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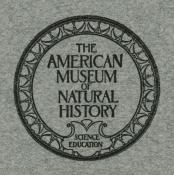
THE AMERICAN MUSEUM OF NATURAL HISTORY

VOL. XXII, PART V

AN ANCIENT VILLAGE SITE OF THE SHINNECOCK INDIANS

BY

M. R. HARRINGTON



NEW YORK
PUBLISHED BY ORDER OF THE TRUSTEES
1924

AMERICAN MUSEUM OF NATURAL HISTORY

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Introduction

The investigation described in this paper, carried on under the auspices of the American Museum of Natural History during the summer of 1902, was probably the first attempt to study in detail any of the aboriginal village sites on the eastern end of Long Island, New York, although considerable work of a more general nature had been done before by Tooker¹ and others. In fact, so far as the writer knows, it is the only study of the sort on record to date, the only other publication dealing with actual explorations in this district being a description of the excavation of a Montauk cemetery of the Colonial period² and not of a village site.

Assisting the writer were Mr. Arthur C. Parker, now State Archæologist of New York, and Mr. Alanson Skinner, now Curator of Anthropology at the Milwaukee Public Museum. It is interesting to note that this was Mr. Skinner's first expedition and Mr. Parker's second.

The expenses of the first part of the expedition were borne by Mrs. Esther Hermann; but after this fund had become exhausted, Mr. William Weiss of Southampton, New York, assisted us to carry on the work another month; and to both of these patrons the thanks of the Museum are due.

A brief résumé of our results was published in the Southern Workman for June, 1903. The work received passing newspaper notice at the time, and in due course a detailed report was made to the Museum. It was not, however, until more than nineteen years had elapsed since our party folded its tents and closed its notebooks for the last time on Shinnecock Hills that the opportunity arrived for the writer to revise his report for publication.

The results of his efforts will be found in the following pages, in which the writer will describe the site, the method of excavation, and the phenomena encountered during the course of the digging. An endeavor will then be made to reconstruct, as nearly as can be done with the scant data which still remain, the material side of the life of the Indians who inhabited this village, and to give a glimpse of their arts and crafts, their dwellings, and the means by which they gained their livelihood.

^{&#}x27;Tooker, William Wallace. "Some Indian Fishing Stations upon Long Island" (The Algonquian Series, New York, 1901).

*Saville, Foster H., "A Montauk Cemetery at Easthampton, Long Island" (Indian Notes and Monographs, Museum of the American Indian, Heye Foundation, Vol. II, No. 3, New York, 1920).

Fortunately, we are not obliged to depend solely upon the specimens found buried in the earth for our information, although these furnish the bulk of it: for we discovered a few articles of native style still in the hands of the mixed-blood descendants of the Shinnecock Indians who inhabited a nearby settlement at the time of our visit. From these and some of the older whites in the neighborhood was secured considerable information of interest. A knowledge of other tribes of similar culture was found helpful in the interpretation of some of our finds, as were the old records of the town of Southampton, and the accounts of early travelers who met the Long Island and neighboring Indians in their pristine state. These last will be employed by reference only, as Skinner has made full use of them in his accounts,1 of the Indians about New York City, published by this Museum. Our justification for using the modern Shinnecock artifacts in connection with those exhumed from the ancient village, implying that these also are of Shinnecock origin, will appear later.

^{&#}x27;Skinner, Alanson, "The Lenapé Indians of Staten Island" (this series, vol. 3, New York, 1909); "The Indians of Manhattan Island and Vicinity" (Guide Leaflet Series No. 41, American Museum of Natural History, New York, 1915).

THE SITE AND ITS SURROUNDINGS

Far out, toward the extreme end of Long Island, some eighty miles eastward from New York City, lie the Shinnecock Hills, a rolling sandy tract, almost treeless, but covered with bay and thorn bushes and dotted with little swamps where taller underbrush and even small trees may be seen, rising from a tangle of wild grape vines and wild roses, the blossoms of the former, even more than the latter, filling the air with perfume in late spring and early summer.

The Hills occupy the narrow neck of land between Peconic and Shinnecock bays, the former an arm of Long Island Sound, the latter separated from the Atlantic only by a narrow barrier beach of sand. To the east, the country becomes more level and fertile, and on the Peconic side was still heavily wooded at the time of our visit. On the Atlantic side lies the town of Southampton, even then a popular resort in summer. To the west of Shinnecock Hills the isthmus becomes even narrower, until at Canoe Place but a comparatively few yards of sand divided the waters of Peconic Bay from those of the bay to the south, and consequently, of the Atlantic. Here the Indians had a portage, over which they could drag their canoes a short distance overland from the Atlantic into Long Island Sound by way of Peconic Bay, without being obliged to brave the rough waters in rounding Montauk Point, the extreme eastern tip of the Island, and thereby saving some seventy or eighty miles of distance out and back. The whites also were not slow in appreciating the strategic advantage of the spot with the result that the State has constructed a canal on the site of the old Indian portage for the benefit of local fishermen.

This short cut must have played a considerable part in making the region attractive to the Indian, supplementing its natural advantages of good springs of water, proximity to the ocean and to nearly land-locked bays furnishing the best of fishing and numerous clams and oysters, a nearby forest which must have abounded in game, and convenient fertile tracts suitable for cultivation. In fact, numerous traces of ancient habitation may be seen on every hand, especially on the northern side, where the hills are lower, along the shores and coves of Peconic Bay.

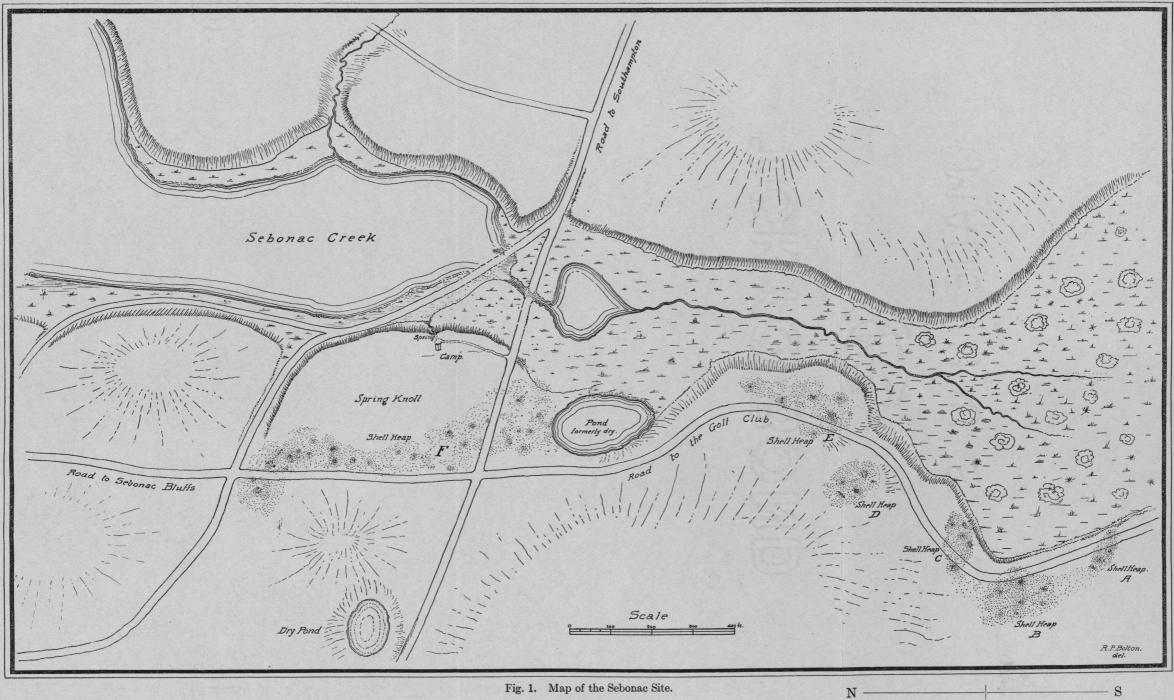
The Site. The largest of these sites, the scene of our investigations, lies along the west bank of Sebonac Creek, which, rising in a series of springs in a little swamp about three-quarters of a mile north of the Shinnecock Hills Golf Club, flows northward for some distance as a fresh

¹Tooker, op. cit., 41.

water brook. Before long, however, it becomes a tidal creek which in turn broadens out into Bull Head Bay, an arm of Peconic Bay. Scattered along the entire distance from the springs to the bay might be seen patches of decaying oyster and clam shells of varying area and depth, sometimes but a few yards in diameter, sometimes quite extensive. For the most part, these showed on the surface in the form of small fragments of shell only visible to the practised eye among the thin grass and straggling bushes.

To the casual observer such deposits of shells appear to have been laid down on the sea bottom at some time when the present dry land was submerged; in fact, the writer has often been asked if such could not be the case. Upon his reply that the shells were left by the Indians, the questioner almost invariably inquires, "What was their object?" and is usually greatly astonished to learn how simple is the answer: that the aborigines, after gathering the oysters and clams, and bringing them to their village, merely ate them and threw the shells away, and that these shells, accumulating through the years, formed the deposits that have endured until this day.

Ten of these "shell-heaps" were counted on this site, large enough to warrant the conclusion that each represented not one, but a group of ancient habitations, besides smaller ones which probably marked the site of solitary wigwams. They were lettered consecutively on our map as, A, B, C, etc., beginning at the springs and proceeding northward. This map (Fig. 1) shows only five of the shell deposits, however,—those wholly or partially explored—the others lie to the northward, outside of the area represented.



THE EXCAVATIONS

Method of Investigation. Our first procedure in examining one of these deposits was to dig in various parts of it small excavations called test holes, each some eighteen or twenty inches in diameter, penetrating through the shells and other materials composing the "village layer" down to the original undisturbed soil of the site. By "village layer" is meant the accumulated refuse of the Indian village, not only the shells, but the soil blackened by the decay of organic matter, stones shattered and cracked by the heat of ancient campfires, charcoal, ashes, the bones of food animals split for marrow, fragments of broken earthen pots, chips of flint and other refuse from the making of stone implements, and occasional perfect objects of Indian make, lost by accident or hidden for safe-keeping.

By these test holes then, we determined the depth and richness of a deposit, and could then decide what part or parts, if any, warranted more thorough excavation. Should such a place be found the next step was to locate the edge of the deposit and there start a trench running down through the village layer, three or four inches into the undisturbed sand below, and wide enough to allow six feet to each worker. A trench of this kind was carried forward by carefully digging down the front with a trowel, searching the soil for relics, then, with a shovel, throwing the loose earth thus accumulated back out of the way into the part already dug over, so as to expose a new front. Test holes two or three feet deep were sunk into the sand here and there and the digging-down process repeated until the opposite side of the deposit was reached and the indications disappeared. Then another trench was run parallel and adjacent to the first on its richest side, and so on, until the investigator was satisfied that he had covered the entire deposit, or at least as much as his purpose required.

Pits. The object of digging the trenches not merely to the bottom of the village layer, but several inches below it, and of driving test holes, was to detect disturbances running down into the subsoil from the bottom of the deposit. Such disturbances may be very difficult to follow, showing merely slight stains and bits of charcoal running down into the ground; but they indicate that the subsoil at that point had at some distant date been dug out and filled in again. It is incumbent on the archæologist to find out why, if he can, and to this end he must dig them out to the very bottom.

This frequently leads him to a skeleton, but still more frequently the disturbance turns out to be merely a pit, a bowl-shaped or cup-shaped

hole, dug for one of several purposes, and later used as a repository for ashes and camp refuse that were thus disposed of neatly and easily. One of the purposes for which they were dug was for the storage of corn over the winter. Probably many of the larger pits were thus first employed, but the majority seem to have been ovens or steaming holes, the Indian prototype of the fireless cooker, and direct progenitor of the modern clambake. As nearly as can be discovered, these holes were lined with stones and a fire built in them which was kept up until hole and stones were piping hot. Then the oysters, clams, meat, or whatever food had to be cooked, were put inside and carefully covered so as to retain the heat, and left until done. Some seem to have been used as cookers, without the addition of stones; others, to have been dug purely and simply for the disposal of odoriferous garbage. The examples described on the following pages illustrate typical forms and sizes.

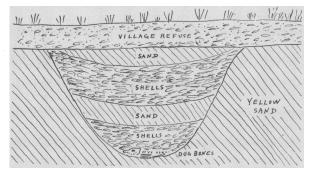


Fig. 2. Section of Pit 62 in Shell-heap A.

Shell-heap A. The first shell-heap examined, designated on our map (Fig. 1) by the letter A, was situated near the little swamp whose springs constitute the source of Sebonac Creek. Numerous test holes dug in different parts revealed the fact that the village layer was shallow, averaging about a foot in depth, and that its groundplan was oval, with a length of 110 feet and a width of about 30 feet. Our tests, although failing to yield prospects good enough to warrant trenching, disclosed one rather unusual pit, about 4 feet wide and 3 feet deep, filled with alternate layers of shells and sand as shown in the section (Fig. 2) and containing disjointed dog bones at the very bottom. Scattered through the other layers were several arrow points and unfinished implements of quartz, two broken bone awls, a piece of deer antler, and numerous animal bones, for the most part split for the marrow, as usual.

Shell-heap B. Shell-heap B was much larger, some 200 feet long by 100 feet wide, although no deeper than Shell-heap A. It proved to be so much richer that we dug no less than twelve trenches, uncovering twenty-eight pits. Among the most interesting of these was Pit 10, which was found to be 53 inches long, 47 inches wide, and 47 inches deep, and contained, besides the usual shells, deer and fish bones, broken pottery, and bone awls, two burned layers, one directly upon the bottom, one six inches above, yielding charred hickory nuts, acorns, bits of rushes and wood, and most interesting of all, charred cord and bits of aboriginal fabric, made of some coarse vegetal fiber (Fig. 3). Another notable pit was No. 28 which was 6 feet in diameter and 4½ feet deep, with a layer of

burned shells and ashes in the center. This pit yielded a number of bone awls and worked pieces of antler, an antler arrow point, many fragments of pottery and an unusual number of bones of various animals, birds, and fish, together with a small deposit of still recognizable fish scales in the very bottom. Pit 40 contained, among other objects, thirteen scrapers of quartz and Pit 47, alarge mortar stone with two grinding cavities, one on each side.

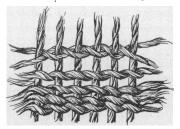


Fig. 3 (20-7472). Piece of Aboriginal Textile.

An unexpected find appeared in Pit 43, which, although but 3 feet wide and 22 inches deep, contained, at 16 inches, the dismembered skeleton of a person some twenty years of age, among whose bones, some of them slightly charred, lay a few bones of an infant. Many potsherds appeared in this pit, some of them lying directly upon the skull. Beneath the bones were found more broken pottery and a number of the bony plates or scales of a large sturgeon. The charring of toes, ankles, pelvis, and ribs suggest that the poor unfortunate may have met death at the stake.

Most instructive of all, however, was Pit 48 which, in spite of its small size (3 feet in diameter and 28 inches deep), yielded an excellent series of specimens illustrating the making of pottery. A lump of unworked clay and some tempered clay lay in the bottom of the pit, while immediately above, fragments of the major portion of a large jar were found. Among the refuse of the pit, which was largely filled with shells of the soft clam, were found two stone pottery smoothers with the clay still adhering (Fig. 4a), a bone awl that could have been used to draw the incised designs on a vessel while still soft, a stone muller, probably

intended to crush the clay or the tempering materials, probably both, and preserved by accidental burning a small vessel in the course of manufacture showing the coiling process distinctly (Fig. 6).

Among the many arrow-heads, potsherds, and other specimens turned out in the general digging here, one object holds a peculiar interest. It is the perforated circular ornament of claystone shown in Fig. 8, engraved on one side with a figure which suggests the head of a bird (a), on the other, with a design which seems to represent an eye, of which the central perforation forms the pupil (b).

Shell-heap C. Situated some 100 feet northeast of Shell-heap B lies Shell-heap C, very similar in form to A, but a little larger and a little deeper, averaging 14 inches, as two trenches and a number of test holes showed. A few pits were found here, one of which, a small one, contained a flat pebble, bearing scratched upon it a rude sketch of the face of some animal resembling a lynx (Fig. 7). Much of the ordinary material was found in the general digging, scattered through the whole deposit.

Shell-heap D. On a rise of ground some distance north of the preceding was situated Shell-heap D, which, like it, was of rather small dimensions. It was shallower, measuring only 8 inches, and contained but two pits worthy of the name, one of the common form and contents, the other, Pit 64, more cup-shaped than bowl-shaped, with sides nearly perpendicular. This contained, besides the common bones and sherds, a lynx jaw, a raccoon jaw, and a piece of antler showing cutting.

Shell-heap E. Just east of D, lay Shell-heap E, large and irregular in outline and variable as to depth. This shell-heap was chiefly remarkable because it contained two wigwam sites distinguishable as such, the first the writer had seen in all his three years' archæological digging about New York.

Wigwam Sites. The first wigwam site was an oval of stained earth about 15 feet wide by 20 feet long, and in the center, where the fireplace seems to have been, reaching a depth of 3 feet. The average depth of the floor, however, was some 27 inches. Here were unearthed two massive pieces of a whale's lower jaw bone, still showing at the ends the marks of the stone ax with which it had been cut into lengths (Fig. 5), for what purpose was not evident. Scattered about through the deposit were many pieces of a small pottery vessel, bone awls, and pieces of deer antler showing cutting, besides the ordinary animal bones, flint chips, and the like. Shells and charcoal, while present, were by no means abundant.

Of considerably smaller size was the second wigwam site, which lay about ten feet southeast from the first, for it measured only 10 feet by

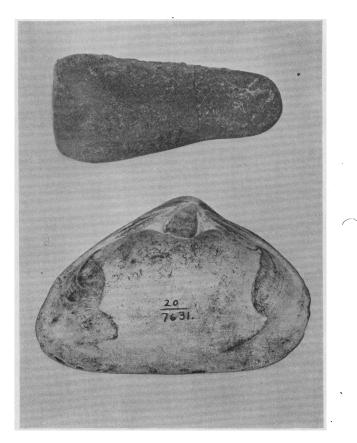


Fig. 4 ab (20-7762, 7631). Implements for making Pottery.

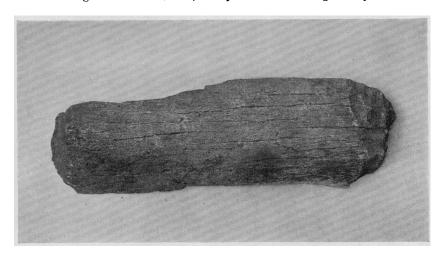


Fig. 5 (20-7918). Piece of Whale's Jawbone showing Marks of the Stone Ax.

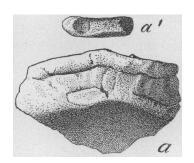


Fig. 6.

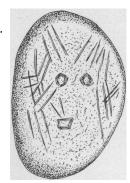


Fig. 7.

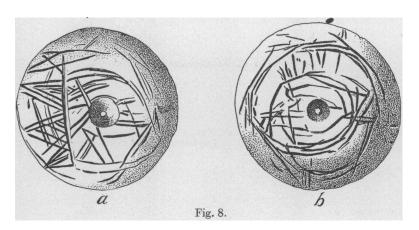


Fig. 6 a', a (20-7846, 7774). Part of Pottery Vessel showing Coiling and a Piece of a Clay Coil.

Fig. 7 (20-7627). Pebble showing Drawing of an Animal's Face.

Fig. 8 ab (20-7660). Obverse and Reverse of a Clay Stone Pendant showing Designs possibly representing a Bird Head and an Eye, respectively.

15 feet. In the center, where the fireplace had been, was a distinct spot of burned earth, and a deposit of ashes, a little over 2 feet below the present surface. This wigwam site, like the first, was thoroughly excavated, but yielded only the commonest of pottery fragments and split animal bones.

Burial. But a few feet east of the first wigwam site, in Pit 54, a typical burial came to light, the first and only one entirely in anatomical order found on the site. It was the skeleton of an aged person lying flexed on its right side with the head to the southwest, face turned toward the east, and hands near the face (Fig. 9). The only unusual feature was the sunken position of the hips, fully two feet deep, while the head was 14 inches and the feet but 12 inches from the surface. Near the pelvis were two worked stones and a large part of a bowl made from the shell of a box tortoise (Fig. 10). Above and a little south of the knees

was a small bed of ashes. Throughout the grave were scattered disintegrating oyster shells, while the skeleton itself was badly decayed.

Copper Bead. This grave had cut into a pit (No. 55) which contained merely the ordinary animal bones and bits of broken pottery, in which respect it resembled several other pits that were opened in the vicinity. A rare article, however, appeared in the northern part of this shell-heap in the general digging, a cylindrical copper bead (Fig. 11), apparently made of the native metal; but without analysis this cannot be stated as a positive fact.



Fig. 11 (20-8026). Copper or Brass Bead.

Shell-heap F. North of Shell-heap E was a small fresh-water pond which became nearly dry in summer. North of the pond Shell-heap F extended down to the swampy ground surrounding the pond and the adjacent salt meadows. The swamp itself was full of shells in a number of places. This was the largest deposit of all, for it extended almost continuously from the little pond in a northerly direction around the western side of what we called the Spring Knoll a distance of five or six hundred feet, and was in places more than a hundred feet wide. The little work we were able to accomplish here in the brief time that remained to us was productive of excellent results, however, for the second pit (No. 59) yielded a nearly perfect pottery vessel of the pointed-bottom variety (Fig. 12), a long bone awl, and a beaver tooth, besides the usual material. This pit was oval in groundplan, measuring 4½ feet by 6 feet, with a depth of 28 inches. The construction, as may be seen

in the section (Fig. 13), was rather out of the ordinary, in that the pit had been filled with raw unstained material such as forms the subsoil in the vicinity, thus producing a yellow layer above the shells and blackened earth of the pit. Such pits illustrate the wisdom of digging occasional test holes into the apparently undisturbed subsoil.

This was in the first trench; further trenching brought to light many small pit-like depressions, as well as ash-covered beds of fire-broken stones, all in or below a village layer which averaged about 10 inches deep. This yielded some very good bone awls, many potsherds and the ordinary material. At one place two points of deer antler and a bone awl were found in contact, lying on the original subsoil upon which the shell-heap rests.

Other Deposits. The shell-heaps to the northward toward Peconic Bay, and there were quite a number, were not touched for lack of time.

The Spring Knoll. Between Shell-heap F and Sebonac Creek, at this point expanding into a good-sized salt water cove, is situated the Spring Knoll, one of the most interesting parts of the whole village site. Toward the water, it terminates in a steep cutbank about 10 feet high, extending down to the edge of the creek, where a clear cold spring bubbles forth, while on the land side, beyond the shell-heap, the knoll blends with the brambly, wind-swept Shinnecock Hills. On this knoll, not far from the spring, the explorer's camp was pitched.

Graves. Just south of the crest of the knoll, test holes in one spot revealed dark stains penetrating the yellow sand, with here and there a scattered shell—a likely looking prospect for a grave. We followed these stains, of course, with the result that we soon traced the outline of a pit (No. 11) some five feet in diameter, and shortly afterward, at a depth of 28 inches, encountered the decayed bones of four infants matted together in a compact mass. The pit ran down to a depth of 38 inches and yielded, besides these remains and a few scattered bones of an adult, several fragments of pipes, both earthen and steatite, one of the latter engraved, and the usual sherds, including some fragments of steatite vessels, together with split deer bones and the like.

Pit No. 14, another grave, was found about 10 feet southwest of Pit No. 11. It contained the remains of a child aged about twelve, at a depth of 29 inches to the top of the skull. The skeleton headed east, and lay partly on the stomach with knees northward and feet doubled back to the pelvis. The skull had been displaced and was found facing west near the knees. It was badly cracked and the lower jaw and some of the cervical vertebræ were apparently missing, but were afterwards located

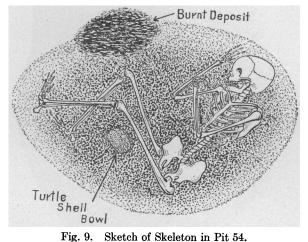


Fig. 9. Sketch of Skeleton in Pit 54.

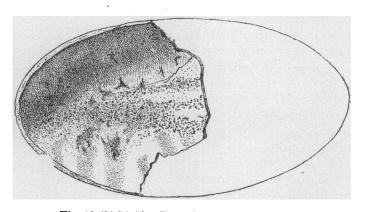


Fig. 10 (20-7937). Part of Tortoise Shell Bowl.

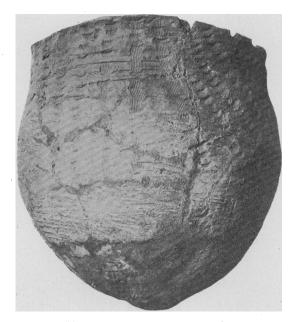


Fig. 12 (20-7975) Pottery Vessel

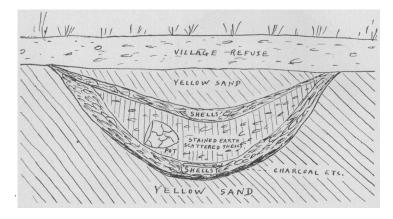


Fig. 13. Section of Pit 59.

near the pelvis. All the other bones were placed naturally. The pit ran down to the depth of 25 inches and contained broken pottery, fish bones, and the like, also a quartz arrow-head.

Other Pits. Six feet south of Pit No. 14 was Pit No. 35, of unusually large size, being 7 feet wide and 4½ feet deep, a pit which yielded among other material charred corn and cobs. Four feet south was still another pit (No. 36) about the same size as the last. It was nearer the swamp and reached water. In the bottom, embedded in the saturated sand and ashes lay many potsherds and a broken skull and femur. Both articulating surfaces of the femur and the face of the skull were missing. There were a number of other pits on the knoll, but these were not specially interesting.

Spring Knoll Village Layer. North of the summit of the knoll and facing Sebonac Creek is situated a small hollow in which were found many traces of occupation, but few shells. Here a number of trenches brought to light many specimens, among them a perforated clay-stone ornament and a potsherd bearing the engraved figure of a bird, perhaps the mythic "thunderbird" (Fig. 32e). Several pits were exposed here, one of which was Pit No. 1, interesting because it contained near the bottom a large number of land snail shells (*Helix albolabris* and *alternata*) showing the probable use of such snails as food. A section of this pit is shown in Fig. 14.

Archaic Specimens. The soil of the hollow is different from that of the other deposits on this site, as the black village layer reaches the depth of twenty inches in places, with but few and scattered shells. Most of the artifacts were found near the bottom, just above the yellow sand which underlies the whole deposit, but in some cases stemmed arrow points and crude crumbling pottery of a somewhat more archaic character than most of the specimens found here were exhumed from the yellow sand itself. It should be noted, in this connection, that the triangular type of arrow point was the most abundant on this village site; not, however, the narrow triangles associated with Iroquois culture, but the broad form affected by the seaboard Algonkian tribes.

RECONSTRUCTION OF SHINNECOCK CULTURE

Such were the conditions found and such the nature of our excavations. We must now attempt to learn from the specimens exhumed from this ancient village something of the life of its vanished inhabitants, of their means of livelihood, their industries and manufactures, and their relations with other peoples. Only in so far as we may be able to accomplish this will the results of our investigations be of real value. Fortunately, as before mentioned, we have specimens and information gathered from the descendants of this people, old local records, the writings of early travelers, and the surviving practices of similar tribes to help us.

Site identified as Shinnecock. With the exception of the few objects characterized above as archaic, found on and near the top of the sandy subsoil underlying the village layer on the Spring Knoll, all the material found was quite uniform and apparently the work of one people. Some articles made by the whites of the Colonial period (Fig. 15) were found near the surface, indicating that whatever the age of its first settlement the village had been occupied up to the coming of the whites. Now the white settlers found the Shinnecock in full possession of the district; so if the last Indians of the village were Shinnecock, and the deposits for the most part contain the handiwork of only one people, we have good reason for assuming that the village was Shinnecock from first to last. As for the archaic articles, somewhat different in character, found in one spot on the Spring Knoll, these appear to be relics of an earlier camp occupied by a people who may or may not have been the ancestors of the Shinnecock.

Dwellings. What sort of houses stood on the knolls beside Sebonac Creek three hundred years ago? Our excavations told us little, except that they were of oval groundplan, some as small as ten by fifteen feet, some as large as fifteen by twenty feet; that their floors, sometimes at least, were sunk two or three feet below the surrounding surface of the ground; and finally, that the fireplace was in the middle of the floor.

There seemed to be little hope of finding further data. So when we discovered several living people who had seen Shinnecock wigwams in actual use our surprise and pleasure were great. Some of the informants were aged descendants of the Shinnecock; others were elderly whites who had spent their days in the neighborhood; but all agreed on a description which may be stated as follows:—

^{&#}x27;Thompson, Benjamin Franklin, History of Long Island from its Discovery and Settlement to the Present Time (Third edition, revised and greatly enlarged, New York, 1918), vol. 1, 127.

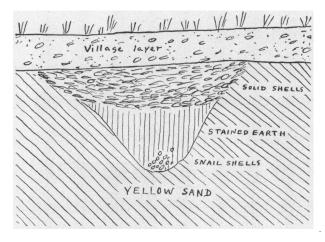


Fig. 14. Section of Pit 1.

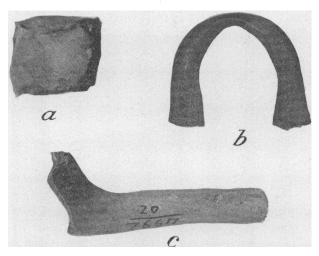


Fig. 15 abc (20–7319, 7292, 7667). Objects of European Origin.

Fig. 16 (M-34). Model of Shinnecock Wigwam.

Poles were bent into intersecting arches until a dome-shaped frame was made from ten to twenty feet in diameter. After all the poles had been tied firmly together, and horizontal strips put in place, the whole was thatched with a species of grass, called "blue vent," put on in overlapping rows, and sewed fast to the strips. When the top was reached, a hole was left open for the escape of smoke, and the edges of the aperture plastered with clay to prevent the thatch from catching fire. The ground-plan was circular or oval, sometimes divided into rooms by partitions of wattle-work and thatch. The door frame was an arched pole, the door of wood, or sometimes merely a curtain of skin or mats. An elevated bench or couch of poles generally encircled the interior, beneath which the goods were stored. In at least one case, at a place where poles were difficult to procure, the floor was dug out in the middle so as to leave a shelf around the wall which answered the purpose of bed, seat, and table. The fireplace was in the center.

To preserve this information in tangible form, Mr. W. C. Orchard visited the Shinnecock settlement a few months after our party had left, and under the instruction of Wickam Cuffee (Fig. 35), one of the oldest and purest-blooded of the survivors, prepared a model showing the exact method of construction, which may be seen in Fig. 16. We afterward found a photograph of a full-sized Shinnecock wigwam in the records of the town of Southampton.

Outdoor storehouses were still made in the Shinnecock settlement, at the time of our visit, by digging holes four or five feet deep and roofing them with poles and thatch. One of these may be seen behind the Indian in the photograph reproduced in Fig. 38. That this is an ancient method may be established from Colonial records, which mention the "Indian barns" as constituting a danger to the Colonist's cattle, on account of the excavations into which they might fall.

It is, of course, quite possible that the "holes" that gave the good people of Southampton such trouble in 1641 were merely abandoned storage pits that had never been roofed.

Means of Livelihood. A glance at the thousands of rotting shells which compose the bulk of the deposits gives an immediate clue to the outstanding fact of ancient Shinnecock economics: that the sea furnished the greater part of their living. We must not rest content with the idea that oysters, hard clams, soft clams, and scallops constituted the whole of the ocean's contribution, for the refuse layers and pits yielded crum-

¹Pelletreau, William S., "The First Book of Records of the Town of Southampton with Other Ancient Documents of Historic Value" (*Transcribed with Notes and Introduction*, Sag Harbor, New York, 1874), 22.

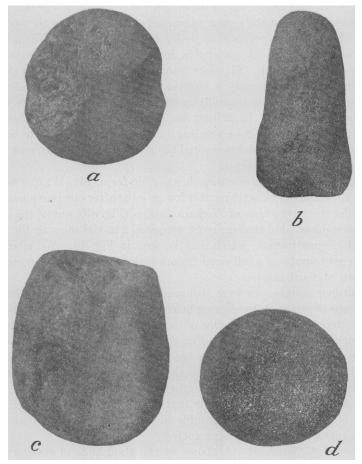


Fig. 17 a-d (20–7634, 8000, 7736, 7811). Stone Implements.

bling bony plates once forming the armor of huge sturgeons, while the teeth of sharks, the bones, and sometimes the scales of other fish, most of them beyond precise identification, together with the claws of crabs, show that the Shinnecock made good use of all the edible creatures the local waters afforded.

As to the method of taking fish, the shell-heaps yielded a few suggestions, among which was the presence of numerous flat pebbles, notched at the edges (Fig. 17a) as if to keep an encircling cord from slipping off. Similar stones may be seen in use as net-sinkers among some tribes

today. Such a use for the objects in question is made more probable by historical data referring to the use of nets by nearby peoples. A part of an antler fish hook (Fig. 18a) which, when perfect, probably resembled the bone hook found by Tooker (Fig. 18b), and a slender pointed bone object, so shaped as to suggest its use as a barb for a fish-spear (Fig. 18c), hint at other possible methods, as does the survival, among the neighboring mixed-bloods of today, of fish traps made of basketry of a style once used by most of the tribes of what are now the central Atlantic States.

We cannot go so far as to state that these Indians actually hunted the whale, although fragments of a barbed antler harpoon head hint at such a possibility. Worked bones of one of these great creatures found in one of the wigwam sites show that they used

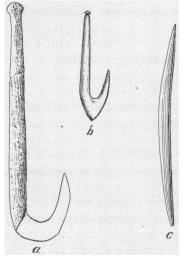


Fig. 18 a and c (20–7471, 7518), b (Tooker Collection). Fish Hooks and Barbs. a, Part of antler fish hook; b, Bone fish hook; c, Bone barb.

the whale, whether they harpooned him on the high seas or found him dead on the beach.

Colonial records lead one to believe that they did both, for we find in a deed of April 29, 1648² that the Shinnecock, in selling a certain tract retained their hunting and fishing rights, and were to have the "ffynnes and tayles of all such Whales as shall be cast up" on the adjoining

¹Van der Donck, Adriaen, "A Description of the New Netherlands" (Translated from the original Dutch by Hon. Jeremiah Johnson, Collections, New York Historical Society, 2d series, vol. 1, New York, 1841), 209.

²Thompson. op. cit., vol. 2, 87.

beaches; while an ordinance of October 7, 1672¹ "ordered that no Indian employed in the whaling business shall have more than one trucker coat for each whale that his company shall kill, or half the blubber, without the whalebone." Certainly, if Shinnecock "engaged in the whaling business" and their "companies killed whales" only thirty-two years after the coming of the whites, the presumption is strong that they did it before the Colonists arrived, about 1640.

The records of the 1670's are full of contracts in which various Indians agreed to go to sea for certain colonists in pursuit of whales "and other great fish," promised to "use and improve our best skill and strength and utmost endeavor for killing" them, and avowed their intention of taking the best of care of boats and tackle, all for a certain stated payment; with a penalty of so much a day to pay for absence without good excuse.

Certain it is also that in later historic times many Shinnecock shipped as whalers out of Sag Harbor and their seagoing instinct is demonstrated by the tragic fate of twenty-eight of the men, including a large proportion of the full-bloods, who perished while trying to save the stranded ship *Circassian* as late as December 31, 1876.

Although so large a proportion of their food supply came from the sea, quantities of deer bones split for the marrow show that the Shinnecock by no means despised the venison that formed the staple food of so many tribes, while other bones taken from the shell-heaps and pits show that the flesh of the raccoon, muskrat, and even perhaps the lynx, was not neglected, and that due advantage was taken of the spring and fall migrations of wild fowl. Bits of bony carapaces extracted from among the shells of the middens tell of the use of various kinds of turtles as food, and deposits of the shells of land snails would seem to indicate that the primitive Long Islanders were not unfamiliar with that popular French dainty.

The finding of numerous arrow points of stone and of deer antler amid the village refuse and of bones showing wounds, probably made by such points, indicates that shooting with the bow and arrow must have been one of the methods for taking game. All knowledge of other appliances, whether weapons, traps, or snares is now lost. By analogy with styles used by most Eastern tribes, we may surmise that the Shinnecock bow was probably straight, five feet or even more in length, with a rectangular section; and that the arrows were also long, at least thirty inches, and were provided with three feathers. The modern Shinnecock

mixed-bloods told the writer that their bow was of hickory, "as long as the man who used it."

The products of agriculture are highly perishable, so it is not surprising that so few cobs and grains of corn or maize appeared in our deposits. The astonishing thing is that some did happen to fall in the fire to be preserved by charring for our instruction hundreds of years later. It is certain, from our knowledge of other eastern tribes, that the raising of corn, beans, and squashes must have been of considerable importance to Shinnecock diet; certainly more than the bare handful of charred cobs and grains would lead us to expect.

Most, if not all, Indian tribes took full advantage of such natural products as their environment afforded in the way of roots, nuts, and berries. The finding of charred hickory nuts leads us to surmise that the Shinnecock were no exception to this general rule. A rather pathetic bit of corroborative evidence appears in the Southampton records¹ where we find that:—

At a general court held March 6, 1654, it was ordered that noe Indian shall digg for ground nuts on the plain nor in any other ground, upon penalty of sitting in ye stocks for ye first fault, and for the second to be whipped.

Cookery. To describe the cookery of a people after several hundred years have elapsed is no easy task, and cannot, of course, be done in detail. Yet, we are not altogether without clues, for our shell-heaps yielded many potsherds, and a few fragments of steatite vessels, some still so coated with deposits of soot or similar material that we can safely say that liquid foods were boiled in earthen kettles with pointed bottoms, or in oval or rectangular kettles of soapstone provided with handles at the ends, both set directly over the fire. But how could a vessel with pointed bottom be made to stand while the contents was cooking? Such a question naturally suggests itself, but is answered for us by John White of the Roanoke Colony of Virginia, 1585–1588, who made a drawing of a kettle of this type in use, supported by the sticks of firewood, and captioned it "The seething of their meate in Potts of earth." Other tribes who have used pointed-bottom "potts" in recent years frequently support them with three or four stones, between which the point is set. 3

Now, the question arises as to just what sorts of food were cooked in these vessels. The boiling of meat in the form of soups or stews is suggested by the numerous bones of deer and other animals, which, although

^{&#}x27;1aem, 152.
'Holmes, W. H., "Aboriginal Pottery of the Eastern United States' (Twentieth Annual Report, Bureau of American Ethnology, Washington, 1903), pl. II.
'Skinner, Alanson, "Notes on the Bribri of Costa Rica" (Indian Notes and Monographs, Museum of the American Indian, Heye Foundation, vol. 6, no. 3, New York, 1920), 49.

split for the marrow fat, considered by most surviving Indians as a great dainty, show no trace of burning or contact with fire at the ends, and so were probably boiled. That some meat at least was roasted or broiled is suggested by the fact that some bones do show such burning. The very fact that the burning is mainly confined to the ends indicates that the middle portions were covered with meat at the time of exposure to fire. Tradition among the surviving mixed-blood Shinnecock tells us also that the old people made hominy and "suppawn" or mush from corn, both of which required boiling. Also, that they boiled corn with ashes to remove the hull, washed it free of lye, pounded it in a wooden mortar with a long stone pestle, mixed the resulting meal with berries or beans, according to the season, and finally boiled it in the form of dumplings. Such boiling, in ancient times, meant, of course, the use of the clay or stone pot.

An inspection of the thousands of oyster and clam shells lying about the village site revealed the fact that few, if any, showed any traces of forcible opening, yet seldom were the two valves found together. Comparatively few of them showed traces of fire, so we cannot conclude that they were usually opened by laying them on glowing coals. From these facts, it appears that most of them must have been steamed open, which could best be done in the oven pits of which we found so many examples. From the phenomena we observed in our digging, plus our knowledge of the use of such primitive fireless cookers by other tribes, the method of procedure must have been somewhat as follows: A bowl-shaped hole was dug four or five feet in diameter and two or three feet deep, in which a layer of stones was placed. On these, a good fire was kindled which was kept burning until the stones and the hole itself were piping hot. Then a layer of seaweed was laid in, upon which the shellfish were placed, together with meat or fish, or whatever else the Indians wished to cook. These were covered with more seaweed and earth drawn over the hole to keep in the steam. When the pit was opened some hours later, the shells were all open and the contents ready to eat. Some such arrangement as this was probably the progenitor of the New England clambake, borrowed from the Indians by the colonists.

We found no utensils especially intended for serving food unless the bowls made from the shells of the land tortoise, of which we unearthed a number of fragments, were so employed. The largest piece (Fig. 10) shows that the rim of the carapace had all been cut away and the rib-like bony structures inside scraped out to fit it for use as a bowl. In common with the Mohegan, the Lenapé, and other Eastern Algonkian tribes, the Shinnecock must have used bowls and spoons of wood; in fact we found

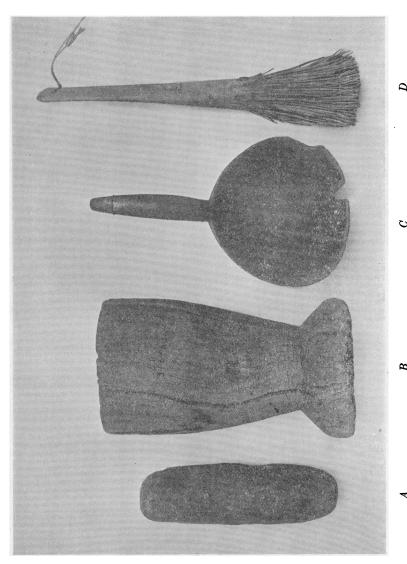


Fig. 19 *a-d* (50-3489b, 3489a 3491, 3494). Modern Shinnecock Implements.

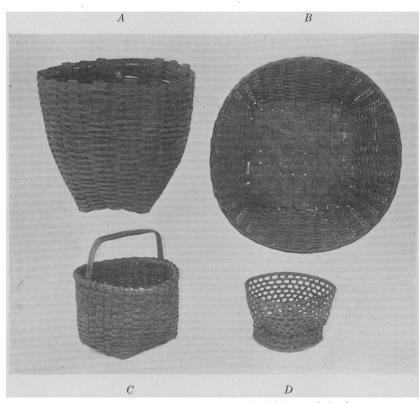


Fig. 20 a-d (50–3485, 3483, 3487, 3484). Shinnecock Baskets.

a few of the latter, resembling the butter ladles of the whites, among the surviving Shinnecock mixed-bloods (Fig. 19c) and early accounts tell of bowls and water vessels made of gourds, some as big as a Dutch bushel, used by neighboring tribes.

Manufactures. An inspection of our collection shows that the ancient Shinnecock employed, as materials for their manufactures, flinty stones, tough stones, soft stones, deer antler, the bones of various animals, shells, clay for pottery making, vegetal fiber for making textiles and cordage, a little copper, and, of course, wood, although we found no actual wooden articles. Arrow points, however, imply arrows of wood. Arrows required bows of wood and the presence of these suggest that other wooden articles must have been used. Such reasoning is not needed, however, for our inquiries concerning woodwork among the modern Shinnecock mixed-bloods brought a number of facts to light, which are doubtless, in part at at least, applicable to the ancient people.

Use of Wood. Wooden mortars of two sizes were in general use: one large, about two feet high, used, with a wooden or a long stone pestle, for preparing corn; the other, small, less than a foot high, in which a stone pestle was employed to crush herbs. I failed to obtain any specimens of the first type, but succeeded in buying for the Museum the old herb mortar with its original stone pestle (Fig. 19ab), both handed down for generations in the family of John Thompson. Such mortars were made of sections of the trunk of the pepperidge tree, also called tupelo or sour-gum, the wood of which is noted for its toughness and freedom from splitting. The hollows in the mortars were made by laying on live coals and scraping out the charred portion, renewing the coals until the required depth was reached.

Baskets were made of white oak or maple splints in two principal forms, the one tall and cylindrical (Fig. 20a), the other flat and either circular (Fig. 20b) or rectangular in outline, with low sides. The winnowing basket for preparing corn was of the low-sided type. Fancy baskets (Fig. 20d), into whose composition sweetgrass sometimes entered, were formerly made, but this art has become extinct, the only basket now woven being a cylindrical type with a handle (Fig. 20c) identical with a style commonly made by the whites. The splints were sometimes dyed yellow, it is said, by a decoction of the inner bark of a species of oak. A pack basket, carried on the back by means of a band across the forehead was still in common use sixty or seventy years ago for transporting burdens of all kinds. Eel traps of cylindrical form, with a funnel point-

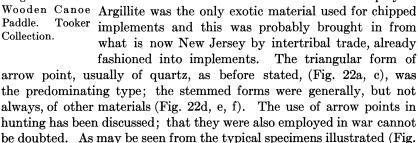
ing inward at one end through which the fish could enter but not escape, were also made from the white oak splints, a widely distributed type.

Serviceable brushes for cleaning pots were made by splitting the end of a white oak stick into small splints as seen in Fig. 19d and large brooms were sometimes made in the same style. Broad flat wooden ladles

> (Fig. 19c) were common in old times, many of them resembling the butter ladles of the whites.

> Canoes, it is said, were made of great whitewood or oak logs, hollowed out with the aid of fire, like the wooden mortars. As for paddles, a certain Charles Conklin, while fishing for eels in the creek at Canoe Place, in February, 1880, found the larger part of an ancient oak paddle embedded in the mud. This implement (Fig. 21) measures 34¼ inches long, with a blade which must have originally been at least 8 inches wide. It found its way to the collection of William Wallace Tooker at Sag Harbor, and finally to the Brooklyn Museum.1

> Stonework. The chipped implements of stone found on the site, probably variously used as arrowheads, spear points, knife blades, and drills, were usually made of white quartz, which exists in abundance in the form of pebbles on the nearby beaches. together with less frequent pebbles of jasper and chert of different colors which were sometimes employed.



crude in finish. Experiment has shown that the average stone knife was most efficient, not for whittling, but in cutting bone or wood when used as a

22) the arrow points of the Shinnecock are rather irregular in form and

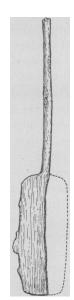


Fig. 21. Ancient Paddle. Tooker Collection.

¹Thanks are due to Mr. Foster H. Saville for photographs and information concerning this paddle and other objects in the Tooker Collection. The paddle and the fish hook have been published before. See Tooker, op. cit.

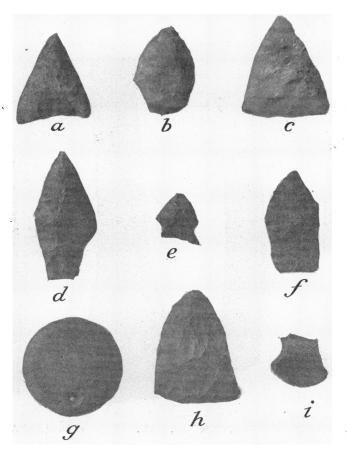


Fig. 22 a–i (20–7960, 7990, 7683a, 7857a, 7300, 7837, 7859, 7605, 7465). Chipped Implements and Clay Stone Pendant.

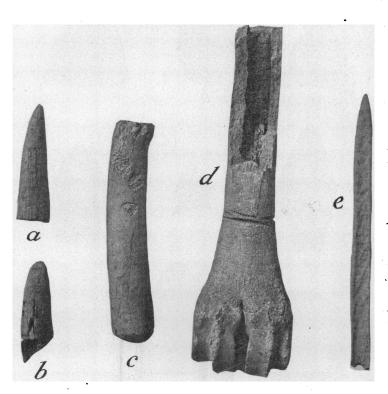


Fig. 23 a-e (20–7580, 7580, 7927, 7433, 7544). Objects of Bone and Antler.

saw, a process illustrated by many specimens of bone and antler (Fig. 23d) found on this site which have been sawed around with a stone knife and then broken off. Another use of the stone knife was for grooving bones lengthwise until they were divided into long strips suitable for the manufacture of needles or awls. This process is also illustrated by several specimens, and experiment has shown its practicability. Undoubtedly, stone knives were also employed in skinning animals and in cutting meat.

Few drills were found in our excavations, although objects of stone and bone and fragments of pottery showing drilling were not uncommon. Probably the tip of an arrow-head answered all ordinary purposes, especially as, in almost every case, the drilling was done from both sides of the object to be perforated, making a long drill unnecessary.

Chipped scrapers of different kinds were nearly as numerous as arrow points, the sharply bevelled type (Fig. 22h, i) predominating; quartz was the favorite material, or at least the most used, although a few were made of chert and jasper, and one of argillite. Several had been made of broken points re-chipped to give the necessary bevelled edge. Besides their use, noted among other peoples, for cleaning the flesh side of skins from any bits of fat or meat remaining after the preliminary scraping with larger implements, these scrapers were probably employed for scraping down arrow-shafts in much the same manner as the modern carpenter uses a bit of glass, and for shaping and sharpening bone awls, which sometimes show distinct traces of this process in the form of slight longitudinal grooves which may be reproduced by experiment.

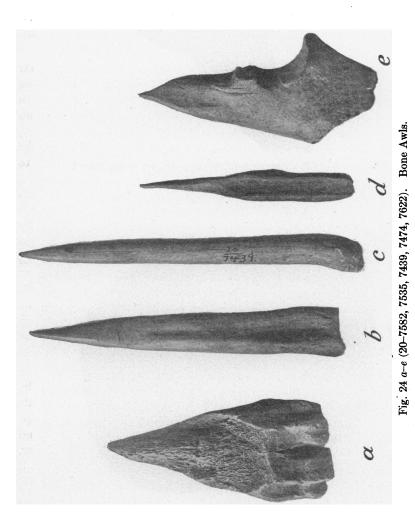
Large flakes, three or four inches in diameter, usually showing on one side the outer surface of the boulder from which they had been struck, were sometimes chipped so as to produce a disk-shaped implement with a rather blunt edge about the periphery, such as is used by several tribes today in softening skins.

The preliminary flaking in the making of chipped implements seems to have been with hammerstones of which we found two types here: one, the natural pebble bruised about the edge by use (Fig. 17c); the other a more or less circular form with a pit in the middle of each flat side for the reception of the thumb and finger (Fig. 17d), the former variety being the most abundant. Such hammerstones were applied directly to the material in removing large flakes, but punch-like cylinders of antler (Fig. 23c) were probably sometimes interposed between the hammerstone and the edge of the blade to be flaked, and the points were finished by removing fine scales from their edges by pressure with a piece of bone or antler. The large number of unfinished implements, pieces rejected for defects, and flakes, testify to the extent of the industry.

The crudest chipped implements found were the so-called choppers, merely beach pebbles of quartz brought to a rough edge at one end by the removal of a few flakes which fitted them for use as a sort of ax for which no handle was necessary. Sometimes such choppers show the wear of considerable service, but it seems probable that most of them were shaped with a few strokes to serve the need of a moment and were then discarded.

Hammerstones were doubtless used for many purposes, but their effects may be best seen today on the unfinished celts that were being slowly shaped by tedious battering and pecking (Fig. 17b). finished specimens showing careful polishing were unearthed, but no complete examples appeared of this grooveless type of ax, which we know, from complete examples found elsewhere, was mortised into a club-like wooden handle. No examples of the grooved ax, whole or broken, came to light during the digging on the site, but it was probably used by the Shinnecock, unless they differed from most Long Island tribes in this respect, while resembling them in many others. Stone axes of either type were useful in breaking firewood at home and the celt type especially for splitting the skulls of enemies while on the warpath, but were not capable of chopping, as we know the term. For felling trees and cutting them into lengths, it was necessary to apply fire, then to use the stone ax to cut away the charcoal and batter loose the fibers so that the fire might take fresh hold, and repeat the process until the work was done. The marks of a stone ax may be seen on the ends of the large bone (Fig. 5), a relic of a whale cut up by the ancient Shinnecock, mentioned before as found in one of the wigwam sites we explored.

Although we failed to find a good example in our digging, there is no doubt that the ancient Shinnecock used the long cylindrical stone pestle, for a number were found still in use among their mixed-blood descendants who all agreed that the implement formed part of their ancient equipment. Such pestles were undoubtedly made by the same battering and pecking process used in the manufacture of stone axes. The long pestles, as before noted, served to grind corn in deep mortars of pepperidge wood; but that these were not the only pattern used is shown by several shallow mortars of stone found in our excavations. Fig. 26 is a good example, consisting of a stone slab with a cup-shaped hollow on one or both sides. Still another type was a flat slab showing traces of rubbing. Instead of a pestle a water-worn beach pebble was used as a muller with the shallow mortars which may have been employed occasionally to grind corn, but probably served mainly for grinding tempering materials and clay



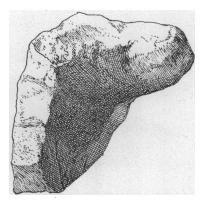


Fig. 25 (20-7492). Fragment of Steatite Vessel showing Handle.

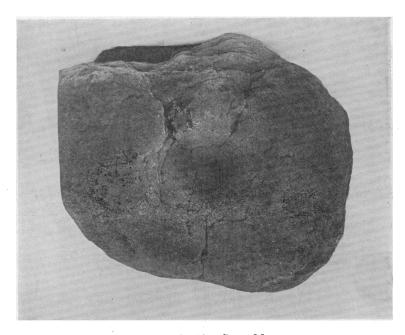


Fig. 26 (20-7757). Stone Mortar.

for pottery making, and for crushing dried meat, dried fish, and dried berries.

We have no reason to suppose that the oval steatite vessels provided with lugs at the ends, of which we found several fragments (Fig. 25), were made by the Shinnecock. These were probably imported ready made from what is now Connecticut, the nearest point where aboriginal soapstone quarries have been found.

A few small fragments of steatite pipes were found which, when perfect, probably resembled the specimen found nearby by Tooker (Fig. 27), a form which required a separate wooden stem. We have no direct data on how they were made, but the soft stone must have been easily cut and drilled with the usual flint knives and perforators.

The circular pendants made from claystone concretions (Fig. 22g, Fig. 8), one perforated near the edge, the other in the center, could be easily reproduced with similar implements, and the crude design scratched in with a flint point. The scratchings on the specimen shown in Fig. 28 must have been similarly made; it seems to be a fragment of a similar pendant, but of elongated form.

Bone and Antler. Implements made of bone and deer antler were quite numerous, especially the awls, of which we found several types. The best were made from strips cut from the metapodial bone of the deer, carefully rounded and polished (Fig. 24bc). Others were made from the ulna or other large bones of the deer, with the joint left to serve as a handle (Fig. 24ae), but the majority were merely sharpened splinters of bones that had been split open for the marrow (Fig. 24d). The bones of birds or small mammals were more rarely employed in making awls, being too fragile to stand hard service. Most awls were probably used in sewing to make the holes in the skin or other material through which the stiff sinew or fiber thread was thrust. Some were doubtless used in basket making, for sewing sheets of bark together to make trays and buckets, and some perhaps as forks for lifting hot meat from the pot.

Next to the bone awls in point of number were the conical arrow points made from the tips of deer antlers cut off, sharpened, and drilled at the base for the reception of the shaft (Fig. 23a). Sometimes a little projection was left at one side of the hole to serve as a barb (Fig. 23b). That arrow points were also occasionally made of bone is shown by the finding of various fragments, one of which, with a restoration based on the style used by neighboring tribes, may be seen in Fig. 29.

A number of fragmentary bone needles also appeared here (Fig. 23e), made, as in the example illustrated, of bird bone; or more often of a

slightly curved strip from a deer's rib; thin and flat, with the eye near the middle, and entirely too broad to use in ordinary sewing. Almost identical needles are still employed among the Central Algonkin tribes, however, for stringing rushes together to make the large mats with which they cover their dome-shaped winter wigwams, so it seems probable that our Shinnecock needles found some similar use. We have historical evidence, to be recounted later, that they used rush mats.

Among the rarer objects were cylinders of antler (Fig. 23c) whose battered ends suggest their use as flint-flaking implements in the manner previously described, a broken harpoon point of deer antler with a perforation and one lateral barb, and a slender barb of bone (Fig. 18c) which may have formed part of a fish spear or may perhaps have been lashed to a wooden shank to form a primitive fishhook, such as is still used among the Montagnais and other tribes. The harpoon cannot be illustrated here, because an important part of it has been lost since finding, but we can state that it had one large lateral barb and was perforated. The use of bowls made of the carapace of the land tortoise, of which numerous fragments (Fig. 10) were found, has been mentioned. That beaver teeth were used for some purpose is assumed from the finding of worked fragments (Fig. 29a). It is known that some tribes had wood-carving tools made of beaver teeth, so perhaps the Shinnecock used them in this way.

The bone implements, complete, broken, and unfinished were studied with some care, and after several attempts had been made to reproduce them in fresh bone with primitive tools, we finally succeeded, and were able to analyze the processes employed. These were sawing, grooving, scraping, grinding, drilling, and polishing. Sawing was accomplished with the edge of a flint knife, a large arrow point, or even with the edge of a large flint flake and was used when it became necessary to cut a piece of bone or antler in two transversely. The edge of the implement was worked to and fro with a saw-like motion against the material until a deep groove was formed. This was continued until it encircled the bone or antler (Fig. 23d) which could then be easily broken in two. Grooving, for the purpose of cutting bone lengthwise, was accomplished with the point of any flint implement or flake. If a strip of bone were needed for the manufacture of an awl, the first step was carefully to mark two parallel longitudinal lines on the surface of the bone selected. These were scratched deeper and deeper with the point of the implement until they became grooves, and finally, until the grooves broke through into the marrow cavity. These slits were connected by a transverse sawing at the ends, whereupon a strip of bone fell out ready for further elabora-

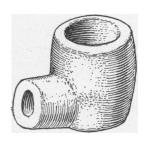


Fig. 27



Fig. 28

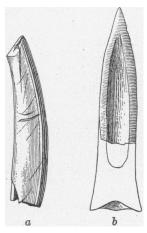


Fig. 29



Fig. 30

Fig. 27. Steatite Pipe. Tooker Collection.

Fig. 28 (20-7589). Part of Engraved Stone Pendant.

Fig. 29 ab (20–7530, 7553). Worked Beaver Tooth and Restoration of Bone Arrow Point.

Fig. 30 Potsherd, Lenapé Type.

tion. The next step was to scrape off the sharp edges and work out a rough point with a bevelled edge scraper, or even a flint chip, used much as a modern carpenter scrapes wood with a piece of glass; then a gritty stone was employed to grind it into final shape. The marks of this grinding may be seen on the awl (Fig. 24b). The final polish was then put on by rubbing with the smooth surface of a beach pebble. The eyes of the broad bone needles can easily be reproduced with the point of an arrowhead rotated after the manner of a drill, first on one side of the needle until partly bored through, then on the other. Since the cavities in the bases of antler arrow points for the reception of the shaft were deeper they had to be bored with a narrow flint drill which worked best, as experiment shows, attached to a short wooden handle.

Pottery. One nearly complete pottery vessel was secured (Fig. 12) and enough parts of another to restore its form, together with many fragments, all of which served to show that the typical ancient Shinnecock pot was somewhat egg-shaped, with pointed base and slightly expanded mouth, of the archaic Algorkin type found all along the Atlantic Coast from Virginia to Maine. This type was, however, modified about the mouth of the Hudson and in New England by Iroquian influence which seems to have first made itself felt shortly before the coming of the whites. In capacity, these vessels seem to have varied from about six quarts to perhaps four or five gallons. That they were used directly on the fire may be seen by the smoked and blackened condition of some of the bottoms. Sometimes, when cracked, they were repaired by boring a series of holes in pairs on opposite sides of the split and then lacing it together, probably with thongs. Such repaired vessels could not very well have been used in cooking, but they must have made good water jars when properly pitched to prevent leakage.

In one pit, we were lucky enough to find the greater part of a potter's outfit, which shed considerable light on the Shinnecock method of making earthenware. The first stage was illustrated by a lump of raw clay and some clay thoroughly mixed with the crushed shells here often used as tempering material; the second, by pieces of clay coils and part of a small unfinished vessel (Fig. 6), all preserved by accidental burning, which showed that the clay had been worked out into long rolls with which the vessel was then built up, coil on coil, the coils being smoothed and blended as the work proceeded. The pit even yielded some tools with which the blending was done, in the shape of two beach pebbles

¹Holmes, op. cit., 150-158, 175-179.

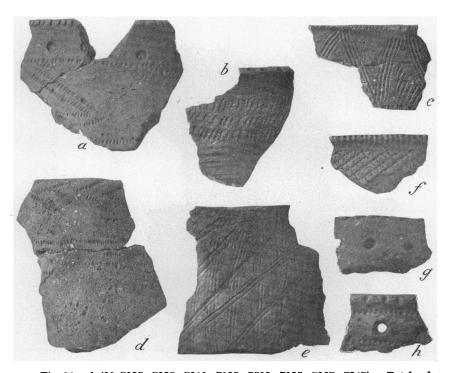


Fig. 31 a-h (20–7985, 7985, 7810, 7985, 7598, 7985, 7967, 7847). Potsherds showing Decoration.

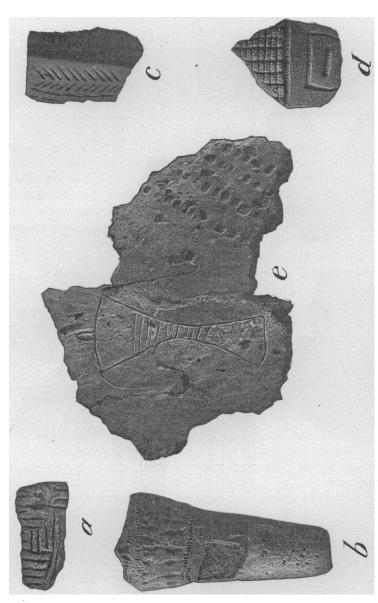


Fig. 32 a-e (20-7920, 7453, 7293, 7451, 7829). Pipe Fragments and Potsherd bearing Sketch of Bird.

showing wear and still daubed with clay (Fig. 4a). In other parts of the site were found clay-covered shells of the "hen clam," the worn edges of which showed long use for such purposes (Fig. 4b).

Some years after these excavations were made, the author had occasion to visit the Indians of South Carolina, where the making of pottery by aboriginal methods was found to be a still living industry. I was interested then to observe that the Catawba used the coil method. blending the coils with smooth pebbles kept constantly wet, and with fresh-water clam shells which showed wear in exactly the same place as the "hen-clam" pottery scrapers we had found on Shinnecock Hills. After completing the vessels the Catawba dried them a few days in the shade and then arranged them around a brisk fire, mouth to the blaze. After a while, they assumed a darker color, and when this had become uniform, a sign the vessels were hot enough, the blazing brands were raked out of the fire, the vessels inverted over the coals and hot ashes which were pushed up around them, and the whole covered thickly with pieces of dry bark pulled from old pine stumps. When the bark had burned away the red-hot vessels were pulled out and allowed to cool around the smouldering embers. Probably the ancient Shinnecock dried and fired their pottery in a somewhat similar manner.

The decoration of Shinnecock ware was effected while the clay was still fairly soft. The crude patterns were produced by several methods, one of them the ordinary one of incising with a sharp point, possibly that of a bone awl (Fig. 31f, Fig. 30). Another method was to wrap a twig in fiber twine and impress this upon the plastic clay (Fig. 31a, d, h). while a third, which seems characteristic of the eastern end of Long Island, was to drag a section of the edge of a scallop shell along in such a manner as to produce from two to six parallel grooves, and sometimes, instead of dragging it, to make successive imprints of the edge of the shell. This method may be seen on the complete vessel (Fig. 12) and on several of the fragments (Fig. 31b, c, e). A punctate form of decoration was also produced by imprinting the round end of a stick (Fig. 31a, g, h). A finish for the body of the vessel was often applied with a paddle wrapped in fiber cord, while the inner surface was sometimes marked by scraping with the edge of a stone serrated by chipping, as was one side of the smoothing stone shown in Fig. 4a.

Quite a number of fragmentary pottery pipes were found, some of them nicely decorated, as may be seen in Fig. 32. These differed from

¹Harrington, M. R., "Catawba Potters and their Work" (American Anthropologist, N. S., vol. 10, pp. 399–418, 1908).

the stone pipes found in this region by Tooker (Fig. 27) and others in that they were provided with a short stem, sometimes round, sometimes flat in section, made in one piece with the bowl, and did not require a separate wooden stem. How they must have appeared when complete is shown by the perfect specimen (Fig. 34) found at Canoe Place, and now in the Museum of the American Indian, Heye Foundation, as the gift of the Long Island Historical Society.

Weaving. That the Shinnecock, in common with most of the Eastern Algonkian tribes made numerous rush mats and wove a variety of sacks and bags, burden straps, and perhaps even garters, belts, and garments out of fiber cannot be doubted; but the only specimens we found to prove it were a few fragments of native cloth preserved by charring (Fig. 3). Noticeable features were the coarseness of the fiber composing the cord of which the fabric was woven, and the fact that the weft threads were run in pairs with a twist together between every strand of the warp, a simple form of the twined weave so characteristic of aboriginal textiles in most parts of North America where any weaving was done at all.

We can prove, as before stated, the use of mats among the Shinne-cock and neighboring Indians by several historical references; for instance, in the agreement between Lion Gardiner and the Indians¹ in which he grants them "liberty to cut in the summer time flags, bull-rushes and such things as they make their mats of" on a certain tract "provided they do no hurt to the horses" pastured there.

Art and Ornament. The decorative art of the Shinnecock, as shown in wood carving, in the painting of designs on various objects, and in whatever form of embroidery they may have used (probably with dyed deer hair) has been lost beyond recovery. All that remains for us to study are their pottery decorations on vessels and pipes, and a few markings on stone and wood. The story is soon told, for the former are of the simplest. Most abundant are combinations of straight lines forming bands parallel to the rim of the vessel, combined with angles or chevions which may point horizontally (Fig. 31a, d), or vertically (Fig. 31c). Sometimes lines singly or in parallel groups may run vertically, instead of horizontally, or may be placed diagonally, as may be seen in the whole vessel (Fig. 12), and in the potsherd (Fig. 31e), and cross-hatch patterns sometimes appear (Fig. 31f).

These designs, as before noted, were usually produced by the imprints of cord-wrapped twigs (Fig. 31a, d, h); by groups of parallel

¹Southampton Records, op. cit., 170.

lines drawn with pieces of the edges of scallop or mussel shells (Fig. 31c, e, Fig. 12); by imprints of the edges of such shells (Fig. 33b, Fig. 12); and by marks and notches made with the point of a sharp instrument such as a bone awl (Fig. 31f). The lines and angles are often interspersed with circular imprints of the end of some blunt cylindrical instrument (Fig. 31 a, g, h).

The decoration of most of the pottery was exceedingly crude, with no attempt at color work, no curved lines, and with a very few exceptions, no attempt was made at elaborate patterns even in straight lines and angles. There was one exceptional sherd, however, that showed a tasteful, well-executed, and fairly complex pattern (Fig. 30), consisting of a band of closely set chevrons forming a herring-bone design surmounting a band of large triangles filled with parallel horizontal lines and pointing

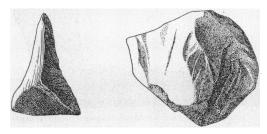


Fig. 33 ab (20–8036, 7779). Black and Red Paint Stones, Graphite and Limonite, respectively.

upward, the spaces between them being left plain. This, however, is so divergent from Long Island pottery in general, and resembles so closely the Lenapé ware found near Trenton, New Jersey,¹ that the chances are that it was obtained in trade from that region and was not of Shinnecock manufacture at all. The sherd shown in Fig. 31f may also belong in the same category.

The designs just described are all of a purely geometric character; we did find, however, a few attempts at realistic ornament. One of these is the crude drawing of a bird scratched on a stray potsherd (Fig. 32e), an hourglass-shaped figure whose head is represented by a slight projection and the wings by drooping lines. It is particularly interesting on account of its practical identity with drawings still made by the Central Algonkin tribes and their neighbors to represent a Thunderbird, a race of

¹Volk, Ernest, "The Archæology of the Delaware Valley" (Papers, Peabody Museum of American Archæology and Ethnology, vol. 5, 1911), pls. CXII, CXIII, CXIV.

mythic beings who were thought to be the patrons of warriors, the bringers of rain for the crops, and the guardians of mankind against water monsters.

Perhaps also connected with tribal tradition are the rough sketch of the head of some animal, possibly a lynx, engraved on one side of a pebble (Fig. 7); while a slight stretch of the imagination might interpret the markings on one side of the circular gorget seen in Fig. 8a as the profile of a turkey, while those on the reverse side may represent a human eye (Fig. 8b).

We found little to indicate personal decoration, except the circular gorgets or pendants (Fig. 22g, Fig. 8), a coarse shell bead, since lost, and the copper bead (Fig. 11) which may be made of native metal. The



Fig. 34. Earthen Pipe, Canoe Place. Courtesy of the Museum of the American Indian, Heye Foundation.

paint, red and black, ground from deeply scored bits of limonite (Fig. 33b) and graphite (Fig. 33a) was probably, for the most part, applied to the faces of the Shinnecock.

Trade. As previously noted, the presence of implements made of purple argillite in the refuse deposits indicates trade with the tribes of New Jersey, as does the appearance of a few sherds of typical Trenton Lenapé pottery; fragments of steatite cooking vessels and pipes show commerce with Connecticut tribes (the nearest quarries were there), while a number of objects, all found in the upper layers of the deposits, bear witness to the latter day trade with the whites. Examples of these are shown in Fig. 15 and consist of a gun flint (a), the handle of a brass kettle (b), and part of a trade pipe of clay (c).

If the copper bead, which, as may be seen from the drawing (Fig. 11) has been made by rolling a flat bit of the metal into cylindrical form, should prove on analysis to have been made from a native nugget, intertribal trade from so distant a region as Lake Superior would be estab-

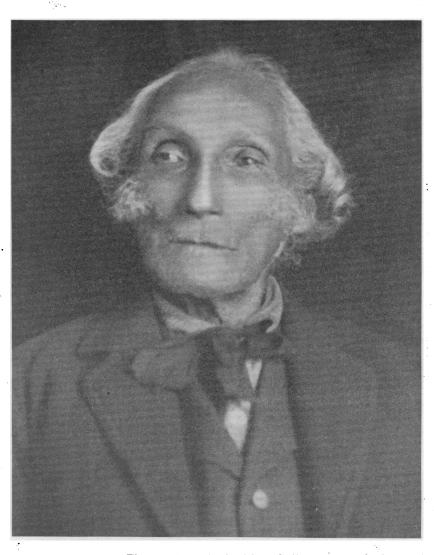


Fig. 35. Portrait of Wickam Cuffee.



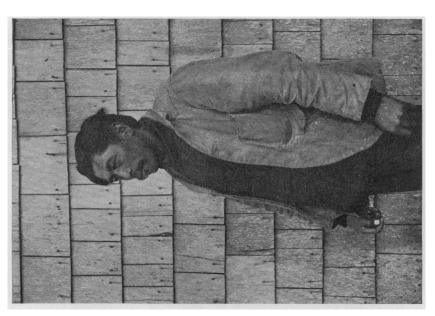


Fig. 36. Portrait of Charles S. Bunn.

lished. If not, we have merely another specimen showing trade with Europeans.

Fate of the Shinnecock. The Shinnecock truly sold "their birthright for a mess of pottage" in 1640 when they placed their marks as signatures on the first deed to the English settlers. From that time onward, the town records of Southampton¹ are our best source for learning what befell them. We find many early town ordinances that must have proved irritating in the extreme, for example, the one before quoted, forbidding the Indians to dig for ground nuts. We observe also that they were at first not permitted in the town at all, that no one was allowed to sell them food; and perhaps most onerous of all, that they were ordered to kill their dogs. No wonder they were sometimes rebellious, and once attacked Southampton and burned several houses, for which damage they were later compelled to pay.

On the other hand, we find that it was lawful to sell food to the sachem for his own use, but to no one else, and in another place it was made lawful to sell an Indian flour, provided it was of the coarsest quality. In 1649 it was permitted to the Indian women to come to town on shopping tours, and then the same privilege was extended to the "ancient men" to do the same, but these must first obtain "tickets." Still more considerate was an ordinance forbidding the whites to turn out their "Hoggs or piggs" on the Indians' land, that their corn be not damaged, and another in 1653 providing that "if the Indians will suitably fence one half between them and us that then ye towne will fence the other half." By 1675 the relations of the two races had so improved that many Indians were employed by the whites to go to sea for them in pursuit of whales.

Of the Shinnecock's relations with other Indians we learn of their distress on account of a threatened attack by "Naragansets" in 1653, and of their submission to Wyandance of Montauk, whom they acknowledged as "Sachem of Pawmanack or Long Island." He however was brother of their own chief, Nowedonah.

Little record was made of the Shinnecock after they ceased to be, from the settler's point of view, a menace to the colony, and took their place in its whaling and other industries. We learn from other sources² that many of them went to Brotherton, in Oneida County, New York, about 1789, where they joined the remnants of various New England tribes, and in 1833 moved with them to Wisconsin, where their mixed descendants may still be found.

^{&#}x27;ISouthampton Records, op. cit.
2" Handbook of American Indians" (Bulletin 30, Bureau of American Ethnology, Washington, 1907,
1910), part 1, 166; part 2, 550.



Fig. 38.

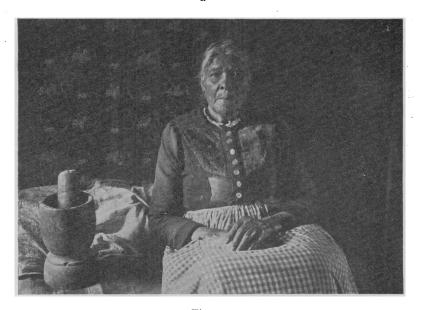


Fig. 39.

Fig. 38. Portrait of John H. Thompson. Fig. 39. Portrait of Mary Ann Cuffee.

Some of those left behind intermarried with negroes, a phenomenon seen among several remnants of Atlantic Coast tribes and among some Muskhogean peoples, but exceedingly rare elsewhere, fortunately for the future of the Indian race. Certain it is that the African mixture has lost for the Long Island survivors the respect and support of the Iroquois tribes who now will not recognize them in any way, and will not even admit that there is any Indian blood left on Long Island.

There has been a heavy infusion of white blood too, but affairs had progressed so far that when I paid my first visit to the Shinnecock "Reservation," in 1902, the place appeared to be a negro, or rather, mulatto settlement, pure and simple. But more careful search revealed a number of individuals showing Indian characteristics. To quote my notes, written at the time:—

Some are black and woolly headed, having at the same time facial characteristics distinctly Indian. Others have the straight hair and light color of the Indian, but the flat nose, large dull eyes, and thick lips of the negro. A few of the men are typically Indian. Of these, Wickam Cuffee (Fig. 35) is the best example. He is Indian in color and feature, and claims to be full blooded, but the slight curl in his hair seems to point to some admixture. He speaks with a Yankee accent, and gladly tells all he knows of the old times. Andrew Cuffee, the blind ex-whaler, also presents many Indian characteristics, while Charles Bunn, Fig. 36, (with a slight tinge of negro) and John Thompson (Fig. 38) (part white) are good types. Very few of the young men on the reserve show Indian character-A number of the women are pure or nearly pure-blooded istics. Indian Among them are Mary Brewer, Mary Ann Cuffee (Fig. 39) and Mrs. Waters (Fig. 37). The preponderance of women over men is accounted for by the drowning of most of the Indian men when the ship Circassian, stranded off Easthampton, was destroyed, on December 31, 1876, by a sudden storm. Then it was that the corpses of the Shinnecock salvers, each incased in a mass of frozen sand, were found scattered along the bleak ocean beach from Amagansett to Montauk. Thus perished the flower of the tribe—the expert whalers who had sailed on many successful voyages out of Sag Harbor or New Bedford—the men whom their white neighbors still speak of as being "noble-looking, strong, and tall."

Many of the survivors, especially the younger ones, have left the reservation, and are now scattered abroad. The only Indian children seen during my entire stay were visitors from Shinnecock families settled elsewhere.¹

¹Harrington, M. R., "Shinnecock Notes" (Journal of American Folk-Lore, vol. 16, 1903), 37-39.

That such survivors still exist and still show strong Indian characteristics without visible African admixture is proved by a photograph recently taken at Easthampton which was published in the *New York Evening Post*, March 18, 1922. Very likely the destruction of the "flower of the tribe" in 1876 left the negroid mixed-bloods in the majority in the settlement, which was so distasteful to the remaining Indian families that all who were financially able moved away.

CULTURAL AND LINGUISTIC POSITION

Our investigations, so far as they went, show that the Shinnecock were, in a general way, similar in material culture to the other tribes of Long Island and the coast of the adjoining mainland. However, they differed in some particulars from the tribes at the western tip of Long Island and elsewhere in the immediate vicinity of New York City, for which region we possess considerable data.

For instance, the Shinnecock seem to have used the dome-shaped, thatched wigwam in preference to all other types, a variety not mentioned by early travelers about New Amsterdam; also, their pottery, although similar in form to the archaic ware of western Long Island, differs from it in the more abundant use of pounded shells for tempering the clay, and in certain decorations. Moreover, the Shinnecock made little use of the grooved ax, so popular among the Rockaway and Canarsie, and used many more crude, broad, triangular, stemless, white quartz arrow points than points of other shapes and materials; while in western Long Island the triangular form is in the minority. A similar state of affairs, exists in the shell-heaps of eastern Connecticut¹ the significance of which will be seen later. Another feature in which the Shinnecock differed from the tribes about New York City was in the use of the circular stone pendant, seldom seen in the latter district.

When the writer visited Shinnecock in 1902 he found the language dead, and was able to collect only the few words given below, although it was afterward learned that there were persons, living away from the settlement, who might have furnished at least a much larger vocabulary. The list is given for what it is worth, with a few suggestive comparisons, merely with the comment that the first two words were found also among the Poosepatuck mixed-bloods on Long Island.²

It will be noticed that there are many more correspondences between Shinnecock and Natick and Narragansett than between Shinnecock and Delaware, Abnaki or Sauk, and that Narragansett seems nearest of all on account of the remarkably close resemblance of some of the rarer words. It is also interesting to note that good cognates in Algonkian

In the collection of Mr. Norris L. Bull of Hartford, Connecticut, may be seen rude triangular quartz arrow points, antler fish hooks, forms and decorations of pottery, and decorations on earthern pipes, practically identical in detail with those found at Shinnecock Hills. These were discovered in a shell-heap near the mouth of the Niantic River. Specimens from shell-heaps further west, near Milford, for example, do not show this close resemblance. The Natick and Narragansett words are from Trumbull, James Hammond, "Natick Dictionary" (Bulletin 26, Bureau of American Ethnology, Washington, 1903); the Delaware from Brinton, Daniel G. and Anthony, Albert S., "A Lenapé-English Dictionary" (Pennsylvania Students Series, vol. 1, Historical Society of Pennsylvania, Philadelphia, 1888), plus one word, săpan, collected by myself; the Abnaki is from Elijah Tahomont, an Abnaki of St. Francis, Quebec; the Malecite is from Dr. Frank G. Speck; while the Sauk is from the late Dr. William Jones.

English	Shinnecock Natick	Natick	Narragansett	Abnaki (St. Francis)	Malecite	Delaware	Sauk
turtle	matci'k			(Dir. Francis)	miktcik = tortoise		meci'käha
snake	skuk	askook	askùs	skuks		achgook	
man	$teais^1$	kehchis = old man	chise = old man				
woman	wi'nai1		wenÿgh			•	:
woman	skwa		sdngws	skwa		ocpdnen	1 К М В М В
child	papús	papeissesu = little one	papoos				
sea-peach	siwáa	sée = sour		siwán = salt		schewewah = salt	
rain	kĕ'mlo				kemi'wan		kěmiyawĭ
house	wi'kam	week =		wikóm			wikĭyapĭ
		his house					
corn mush	u,gddns	saupáun = softened				sachsapan = soup sa'pan = mush	
shellfish	sĕ'tcawa		sucksawaug = clams (Pequot)				
thanks!	tabŭtni'	tabuttantam— he is thankful	taubut neanawáyean = I thank you				
greeting!	hah'cami						haul
quickl	měkwi'		muckquetu— he is swift				

'The words kteais, husband, old man; and winai's, wife, old woman, occur in the Mohegan dialect spoken until recently in Connecticut; Speck, Frank G., "Notes on the Mohegan and Niantic Indians" (This series, vol. 3, 1909), 194.
"Chice" appears in the Southampton records as the name of a Shinnecock sachem.

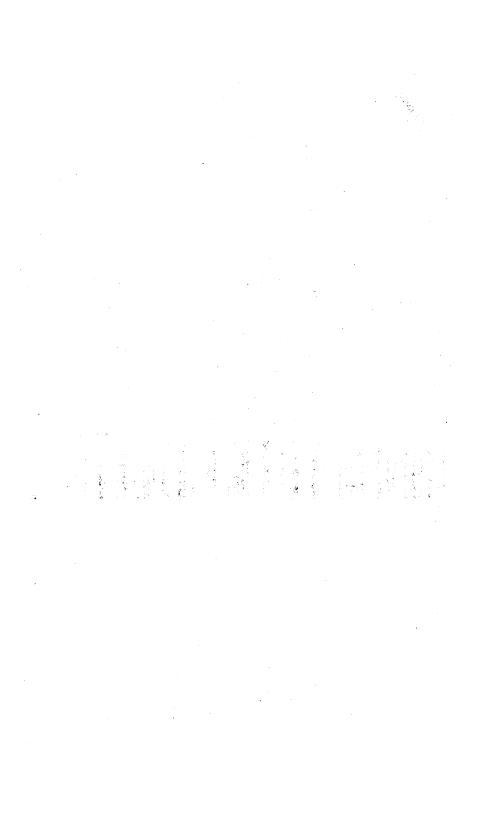
dialects were easily found for all the Shinnecock words collected except the greeting "hah'cami."

The writer makes no claim to a knowledge of Algonkian languages and has probably overlooked important evidence, but it seems safe to state, on the basis of this brief vocabulary alone, that the Shinnecock language was more nearly related to the Southern New England group of Algonkian dialects than it was to the Lenapé (Delaware) group or to the Abnaki group, and this same conclusion has been reached independently by Speck1 and by Tooker.2

Archæologically, we have the evidence of the wide triangular white quartz arrow points, before mentioned, as a favorite form, the pottery. the decoration on the earthern pipes, and the antler fish hooks, connecting the Shinnecock material culture with that of southern New England, particularily eastern Connecticut, but further investigation is needed in both regions before we can make full comparisons and be certain of Shinnecock relationship in this respect. Such comparisons would be particularly interesting in view of the fact that the Shinnecock kept their ancient culture, if not their blood, pure to the last, unmodified by the Iroquois influence that had made itself so strongly felt about the mouth of the Hudson and even in many parts of New England shortly before the arrival of the whites.

Judging from the conditions noted at Sebonac, we might conclude that wherever the Shinnecock came from, they had not been located in eastern Long Island more than a few hundred years before the coming of the whites; but we cannot state this as a fact, for other sites may be found showing longer occupation. This is another question to be settled by further explorations, which might also reveal the identity of their predecessors, whose existence was suggested by the finding of a few archaic, apparently non-Shinnecock specimens below our village layer.

¹Dr. Frank G. Speck wrote me in a personal letter that he believes that the Shinnecock belong linguistically to the Southern New England group, and expresses the same idea in a manuscript, Native Tribes and Dialects of Connecticut to be published by the Bureau of American Ethnology. The similarity of the eastern Long Island and southern New England dialects is brought out in Tooker, William Wallace, John Eliot's First Indian Teacher and Interpreter, Cockenoe-de-Long Island, New York, 1896).



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