

MOUND ON LONG KEY, HILLSBORO COUNTY.

Long Key lies between the Gulf and Boca Ceiga bay, having Blind Pass on the north and Passe a Grille on the south.

About midway from the extremities of the island, a strip of land makes into the bay in a SE. direction. About one-half mile from the end of this strip, in thick growth, is the mound, to which only good luck or a guide can lead one.

The mound is described by Mr. S. T. Walker (*op. cit.*, pg. 403, *et. seq.*) who also gives a plan of it, and ascribes to it the form of a turtle. In Fig. 89 we give

the plan of the mound as it seemed to us. The material is white sand; the height somewhat under 4 feet. The length is 100 feet; the maximum breadth, about 70 feet.

Three holes, each 12 feet square, and three others, each 6 feet square, were dug by us. In several places was sand tinged with hematite and one skeleton closely flexed on the left side, about two feet from the surface, was met with. This burial had a recent appearance and impressed us as being intrusive.

No artifact of any sort was found.

For accounts of additional, but unimportant mounds in this district just north of Tampa bay, see our "Antiquities of the Florida West-Coast," Journal of the Academy of Natural Sciences of Philadelphia, Vol. XI.

In the district of which this paper treats was no new form of burial.

Calcined human bones were found upon several occasions, but these were probably connected with other burials as is usually the case when calcined remains are found in peninsular Florida.

No urn-burials were met with, nor had our previous experience in the peninsula led us to anticipate their discovery. Incidentally, the southeasternmost urn-burial we have found in Florida was on Marsh Island, Ocklockonee bay, which belongs to the mainland portion of Florida (see outline map).

Cranial flattening, which Bernard Romans says was practised by the Choctaws, was not seen by us on any skull in the mounds of the central Florida west-coast, though the reader of our reports on the northwest coast will recall that the custom was extensively practised there.

The custom to inter general deposits of earthenware in blackened sand did not obtain along the central west-coast, and the life-form in earthenware was not met with,¹ save in the case of one human effigy-vessel and a very highly conventionalized life-form consisting of six protuberances representing head, tail and four legs. Bird-head handles, however, were found. Loop-shaped handles were met with occasionally and seemingly show the influence of regions farther north.

Ceremonial vessels having, in the body, a number of large holes made before the firing of the clay, were not found along the central west-coast, though, as the reader may recall, they are present in numbers in the mounds of the northwest coast of Florida.

The small check-stamp was everywhere met with, and the complicated stamp was found once as far south as the Pithlochascotie river, which is considerably farther south than it was found by us on the St. Johns river. The complicated stamp, however, varies but slightly in pattern along the central west-coast where but little is met with that does not consist of combinations of concentric circles.

While, as we have stated, the ware, as a rule, was inferior, yet excellent ware with artistic decoration, punctate and incised, was in the possession of the aborigines

¹ Life forms in earthenware are not met with, practically, south of the Warrior river (see outline map).

of the west-coast. Gritty ware and shell-tempered ware, as might have been expected, practically were absent.

The finding of solid copper, a fish-spear along the Suwannee river, and pendants of solid copper in the Crystal river mound, came in the nature of a surprise. Though we had found several large and heavy beads of solid copper along the Ocklawaha river and near the Lakes from which the river runs, and a lance-head of thin copper near the mouth of the St. Johns, yet sheet-copper preponderated to such an extent among our discoveries of copper in Florida, that we had come to regard the territory as being so far distant from the source of aboriginal supply that the material would be used there hardly otherwise than as a veneer. It seems, however, that some solid copper was in use there, and doubtless more will be found as mound-work is continued in the State.

CERTAIN
ABORIGINAL MOUNDS
OF THE
APALACHICOLA RIVER.

BY
CLARENCE B. MOORE.

REPRINT FROM THE JOURNAL OF THE ACADEMY OF NATURAL
SCIENCES OF PHILADELPHIA, VOLUME XII.
PHILADELPHIA, 1903.

PHILADELPHIA :
P. C. STOCKHAUSEN,
1903.



MAP OF THE APALACHICOLA RIVER
 Scale in miles
 0 1 2 3 4 5 10
 1903
 x indicates mound

CERTAIN ABORIGINAL MOUNDS OF THE APALACHICOLA RIVER.

BY CLARENCE B. MOORE.

The Apalachicola river, formed by the union of the Chattahoochee and the Flint, at the boundary between Georgia and Florida, keeps a southward course through the Florida mainland and empties into Apalachicola bay, a part of the Gulf of Mexico. The length of the river is about 70 miles in a straight line, and about 105 miles, following the course of the stream.

What we have said as to the reproduction of vessels and as to the preparation of the report, at the beginning of the paper on the mounds of the Florida west-coast, applies equally to this report.

Mounds Investigated.

- Mound on Brickyard creek, Apalachicola river.
- Mound near Burgess creek, Chipola river.
- Mound near Isabel Landing, Chipola river.
- Mound near Chipola Cut-off, Chipola river.
- Mound near Estiffanulga, Apalachicola river.
- Mound near Blountstown, Apalachicola river.
- Mound in Davis Field, Apalachicola river.
- Yon mound, Apalachicola river.
- Mound below Bristol, Apalachicola river.
- Mound at Bristol, Apalachicola river.
- Mound near Atkins' Landing, Apalachicola river.
- Mounds near Aspalaga, Apalachicola river (3).
- Mound near Sampson's Landing, Apalachicola river.
- Mounds at Chattahoochee Landing, Apalachicola river (7).

In addition to these mounds, we investigated, the previous season, at and near the town of Apalachicola, eleven mounds, full accounts of which are given in our "Certain Aboriginal Remains of the Northwest Florida Coast," Part II.

MOUND ON BRICKYARD CREEK, FRANKLIN COUNTY.

This mound, immediately on the eastern bank of Brickyard creek, about one mile from its junction with the Apalachicola river (see map), on property of Mr. Frank Massina, of Apalachicola, had been dug through and through, previous to our visit.

The mound, probably, had been about 4 feet in height and 35 feet across the circular base, approximately. What was left of the mound was completely demolished by us.

One human femur, badly decayed, one molar and some fragments of bone too small for identification were the only signs of burial met with by us in the mound, though fragmentary human bones lay upon the surface.

There were present, here and there in the mound: two arrow-heads or knives, of chert; two piercing implements of bone; three columellæ of marine univalves, pointed as for use, found together; two pebble-hammers; flakes of chert; a triangular bit of chert, chipped to a cutting edge on one side; a fragment of ferruginous sandstone; mica; an oblong piece of silicified wood, which had seen use as a hone.

Owing to the great amount of previous digging, data as to position of objects in the mound were hard to obtain. However, sherds and piles of fragments of different vessels, placed together, were noted in undisturbed



FIG. 91.—Sherd. Mound on Brickyard creek. (Half size.)

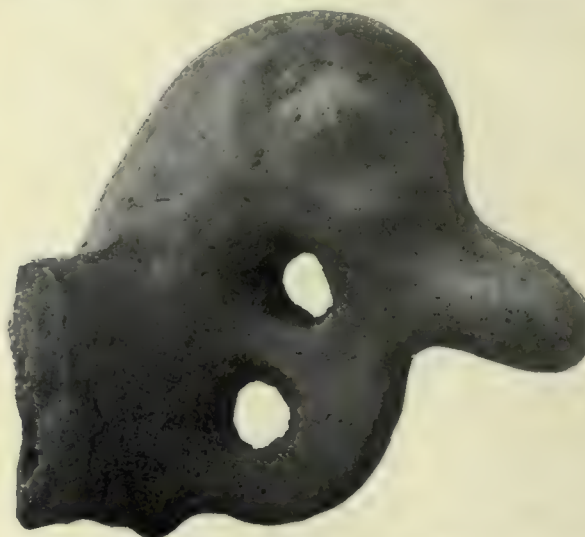


FIG. 92.—Earthenware handle of vessel. Mound on Brickyard creek. (Full size.)

sand in the eastern part of the mound, as we had so often found to be the case in mounds of the northwest Florida coast.

There were also in the eastern part of the mound nine vessels of inferior ware, some badly broken, all showing the basal perforation where their condition allowed determination.

Vessel No. 2.—In a sort of pit, in the SE. margin, was an unassociated bowl of about one quart capacity, having an incised scroll-decoration, with punctate markings, in addition.

Vessel No. 4.—A quadrilateral vessel undecorated save for an incised line around the rim.

Vessel No. 5.—A vessel probably representing a section of a gourd cut longitudinally.

Vessel No. 6.—A bowl in fragments, with notches around the rim and four very rude animal heads.

Vessel No. 7.—A vessel badly crushed, having a broad band of complicated stamp-decoration around the neck.

Vessel No. 8.—A bowl of heavy ware, badly broken, covered with crimson pigment, inside and out.

Vessel No. 9.—A quadrilateral vessel with rounded corners and convex base, having for decoration beneath the rim a broken line with an incised line below it.

Among the sherds, the check-stamp was represented as was the complicated stamp, one pattern of which is shown in Fig 91.

Much ware bore incised and punctate decoration of familiar patterns. There were found also a handle representing the head of a duck (Fig. 92) and a small handle, a bird head in profile, having a perforation in place of eyes.

MOUND NEAR BURGESS LANDING, BURGESS CREEK, CALHOUN COUNTY.

Chipola river is a tributary of the Apalachicola.

Burgess creek enters the Chipola river on the west side, about eight miles up. Burgess landing, on the west side of the creek, is about one mile above the junction of the creek with the river. The mound, on property of Mr. S. S. Alderman, of Wewahitchka, Florida, was about 100 yards from the landing, in full view from the road.

The mound, much spread by previous digging here and there, had also a narrow trench entirely through it in an eastwardly and westwardly direction. The height of the mound at the time of our investigation, was 4 feet 9 inches; its diameter, 48 feet. Trenches were run in from all sides, a distance of about 3 feet when it became evident that the mound proper, with a diameter of 42 feet, had been reached. The mound, of clayey sand, very tenacious in places, was entirely demolished by us, with the exception of small portions around several trees.

Human remains were not met with until the digging had advanced well into the body of the mound, when, at different points, and especially, near the center, fragments of single skulls and bits of long-bones were found. Once, fragments of a skull lay with the remains of one radius and of one femur. In all, human remains lay in twelve places, but so near together, at times, that some of these may have belonged to the same burial.

No artifacts lay with the bones, but scattered through the mound were: two small "celts" of polished rock, at one place and one at another; four hones of ferruginous sandstone; mica, in two places; a rude arrowhead of chert.

All in the eastern side of the mound, beginning a certain distance in from the margin, were deposits of sherds, often parts of a number of vessels together, and entire vessels, broken and whole. Altogether about two dozen vessels were met with, all of inferior ware, none showing any novelty as to form or decoration. The

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majority were undecorated, several had a faint check-stamp. The complicated stamp, faintly impressed, was on one sherd and on one vessel. Rude, punctate decoration was shown on two or three vessels, and a somewhat better executed line and punctate design was on part of a vessel found in three pieces.



FIG. 93.—Vessel No. 5. Mound near Burgess Landing. (Three-quarters size.)

Thirteen or fourteen vessels, mostly pots, some badly crushed, lay in contact one with another.

In cases where the condition of the vessel allowed determination, the hole knocked in the base to "kill" the pot was found to be present.

But two vessels merit particular description.

Vessel No. 2.—A vessel of about three pints' capacity, of elliptical section, with a projection on two opposite sides, perhaps a conventional head and tail, undecorated, save for crimson pigment on the exterior.

Vessel No. 5.—This vessel, found in fragments and since cemented together, with restoration of certain missing parts, including where the tail should be, has for handle the head of a wood-duck (Fig. 93). Upon the vessel is a certain amount of crimson pigment. The base has the usual mortuary mutilation made after the baking of the clay.

MOUND NEAR ISABEL LANDING, CHIPOLA RIVER, CALHOUN COUNTY.

This mound, about 100 yards west of the landing, on property of Mr. L. M. Ware, of St. Andrews, Florida, had been literally honey-combed by holes and trenches. At the time it was dug down by us, with the exception of parts around certain trees, it had a height of 4 feet 7 inches; a basal diameter of 48 feet.

Though much of the mound still remained intact, especially the lower portion, human remains were found by us but twice: a single skull badly decayed, 3 feet down in the SE. part of the mound; a few bones, probably disturbed by a former trench.

In the eastern part of the mound, near the margin, were a few undecorated sherds and several with the small check-stamp. Farther, in the same direction, here and there, stopping short of the center, were five or six vessels of ordinary type and inferior ware, undecorated, several with parts missing. Among these was a pot with a complicated stamp decoration consisting of squares made up of parallel lines, a pattern found by us on the northwest coast. This vessel had two perforations, one on either side of an early fracture, to permit a cord or sinew to bind the parts together.

All vessels in this mound, of which sufficient remained to allow a determination, had the mortuary perforation knocked through after baking.

There were also in the mound: a sherd with the complicated stamp; one with rude punctate decoration; mica; a flake of chert; a quartz pebble.

MOUND NEAR CHIPOLA CUT-OFF, CALHOUN COUNTY.

The Apalachicola and Chipola rivers, some miles above their junction, are united by a sort of canal which is called the Chipola Cut-off.

In a swamp, about 40 yards from the bank, on the northern side, near the eastern end of the cut-off, was a mound on property under control of Mr. F. B. Bell, of Wewahitchka, Florida. Between the mound and the water is a considerable excavation whence the material for the mound was taken.

The mound, which had been dug into in almost every direction, had, at the time of our visit, a height of 5 feet 3 inches. The base, circular in outline, was 45 feet in diameter.

The mound, which was totally dug down by us, was composed of brown sand with a certain admixture of clay. The sand in the eastern and southern parts of the mound, where most of the pottery was found, was of a deeper brown than elsewhere. Below the mound was sand seemingly undisturbed, yellow, rather coarse, without admixture of clay.

Burials were noted at forty-two points, and were met with marginally, and throughout the mound to the center, the greater number being in the southeastern, southern and southwestern parts, where the principal deposit of pottery was found, though the pottery was seldom directly associated with burials.

The forms of burial were similar to the majority of those found along the north-west Florida coast, consisting of the flexed skeleton, the bunched burial and the lone skull. The condition of the bones was fragmentary through decay, crania being represented by one calvarium. Upon this no artificial flattening was apparent.

With the burials were a number of artifacts, including several vessels of earthenware, one immediately over a skull; chisels wrought from lips of marine univalves; shell beads, large and small; fifty small shells (*Marginella*) perforated for use as beads; many small, round masses of hematite, perhaps used in a rattle; a number of "celts" of various rocks; two hones of ferruginous sandstone; a number of small, sharp flakes of chert, together; one glass bead from the body of the mound; several columellæ of marine univalves, with pointed ends.



FIG. 94.—Fish-hook of bone. Mound near Chipola Cut-off. (Full size.)

With Burial No. 15, a bunch, were: two large columellæ, each pointed at one end and each having a portion of the shell remaining on the upper part, doubtless to serve as a handle; two shell hair-pins; mussel-shells; one stone "celt;" shells used as beads (*Marginella*); two shell chisels made from lips of marine univalves; two fine shell gouges wrought from the body whorl of *Fulgur*; two bones of a lower animal, probably ulnæ of deer, badly decayed, with the proximal articular parts present, and the distal ends, which, seemingly, had been worked to a point, missing; two tibiæ of the deer, with both ends cut off, doubtless handles; a number of fragmentary implements of bone. With these was a fish-hook of bone (Fig. 94), 3.2 inches in length, having two features not before met with by us in our mound work. The lower end has a part of the articular surface of the bone remaining, and the hook has a well-defined barb. Barbed fish-hooks of aboriginal make are

met with infrequently enough anywhere, but in the southern United States this barbed hook must be almost unique.

Another fish-hook, probably similar to this one, came from elsewhere in the mound. Unfortunately, the point of the hook was broken in removal, and the most careful search failed to recover it.



FIG. 95.—Object of bone, probably fish-hook. Mound near Chipola Cut-off. (Full size.)

In Fig. 95 is shown an implement of bone, probably a fish-hook of another variety, found with the fish-hook first described.

This swamp-mound, under water in times of freshet, was somewhat above water-level at the period of our visit. Burial No. 19, consisting of a few fragments of badly decayed bone, lay in a distinctly marked pit, below the base, where the dark-brown, clayey sand of that part of the mound extended into the coarse, yellow sand considerably below the water level. With the bones, and extracted with great difficulty, owing to the rapid filling of the pit with water, were: two vessels of earthenware, one badly broken; a disc of sheet-brass, about 4.5 inches in diameter, without decoration, having two holes for suspension, about .75 of an inch apart, near the margin; a disc of sheet-brass, nearly 8 inches in diameter, also undecorated, having a small hole in the center for attachment.

This disc, which was somewhat broken in removal, still showed traces of fiber in which it had been wrapped, as did the other disc. Also with these objects were three glass beads; doubtless many others were left at the bottom of the pit, since the removal of objects so small, when one is working at arm's-length under water, is a difficult matter.

Burial No. 25, a few bones, lay also in a pit, under water, below the base of the mound. With them were shell beads and a stone "celt."

Burial No. 30, two skulls, had with it a *Fulgur perversum*, 15.2 inches in length, the largest shell of this variety of which we have been able to learn.

With Burial No. 32, bones which fell with caved sand, was a circular ornament of sheet-brass, 4.5 inches in diameter, slightly concavo-convex, without decoration, with a central perforation, somewhat broken, bearing traces of fiber, like the others.

Burial No. 41, a bunch, lay in a pit with Vessels Nos. 48 and 49.

Burial No. 42, the skull of a child, had with it fragments of an undecorated disc of sheet-brass.

Unassociated were: three pebbles; one sandstone hone; several flakes of chert, with cutting edge on one side. There were also many objects of shell, such as we have described as present with burials. These objects, in all probability, though not found with bones, had been with them before disturbance by recent diggers.

Twenty-four "celts" of various rocks, from 2.6 inches to 9.8 inches in length, many with ends gracefully tapering opposite the cutting edge, were present in the mound, some with burials as we have stated, many alone. Certain of these lay in the very margin of the mound and evidently had been placed there ceremonially, since burials were not met with until farther in.

While sounding with an iron rod in and around the burial pits of which we have spoken, a member of the party, with no particular reason, drove the rod through the bright yellow sand which, as we have said, was seemingly undisturbed and underlay the base of the mound. Greatly to our surprise, about 2.5 feet below the level uncovered by our men, which was supposed to be the base of the mound, a solid object was encountered. After much labor, including repeated use of a portable pump, this object was found to be a beautiful chisel or hatchet, of trap rock, 9 inches long and about 3.5 inches in maximum breadth with a maximum thickness of .8 of an inch. This implement, flat on one side, slightly convex on the other, had a well-made cutting edge at the broad end. With this implement were two ordinary "celts." We are at a loss to explain the presence of these objects where they were found. We are loth to believe in the presence of burials beneath the base, unnoticed by us, as a careful lookout was kept by the diggers who had been with us mostly for long periods, and by those having the work in charge. The regular burial-pits found by us, as we have said, were filled with a material differing from the sand into which they extended. Possibly this deposit was a ceremonial one, or a cache made before the building of the mound.

At the very start, all around the margin, but mainly in the S. and SE. parts of the mound, sherds were met with, followed by considerable deposits of various parts of broken vessels, in masses, in no case, however, having a full complement of any one vessel. Near these, occasionally, were single vessels, and later, numbers of vessels together, extending in to the center of the mound—in fact, the same ceremonial deposit of earthenware with which those who have looked over our reports of the mounds of the northwest Florida coast, must be familiar. In this case, however, vessels, to a certain extent, were found with burials, and the ceremonial deposit, in a certain degree, was met with in parts of the mound other than those we have named.

The ware from this mound is, as a rule, inferior, though some is of excellent quality, including certain bowls of black, polished ware, the specialty of Mississippi, which ware we had found before no farther eastward than Choctawhatchee bay (see outline map) where it was, as in the Chipola mound, represented by a few examples, perhaps importations.

Curiously enough, also, other ware from the mound, besides that we have mentioned, recalls ware belonging to more western districts in composition and in finish, while the decoration, largely made up of the scroll, resembles that described in the first part of our report on the mounds of the northwest Florida coast, rather than that of the second part, in which the Apalachicola coast-region is included.

There fell to our portion as gleaners, after the wide-spread, previous digging in this mound, fifty-one vessels, including whole vessels, vessels with but small parts missing, and others, in fragments, where the full complement or almost the complement of the vessel is present.

We shall describe in detail the most notable of these vessels. All, unless otherwise described, have the usual basal mutilation made before the baking of the clay.

Vessel No. 6.—A small bowl notched around the margin, with incised and punctate decoration, as shown in Fig. 96.

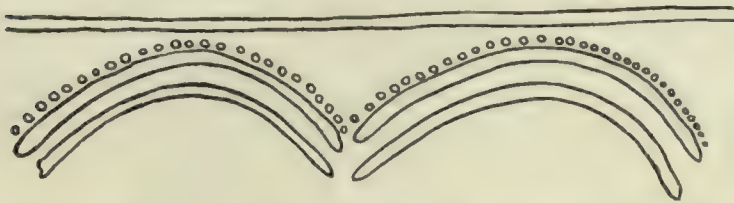


FIG. 96.—Vessel No. 6. Decoration. Mound near Chipola Cut-off. (Full size.)

Vessel No. 7.—A bowl of about one quart capacity, with incised and punctate decoration on the sides and base, shown diagrammatically in Fig. 97.

Vessel No. 8.—A small bowl of inferior ware, oval in section, with a rudely executed bird-head on one side and a rudimentary, conventional tail on the other (Fig. 98). The decoration, incised and punctate, representing wings in part, is shown diagrammatically in Fig. 99, where it has been found impossible to follow an exact scale, owing to the curvature of the base.

Vessel No. 10.—A five-pointed dish of yellow ware, with incised and punctate decoration (Fig. 100).

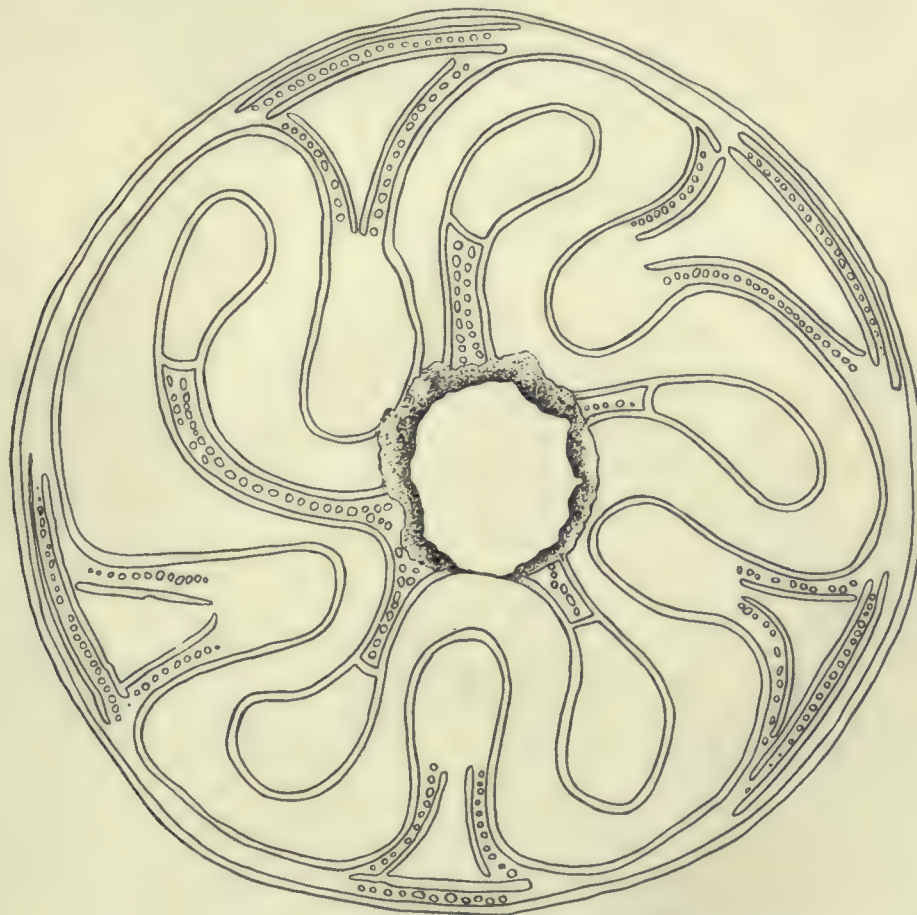


FIG. 97.—Vessel No. 7. Decoration. Mound near Chipola Cut-off. (Half size.)

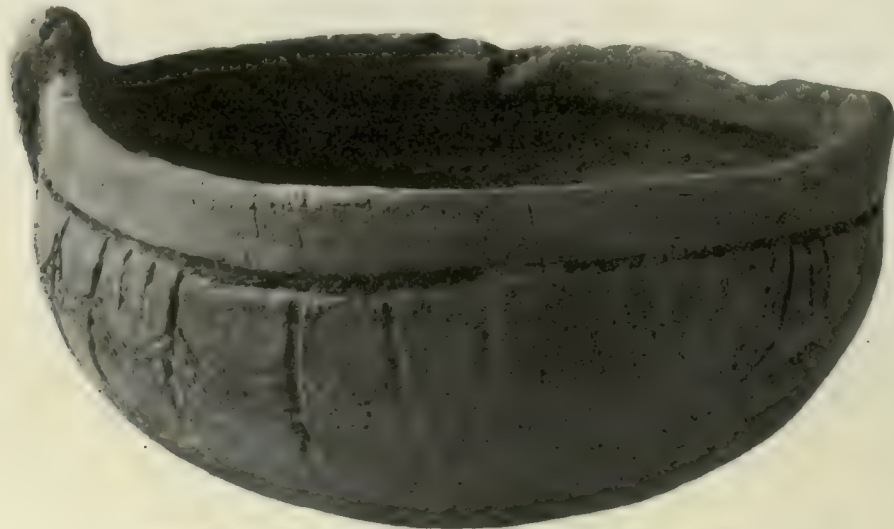


FIG. 98.—Vessel No. 8. Mound near Chipola Cut-off. (Full size.)

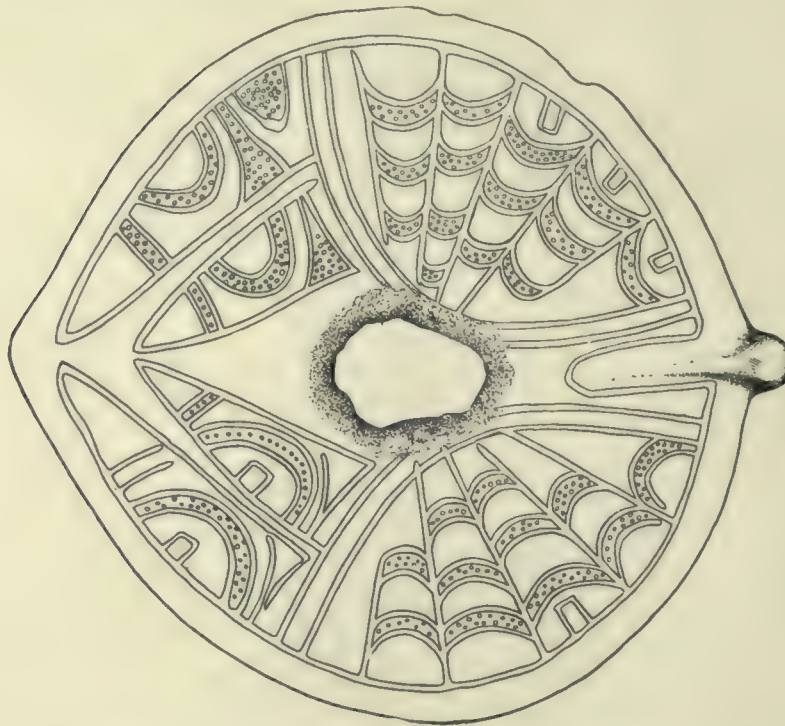


FIG. 99.—Vessel No. 8. Decoration. Mound near Chipola Cut-off. (Not exactly on scale.)

Vessel No. 12.—A bowl of about four quarts' capacity, with notches around the margin, having an incised and punctate design six times repeated (Fig. 101).

Vessel No. 13.—Has for decoration upright, parallel lines between two encircling, parallel lines.

Vessel No. 14.—A bowl of about five pints' capacity, of inferior ware, having a

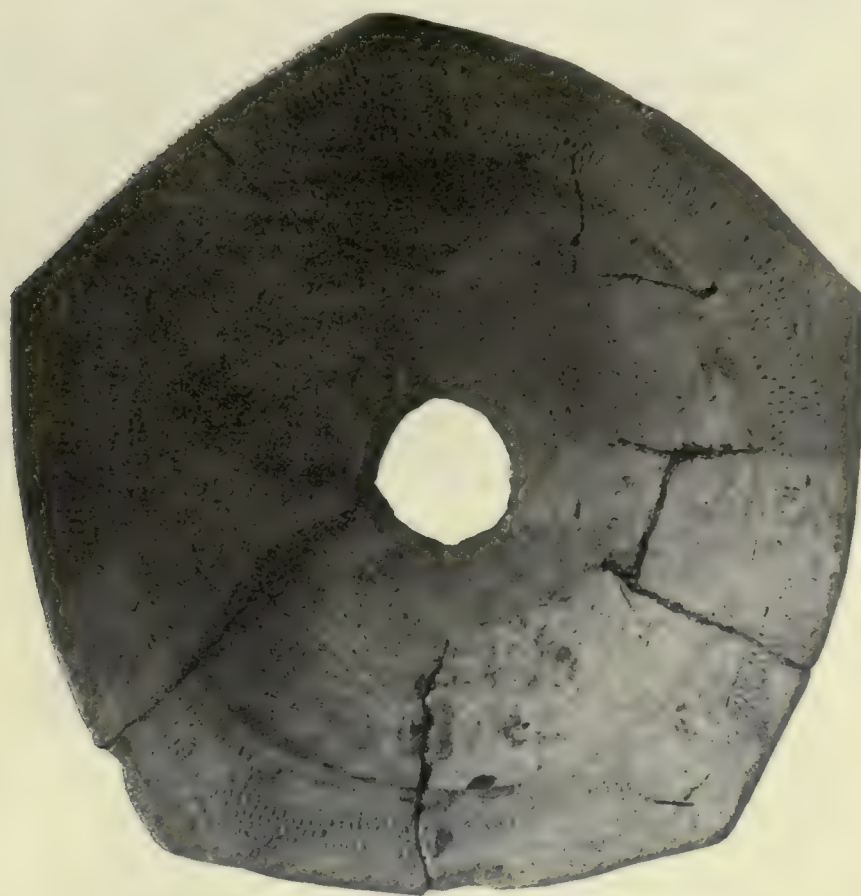


FIG. 100.—Vessel No. 10. Mound near Chipola Cut-off. (Half size.)



FIG. 101.—Vessel No. 12. Mound near Chipola Cut-off. (About three-quarters size.)

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scalloped margin. On the seven apices of the scallops have been an equal number of small, rude animal-heads, all but one of which are missing.

Vessel No. 15.—A vase of yellow ware (Fig. 102), with incised and punctate decoration shown in diagram (Fig. 103).

Vessel No. 16.—A dipper representing a section of a gourd. There is rude, incised decoration in which the scroll figures.

Vessel No. 20.—This interesting, mortuary vessel, 13.25 inches in height, 8.75 inches in maximum diameter (Fig. 104), with upright bird-head handle, was not represented in the mound by its full complement of parts. Such portions as were missing have been restored, but in no case has any opening been introduced, unless



FIG. 102.—Vessel No. 15. Mound near Chipola Cut-off. (About five-sixths size.)

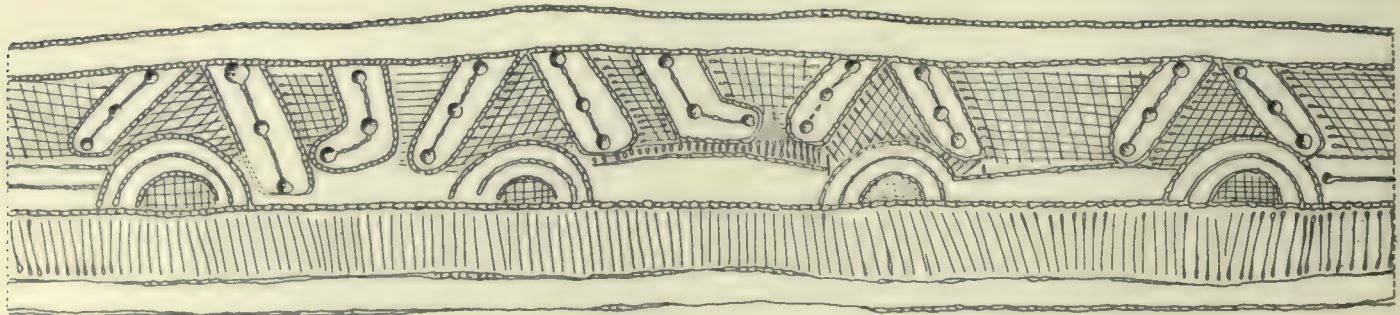


FIG. 103.—Vessel No. 15. Decoration. Mound near Chipola Cut-off. (Half size.)

its former presence was clearly indicated by marginal parts. Nearly the entire base has been broken out.

Vessel No. 21.—A water-bottle of coarse ware, with uniform incised and punctate decoration, in which the partly interlocked scroll is prominent (Fig. 105).

Vessel No. 22.—A handsome dipper, modelled after a section of a gourd, of

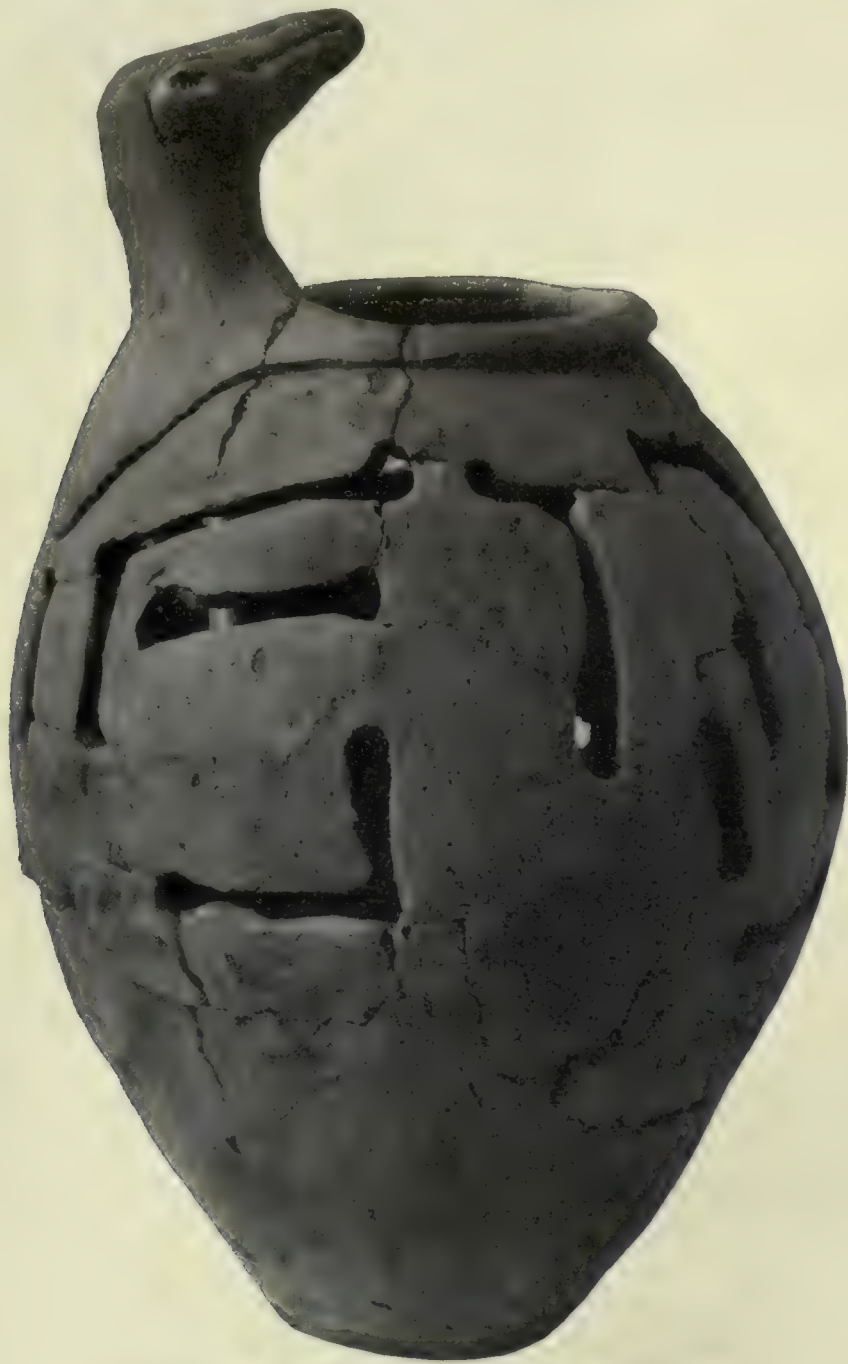


FIG. 104.—Vessel No. 20. Mound near Chipola Cut-off. (Half size.)



FIG. 105.—Vessel No. 21. Mound near Chipola Cut-off. (About four-fifths size.)



FIG. 106.—Vessel No. 22. Mound near Chipola Cut-off. (Five-sixths size.)



FIG. 107.—Vessel No. 22. Decoration. Mound near Chipola Cut-off. (Not exactly on scale.)



FIG. 108.—Vessel No. 24. Mound near Chipola Cut-off. (About two-fifths size.)

black, polished ware, recalling that of Mississippi (Fig. 106), with the entire body and base covered with incised decoration in which the scroll is prominent, shown diagrammatically in Fig. 107. At the end of the handle is a small hole for suspension. The basal perforation is absent.

Vessel No. 24.—A bowl 7.5 inches high and 12.8 inches in maximum diameter, with a uniform decoration (Fig. 108).



FIG. 109.—Vessel No. 26. Mound near Chipola Cut-off. (Four-sevenths size.)

Vessel No. 26.—This vessel, of heavy but coarse ware (Fig. 109), notched around the rim, has for decoration incised crosses on two opposite sides and incised, partly interlocked scrolls on the other two. Other decoration, seemingly punctate, proves, on examination, to have been done with a stamp. One-half the decoration, almost a repetition of the other half, is shown diagrammatically in Fig. 110.

Vessel No. 28.—A compartment vessel originally consisting of a square com-

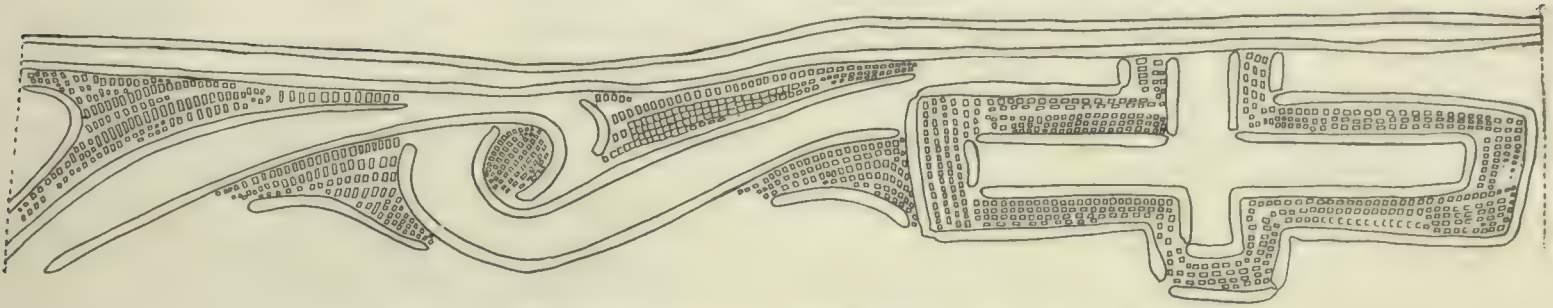


FIG. 110.—Vessel-No. 26. Decoration. Mound near Chipola Cut-off. (Half size.)



FIG. 111.—Vessel No. 28. Mound near Chipola Cut-off. (About three-fourths size.)



FIG. 112.—Vessel No. 29. Mound near Chipola Cut-off. (Full size.)

partment with round ones on three sides. One of these, missing when the vessel was found, has been restored (Fig. 111).

Vessel No. 29.—This diminutive, imperforate vessel, with semi-globular body and upright neck slightly expanding, having small holes on opposite sides for suspension, is but 2.2 inches in height (Fig. 112). The incised decoration, shown diagrammatically in Fig. 113, evidently represents two eyes and a nose on one side and probably hair on the other. The decoration around the neck of the vessel is not so readily determined.

Vessel No. 32.—An imperforate vessel of about two quarts' capacity, notched around the

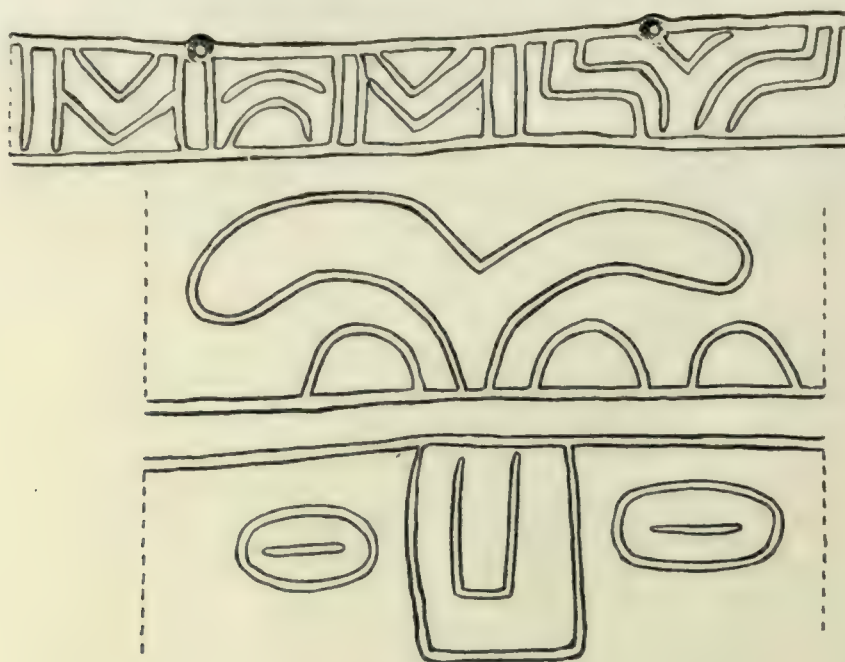


FIG. 113.—Vessel No. 29. Decoration. Mound near Chipola Cut-off. (Full size.)



FIG. 114.—Vessel No. 32. Mound near Chipola Cut-off. (About three-fourths size.)

rim, which has, in addition, four upright protuberances, probably rudimentary animal heads (Fig. 114).

Vessel No. 33.—This vessel has notches around the rim and an incised decoration of animal paws and partly interlocked scrolls below (Fig. 115).

Vessel No. 34.—A bowl with incised decoration shown in Fig. 116.

Vessel No. 35.—This vessel, with rather rudely incised decoration, is shown in Fig. 117.

Vessel No. 36.—An imperforate bowl of polished, black ware, with a small bird-head at one side and the conventional tail at the other (Fig. 118). The incised decoration is shown diagrammatically in Fig. 119.

Vessel No. 37.—A broad-mouthed, imperforate water-bottle of dark ware seem-



FIG. 115.—Vessel No. 33. Mound near Chipola Cut-off. (About five-sixths size.)



FIG. 116.—Vessel No. 34. Mound near Chipola Cut-off. (About two-thirds size.)



FIG. 117.—Vessel No. 35. Mound near Chipola Cut-off. (About two-thirds size.)



FIG. 118.—Vessel No. 36. Mound near Chipola Cut-off. (Full size.)



FIG. 119.—Vessel No. 36. Decoration. Mound near Chipola Cut-off. (Not exactly on scale.)

ingly tempered with pounded shell, in every way resembling a type found much farther to the westward.

Vessel No. 38.—A vessel of heavy ware, lenticular in section, undecorated save for one encircling, incised line below the rim.

Vessel No. 41.—A pot with complicated stamp-decoration (Fig. 120).

Vessel No. 42.—A small bowl with a complicated stamp faintly impressed.

Vessel No. 47.—A jar with a complicated stamp-decoration around the neck.

Vessel No. 49.—A vessel with incised decoration of a pattern frequently encountered in this mound (Fig. 121).



FIG. 120.—Vessel No. 41. Mound near Chipola Cut-off. (Five-sixths size.)

Among the masses of fragments in the margin of the mound were many large portions of bowls, four of which are shown in Figs. 122, 123, 124, 125.

In Fig. 126 is shown part of a bowl with the head of a fish in profile.

In Fig. 127 is shown a part of a vessel with the neck divided into two parts before joining the body, a type not met with by us before in Florida, but well-known elsewhere, including Missouri, Tennessee and Peru.

Many loop-shaped handles were present in the mound and a considerable number of handles representing heads of quadrupeds and of birds. A selection of these is shown in Fig. 128.

Three stopper-shaped objects of earthenware came from this mound, one with a central depression in the top, and an encircling line of impressions made by a triangular point, around the margin (Fig. 129).



FIG. 121.—Vessel No. 49. Mound near Chipola Cut-off. (Five-sixths size.)



FIG. 122.—Sherd. Mound near Chipola Cut-off. (Half size.)

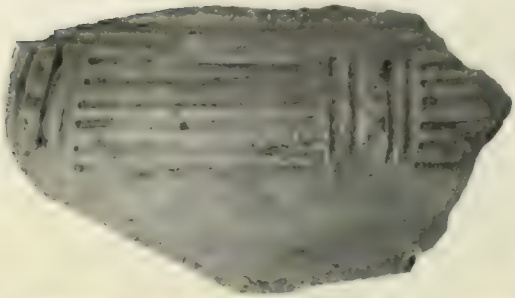


FIG. 123.—Sherd. Mound near Chipola Cut-off. (Half size.)



FIG. 125.—Sherd. Mound near Chipola Cut-off. (Half size.)



FIG. 124.—Sherd. Mound near Chipola Cut-off.
(One-third size.)



FIG. 126.—Mound near Chipola Cut-off. (Full size.)



FIG. 127.—Sherd. Mound near Chipola Cut-off. (Full size.)



FIG. 128.—Handles of earthenware vessels. Mound near Chipola Cut-off. (Full size.)

This mound was distinctly a post-Columbian one. Glass came from below the base, and brass was met with in it in three different places. Presumably, previous diggers had removed other objects of European provenance. The reader is urged



FIG. 129.—Stopper-shaped object of earthenware. Mound near Chipola Cut-off. (Full size.)

to contrast this mound with that near the great shell-heap on Crystal river, described in the paper preceding this, where, among hundreds of objects, nothing indicating a European origin was found. In that mound the copper found was native copper, which, by analysis, can readily be distinguished from the impure results of the smelting processes formerly in vogue in Europe, by which copper was recovered from arsenical, sulphide ores. Much of the so-called sheet-copper traded with aborigines by Europeans is in reality brass. If any repoussé or open-work designs, such as are found on native copper in many of the larger mounds which contain no objects admittedly of European provenance, have

been found on either sheet-brass or on sheet-copper of the impure kind furnished by Europeans, it has eluded our most careful inquiries.

MOUND NEAR ESTIFFANULGA, APALACHICOLA RIVER, LIBERTY COUNTY.

This mound, in pine woods, about one mile in a NE. direction from Estiffanulga, on property of Hon. Thomas Johnson, resident near that place, had been dug into in but a very superficial way prior to our visit. Its height was 3 feet; its basal diameter, 38 feet. The mound, composed of yellow, clayey sand, was totally demolished by us, with the exception of small portions around certain trees.

Human remains were met with but once, 4 feet down, in the center of the mound, in white sand with intermingling of bits of charcoal. The burial consisted of decaying remnants of a lower jaw, two femurs, one tibia.

In the southwestern slope was a rather graceful, spheroidal vessel of fairly good ware, undecorated, with a thickening of rim which projects slightly outward. The usual basal perforation is present.

In the eastern margin was a bowl with perforate base, bearing a small check-stamp.

There were several fragments of undecorated vessels and undecorated vessels in fragments, about the mound, also one sherd with a complicated stamp-decoration.

Separately, here and there in the mound, were three graceful "celts" of various rocks, and another "celt" which, seemingly, had been used to smooth or to polish

with, as a surface about .75 of an inch in breadth was present where the cutting edge had been.

There were also in the mound three arrowheads or knives, of chert, one somewhat broken, and one large, round pebble.

MOUND NEAR BLOUNTSTOWN, APALACHICOLA RIVER, CALHOUN COUNTY.

About one mile in a NE. direction from Blountstown Landing, a short distance in from the river, is a mound whose southeastern side, facing the water, is on the edge of a terrace along which the river runs in time of flood (see plan, Fig: 130). Much of this side of the mound has been eaten away by freshets, leaving it almost perpendicular.

The mound, on property of Mr. George W. I. Landau, of Patterson, N. J., does not owe its irregularity of shape entirely to the action of the river. The summit plateau slopes gently down from the side bordering the water, and has a maximum height of 19.5 feet, or 2 feet more than the opposite side. On the plateau are the remains of a live-oak, part of which has fallen through decay. The upright portion, 5 feet from the ground, is 16 feet in circumference.

On the side farthest from the water is a small, graded way reaching from the level ground to the summit plateau.

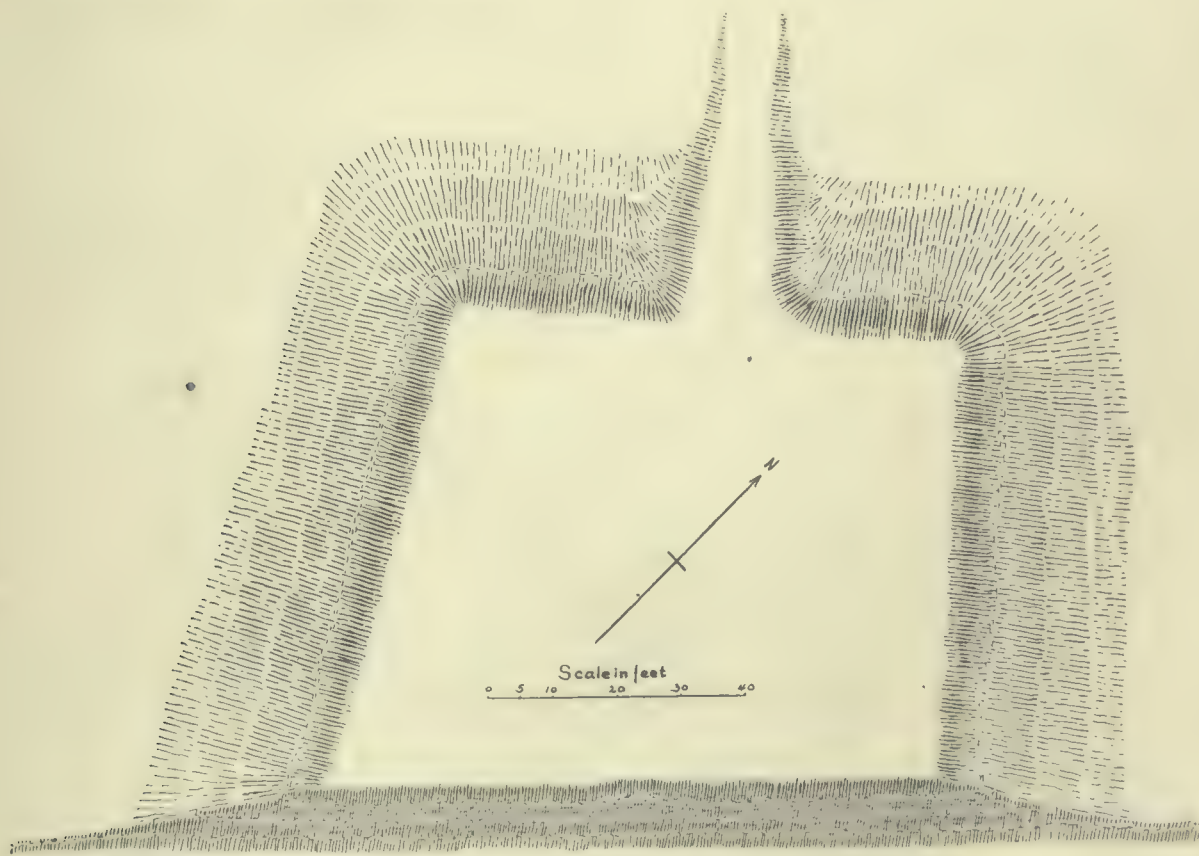


FIG. 130.—Plan of mound near Blountstown.

When our representative located this mound, previous to our visit, through some error the name of the rightful owner was not obtained, and, at the time of our visit, on account of the owner, in his absence, having a watchful representative on the spot, we were unable to investigate. Full permission to dig reached us after our departure. However, the mound was doubtless domiciliary, as indicated by its shape and by the section laid bare by the river, which showed neither bone nor artifact.

MOUND IN DAVIS' FIELD, APALACHICOLA RIVER, CALHOUN COUNTY.

About one mile in a northeasterly direction from Blountstown is Davis' Field, long under cultivation in time gone by, but now covered with a sprinkling of pine and other trees, on property of Hon. F. M. Yon, of Blountstown.

The mound, which had been much ploughed over and considerably spread, bore trace of but little previous digging. Its height was 4.5 feet; its basal diameter, considerable of which, however, was due to former cultivation, was 70 feet.

Fourteen trenches were dug inward by us from the margin of the mound, as found by us, until the original margin, presumably, was reached, when what remained of the mound, with a diameter of about 50 feet, was completely dug down, with the exception of small parts around several large pine trees.

The mound, circular in outline, was made of clay having a small admixture of sand, with here and there, small layers and pockets where clayey sand predominated. Throughout, at various points, were more or less charcoal and several fire-places of considerable size. In the northern part of the mound, extending inward ten feet along the base, with a maximum width of 6 feet and a maximum height of 3 feet, was a mass of fire-hardened clay, red from the effect of heat. Curiously enough, while, here and there, a bit of charcoal lay near this mass, the amount present seemed disproportionately small considering the extent and duration of fire necessary to produce such an effect.

The burials in this mound, which were hardly of more consistency than would be damp sawdust compressed, were met with in twenty-six places. Many of these were found on or near a central space showing marks of fire, and probably belonged to a general interment made at the same time. We shall refer to this matter, later.

The first burial, a few small bits of bone, was met with in the eastern part of the mound at what probably was the original margin. This burial lay near a deposit of earthenware but may have had no connection with it.

The next burial, fragments of a femur, lay in the NW. part of the mound, much farther in than the first burial. After this, burials consisting of the bunch, single skulls, fragments of long-bones, etc., continued to be met with until well in toward the center of the mound, after which flexed skeletons alone were found, beginning with Burial No. 15. Several lay in shallow pits below the base of the mound.

With no burial was an artifact immediately associated, with the exception of a

shell drinking-cup found with the skeleton of a child. Certain sheets of mica, one with a small circular hole in the center, were found near earthenware vessels, and were probably put into the mound ceremonially, as were the vessels.

Toward the center of the mound, somewhat above the base, was an area perhaps about twelve feet square, consisting of masses of charcoal, over and under burials, and in one place bark seemingly with no mark of fire, two thicknesses in one place, three, in another. This layer of bark, 40 inches long and about 2 feet wide, had at one end, at right angles to it, the remains of a log about 6 inches in diameter and about 3 feet in length. Both bark and log were little more than dust. This bark layer lay above a skeleton. The burials under charcoal and under bark were not contiguous, but being on the same plane and near each other, it is probable this area, with its flexed burials, was created at one time and served as a nucleus for the mound.



FIG. 131.—Vessel No. 1. Mound in Davis' Field. (About three-quarters size.)

Vessel No. 1.—Almost due east, probably where the original margin of the mound was, lay a vessel in fragments, with traces of red pigment, inside and out, and a space where a bird-head handle had been (Fig. 131). In the base is a circular hole made before the baking of the clay and, in the body of the vessel, are open-

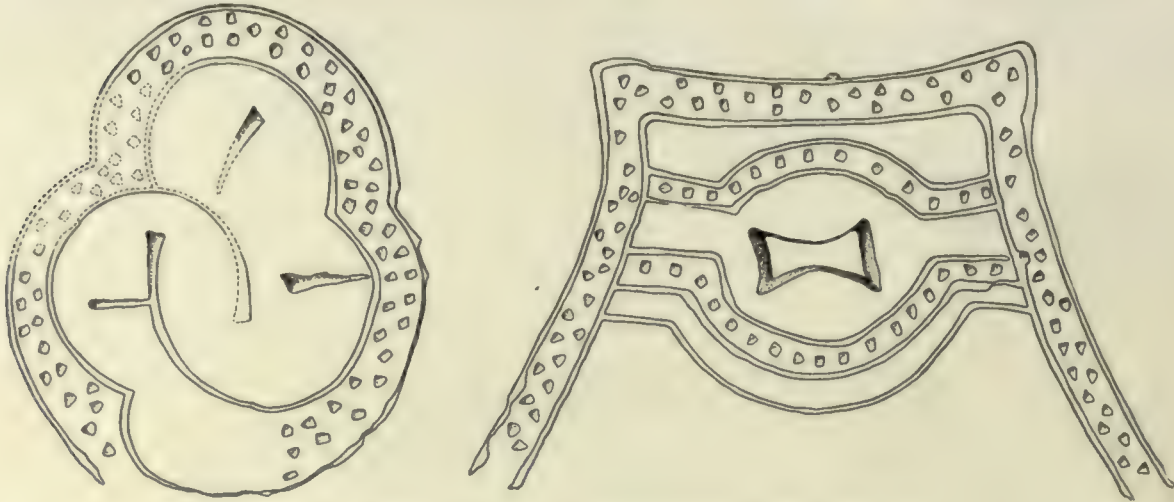


FIG. 132.—Vessel No. 1. Decoration. Mound in Davis' Field. (Half size.)

ings made at the same time. In Fig. 132 is shown diagrammatically the incised and punctate decoration on the wings and on the tail, that on each wing to the left, on the tail to the right. Here we have a ceremonial vessel such as was frequently

met with by us along the northwest coast of Florida between St. Andrew's bay and the Warrior river (see outline map).



FIG. 133.—Vessel No. 2. Mound in Davis' Field. (One-third size.)

Vessel No. 2.—Near Vessel No. 1 lay a mass of fragments, a mixture of sherds and parts of vessels, also several undecorated vessels badly crushed. Several feet on either side of this deposit were parts of vessels or possibly whole ones which had been broken and scattered. Certain fragments from this material, cemented together, with slight restoration at places, are shown in Fig. 133. With these fragments was a small, earthenware head of an owl which, like the vessel, which is colored with red pigment inside and out, bore traces of crimson paint. We have tried in vain to find a connection between the head and the vessel. This vessel belongs strictly to the ceremonial class, having body perforations and a basal hole, made before the clay was "fired."

Vessel No. 3.—This vessel, of graceful form, but of inferior ware, as are practically all vessels in Florida, especially made for interment with the dead, is a bird-effigy of the ceremonial class, with a perforation in the base and others in the body, all made before the baking of the clay (Fig. 134). In the body of the bird, but not shown in the figure, is a triangular hole above the tail and a small circular one below



FIG. 134.—Vessel No. 3. Mound in Davis' Field. (About half size.)

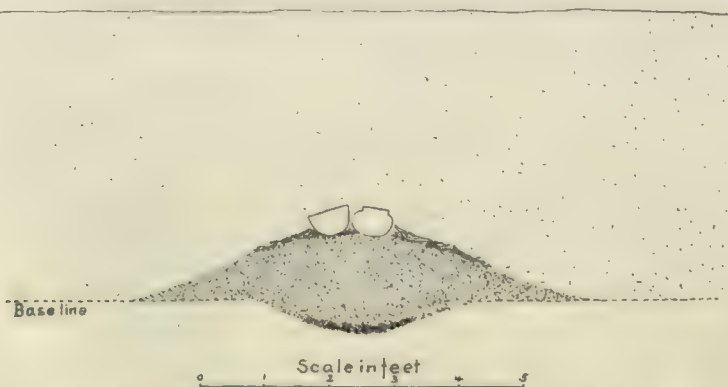


FIG. 135.—Section of ceremonial mound. Mound in Davis' Field.



FIG. 136.—Vessel No. 15. Mound in Davis' Field.
(About half size.)

it. This vessel, found in fragments, has been cemented together. The bill, unfortunately, is missing. An incised decoration on the body of the bird has become faint through the inferiority of the ware.

Seven feet farther in, in the same direction, was a most interesting ceremonial deposit. A pit 6 inches in depth and 3 feet 6 inches in diameter had been dug below the base of the mound. On the bottom of this pit lay charcoal where, evidently, a fire had been. Rising above this pit 1.5 feet from its base was a mound composed of clay blackened with fragments of charcoal. This mound was much spread at its base, where it was 7 feet in diameter (see section, Fig. 135). The main body of the mound rose from the center of the basal portion. From the top of this mound of blackened clay to the surface of the mound proper was 3 feet 6 inches. On the apex of this small, ceremonial mound were three vessels, two being visible when the mound was come upon from the eastward, as is shown in the section. These vessels, which fell into fragments when removed, were bowls with thickened rims, covered with crimson pigment, inside and out. One

had, for a handle, a rude representation of a head of a quadruped; another, a place where a head of some sort had been. One had had a hole knocked through the base; the others were too fragmentary to allow determination.

One of these vessels, in addition to the crimson pigment of which we have spoken, bore a complicated stamp-decoration, the first example of this combination in all our mound work, we believe.

On the sides of the small, ceremonial mound were large fragments of earthenware and two shell drinking-cups, badly broken.

Considerably nearer the center, but in the same line with the rest of the earthenware, were twelve jars, pots and bowls, all of ordinary type and all showing the basal perforation, when not too badly broken. Some were undecorated; some had bands of complicated stamp-decoration; one or two were covered with it. All but two were badly broken, some being crushed into minute fragments.

One vessel (No. 15), of eccentric form (Fig. 136), originally covered with red pigment, inside and out, had about one-third, which included almost the entire upper portion, missing. Certain fragments from this portion served as a sure indication for restoration. The usual hole knocked through the base is present.

With the exception of the mortuary deposit running in from the eastern part of the mound, not a sherd was met with, to our knowledge, in the entire mound.

YON MOUND, APALACHICOLA RIVER, LIBERTY COUNTY.

This fine mound, about two miles below Bristol, in full view from the river, on property belonging to Hon. F. M. Yon, of Blountstown, Florida, is square in outline, with rounded corners at the present time. The basal diameter of the mound is 157 feet. The height depends much upon the side from which the mound is examined, as the surrounding country is irregular, probably 29 feet may be considered the most accurate measurement. There is no graded way and the slope of the sides is steep, as the mound, of hard clay, seems to have washed but little since its making. Two determinations, not especially selected, gave angles of ascent of 38 degrees and 43 degrees, respectively. The diameter of the summit plateau is 68 feet.

This mound gave every evidence of being domiciliary but, as we have sometimes found burials in the summit plateaux of domiciliary mounds,¹ many trenches were dug in the plateau of the Yon mound, resulting in the discovery of one small bunch of human remains, some fragments showing marks of fire.

MOUND BELOW BRISTOL, APALACHICOLA RIVER, LIBERTY COUNTY.

This mound, in an old field, about one mile in a WSW. direction from Bristol, on property belonging to Mr. Robert Shuler, of that place, was of sand, circular in outline, with a basal diameter of 50 feet. Its height was 3 feet 5 inches. No previous digging was noticeable in this mound.

¹ For example: the Shields' mound, near the mouth of the St. John's river, Florida; the mound at Matthews' Landing, Alabama river; the mound on Perdido bay and the one on Santa Rosa sound, Florida.

Fifteen trenches dug in from beyond the apparent margin indicated the advisability of joining these trenches to include an area of 50 feet in diameter E. and W. and 46 feet N. and S. This portion of the mound was completely demolished by us, with the exception of certain parts around three trees of considerable size.

Almost at the western margin of the mound, in a pit below the base, were a fragment of a cannon bone of a deer and an earthenware smoking-pipe of ordinary shape. With these were three gouges wrought from the body whorl of *Fulgur*. No human remains lay with these relics, though, no doubt, a burial had been there. In the entire mound human remains were found but once and were represented by a fragment of cranium, which lay with a bit of deer bone in what seemed to be the run-way of a small rodent.

Unassociated in the mound were: a rude arrowhead or knife, of chert; one pebble; a pitted stone about 6 inches square.

Almost at the outset, several sherds having the small check-stamp were met with in the SE. part of the mound. Soon after, three vessels were found, and about 3 feet farther south, on line with the others, twenty-one vessels were grouped together. Near these, a little farther in, were four additional vessels. After these, still continuing toward the center, the area of deposit, widening by a few feet, yielded eighteen vessels, singly and in pairs, until the central part of the mound was reached, making forty-six in all. With these was one shell drinking-cup. There were no masses of sherds such as are usually found in ceremonial deposits of this sort.

Never has it been our fortune to open a mound where a number of vessels presented so low an average of excellence. The ware was of the poorest quality. In form, the vessels, mostly pots, offered not a single departure from ordinary varieties. Incised decoration was unrepresented, the sole ornamentation being notches and scallops, and faint and carelessly-applied complicated stamps on three or four vessels and on one sherd. Not a vessel was recovered whole, though the sand was comparatively dry and almost free from roots, where the vessels were. Some were crushed through inferiority of ware, others had been put into the mound with portions missing. All, where determination was possible, showed the basal perforation made after baking.

MOUND AT BRISTOL, APALACHICOLA RIVER, LIBERTY COUNTY.

This mound, in woods, about 300 yards in a NW. direction from the town of Bristol, on property of Mr. J. E. Roberts, of that place, was on the slope of a ridge of sand. The mound rose about 2.5 feet above the level of the ridge and extending down the slope, gained several additional feet in depth. The mound, which was of sand and circular in outline, had a basal diameter of 56 feet. A trench, 10 feet across, dug prior to our visit, extended from the NE. margin 30 feet into the mound. Trenches beginning in the level ground were dug into the mound from all sides a distance of 3 feet, when, it having become apparent that the original mound had been reached, the trenches were joined and the remainder of the mound, with a diameter of 50 feet, was entirely dug down.

Fourteen burials were met with by us, the majority deep in the mound, one being 5 feet 4 inches from the surface. These burials lay throughout the mound, and were characterized by the paucity of bones constituting a burial, the upper half of a skeleton being the largest interment met with. Ten burials consisted of single skulls or skulls associated with a few minor bones. Other burials were: the upper half of a skeleton; part of a thigh bone; two skulls with a tibia and a femur; a femur and a tibia.

Burials Nos. 1 and 2, a skull with cervical vertebræ and clavicle, and the upper half of a body, respectively, each had neatly rounded shell beads of moderate size, at the neck. These were the only artifacts present with burials. Unassociated, 4 feet down, was a small, waterworn boulder about 8 inches long by 9 inches wide, shaped somewhat like a "celt," which, possibly, had seen service as a maul. A sheet of mica, rudely given the shape of a spearpoint, fell in caved sand.



FIG. 137.—Vessel No. 1. Mound at Bristol. (About three-fifths size.)

Almost due east, beginning about 3 feet from the margin of the mound, a point probably marking the original margin, was the usual deposit of earthenware, which continued in to the center, extending but little to either side. The deposit began with a considerable number of sherds and fragments of large vessels, also complete vessels in fragments, nearly all bearing the small check-stamp. Farther in, this decoration was entirely supplanted by other varieties. Here and there, throughout the earthenware deposit, were shell drinking-cups in fragments.

Seventeen vessels were noted by us as complete or nearly so, with the exception of the basal perforation. Many of the vessels, broken and scattered throughout the mound, a custom which was widely practised along the northwest Florida coast, have not been included in our list. These vessels, however, presented no feature of particular interest.



FIG. 138.—Vessel No. 2. Mound at Bristol. (Half size.)



FIG. 139.—Vessel No. 3. Mound at Bristol. (Half size.)

We shall now describe in detail the most interesting vessels from this mound.

Vessel No. 1.—Has a semiglobular body with a long, upright neck, first contracting, then flaring. The decoration is the small check-stamp. A hole has been knocked through the base (Fig. 137).

Vessel No. 2.—A bowl of excellent ware, 11.25 inches in diameter, 7 inches



FIG. 140.—Vessel No. 8. Mound at Bristol. (About four-fifths size.)



FIG. 141.—Vessel No. 10. Mound at Bristol. (About three-fifths size.)

high, in fragments when found, has been cemented together, with a certain amount of restoration (Fig. 138). Below the rim is a series of designs, probably representing the eye.

Vessel No. 3.—An urn of graceful outline, bearing a small check-stamp, found in bits and since put together, with slight restoration (Fig. 139). Two holes below the rim show where a former fracture has been held together by the aid of a cord or sinew. There is the usual hole broken through the base.



FIG. 142.—Vessel No. 13. Mound at Bristol. (Half size.)

Vessel No. 6.—This vessel, found in fragments, had a rude decoration below the neck made up of diagonal lines.

Vessel No. 8.—An interesting ceremonial vessel having red pigment inside and out, and for handle a head representing that of a turkey-buzzard (Fig. 140). Perforations surround the body of the vessel, all of which, including one through the base, were made before the clay was baked. Height of body, 6.5 inches; maximum diameter, 6.25 inches. There has been a certain amount of restoration on the body, but none unless adjacent parts clearly authorized it.



FIG. 143.—Vessel No. 14. Mound at Bristol. (About four-fifths size.)

Vessel No. 9.—A graceful, undecorated, globular bowl with a small perpendicular rim.

Vessel No. 10.—A ceremonial vessel partly covered with red pigment, 11 inches maximum diameter of body; height, 8.75 inches (Fig. 141). There are two bird-head handles, on one of which a central portion of the bill has been restored, and an entire bill, added to the other. There are two encircling rows of circular holes,

made before the clay was "fired." Curiously enough, this ready-made mortuary vessel has no basal perforation.

Vessel No. 11.—A globular bowl of thick ware, decorated on the inside with crimson pigment. The only part of the outer surface showing decoration is an upright rim about 1 inch in height.

Vessel No. 13.—A bowl of yellow ware, shown in Fig. 142. A perforation has been broken through the base.

Vessel No. 14.—Has a complicated stamp decoration around the neck (Fig. 143). The usual hole has been knocked through the bottom.

Vessel No. 16.—An ordinary shape having for decoration two incised, encir-

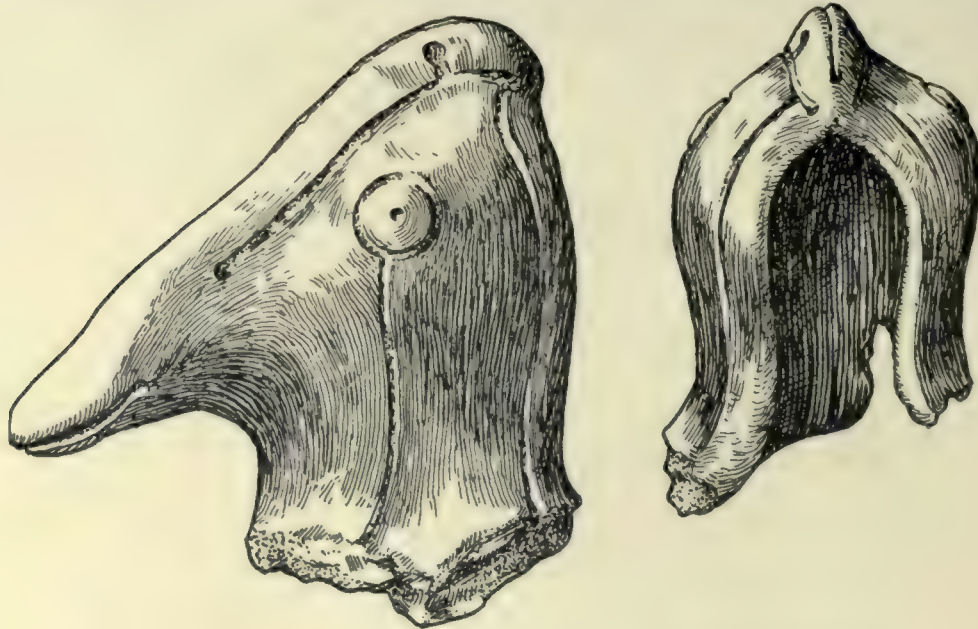


FIG. 144.—Handle of earthenware vessel. Two positions. Mound at Bristol. (Full size.)

cling lines just below the rim. This vessel, which has the ordinary basal perforation, was broken when placed in the mound, as one-half was found within the other half, in a reversed position.

Unassociated, was a bird-head handle decorated with crimson paint, having a feature not before met with by us, consisting of an opening at the back of the head. This head is shown, side view and back view, in Fig. 144.

MOUND NEAR ATKINS' LANDING, APALACHICOLA RIVER, CALHOUN COUNTY.

This mound, on the edge of the swamp, about one mile in a SE. direction from the landing, on property of Mr. W. R. Shields, living nearby, had been riddled with holes and seamed with trenches previous to our visit. Its height is 3 feet, its basal diameter, 40 feet.

Such parts of the mound as had been left intact yielded nothing to our investigation.

MOUNDS NEAR ASPALAGA, APALACHICOLA RIVER, GADSDEN COUNTY (3).

About one mile in a NE. direction from Aspalaga Landing, on high ground, is a large field, long under cultivation, property of the late Mr. John L. Smith and now under management of Mr. William Smith, living nearby. Over this field, and especially over spaces, dwelling sites, having a sprinkling of broken mussel-shells and of *Georgiana vivipara* and *Campeloma lima*, were bits of pottery, undecorated, with small check-stamp, with complicated stamp, with rude punctate decoration, and, in one or two instances, of good ware with superior, incised decoration. There were also, scattered here and there over these sites, pebbles, hammer-stones, hones, fragments and flakes, of chert, partially-made arrowheads, a few complete ones.

In this field were three mounds, all of sand, two of which, low and much spread, were shown by thorough digging to have been domiciliary in character.

The third and largest had a somewhat irregular outline caused, or, at all events, increased, by the use of the plough. As the mound stood on a gentle slope, the height of the artificial portion was hard to determine. Measurements from the west side gave an altitude of 6 feet 8 inches. On the east side, where the foot of the slope was, the mound was 9 feet 5 inches high. According to members of the family, the height of the mound had been reduced at least 5 feet by continued cultivation. East and west the basal diameter of the mound was 98 feet, and 90 feet, north and south.

While there had been a certain amount of previous digging, it was small considering the area of the mound. The mound, including certain additional territory surrounding it, was completely dug through by us.

Human remains were found at fifty-four points, mainly in the eastern and western sides, though burials extended around somewhat as the body of the mound was reached, certain ones being in the central portion. The forms of burial were: the lone skull, the bunch, the flexed burial, and bones scattered here and there. In addition to these there was, on the base of the southwestern portion of the mound, a small pocket of calcined fragments of human bones. Such deposits are met with occasionally in mounds along the northwest Florida coast.

The condition of human remains was fragmentary in the extreme, and such parts as remained were in the last stage of decay. Burial No. 29 consisted of a dark stain in the sand, and several teeth crumbling into dust. Burial No. 34 was made up of a few minute fragments of bone. Presumably, certain burials in this mound had entirely disappeared.

But one calvarium was recovered. It showed no artificial flattening.

Considering the extent of the mound, remarkably few objects had been placed with the dead.

Burial No. 2, near the surface, a skeleton from which the ribs and one arm were missing, had seven shell beads of fair size, at the neck, and a polished "celt" under the arm.

Burial No. 18 was represented by one bit of bone. With this burial was charcoal and what remained of a shell drinking-cup.

Burial No. 26, remnants of a skull, had in direct association, about one-third of a large pot.

Burial No. 28, indications of a flexed burial, had a few shell beads.

Burial No. 39, the remains of a skull, had nearby: a polished "celt;" a discoidal stone of quartzite, 3 inches in diameter on top, with sides slightly converging toward the base, and a shallow pit in the center of the upper part, rough in appearance, possibly used for the cracking of nuts; a lance-head of chert, 4.5 inches in length; two arrow-points or knives, of the same material; part of a lance-head, a flake, two irregular bits, all of chert; one smoothing pebble; one pebble-hammer; one triangular gouge of shell, with unground edge; two cutting implements wrought from columellæ; certain shells (*Murex flavescens*, *Rangia cuneata*, *Dosinia discus*).

With several burials was more or less charcoal. In one place, where bones probably had disappeared through decay, was sand tinged with hematite. Just above the base, at the center of the mound, was a local layer of red clay, on part of which lay a few scattered bones.

Unassociated objects, except earthenware, were: several pebbles; one arrow-head or knife, of chert; a thick sheet of mica, roughly rounded; another with the

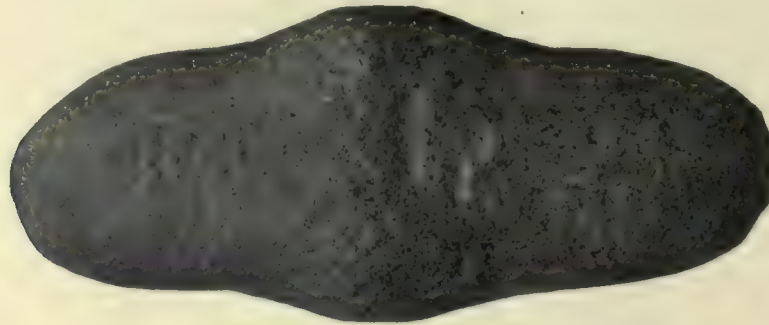


FIG. 145.—Pebble-hammer. Mound near Aspalaga. (Full size.)

outline of a spear-point; several shell drinking-cups found with the pottery deposit; a pebble-hammer of sedimentary rock, about 4 inches long, showing an encircling band at the middle, consisting of the original surface, the remainder being worked down and rounded as to the ends, one of which is somewhat chipped by use (Fig. 145).

In the eastern part of the mound, under the slope, with a sherd deposit, were a number of masses of lime-rock, each from 1 foot to 18 inches in diameter. Rock of this sort is found along the northernmost parts of the Apalachicola river, near which this mound was.

At the extreme eastern margin of the mound, the advance guard of the pottery deposit, was a number of sherds scattered here and there, some undecorated, some bearing a complicated stamp, also several bases of vessels with four feet. These sherds were followed by portions of vessels in fragments, and by vessels from which considerable parts were missing. All these were of inferior ware and decoration.

The first whole vessel, a small bowl with in-turned rim, undecorated, was met with 8 feet from the margin, somewhat north of east in the mound. This vessel was followed by single ones, mostly pots, here and there, some a little more to the eastward. Some of these were undecorated or had a faint complicated stamp; several had feet; and some, notches around the rim. Among these vessels were fragments of others, also of inferior ware, showing the ready-made basal perforation.

Still farther in were a few vessels, or large parts of vessels, all badly crushed, some of which, cemented together and restored in part, are included among vessels particularly described.

All these vessels and sherds lay in sand much darker than that of the remainder of the mound, a feature so frequently noted among the mounds of the north-west Florida coast.

The more noteworthy vessels will now be described in detail. But one is without the usual mortuary perforation.

Vessel No. 2.—Part of a vase of yellow ware, with the upper portion missing (Fig. 146).



FIG. 146.—Vessel No. 2. Mound near Aspalaga. (Full size.)

Vessel No. 4.—A diminutive pot, undecorated save for notches around the rim.

Vessel No. 5.—Certain parts of a large, globular vessel of porous, inferior ware, decorated on the outside with red pigment. The body has numerous perforations made before the "firing" of the clay. The base is missing. A large, red, bird-head handle was found with this vessel, but the parts uniting it to the vessel were not met with.

Vessel No. 7.—A vase 10.5 inches high and 8.25 inches in maximum diameter of body which is heart-shaped in longitudinal section. The neck is upright and flaring, and has incised and punctate decoration with crimson pigment in places.

The base is somewhat flattened to allow the vessel to maintain an upright position (Fig. 147).

Vessel No. 8.—A vessel of about 4 quarts' capacity, of inferior, yellow ware, found in fragments, and restored in places (Fig. 148). The interesting, incised and punctate decoration, shown diagrammatically in Fig. 149, is repeated on the opposite side of the vessel.



FIG. 147.—Vessel No. 7. Mound near Aspalaga. (Half size.)

Vessel No. 9.—Certain parts of a large human effigy-vessel were met with at different levels in the mound and often many feet distant one from another. Part of the base, some of the body, and the face, with the exception of a fragment of the lower left-hand part, were recovered and have been cemented together, with considerable restoration which, however, was clearly indicated by portions present. An interesting and novel feature is perforations in the eyes and ears (Fig. 150). A number of other vessels, broken and scattered in the way this figure was, were present in the mound.



FIG. 148.—Vessel No. 8. Mound near Aspalaga. (Three-fifths size.)



FIG. 149.—Vessel No. 8. Decoration. Mound near Aspalaga. (Two-thirds size.)

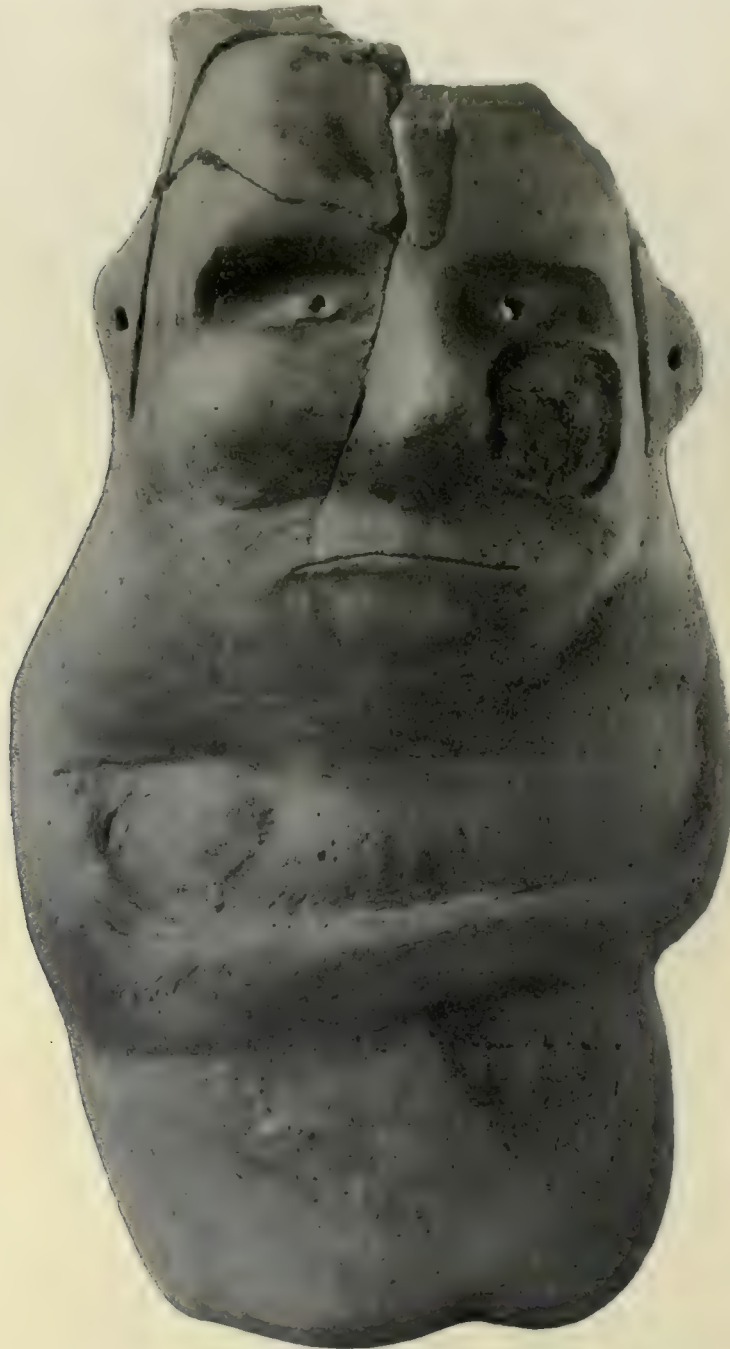


FIG. 150.—Vessel No. 9. Mound near Aspalaga. (About half size.)

Vessel No. 10.—Ovoid, with circular depressions covering the entire body, much like a vessel found by us in the smaller mound near Hare Hammock, northwest Florida coast,¹ though that vessel is more carefully made, and has, also, a narrower opening. The impressions on that vessel have a comparatively smooth sur-

¹ *Op. cit.*, Part II, Fig. 138.

face, while those on the vessel from this mound seem to owe their origin to a circular object with a slight, rough projection at the center.

Vessel No. 11.—Twenty-one feet in from the eastern margin of the mound the black sand ended and no earthenware of any sort was met with in the mound afterward, with the exception of an unassociated vessel in the southern portion, having an ovoid body with upright rim flaring, then constricted. There is a rather rough, complicated stamp-decoration. This vessel has no basal perforation (Fig. 151).

Several bird-head handles lay unassociated in the sand. One has a perforation apparently cut after the baking of the clay (Fig. 152). Another (Fig. 153), large and hollow, has red pigment around the eyes.

In Fig. 154 is given a selection of sherds from this mound. As might be expected, since the territory in which the mound was is near Georgia, the complicated stamp is largely represented. One, on the left of the second row, did not come from the mound, but from the surface nearby.



FIG. 151.—Vessel No. 11. Mound near Aspalaga. (About four-fifths size.)



FIG. 152.—Earthenware handle of vessel. Mound near Aspalaga. (Full size.)



FIG. 153.—Earthenware handle of vessel. Mound near Aspalaga. (About full size.)



FIG. 154.—Selection of sherds. Mound near Aspalaga. (Half size.)

MOUND NEAR SAMPSON'S LANDING, APALACHICOLA RIVER, JACKSON COUNTY.

This mound, within sight of the road, about one-half mile in a W. direction from the landing, on property belonging to Mr. D. L. McKinnon, Marianna, Florida,



FIG. 155.—Vessel of earthenware. Mound near Sampson's Landing. (About four-fifths size.)

had been dug into superficially in the center, in addition to which a hole about 2.5 feet square had been sunk to the base. The mound, sand with a certain admixture of clay and gravel, had a height of 4.5 feet; a basal diameter of 45 feet. It was totally dug down by us, with the exception of parts left around two trees.

Human remains were encountered forty-seven times, the bones being badly decayed, enough only remaining to indicate the form of burial. Several calvaria, recovered uncrushed, gave no evidence of artificial flattening.

The burials, found in all parts of the mound, from the margin in, were as follows as to form: scattered bones, 1; lone skulls, 13; bunched burials, 11; flexed skeletons, 22. Of the flexed skeletons, none of which was met with until the digging approached the body of the mound, all were flexed on one side or on the other, except one which lay on the back with the knees raised. Three flexed burials lay under masses of lime-rock. One lone skull was in dark sand, with charcoal nearby.



FIG. 156.—Vessel of earthenware. Mound near Sampson's Landing. (Five-sixths size.)

There were in the mound, in addition to several pebbles, two "celts" which lay separately, unassociated, and seemed to have been put in in a general way. Near certain earthenware were mica and part of a shell drinking-cup.

Soon after the digging began a few scattered sherds were found, plain, with the small check-stamp, and with a complicated stamp. Later, part of a pot with a complicated stamp, and with a hole knocked through the base, came from the southwestern part of the mound, and a large fragment with rude, incised decoration and basal perforation lay near the southern margin.

When the digging had progressed a number of feet into the eastern side of the

mound, a number of parts of vessels, of inferior ware, as were all the vessels in this mound, bearing the small check-stamp, were encountered. Just behind these were six vessels together, one, undecorated, of rather graceful, elliptical section, with a hole knocked through the base, in common with all vessels from this mound. Four vessels of this deposit are undecorated; the sixth has a series of roughly incised, diagonal, parallel lines, around the neck which, long and flaring, rises from a globular body.

Just to one side of these was a mass of sherds from various vessels, and a little farther in, were two pots with portions missing, one having a faint complicated



FIG. 157.—Decoration on vessel shown in Fig. 156. Mound near Sampson's Landing. (Half size.)

stamp, the other undecorated. With these was a graceful jar of about three quarts' capacity, shown in Fig. 155, having a flat, square base. Around the neck is a complicated stamp-decoration. Near this jar was a vessel in fragments, having a complicated stamp, and a rude pot also with a stamped decoration around the neck.

Somewhat farther in the same direction, well toward the center of the mound, were four pots and bowls, three broken and undecorated. The fourth vessel (Fig. 156) has a curious, incised design, evidently symbolical, shown diagrammatically in Fig. 157. Part of the rim has been restored. A few feet to one side of this vessel was a pot with parallel lines roughly incised beneath the rim.

This was the last occurrence of earthenware met with by us on the Apalachicola river, and it is interesting to note the persistence of the ceremonial deposit of earthenware in the eastern part of the mounds and the occurrence of the mortuary mutilation of the base.

MOUNDS NEAR CHATTAHOOCHEE LANDING, APALACHICOLA RIVER, GADSDEN COUNTY (7).

On the river's bank, at the landing, half cut away by the wash of freshets, is part of a domiciliary mound of clay, formerly circular in outline. Height, 7 feet; diameter of base, 78 feet; diameter of summit plateau, 38 feet.

A short distance farther up, along the bank, is the wreck of a large mound half washed away by the river. This mound, of clay, has several frame buildings upon it. Its height is 11 feet.

In the swamp, in sight from the river, and but a short distance from the mounds just described, are four others. The southernmost, of circular outline, composed of sand with a certain admixture of clay, is 4 feet in height, 70 feet across the base, and 40 feet across the summit plateau.

About 50 yards farther, in a NW. by N. direction, is a circular mound of clay, covered with a considerable thickness of sand. Basal diameter, 66 feet; diameter of summit plateau, 36 feet; height, 3 feet.

Fifty yards in a NW. direction from the last mound, is a mound of circular outline, 3.5 feet high, 58 feet across the base and 26 feet across the summit plateau.

Continuing 40 yards WSW., we came upon a mound near the road, much spread, 46 feet in diameter of base, and 1.5 feet high.

The two mounds partly cut away by the river were not dug into by us, the cross-section made by the river showing them to have been domiciliary.

The swamp-mounds were thoroughly investigated and found to be domiciliary in character.

The mounds of the Apalachicola river yielded nothing especially novel.

The forms of burial were the same as those prevailing along the northwest coast of Florida, namely, the bunch, the flexed skeleton, the lone skull, scattered bones, and, very rarely, the pocket of calcined remains. The burial of skulls under great bowls, a custom met with in places along the Florida coast as far east as St. Andrew's bay, was not met with on the Apalachicola river; nor was the urn-burial proper, where bones are placed in vessels covered by others, inverted, met with by us on the river, though, last season, we found one example of this form of burial in a mound on Ocklockonee bay, to the eastward of Apalachicola.

The earthenware of the river was found to be inferior in quality. The gritty ware of Georgia was not met with nor was the shell-tempered ware of Alabama, with the exception of certain pieces in a single mound. In this mound, curiously enough, were several vessels of polished, black ware, the specialty of Mississippi, which we had not found east of Choctawhatchee bay, on the coast, and many earthenware vessels which, in material, shape and decoration, recalled the yield of mounds considerably farther to the westward.

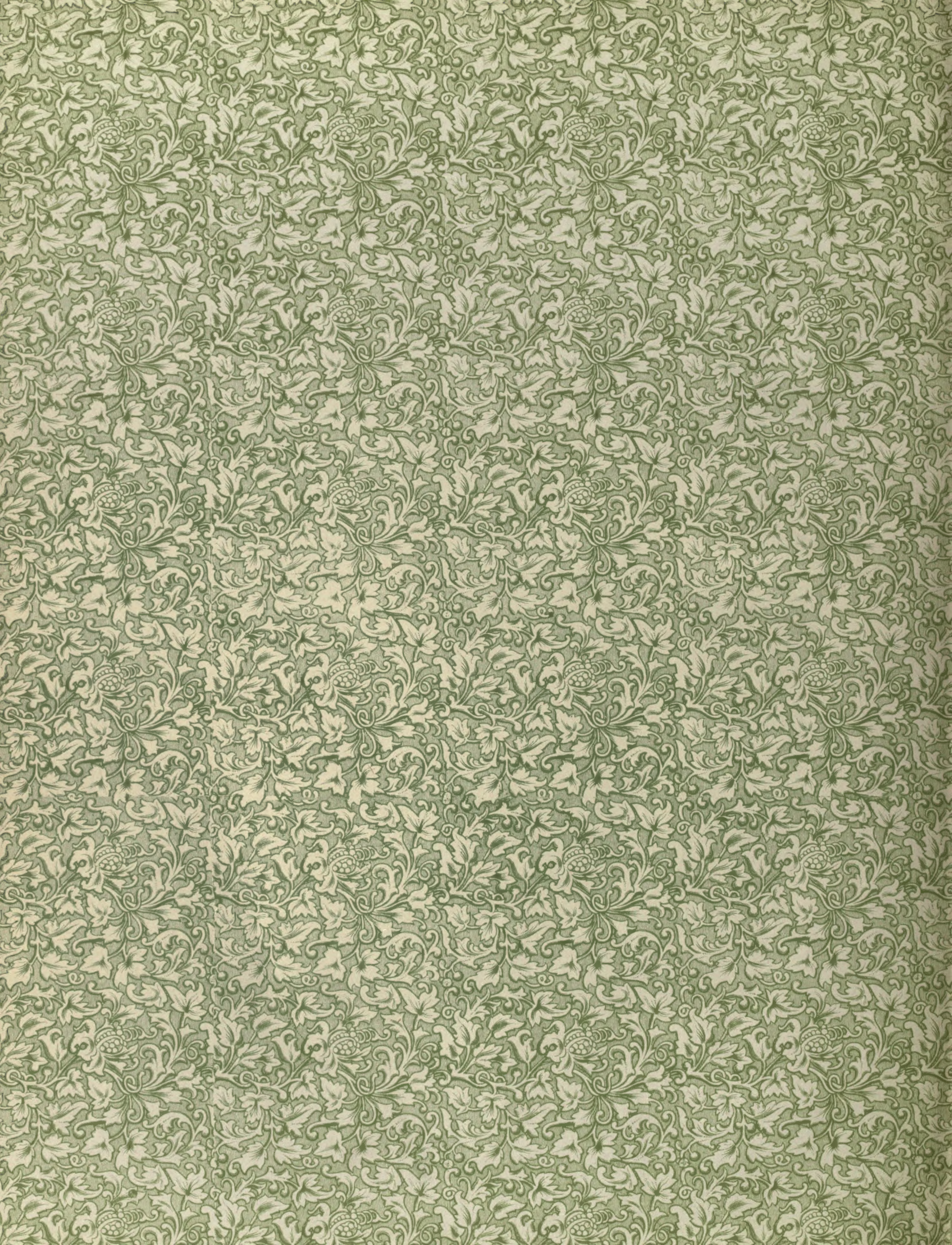
Ceremonial vessels, "killed" by a basal perforation and by holes throughout the body, made before the firing of the clay, were found in considerable numbers along the Apalachicola river and, as is the case with similar vessels met with by us along the Florida coast between St. Andrew's bay and the Warrior river, the ware is most inferior in quality, as might be expected of vessels purposely made for interment with the dead.

The custom prevalent along the northwest Florida coast, to place deposits of vessels for the dead in common in the eastern part of mounds, obtained also on the Apalachicola river.

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