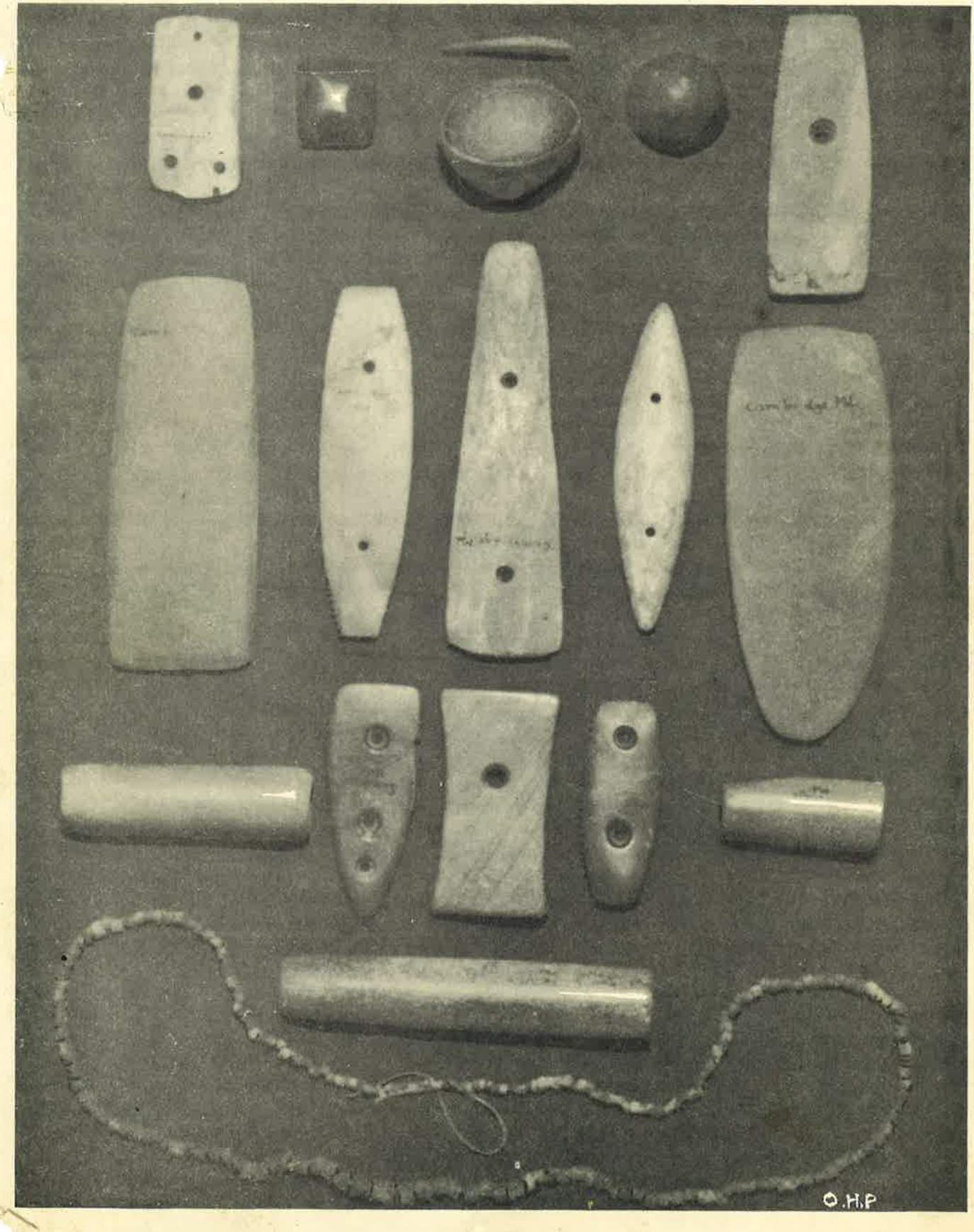
DEC. 1954 VOL. VI, NO. 3

THE ARCHEOLOG

PUBLICATION OF THE
SUSSEX ARCHAEOLOGICAL ASSOCIATION



VOL. VI, NO. 3

Published for members of the Sussex Archeological Association, Lewes, Del.

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Editor

T H E A R C H E O L O G

Bulletin of the Sussex Archeological Association

December, 1954

C O N T E N T S

THE SANDY HILL MOUND SITE 18-Dec-30

Ralph W. Jackson

When Columbus discovered this western hemisphere he thought he had touched the shores of India and consequently he named the natives Indians. The name has persisted through the years and in literature. Although not a suitable name for these people it is now generally recognized.

The Indians that inhabited this portion of Maryland can be classified into two groups, the historic race such as the early explorers found in this land and the prehistoric or mound builders who were in this land several hundred years before the historic group.

At Sandy Hill, outside of the city of Cambridge, Maryland, there are burials of both groups which appear most interesting. Prehistoric Indians in this area, which will be chiefly considered here, may be referred to as a group of people without a recorded history.

The early explorers and settlers left early records of what they saw of the native Americans, but of those prehistoric Indians, that erected extensive mounds of earth, nothing was known to the existing tribes. The later Indians did not erect such structures.

This race of mound builders were distinct in culture from the races the early explorers found and the task of unravelling the mystery lies with the Archaeologist.

This group of early people seem to have been a race of superior qualifications as attested by the craftmanship exhibited in their artifacts.

It would seem that the Choptank tribe had degenerated, if they had sprung from these early people, judging from their lack of earthworks and inferior grade of artifacts when they are compared with these Adena culture proginitors.

There were several mounds in the general area in addition to the one at Sandy Hill. A conical mound on the Chicone Creek near Vienna, Dorchester County, Md., another similar type mound near Parsonsburg in Wicomico County, Md., and one near Riverton, also in Wicomico Co. Md. The mound near Hebron, Md. is huge and of oblong shape with a spacious dwelling erected thereon.

In the late 20's, about 1927, Mr. Spring, of Cambridge, Md., built a sea wall along his property, Algonquin Manor, using sand for the concrete from the nearby hill. It was while procuring this sand that the workmen encountered many graves of Indians. Subsequently it has been determined that these burials antedated all other known Indian burials in the County. Unfortunately from an archeological point of view, this site has been completely obliterated due to the commercial use of the sand for building purposes. The graves of these Indians as we know the Indian picture, were the first people to settle this land. It was a mound containing a large number of articulated burials with an area over the chest covered with red ochre. In this ochre was found a large number of diversified artifacts of an exotic influence generally associated with the Adena culture of the Ohio river valley. This aspect gives a close relationship, as evidenced by the grave goods, between the Indians buried at Sandy Hill and those of the Ohio region.

A short distance from the mound and often confused with it, is the famous ossary, still existant, that was visited by Mercer as far back as 1897 and also by the erudite Holmes. This big ossuary of disarticulated burials was probably of Choptank origin. No grave goods whatsoever have been

encountered in these mass burials which must have numbered several hundred persons. C. A. Weslager reasoned that this ossary was the burials of the commoners while those of the mound with its red ochre and grave goods was the burial of the "kings and great men" (1).

The writer feels that this is an erroneous deduction. After excavating at both sites my conclusions are at wide variance. The condition of the bones from the mound were in such poor state of preservation that they could not have been associated with the burials of the ossuary whose bones were remarkably well preserved. The age variance between the two groups is so pronounced as to preclude their being conterporary. This view is also shared by J. Alden Mason, archaeologist from the University of Penna, and author of a short paper on the Sandy Hill site.

The age of this mound is of course open to speculation, but the artifacts unearthed are of the same characteristics assigned to the Adena culture of the Ohio river valley. The tentative radiocarbon dating of this period is 400-750 A. D. This would give Dorchester county a tribe of Indians living here 1000 yrs. Before Columbus discovery of America with no temporal or cultural relationship to the Nanticoke Indians.

From burials of the same complex in West Virginia and Ohio artifacts have been recovered that are similar to those excavated at Sandy Hill. About 4 to 5 feet above the graves but covering the entire mound was a black humus layer that was about four inches thick and over which much sand had drifted through the years. The remains were buried in an articulate condition in rows that ran in a north and south direction. There were at least five rows, possibly more. Burials were close together, often only two to three feet apart.

Over the chest was an area of red ochre, extremely hard as though it was tempered. It was roughly 18 to 24 inches in diameter and two to three inches in thickness. In this red ochre was haphasardly placed the artifacts that have made this location so outstanding. In no instance did the author find one grave on top of another.

To approximate the number of burials in this mound would be pure conjecture but it is safe to say there were close to 100. There had been so many excavations at various times, and conducted under surreptitious circumstances that an accurate count would be impossible.

The contents of many of the graves went into the concrete for the retaining wall before realization of the nature of the material was available. Even then the property owners were reluctant to give permission for any scientific work to be done.

It is the grave goods of this mound that are so outstanding and the exotic influence of the Adena culture is so apparent. Weslager had this to say:

> "The excavations at Sandy Hill represent to the best of my knowledge one of the most significant discoveries ever made in the Chesapeake region." (2)

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[1] C. A. Wesgager, Ossuries on the Delmarva Peninsula and Exotic Inflnences in the Costal Aspect of the Woodlawn Pattern. 1942, p.147 American Antiquity Vol. 8, No. 2, October 1942.

[2] Weslager, loco. sit.

So many and so varied were the artifacts that were excavated that words begger description. Gorgets, pendants, blades or knives, spears and tubes were in great profusion. There were many small paint pots with pestles of a corresponding size. Only one pipe was found and but a single "cone", but there were several hemitite squares. A few objects of copper were found along with hundreds of copper beads. Arrow heads were numerous in all of the graves but strange to say they were all of poor workmanship when compared with the other chipped artifacts and worked pieces.

There were a large number of white quartz blades or knives. These were quite hard to work since this material is a very hard mineral which does not tend to flake easily. The points were from 2½ to 5 inches in length and were rarely stemmed. By far, the majority of the other spears and knives were of chalcedony, a superior grade of flint, and is a material which is entirely exotic to the Delmarva Peninsula. This material comes from Flint Ridge, Ohio. These were worked extremly well, many were quite long and thin. Most of them were 8 to 9 inches in length while one was nearly 12 inches long. The average length of all the spears and knives was between 6 and 7 inches.

Gorgets and pendants equalled the spears and knives in numbers found. They were mostly of slate a few of which were branded slate. There was a diversity of shapes and sizes and the number of holes varied from none to as many as 5 or 6. Quite a few pieces were like gorgets without holes, these apparently were unfinished ones.

The small paint pots found were of green steatite as well as the small pestles that were with them. At least one of the "pots" had the remains of some red ochre still in it.

The few hemitite squares which were found could have been rubbing stones. They were exceedingly smooth and highly polished. There was only one "cone" found. It was made of catlinite and of a beautiful red color.

A single effigy pipe of green steatite was the best single object recovered.

Tubes were found in many graves. Most of them were made of Ohio fire clay brought to a high glaze. Most of them had one end open and the other one nearly closed. A single tube of stone was one of the rarieties of the mound.

Hundreds of copper beads, made from flat pieces of copper strips and rolled several times were to be found in the area. Most of them were about ¼ inch long and the same distance in diameter.

Oddly enough there were found no celts, groved axes or any of the cutting tools that were normally used by the aboriginal of that time.

Elsewhere in this issue is to be found an article about the cover photograph which shows a number of the varied artifacts that came from the Sandy Hill mound site in Cambridge, Md. Several of the artifacts shown on the cover are mentioned in this article.

A REPORT OF THE EXCAVATIONS AT THE RITTER SITE #2 NEAR LEWES, DELAWARE

H. G. Omwake

During the fall of 1951 and the early months of 1952, an archaeological investigation of a small site near Lewes, Del., known as the Ritter site #2, was conducted by Roger Vandergrift, James L. Parsons, and the writer. The site derived its name from the fact that it was the second site that was located on the farm lands of William and Lynn Ritter, who had granted permission for exploration of the area. It might be argued that the second site was merely an extension of the first, at which investigations, began during 1950 and interrupted by the planting of crops and not yet reported, are still continuing. But since the site represented a small archaeological concentration seemingly contained within its own restricted limits, it seemed best to treat it as a separate entity. It has therefore been designated, by its investigators, as Ritter site #2. What its final relationship to Ritter site #1 will be remains to be determined after investigation of the latter shall have been completed.

Location: Ritter site #2 occupies an area of several acres of the land belonging to the Ritter brothers located north of the New Road and to the east of the lane which leads from the New Road to the Ritter farmstead. It is bounded on the south side by the former roadbed of the Queen-Anne Railroad, on the west by the farmhouse lane, on the east by swampy woodland, and on the north only by its own depth. The entire area is under annual cultivation and at the time of examination was planted to rye.

As is true in the case of almost all costal aboriginal sites of the Lewes area, Ritter site #2 was on that part of the land which afforded the best drainage. The surrounding areas were a bit lower, especially to the east where 2 small tributaries of the Canary Creek originate. At the present time the flow of water in these small branches is negligable and they serve as ditches which drain the swampy area during times of heavy rain. The distance from the habitation site to the nearer of these streamlets is about 300 yards at the present time. It is possible that when the Indians occupied the area there was a much greater flow of water and the nearer of these streamlets may have served as the source of water supply for the occupants of the site. There is no other source of water evident today.

Preliminary inspection revealed the presents of a small number of refuse pits and further search revealed the location of 11 such refuse pits. Investigation of the site consisted of excavation of 10 of the 11 pits recorded. The 11th pit was intentially left untouched to provide reference for any future investigators!

Mapping: Under the direction of James A. Moore, an accurate map of the area was prepared, on which were placed the locations of each pit in reference to a line drawn east and west parallel to the roadbed of the old Queen Anne RR. Two semi-permanent datum stakes of galvanized pipe were established and all pits were located in terms of distances at right angles to the east-west line between these stakes.

Method: The technique of exploration which was used consisted of removal of the top soil from each pit and the use of a combination horizontal-vertical proceedure in the removal of the shell refuse, beginning from the south side. The south side was used to open the pits since it afforded the maximum sunlight on the face of the excavations. After each pit had been explored, the refuse was back-filled and the surface restored to its original condition.

Features: Each of the ten pits has been regarded as a special feature, (see plate 1 for pit locations with respect to each other), of the site. Sub-features, both occuring in pit #8, were a nearly complete fire-bed of burned charcoal and a semi-flexed burial.

Pit #1 was nearly round in appearance, having almost vertical side walls and a flat bottom. A thin saucer shaped deposit of shells having a maximum thickness of 8 inches at the center covered the top of the pit. This was underlain by a deposit of dark vegetable-stained sand which reached a depth of 22 inches, at the center and somewhat more at the outer edges. Top soil depth was about 8 inches. Refuse was mostly oyster shells. Small animal and bird bones were noted. Cultural remains consisted of 61 shards from a single non-restorable vessel.

Pit #2 was a refuse pit whose surface shape was round. The sidewalls were gently sloped so that in profile the pit resembled a ½ moon. Top soil depth was about 8 inches. Refuse consisted of a deposit of oyster and clam shells with a few conch shells present. Hickory nut shells, small bird, turtle and other small animal bones were present. The principal deposit of shell refuse was underlain by a layer of disturbed dark sand which followed the general ½ moon contour and was sterile of cultural evidence. Beneath this layer of sand was a deposit of miscellaneous shells, having a maximum thickness of 2 inches. This occupied the central part of the pit and was void of any cultural material. The cultural evidence in the upper shell refuse consisted of 58 sherds which represented about six different pottery vessels as was indicated by rim sherds.

Pit #3 had a pear shaped surface having cardinal diameters of 78 and 72 inches. The side walls were vertical and the bottom was flat. Top soil was about 8 inches deep. The pit contained two layers of refuse. That in the upper level comprised finely ground oyster and clam shells that was mixed with much charcoal. This upper deposit was saucer shaped and achieved a maximum thickness of 9 in. at the center. Along the southern perimeter of the upper surface deposit was observed a solid bed of charred hickory nut shells, rectangular in the horizontal, 10 x 25 in., and triangular in cross section with a maximum depth of 5 inches at the apex.

The upper shell deposit was underlain by 3 separate layers of sand, the uppermost being a band of white sand about one inch thick, and the lowermost being another band of white sand 1 in. thick, with a central layer of dark stained sandy soil about 4 inches thick. Under these layers of sand was a deposit of oyster and clam shells with a maximum thickness of 3 in. at the center and tapering to nothing at the edges. This heap of shells, having equal diameters of about 60 inches, covered nearly the entire bottom of the pit. The shells gave no evidence of having been carefully put in place. Only a fragment of box turtle bone was found in the lower shell deposit and the layers of sand above it were sterile.

Along the southwest perimeter of the upper refuse deposit, at a depth of 3 in. was found a

fragmentary clay pipe stem. Near the southeast perimeter, at a depth of two in. was another. Near the northern edge was an antler time. A few chips of red and brown jasper were observed, as well as some turtle shell, deer and small animal bones. A total of 22 pottery sherds were found that seemed to be from 2 vessels.

Pit #4 was slightly oval in shape and rather large, having cardinal diameters of about 6 feet. Top soil covering the pit was quite shallow, being only six inches thick. The side walls sloped to a rounded bottom and the maximum depth of the refuse was 30 inches at the center.

There was no Indian cultural material of any kind in the pit. Small pieces of red brick were observed in the upper layers of the deposit and a bit of rusted iron was noted at a depth of 3 inches. At 22 inches were located what appeared to be a bear's tusk and rib bones of a large animal. These objects were later identified as a boar s tusk and some bone fragments of cattle and sheep. It can only be concluded, in the absence of any Indian cultural material, that this pit represented the efforts of early white inhabitants to dispose of grabage by burying it in a manner similar to that used by the Indians.

Pit #5 had a slightly oval surface appearance. The sidewalls sloped gently to form a half-moon shaped cross section profile. The top soil was about 8 in. deep. Refuse consisted of a deposit of oyster and clam shells which went to a maximum depth of 11 in. at the center. Under the central part of the shell refuse was a four inch thick deposit of dark sandy soil. There were no cultural remains of any sort either in the refuse deposit or in the dark sand beneath it.

Pit #6 was oval in surface appearance, with the longer axis running east-west. topsoil was to a depth of six inches. The side walls of the pit were almost vertical and the bottom was flat. Refuse consisted of a saucer-shaped deposit of oyster, clam, mussel and snail shells in which oyster shell predominated. The pit had a maximum depth of 17 inches at the center. The rest of the pit was filled with dark sand, containing many pieces of charcoal, which achieved a depth of 21 inches. The overall depth of the pit was 38 in. Throughout the shell refuse were many pieces of charcoal and near the northwest side of the shells had been pulverized and burned. Many of the turtle shell fragments were burned. Pottery fragments consisted of 10 sherds which were brittle and crumbly. These may have come from at least 3 vessels.

Pit #7 had a nearly round surface appearance. The topsoil depth was about 8 inches. The side walls of the pit were almost vertical but tapered gently to form a rounded bottom. Refuse consisted of a deposit of shells in which oyster and clam shell predominated, although a few conch were noted. Bones of small animals and birds, deer and fish were also found. These went to a maximum depth of 20 inches. Under the shell refuse was a deposit of dark sand, void of all cultural evidence which was 11 in. deep at the center tapering off toward the outer edges following the contour of the pit.

Many chips of brown and red jasper were found in the shell refuse and 1 broken triangular arrowpoint was found. There were 22 pottery sherds recovered representing rims of 2 vessels and body sherds of 2 others.

Pit #8 appeared on the surface to be generally round having diameter of 51 in. in the cardinal directions. Topsoil depth was about 9 inches. Shell deposit was shallow and saucer-shaped,

having a maximum depth of 5 in. at the center and tapering to nothing at the edges. Oyster, clam and snail shells were found in the pit. The only faunal evidence found was cracked and broken deer bones. The refuse was underlain by a 21 in. deposit of dark, stained sand bearing charcoal particles. On the south, east and west sides the walls of the pit were almost vertical.

In the course of carrying the vertical excavations through the sand beneath the shell refuse, the presence of a great many jasper chips and fired stones were noted and near the bottom near the west side a burial which is designated as sub-feature #2 was encountered. Excavation of this burial was deferred and removal of all the shell refuse and disturbed soil above it was undertaken.

On the north side of the shell refuse deposit, an intact firebed of charcoal was encountered just below the surface. Designated sub-feature #1 because of its position in the upper part of the pit this fire-bed was cleaned, pedestaled, photographed, and removed.

In the course of removing the shell refuse and the disturbed soil below, it was found that on the northern side, beyond the area in which the burial lay, the disturbed soil dipped sharply in the shape of a "V" so that in a north-south profile the excavated pit resembled a large square root symbol with the burial situated on the horizontal shelf. The disturbed soil was completely sterile of all cultural evidence except for jasper chips and fire-cracked stones. Just under the topsoil line on the west, north and east sides was a 1½ in. thick vein of almost black soil. This layer extended about 2 feet beyond the obvious side walls of the pit in the direction mentioned.

In the course of exploring the dark soil vein, two discolored areas resembling post molds were found. Close examination revealed the presents of shell within the areas so the post hole idea was discarded. They appeared to have been hollowed out areas, of undetermined intent, which had been filled with discolored earth, into which a few random shells had fallen.

Following the exploration of the disturbed soil and the area of black soil surrounding the pit attention was turned to excavation of the burial identified as sub-feature #2. The skeleton was completely uncovered and was found to be in an exceedingly delicate state of preservation. After it had been photographed <u>in situ</u> and exposed to the drying action of the air, it was removed.

Sub-feature #1: Particular care was used in uncovering the fire-bed here. Such and entact feature occures rarely in a shell refuse pit. Vertical troweling had shown us its presence and it was possible by horizontal troweling of the refuse which overlay it to expose it completly. It was a solid bed of charred wood, oval in shape having diameters of 17½ and 13½ inches with a thickness of about 1½ inches. The fire-bed was upon the top of the disturbed earth which underlay the shell refuse and must have been abandoned at the time the shell refuse was dumped into the pit. A sheet of galvanized iron was forced through the disturbed soil beneath the fire-bed and the entire sub-feature was removed entact.

Sub-feature #2: This designation was given to the burial in pit #8. The skeleton was in a very poor state of preservation. It lay on the bottom along the western edge of the pit. A narrow and shallow trench contoured to the semi-flexed position of the skeleton. It had been dug into the clay at the

bottom of the pit and the body had been placed in the trench on its left side, the head toward the south and the face toward the west.

The bones crumpled at the touch of a soft bristled brush. Both feet and hands were missing and only small sections of the lower arm and lower leg were present. Ribs, vertebrae, scapule and the pelvic structures either powdered during the excavation or crumbled to bits when efforts were made to remove them. The skull completely collapsed. Whether the absence of the lower parts of the extremities was due to disarticulation prior to burial could not be determined. The spongy condition of the bones and the damage inflicted during the brushing process made it impossible to ascertain any marks of cutting which would have been made during dismembering of these parts. The small remaining part of the skeleton and its deteriorated condition can be attributed to the action of soil acids and the large amount of water retained by the clay deposit into which the skeleton had been placed.

All of the skeletal material which was salvageable was sent to the United States National Museum for examination. Dr. T. Dale Stewart, curator, Division of Physical Anthropology, returned the following report:

> "The poorly preserved skeleton seems to be an elderly female. The tibiae show signs of osteitis, such as we usually attribute to syphilis. I was particularly interested in a bony exostitis that seems to have come loose from its original attachment. Probably it developed in one of the skull sinuses. The skull has a cranial index of 73.6 cm. with a length of 17.8 cm. and breadth of 13.1 cm."

Pit #9. The refuse deposit in pit #9 was a shallow saucer shaped layer of oyster and clam shells 3 in. thick at the center. It was round in surface appearance. There was no cultural material in the refuse and only a few broken turtle shell fragments were seen. Beneath the refuse deposit the pit had been filled with dark, stained sand which was void of all cultural evidence.

An oddity of pit #9 was the atypical shape of its side walls which were concave along the entire diameter. The shell refuse deposit appeared to have been only a cap over a pit originally dug for some other purpose which the excavation did not reveal. A pit which had similar concave walls was previously reported at the Townsend site.

Pit #10 was located along the east side of the road leading to the Ritter farmstead and was situated in a low, poorly drained part of the site. The top soil over and around it, about 8 in. thick, was mucky and wet. It was determined during the excavation that the immediate sub-soil was a heavy yellowish brown clay.

The pit was oval in surface shape, having diameters of 42 and 60 inches. The bottom sloped gently from the extreme edges toward 2 shallow depressions, separated by a ridge of clay, which had been gouged or scraped into the hard subsoil. These depressions were 5 and 6 in. deep respectively and gave a rather wavy appearance to the floor of the pit.

The refuse was mostly oyster shell. A few clam and snail shells were observed and charcoal particles were noted throughout. The only faunal evidence consisted of a few broken turtle carapace fragments and the only cultural evidence was a crumbly potsherd which lay near the outer edge of the refuse on the north-east side.

Summarization of pit facts: In the following paragraphs pit #4 has been disregarded because of its non-Indian Characteristics,

Four of the refuse pits were circular and two were only a bit oval. The predominant shape seems to have been circular.

The smallest of the circular pits was 32 in. in diameter. The largest had diameters of 78 and 72 inches. The median diameter was approximately 51 inches.

The most shallow pit, Number #8 had a maximum depth of 6 in; while the greatest depth recorded was 52 in. This was in no. #8. Neither of these pits may be considered typical for reasons cited elsewhere. The eight other pits ranged from 15 in. to 38 in. in depth. the median being between 25 and 30 inches.

Four of the pits has vertical side walls, three pits had sloping side walls, one exhibited both and one was concave. Of the vertical pits three had flat bottoms and one was gently rounded. One of these (no.#10) had sloping side walls and a atypical bottom which should be disregarded in determining the characteristic vertical profile of the Ritter #2 pit. Two of these which had sloping side walls also had gently rounded bottoms similar to the shape of a half-moon.

The average depth of the topsoil was eight inches and hardly any noticeable surface erosion was evident.

The thickness of the primary, or upper deposit of shell refuse ranged from 3 to 20 inches, the median being 9 in. In all but one instance the refuse was underlain by dark, stained, sandy soil which ranged in depth from 4 in. to 22 in., the median being 11 in. Only 2 pits exhibited more than one layer of shell refuse.

Oyster and clam shells were present in all nine pits. Conch, though not frequent were noted in 4 pits and mussels in quantity were found only in one. Small snail shells of both land and marine types were found in four pits.

The typical refuse pit of the Ritter site #2 appears to have been round, or nearly so, having diameters of approximately 51 in. Its side walls may have been either vertical or sloping. If vertical the bottom was flat; if sloping the bottom was gently rounded.Top soil covering the pit was 8 in. deep. It had a single deposit of shell refuse about 9 in. thick under which was a deposit of disturbed soil about 11 in. deep. It contained principally oyster and clam shell, turtle shells and miscellaneous small animal bones.

Unexplained is the fact that in all of the refuse pits except #4, which was non-aboriginal, and no. 10 which was dug into a solid clay subsoil, there was a fill of dark, stained, sandy earth which seemed to have been partially filled after its original excavation and before it became a depository for the ordinary refuse of the site. Shell refuse pits which have been excavated at other sites, in the Lewes area, at times have revealed a similar condition, but in most cases the fill covered a human or canine burial, or was over a lower layer or deposit of shell refuse and there seemed to be an obvious reason for its existance.

At the Ritter site #2, pit #8 contained a burial and the presents of fill, at least in the southern part of the pit, could be explained. Pit #2 and #3 each had a secondary deposit of shell refuse which was covered by a fill. There does not appear to be a functional reason for this condition in the other 6 pits in which it was observed.

The possibility that the fill was the result of natural causes seems to be unrealistic. Had the fill resulted from surface run-off water during excessive rainfall it

would have been unevenly distributed in the pit, the thickest concentration being on the side from which the water had entered the pit. Further, it would probably have been characterized by the presence of layers of soil resulting from successive rain falls if the pits had been opened for any lingth of time. In three pits namely nos. #1, #6, and #9 the dark stained fill was more than 20 inches deep. It seems unlikely that so much fill of such uniform texture with small charcoal particles scattered throughout would have been deposited with such evenness by the wash resulting from a single storm. Only in pit #3 which contained 3 distinct layers of sand between the upper and lower refuse deposits, it is likely that the fill was the result of rain wash.

There must be considered the possibility that these pits were originally dug for storage purposes and that their use as refuse depositories was only secondary. The question immediately arises as to why they were filled with charcoal-bearing disturbed soil. This objection seems suffucient basis for discarding the storage idea.

Since the condition seems to have been almost standard practice in the pits prior to the introduction of shell refuse, it appears that some definite purpose was in the minds of the original excavators of these holes and that the purpose was served by the intentional placing of the fill. Why less fill was placed in some pits than in others is not explained. There seems to be no proportionate relationship between the amount of fill and the overall depth of the pit or the depth of the shell refuse deposit on the top of the fill.

Remains of deer, turtle, small animals, birds and fish were present. Turtle shell was noted in 7 of the pits and in 3 pits only turtle shell constituted the faunal remains. Only one pit contained fish bones and these were of an unidentified species. Floral remains included only hickory nuts and charcoal.

Cultural evidence: Cultural objects were limited, almost exclusively to pot sherds. One broked, triangular, brown jasper arrowpoint having a concave base, a chipped jasper spall, two pipe stem fragments, and a small fragment of a pipe bowl comprised the non-pottery objects found in the pits. No bone or antler tools were found.

Pottery: Because the pits of the Ritter site#2 resembled, in general those of the Townsend site, it was assumed that a comparison of the pottery fragments with the classifications determined for the Townsend site would be valid. Accordingly a table suitable for the classifications represented by identifiable rim sherds and the number of vessels represented by them was prepared and provision was made for tabulating the number of vessels which could be definitely identified by the body sherds. Body sherds which were definitely parts of vessels represented by rim sherds were disregarded.

Townsend incised band pottery was absent. Towsend corded Horizontal was represented by rim sherds from two distinct vessels. Townsend herringbone was absent. Rappahannock fabric impressed pottery was represented by rim sherds of six separate vessels. Of these it was possible, by extending the curvature of sizable rim sherds, to determine the oral diameter of two vessels. Matching

rim sherds from pit #1 were from a small vessel which had an oral diameter of approximately 4¼ in. A section of a vessel from pit 2 made up of 45 matching sherds, indicated that it had had an oral diameter of approximately 10¼ in. It was not possible to estimate the height of either of these two vessels. All other rim fragments of Rappahannock fabric impressed pottery were too small to permit estimates of oral diameters. Rappahannock incised pottery was absent. Minatures were represented by rim sherds of one pot. The classification of one rim sherd from pit #6 as coming from a minature vessel was questionable. A single slender rim sherd from pit #2 exhibited five corded horizontal bands which may have represented a miniature vessel or may have been part of a Townsend corded horizontal type vessel was classified as doubtful. Rimsherds from 2 separate vessels from pit #7 could not be assigned to definite classifications. A total of 13 separate vessels was indicated by rim sherds. Eight additional vessels, distinguishable from those represented by rim sherds, were accounted for by assorted body sherds which did not permit classification by type.

All of the 21 separate vessels represented by fragments recovered from the refuse pits were made of shell tempered clay. Grit tempered pottery was not present. Exterior surface treatments did not appear in any instance to be dissimilar to those observed at the Townsend site. Interior treatment by smoothing was also like that observed at Townsend. Color ranged from a pinkish-tan to a blackish brown. Many sherds bore charcoal smudges. The exterior of the sherds from the one definitely miniature vessel were scratched, by a comb-like instrument, in a vertical direction. Townsend site pottery was similar.

Although Townsend incised band and Townsend herringbone pottery were absent, the Ritter site #2 pottery showed no distinct difference from that previously recorded at the former site.

Surface Collection: In the course of probing the site for refuse pits and traversing it when going to and departing from the various pits, the investigators did not neglect to search the surface for discarded or abanded artifacts. The search was unproductive, yielding only one chipped spall and several battered sandstone pebbles which were unclassified as artifacts.

Conclusions: The relative scarcity of cultural material at the site indicates that (a) it was occupied by only a small number of people or (b) that it was occupied for only a short time.

1. The remotness of the site from any adequate source of drinking water probably adversly affected its occupation.
2. Except for the "fill" condition of most of the refuse pits and except for the possibility that the "typical" refuse pit of this site may have been somewhat smaller, the pits of Ritter site #2 were not generally dissimilar to those of other sites in the Lewes area.
3. Although 3 types of pottery noted as the Townsend sites were definitely absent here, there were no essential differnnces in the type which were common to both.
4. The absence of bone tools and the generally small amount of animal and bird bone refuse argue for a limited occupation.
5. Turtle of several varieties seem to have had an important place in the diet of the occupants of this site but no significance as a source of raw material for the manufacture of artifacts.

6. The almost total absence of a stone culture at this site was not unusual. A similar condition is found at almost all refuse pits in the Lewes area. This one fact points to the sea as the primary source of food and suggests that the snare or trap was used to obtain small game and deer.

7. This report cannot be concluded without a few remarks relative to the general location of the Ritter #2 site. Ritter #1 site lies along the east side of the east branch of Mill Creek. The Russell site, the excavations of which are not yet reported, to the knowledge of this writer, is along the east side of Canary Creek. Between the two, which are about a mile apart overland, extends a range of land topographically slightly higher than the surrounding area. Ritter site #2 is on the highest part of this elevation. It seems possible that a path connecting Ritter site #1 with the Russell site must have followed this slightly elevated range because a route to the south of it would have led through low swamp areas or would have entailed a long detour to the south to circumvent them. No trail was likely to the north because of the barrier posed by Mill Creek and Canary Creek and their adjacent swamps.

It seems safe to conjecture that the pits of Ritter site #2, because they were widely scattered and because they are not now culturally distinguishable from pits of other sites in the Lewes area, are representative only of a few isolated Indian dwellings which were located within a limited space along a possible pathway which led from one principal settlement to another and that the little cultural material which was recovered will probably correspond accurately in toto with that to be found at the Ritt Ritter site #1, or at the Russel site, or both, should these pits proved to have been occupied by the same people contemporaneously or at periods closely consecutive.

If, however, there was a pathway, as suspected, across the ridge from the Ritter site #1 to the Russell site, some sort of crossing of Canary Creek must be assumed, inasmuch as the Russell site lies along the eastern bank. At the present time that stream is much too mucky to permit fording and it is likely that during the period of aboriginal occupation of the region it was equally impassable in that manner. If there was actually a crossing, some sort of bridge, or underwater flooring to give sure footing, probably existed when the sites were occupied.

8. The Ritter site #2 should be regarded as another manifestation of the cultural pattern which characterized the Townsend site.

THE WADDELL SITE GRIT-TEMPERED POTTERY

Perry S. Flegel

Almost every site that has been located and investigated on the Marshyhope Creek has produced at least a few pieces of grit-tempered pottery. This is also true of many of the areas of Delaware where excavations of refuse pits and collections of surface finds of pottery are to be found. Generally, it may be concluded that grit-tempered pottery was commonly used in nearly all parts of the Delmarva Peninsula by the Indians. The immediate question that has beset most of us is just where does this type of pottery fit into the order of pottery making in our area?

Is it contemporary with the shell, sand and other types of tempering found in the pottery of this locale or does it predate it? Observations indicate that it certainly was not being made during the time of the early settling of this country nor immediately prior to it. Possibly much more excavating will be necessary before any definite statement can be made which will give grit-tempered pottery a definite place in the chronological rise of these vessels and their methods of manufacture.

For the first time since the contemporary digging along the banks of the Marshyhope Creek there has come to light a find of many pieces of grit-tempered pottery and enough shards from a single vessel to determine more of its size and shape than of any heretofore discovered.

In the spring of 1954 the bank of a tributary of the above mentioned creek was bulldozed off and several acres of land were reclaimed for farming. While walking over this land the writer came upon many pieces of a grit tempered vessel. A careful scratching off the concentrated area in which the pieces were found, reveled that either the bulldoxer had carried away the missing pieces or that it had been discarded after being broken. Either theory could be correct since there is no local record indicating that this particular area of the farm had ever been cleared before. Much of the rim and the bottom of the vessel is missing.

In the immediate vicinity of where the vessel was found there were no other pieces of pottery. The surface of the ground produced a number of chips and a few points. Several hundred yds, in either direction along the bank of the stream were to be found much material in the form of shell tempered pottery, points, spalls and refuse pits. This vessel appeared to have been dropped or discarded about half way between what had been two camp sites along the bank of this stream.

The vessel was made of yellow clay and tempered with a rather course white quarts. In some parts of the vessel whole pebbles about the size of a pea were used and one shard contained a piece of quartz which extended from the inside surface of the vessel to the outside surface. Some of the larger pieces of tempering were as much as ½ inch long. The rim of the vessel was slightly curved inward (Fig. 1). It was not flat nor rounded on the top of the rim but it was sloping down and away from the vessel. There was no design on the vessel and its external surface presented a very rough right to left diagonal pattern composed of short

lines giving the appearance of being corded. The alternating lines seem to be of a twisted impression.

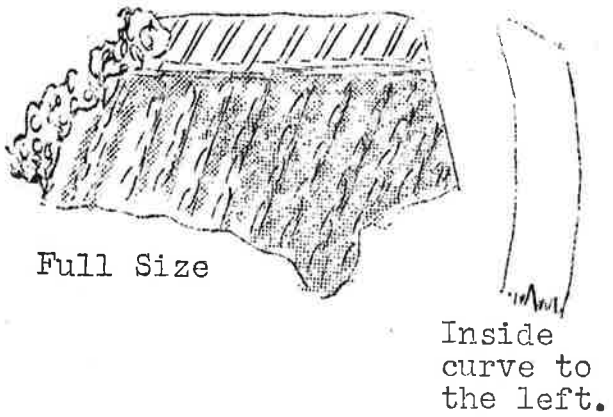


Fig. 1. Rim shard showing both twisted cord lines and rim surface treatment

Both the external and internal surfaces of the vessel were noticably uneven, giving the appearance of crude workmanship. The inner surface was rough and felt as coarse as No. 1 grit sandpaper.

The diameter of the vessel at the rim was 14 inches. At a depth of 5 in. from the rim the diameter was 10 inches. This tapering combined with the curvature of the side walls gave a projected shape of the bowl or vessel, in crossection, similiar to (Fig. 2)

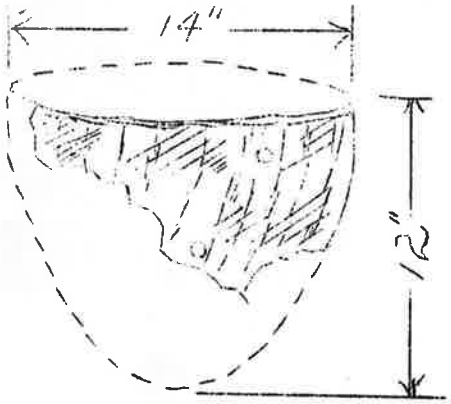


Fig. 2. Suggested original shape of vessel.

Another indication of the irregularity and crudness of this vessel is manifested by the variation in the thickness of its walls. Some of the shards varied from as much as $\frac{1}{2}$ to $\frac{1}{4}$ inches with an average of 3/8 inches.

The two mending holes found in the recovered shards indicated from their positions that they were not contiguous with each other. The holes were in two shards that could not be matched, also, their distance from the rim and outside markings of the vessel added to the convection that other mending holes were made in other pieces of the vessel. One mending hole was but 1-5/8 inches from the rim while the other was 5 inches from the rim. (Fig. 4. page 16)

A striking feature of this vessel is the extremely pronounced showing of the coil breaks. Here again is an indication of rather poor craftmenship. Some of the convex coil areas gave very wide shoulders exhibiting large and heavy slippage areas. The shoulders in some sherds were as much as 1/16 inch. The concave coil breakage areas were quite smooth in some pieces. In all instances (after refitting most of the pieces together) the coil breaks showed the convex surface up and the concave surface down. This would seem to indicate that the vessel was made by slipping the clay from top to bottom, and since there were also markings on the rim of the vessel it seems logical to assume that at least this particular one was made with its bottom resting on the ground and the pot in an upright position. Fig. 3 shows a drawing of a shard actual size to exhibit the pronounced shouldering found on many of the shards.

The vessel was not completely restored. All the broken pieces that did not show pronounced coil-

ing were left unglued so that they could be studied at a later date.

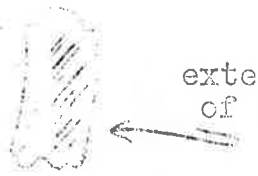


Fig. 3. Cross-section showing convex coiling and the pronounced shouldering.

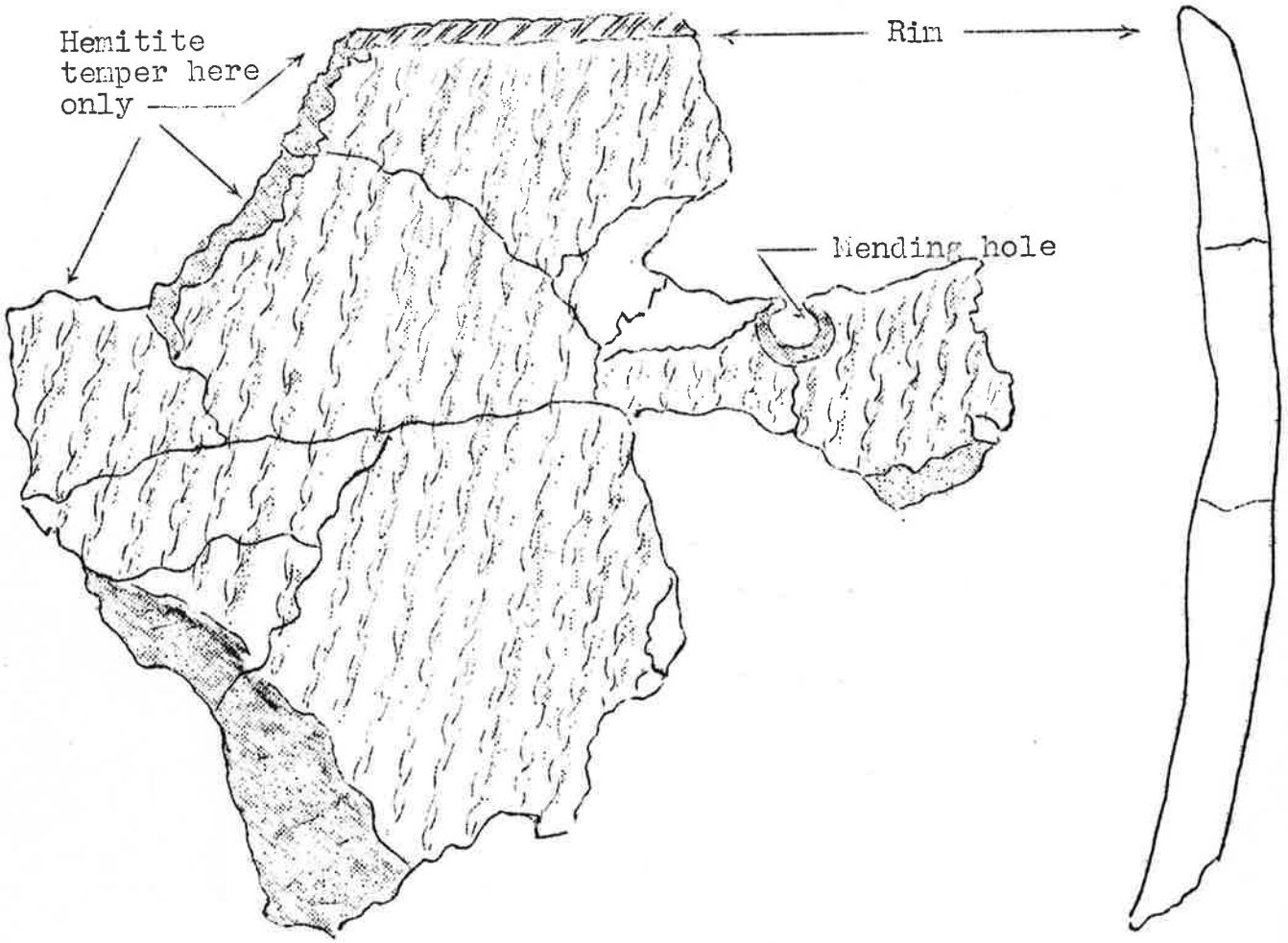
There was a total of 187 pieces of pottery found and nearly all of them could be placed in their original places in the vessel. The only shards that were not put together were very small and totalled 66. Of the 187 pieces 16 were rim shards and when put together totalled 15 inches of the rim. This made up about one third of the total rim circumference.

One area on the rim and for a distance of several inches below it was tempered with crushed hemitite or bog iron. This material gave a very dark stain to the vessel in the area between the inside and outside surfaces.

The hardness of the pottery was determined at 3.2 using the Mohs scale of hardness.

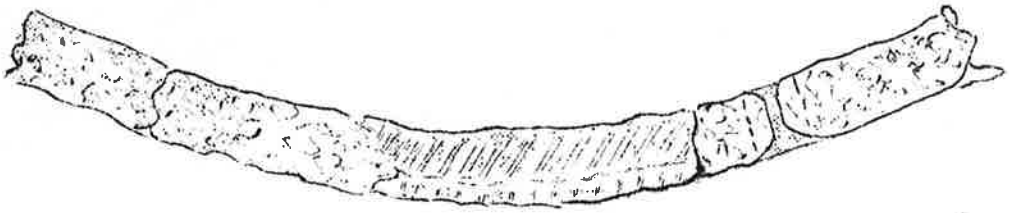
An interesting feature of the coiling was the slanting of several of the coil breaks. One piece shown in Fig. 7. shows a decided slanting to what seems to be about 40 degrees. This of course could be due to the piling up of the coils more so on one side of the vessel, during its construction, than on the other. Where this could be done in a great number of cases, during the making of a vessel it seems unique that out of the many thousands of shards examined by the writer this is the first that has been noticed with such a strong degree of slanting.

Fig. 7. Shard in vertical position and similar to its position on the side of the vessel.



Side view of matching pieces showing rim and manding hole.

Profile of rimshard with interior on the left.



Top view of matching pieces shown above.

Fig. 4. Section of Marshyhope Creek grit tempered pottery. (All drawings are full size).

CORRECTIONS AND ADDITIONAL INFORMATION ABOUT THE CACHE BLADES FROM THE MARSHYHOPE CREEK

J. B. Eggen

Further study of the cache blades found on the bands of the Marshyhope Creek this past summer has revealed some additional information about them and has enabled us to correct several points raised in our initial article on the subject, as written in the last issue of the "Archeolog."

Several of the blades were sent to Mr. John Witthoft at the Penn. Historical Museum, Harrisburg, Pa. and the following statements are from a letter of his, commenting upon the blades and from a reprint of a paper by him titled, "Broad Spearpoints and the Transitional Period Cultures in Pennsylvania."

The blades are made from a Felsite which is also called Rhyolite. In addition to this information it is known as a very specific and peculiar variety of Rhyolite which is a bedrock and artifact material. There is only one geological and geographical source for this particular stone. It is an aporhyolite. This means that it is a rhyolite (granular, basic lava) which has, subsequent to its formation as an intrusive rock mass, been metamorphosed by and its fine structure entirely modified.

It is a general landscape-forming formation in the general region of Gettysburg, Pa., with its major outcrops forming dominant ridges from Fairfield Station, Franklin, County, northwest to Caledonia on the Adams-Franklin Co. border, and westward, and north into the Jack's mountain region.

There is evidence of Indian use of the rock at all outcroppings in some degree, with occasional places where it was obtained in large quantities. At these places the quality of the stone was exceptionally good. The Age of the rock is unknown but it is believed to be a pre-Cambian formation, metamorphosed in pre-cambian times.

Regarding the tools themselves. The stone shows, generally, two cleavage planes, neither well-developed; one is formed during the metamorphoses and recooling, and the second one a rather slaty sort of structure formed later in a somewhat plastic rock formation under pressure of a rock overburden. The enclosed chrystals that are so conspicuous are feldspar and not muscovites as was erroneously stated in the last issue of this publication. A good petrographic description of this rock can be found in the USGS atlas.

Mr. Whitthoit also states that single examples of these blades are also found over a very large area, but nowhere are they abundant. They are to be considered as blank forms, tools roughed out at a quarry work-shop and carried in unfinished form until put into use. The reasons for this belief are the great rarity of these forms with any evidence of wear, use damage, or the sloping type of fracture due to the breakage by tip-impact. The edges are uneven, irregular. Often formed by the big shaping flakes, and the tips are not formed acute and sharp. A finished tool carried the same way would have its edges and tip injured, whereas a blank form could be trimmed up and used with fresh edges. The chipping on the blades is of a type that is ordinarily found on blanks, rather than that of used tools. These blanks were made into projectile points, knives, scrapes, and

cleavers or choppers. At times the blank was broken into two or more pieces and the pieces were shaped into smaller tools.

It is interesting to note here that these blades are not retouched lames. However they were retouched by percussion from natural frost-spalls, both the frost-spall and the chipping being in the plane of the natural cleavage of the stone. Mr. Whitthoff also states that they have similiar forms in process from workshops near the outcroppings. Again, all the blades could not have come from the same block or core of ston. The character of the stone is too different. Some appear to have come from the stone in the mid-portion of the formation while other blades seem to have come from near the top of the formation. Blades of this form were generally trimmed into stemmed spearpoints, often being trimmed up without a tang for use as knives and cleavers.

These blades are decidedly of the Archaic rather than of any later time; they are no part of the transitional cultures that have been referred to from time to time. Even though there have been found transitional blanks that are as large as these from the Marshyhope, and some still larger, they are defititely Archaic. Transitional spearpoints have also been found in this size range. Some archaic leaf-shaped spearpoints quite similar to blade No. 12 shown in plate two of the September issue of the Archeolog have been found and they are ones that have been trimmed up from cache blades. Also there are other forms with straight tangs apparently made from such blades. It is notable that there has not been found a site where this particular culture was isolated, or where could be separated from all of the other Archaic rhyolite industries (of which there are said to have been many) one of these ones with the big cache blades. Still, our very much mixed Archaic sites with a number of different Rhyolite industries mixed up together ordinarily have some of these forms.

In the few places where Mr. Whitthoff does have the Archaic Rhyolite industry isolated, as in the lower levels of the Duncan's Island test excavation there is not as yet, anything that will help with this problem.

It is certain, therefore, that the blades in question are tool blank forms from one of the many still-to-be-defined Rhyolite industries of the early Archaic or late Archaic eras.

It is felt by many that this particular complex to which the Marshyhope cache blades belong was one of those of the Potomac rather than of the Susquehanna. More of this material has been reported from the Potomac drainage area than from the Susquehanna area. Yet it is still found in the Susquehanna area because of the very close cultural relationships that existed between the two areas at that time. Again, they only went to the outcroppings to get the stone that they needed, and they left very little evidence of their everyday life back in that part of the country during the time they were securing the stone as compared to the sites and areas of the Rhyolite industries that were near their trails and waterways. Caches, as a rule are not uncommon near the outcroppings, but Indian sites of any consquence at all outside of mere workshops are rather rare and when located they are always small and poorly productive of relict and artifacts.

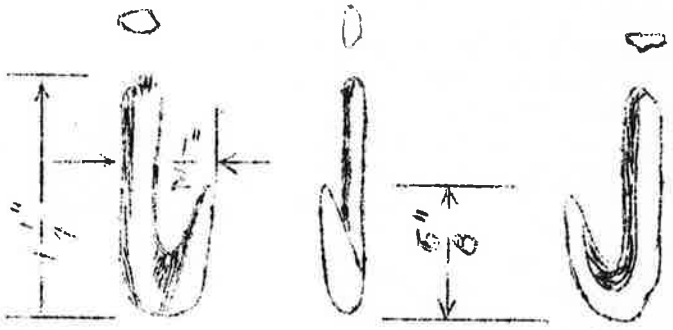
BONE FISH HOOK FOUND

For many years we have been making an effort to establish some definite connection between the many fish bones that have been found in the refuse pits of the local indians and the methods that were used in catching these fish. Several theories have been offered as to how they were caught. The finding of a number of pummets and similar objects which have been temporarily identified as net sinkers, have given us at least a possible solution to a way early man on the Delmarva penninsula caught his fish. It is not to be disregarded that this method was used, but definite proof of at least one certain way has recently come to light. It has also been suggested that oyster shell had been used as material for the designing for fish hooks and constant search of the middens in this area has failed to reveal any as such. It had been proposed several years ago that certain bones of some of the larger animals like the deer and bear could have been used. The articular element of the distal endometacarpal, the proximal end of the metacarpal or even the astragalus are so designed that by cutting them in a longitudinal way their curves could be used as a hook.

At the present writing none of the above materials have been found to have been used or made into hooks.

Last October Geiger Omwake and the writer were excavating the last of the known shell refuse pits on the Phillips property east of Milford on what has been identified as the Phillips site. While troweling in pit number #9 at a depth of 25 inches below the surface of the ground Mr. Omwake came upon a bone fish hook. Although, at this time, there is no definite way to determine from exactly what bone of an animal the hook was made, it appears that the femur or tibia of a deer supplied the material. This is the first known recorded hook from this area.

An interesting feature of this hook is the twist that is in the bent part. (See Fig. 1.) It appears that this is due to the workmanship of the maker rather than any design that might have been due to the shape of the original material from which the hook was made.



a. b. c.

Fig. 1. Fish Hook- Actual size

The back surface of the hook is neatly rounded while the front surface has a groove running from the inside of the point to the bend of the hook (Fig.1 a). The overall lenght is 3.2 cm., and the shank appears to have been a bit longer. It is possible that the shank end of the hook cound have ended in a knob instead of having the conventional eye since this would have given a much stronger construction for its use. The hook is not round but in sectional appearance is somewhat obovate with a flat side cut away, down the inside of the shank and bend of the hook up nearly to the point (Fig. 1 c). The shank is .5 cm wide and .2 to .3 cm thick. Additional dimensions are shown on the above drawings.

COVER ILLUSTRATION

The artifacts that are shown on the cover of this issue of the Archeolog are beyond a doubt some of the finest pieces of material ever to be found on the Eastern Shore of Maryland. Others may equal it in part but no where has there been found so many fine objects and in such profusion as have been recovered from the Sandy Hill mound site, at Cambridge, Maryland.

Many plates would have to be made if one were to include all of the material that was found by the author of the article in this issue on the subject. His collection from this area is but one of three that made up nearly all of the material recovered.

One of the other collections was sold several years ago at a reported price of $700.00. It is hoped that at a later date we will be able to photograph more of this single collection and present the same in other issues of the Archeolog.

In the upper left hand corner of the page is a gorget with 5 complete holes and part of another. This object appears to have been broken and reworked to suit the desire of the maker.

The rectangular hemitite stone has been suggested as being a rubbing stone. There has been raised some question as to just how this could have been used in this capacity. Every surface of the stone is highly polished and there are no sharp edges or corners. If this stone was a rubbing stone it would be interesting to know how it was used as such.

The small bowl and pestle were used as a paint pot. It is the one that was described in the article in this issue. It was apparently a paint pot as some of the ochre is still to be found in the pot. It is but one of several in the collection. Made of green steatite it measures 2 1/4in. in diameter and is 1 3/8 in. deep.

The fourth object from the left on the top row is a cone of bright red. This also has been called a rubbing stone and again it would be interesting to know just how the stone could be used.

The last item of the top row is a pendant and is unique in that it has a finely serrated edge on both sides. Several others (no.2 from the left in the second row and no. #4 from the left in the third row) also have this serrated condition. These last two are gorgets and not pendants as we know them.

The second row contains five gorgets. The two on either end of the row are "blanks" and are undrilled. They have been called unfinished gorgets since they do not have any drilled holes, yet they are wider and thinner than any of the pendants or gorgets that have been recovered from the Sandy Hill Mound site. Both of them are very smooth and not marked or scratched. The fourth one from the left is flat on the side that is down. The side visable is rounded.

The third row contains two tube pipes, two gorgets and a pendant. The tube on the left has a pebble wedged in the hole of the tube. We have been told that all of the pipes originally were fitted with a pebble. The tube on the right is one that was broken and reworked. Both of these are highly polished. The pendant in the center of the row is the one that is described in J. Alden Mason's article about the site. Being of banded slate it is regarded as an exceptional find in this area.

The necklace at the bottom of the picture is a collection of part of the hundreds of copper beads found at the site. Most of them were about $\frac{1}{8}$ inch each way and were made of thin sheets of copper rolled into the shape of beads.