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INDIAN BURIAL MOUNDS AND SHELLHEAPS NEAR PENSACOLA,
FLORIDA. By G. M. STERNBERG, Surgeon U. S. Army.

HAVING recently devoted some time to the exploration of two
Indian burial mounds in the vicinity of Pensacola, Florida, I
propose to put upon record the results of my explorations as a
contribution to American Archæology.

⁵ Inque dies magis in montem succedere silvas
Cogebant, infraque locum concedere cultis;
Prata, lacus, rivos, segetes, vinetaque laeta
Collibus et campis ut haberent.

Lucr. De Re. Nat. V, 1369.

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One of these mounds is in Alabama, and is situated upon the extremity of a peninsula formed by two arms of the Perdido Bay. This bay and the river of the same name form the boundary between the states of Alabama and Florida.

I shall call this the Bear Point Mound as the peninsula upon which it is situated is known by this name. The second mound is in Florida, about fifty miles east of Bear Point, and is also on a peninsula; formed by Pensacola Bay on the one side and Santa Rosa Sound on the other. There is reason to suppose, as I shall presently show, that these mounds were built by different, but contemporaneous, tribes of Indians, and it is quite probable that these tribes were hostile to each other. This I infer from the fact that their villages, the locations of which are shown by extensive shell-heaps (kjökkenmöddings), are situated upon peninsulas, and so located that hostile parties from either one would be unable to approach the other except in canoes, or by an exceedingly difficult and circuitous land route. Also, from the fact that the sea-coast and bays between these two villages present no evidence of occupation by the Indians, except here and there a few scattered shell-heaps of small size, marking the site of the wigwam of some hardy brave, who obtained a subsistence from the debatable ground between the hostile towns, with less labor, though at greater risk, than his less venturesome companions. On the Florida side of the Perdido Bay, six miles distant from Bear Point, there are extensive shell-heaps marking the location of another village, upon a peninsula known as Anerierty's Point. This location was probably occupied by the same tribe as the opposite point, and, no doubt, communication was kept up between the two villages by means of canoes. As there is no burial mound upon this point, it may be that, owing to the more exposed situation of this village, the sacred remains of the dead were transported across the bay for sepulture in the Bear Point mound.

The shell-heaps at both of these places are composed almost entirely of oyster shells. In this respect they differ from the Santa Rosa Sound locality, where the shells are mainly those of a small round species of clam (?). The area covered by these shell-heaps I am unable to estimate with any precision, as a great portion of it is covered with live-oak timber interspersed with a dense growth of underbrush. In all the localities mentioned however, the land has been cleared to some extent for the purpose

of cultivation, as these "shell-banks" are favorite locations for the raising of corn, watermelons and fruit trees (orange, fig, and peach). The cleared land covered with shells at Bear Point I should estimate at 60 acres; at Anerierty's Point, at 100 acres; and in the vicinity of the Santa Rosa mound, at 150 acres. The extent of the shell-heaps is, however, very much greater than this. The shells are scattered over the surface in irregular heaps, the contents of which vary from a few bushels to thousands of bushels.

Those on the surface are more or less softened and broken by the action of the elements and the plow. But upon digging down a little way, to where they are undisturbed, they are found to be nearly as fresh looking as if they had but recently been thrown out from a modern oyster saloon. The size and shape of the shells show that the epicures among our aboriginal predecessors feasted upon oysters as large and probably as luscious as any that are now found in the New Orleans or Mobile markets. Whether they obtained the immense supplies, which they consumed, from the waters of the bay, without any further trouble or care than that involved in the labor of gathering them, we cannot at present decide. But I think it not improbable that they may have cultivated them, as is at present practised, or at least that the mode and time of procuring this, their staple article of diet, was regulated by law or custom. This view is sustained by the fact that the shell-heaps contain only the shells of large and well-developed oysters, such as would be marketable at the present day.

The Santa Rosa Sound Indians were not so particular as is shown by the presence, in their "kitchen middens" of the shells of various species of univalve and bivalve mollusks, such as are still found in the waters of the sound.

Oysters are not at present found in the Perdido Bay in any quantity, owing, it is said, to the waters being too fresh for them to live in it.

The age of these shell-heaps can only be estimated in a rough manner from the appearance and position of the shells. As has already been stated, those on the surface bear marks of age, while those deeper down look quite fresh. In many places the decayed stumps of live-oak trees, of from two to three feet diameter, are found in situ above the shells.

That the Bear Point Indians were successful fishermen is clearly

shown by numerous fish bones which are found scattered through their heaps of kitchen-refuse.

That they did not depend to any considerable extent upon the chase for their subsistence is proved by the comparative scarcity of the bones of animals. The Santa Rosa Sound Indians, on the contrary, were great hunters, and venison was a staple article in their bill of fare. They also made great use of the skins of animals which they doubtless dressed and sewed together for clothing. This is shown by the great number of bone awls, which are found scattered through their "kitchen-middens."

At Bear Point none of these tools are found. Their absence, taken in connection with other circumstances which I shall presently point out, I take to be an evidence of a more advanced state of civilization. Instead of being rude hunters whose only dress was the skins of the animals upon whose flesh they subsisted, these Indians devoted themselves to agriculture, and doubtless had learned the art of fabricating clothing from grasses and vegetable fibre of different kinds.¹

To sew such fabrics they would require a slender needle that would pass entirely through the material, carrying the thread with it. Such needles, probably made of slender fish bones, would be very perishable, and we could hardly expect to find them at the present day.

The great skill attained by these Indians in the ceramic art, the large number of clay vessels required in their domestic operations, and the fact that they were not hunters, all show that they must have been an agricultural people, dwelling in fixed habitations, and clothing themselves in some fabric of their own manufacture.²

It is impossible to believe that naked savages whose only diet

¹ Mantles made of the inner bark of trees, and also of a kind of grass not unlike flax, were seen by the early explorers of Florida (Irving, "Conquest of Florida," p. 230).

Mantles fabricated from coarse threads of the bark of trees and nettles are also mentioned (loc. cit. p. 317).

² The historians of De Soto's expedition (*vide* Irving's "Conquest of Florida") speak frequently of Indian villages containing from 50 to 600 dwellings, substantially constructed of wood (loc. cit. p. 98, 104, 111, 184, 284). The fortified town of Mauvila was in Alabama, probably in the vicinity of Choctaw Bluff, Clark Co., and is stated to have been but seven days' journey from Pensacola Bay (p. 284). It is described as containing eighty houses, capable of lodging from 500 to 1,500 persons, and as being fortified by a high wall formed of tree trunks driven into the ground, flattened with a mortar of clay and straw.

Frequent mention is also made of extensive fields of Indian corn, beans, pumpkins, and other vegetables.

was fish and oysters would manufacture pottery of such excellent design and finish, and so artistically ornamented, as is that which I have obtained from their burial mound, and the fragments of which are scattered in the greatest abundance over the site of their village.³

The pottery was not all, however, of such fine quality. Articles were made for every day use, in the manufacture of which utility alone was kept in view, there being no attempt at ornamentation, or only such as required but little time and skill.

The present owners of the land have occasionally picked up, while cultivating the "shell banks," clay images of the heads of birds and animals, and a single specimen of the "human face divine" as conceived and modelled by an aboriginal American sculptor.

Whether these images had any special significance I am unable to say. Some of them seem to have formed the handles of earthen vessels, and others were, in my opinion, nothing more than toys made for the amusement of Indian babies, or children of larger growth. One in the shape of a squirrel's head is evidently a rattlebox. It is hollow and contains fragments of something which rattle when it is shaken. I imagine that the absence of the ears, and the generally dilapidated condition of this specimen, are due to its having been mouthed by some drooling Indian baby while teething.

A similar rattlebox in the shape of an owl's head was found, by some children, at Anerierty's Point, but was destroyed by being crushed between two stones, for the purpose, as they said, of getting at "the brains."

The said "brains" were found to be small lumps of clay, designed evidently as "rattle brains."

No flint weapons are found in the shell-heaps, but I have obtained a few of fine form and finish from the mound. These must have been obtained from a distance, by barter with other tribes, as there is no flint in the vicinity. The difficulty of obtaining this standard material for the formation of arrow and spear-heads, probably made it necessary for these Indians to employ something more readily obtained and nearer at hand for common use, and

³ In one instance the army of De Soto marched for two leagues through fields of corn (p. 138). Again, in the province of Appalachee, subsistence was obtained for 1,500 persons for five months (p. 193). Five hundred measures of meal made from toasted corn were obtained from a single house (p. 213).

the few flints in their possession would naturally be considered of great value. I think it probable, therefore, that those found in the mound mark the burial place of chiefs or distinguished warriors. It is likely that their arrows were commonly made of wood or reeds, hardened at the point by burning, or tipped with sharp fish bones.⁴

Fragments of red hematite found in the mound and scattered over the shell-heaps were doubtless used to furnish a red pigment for decorating the person, according to the almost universal custom among the American Indians.

That personal ornamentation was not neglected is further shown by a string of large beads cut out of conch shell, which was taken from the mound. Other shell ornaments in the shape of perforated disks, etc., have been picked up on the shell-heaps. Blue glass beads have also been found, which are doubtless of European manufacture. These, and an iron spike which I myself took from the mound, prove conclusively that the Indians still occupied this location after the discovery of the country by the whites. Two other fragments of iron have also been taken from this mound where they were associated with the remains of the dead in the same way as were the arrow-heads and other articles found. It is evident that they were buried as articles of great value, probably belonging to the individual with whose remains they were associated, and consequently that intercourse with the whites had not yet been sufficiently established to make iron a common article of use among the builders of the mound.

The Indians have not occupied this locality within the recollection of the oldest settlers, nor do the local traditions, which extend back for a period of more than eighty years, give any account of them. My own opinion is that this village was a frontier settlement of the Natchez Indians.

The Bear Point burial mound, which I shall now proceed to describe, is especially interesting from the fact that its age is determined with a certain degree of accuracy by the iron spike to which reference has already been made, and by a single glass bead which I found in it. That the mound was erected by, and was the burial

⁴ De Soto's historians mention in several places the use of arrows barbed with flint (Irving loc. cit. p. 191, 195, 225). But they also speak of arrows without barbs, and of others made of reeds "tipped with buckshorn wrought with four corners like a diamond, some with bones of fishes curiously fashioned, others with barbs of palm, and other hard woods."

place of, the people who lived in the village near by, is amply proved by the fact that the pottery taken from it is of the same kind and ornamented in like manner with that of which innumerable fragments are found scattered through the shell-heaps.

The mound is situated upon sloping ground, and has an altitude of from twelve to fifteen feet on the lower or western side, and of six to eight feet on the opposite side. It is nearly circular and has a diameter of about 100 feet.

There are several good sized trees growing upon it, and one, a live-oak, is more than two feet in diameter. The mound is built of yellow sand taken from the immediate vicinity; as is evident not only from its being of the same character as the surrounding soil, but from pits about its base from which sand has been removed for its construction.

Before visiting the mound I was informed that the Indians were buried in it, in an upright position, each one with a clay pot on his head. This idea was based upon some superficial explorations which had been made from time to time by curiosity hunters. Their excavations had indeed brought to light pots containing fragments of skulls, but not buried in the position they imagined. Very extensive explorations made at different times, by myself, have shown that only fragments of skulls and of the long bones of the body are to be found in the mound, and that these are commonly associated with earthen pots, sometimes whole, but more frequently broken fragments only. In some instances portions of the skull were placed in a pot, and the long bones were deposited in its immediate vicinity. Again, the pots would contain only sand, and fragments of bones would be found near them. The most successful "find" I made, was a whole nest of pots, to the number of half a dozen, all in a good state of preservation and buried with a fragment of skull, which I take, from its small size, to have been that of a female. Whether this female was thus distinguished above all others buried in the mound, by the number of pots deposited with her remains, because of her skill in the manufacture of such ware, or by reason of the unusual wealth of her sorrowing husband, must remain a matter of conjecture. I found, all together, fragments of skulls and thigh bones belonging to at least fifty individuals; but in no instance did I find anything like a complete skeleton. There were no vertebræ, no ribs, no pelvic bones, and none of the small bones of the hands

and feet. Two or three skulls, nearly perfect, were found, but they were so fragile that it was impossible to preserve them. In the majority of instances only fragments of the frontal and parietal bones were found; buried in pots, or in fragments of pots, too small to have ever contained a complete skull. The conclusion was irresistible that this was not a burial place for *the bodies* of deceased Indians, but that the bones had been gathered from some other locality for burial in this mound; or that cremation was practised before burial, and the fragments of bone not consumed by fire were gathered and deposited in the mound.

That the latter supposition is the correct one I deem probable, from the fact that in digging in the mound evidences of fire are found in numerous places, but without any regularity as to depth and position.

These evidences consist in strata of from one to four inches in thickness, in which the sand is of a dark color, and has mixed with it numerous small fragments of charcoal. My theory is, that the mound was built by gradual accretion in the following manner. That when a death occurred, a funeral pyre was erected on the mound, upon which the body was placed. That after the body was consumed, any fragments of bones remaining were gathered, placed in a pot and buried. And that the ashes and cinders were covered by a layer of sand brought from the immediate vicinity for that purpose. This view is further supported by the fact that only the shafts of the long bones are found, the expanded extremities, which would be most easily consumed, having disappeared. Also by the fact that no bones of children were found. Their bones being smaller, and containing a less proportion of earthy matter, would be entirely consumed.

I found in the mound several small pots which may be supposed to have been the property of children, and in one I found a toy arrow-point made of shell.

This I take to have been a mother's tribute to the memory of her little one, and the fact that no bones were found in its vicinity supports the supposition that the body was entirely consumed by the flames.

It may be, however, that the Indians were in the habit of preserving the remains of their friends above ground for a certain length of time, in caskets, or upon platforms elevated upon

poles or in trees, and that at stated periods they were taken to the mound, consumed with fire, and the fragments of bone buried in the manner already indicated.⁴

At the Santa Rosa mound the method of burial was different. Here I found the skeletons complete, and obtained nine well preserved skulls (Destined for the Army Medical Museum). The bodies were not, apparently, deposited upon any regular system, and I found no objects of interest associated with the remains. It may be that this was due to the fact that the skeletons found were those of warriors who had fallen in a battle in which they had sustained a defeat. This view is supported by the fact that they were all males, and that two of the skulls bore marks of antemortem injuries which must have been of a fatal character.⁵

It may be that a more complete exploration of this mound, which is considerably larger than that at Bear Point, would throw additional light upon the mode of life and peculiar customs of its builders. The skeletons found show that they were an athletic race, and one thigh bone which I have preserved measures nineteen inches in length.⁶

The skulls taken from this mound with a single exception belong to the type denominated *brachycephalic* and the jaws are prognathous. There is also in nearly all a remarkable want of symmetry in the posterior region of the skull; it being flattened, and having a projecting bulge to one side or the other. This is probably a deformity produced during childhood, either intentionally, or as a consequence of the practice adopted by the Indian mothers of strapping their infants to a board for safe keeping. The bones are well preserved in consequence of the mound having been constructed from peaty soil taken from the swamp in which the mound is built.

⁴ We read in Irving (loc. cit.) that Juan Ortiz was placed on guard over an Indian cemetery which was situated in a lonely forest, and in which the bodies were preserved in wooden boxes (p. 64). In another place, that the chiefs and warriors were buried in a temple or mausoleum, in which the bodies were deposited in wooden boxes (p. 230).

⁵ It is stated by Irving (loc. cit.) on the authority of the Spanish and Portuguese narratives from which he obtained the facts detailed in his book; that a superstitious belief prevailed among the Florida Indians, that "those defeated in battle were infamous and accursed;" and, in another place, that the bodies of Indians fallen in battle were heaped up in a mound, unburied (p. 149).

⁶ De Soto's historians make frequent mention of the gigantic size of some of the Florida Indians, and they are commonly spoken of as of good stature and well formed (Irving, loc. cit. pp. 31, 110, 125, 188). One young chief is mentioned as being taller than any Spaniard in the army (p. 256), and Tuscaloosa, the father of this young chief, is said to have been a foot and a half taller than any Indian in the army (p. 258).

The facts bearing upon the age of this mound, which my explorations have thus far developed, are the following.

The articles found in it and in the vicinity are all of Indian manufacture. These are, numerous fragments of pottery, more rude in design than those from the Bear Point locality; a large number of bone awls of different shapes and sizes; a single shell adze, or scraping tool. On the other hand, a tibia dug from the mound presents the appearance of having been affected during life by a disease which was unknown among the Indians prior to the arrival of the whites; one of the skulls has a hole through its vertex which looks wonderfully like a bullet hole; and one of the skulls taken from the mound differs from all the others in being *dolichocephalous*, and symmetrical in shape. This may be the skull of a white man or half breed.

The mound from which these skulls were obtained is located in a swamp about 500 yards in rear of the village, which was (as shown by the shell-heaps), directly on the margin of the sound.

In a commanding position near the centre of the village is another mound, higher than the burial mound, but having a much less diameter (about twenty feet high and sixty in diameter). A partial exploration of this revealed no bones or other objects of interest, except such as are found in the kitchen-middens in the neighborhood, which have evidently furnished the materials for its construction.

From its summit an extensive view is obtained of the Sound, of Santa Rosa Island, and of the Gulf of Mexico beyond. Its commanding position is shown by the fact that the confederates erected a battery upon it during the war, for the purpose of preventing light draught gun-boats from entering Pensacola harbor by way of Santa Rosa Sound.

This mound was probably erected as a lookout station, and may have had upon it the residence of the chief or head man of the village.⁷

We may imagine a crowd of astonished savages, painted and plumed, gathered upon its summit and looking over the Gulf at the approaching ships of Gomes Arias, who in 1540 came, by appointment,⁸ to meet De Soto at the Bay of Achusi (Pensacola).

⁷ De Soto found the Chief's dwelling built upon an artificial mound in several villages which he visited (Irving, loc. cit. p. 58 and 129).

⁸ De Soto failed to keep the rendezvous appointed with Arias, for reasons of his own. (loc. cit. p. 283), and the latter after cruising about all summer in a vain attempt to rejoin his commander, was obliged, upon the approach of winter, to return to Havana.

From the Bear Point mound I obtained certain objects of interest which throw some additional light upon the habits of its builders.

A hemispherical piece of granite, having a slight concavity in its base, was probably used for grinding parched corn, a beautifully polished biconvex disc of chalcedony was of a suitable size and form to serve as a quoit. The vast amount of labor which must have been expended in shaping and polishing so hard a material, and its consequent great value, make it, however, doubtful whether it was used for this purpose. Other smaller disks, were possibly for pitching at a mark, or may have been used as markers or counters for some game. A single clay pipe shows that the Indians also indulged themselves in at least one of the luxuries of life.

