

# BULLETIN

THE ARCHAEOLOGICAL SOCIETY  
OF  
DELAWARE



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# The Archaeological Society of Delaware

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C. A. WESLAGER, *Editor*—23 Champlain Ave., Wilmington, Del.

#### *Visit to Pennsbury*

On Sunday, October 6, 1940, members of the Society visited the reconstruction of William Penn's manor at Pennsbury. Through the cooperation of D. A. Cadzow, Archaeologist for the State of Pennsylvania, a guide was on hand to escort members through the historic memorial. This shrine to William Penn's memory is perhaps the most important historical reconstruction made in the East. Archaeologists played an important role in locating the original site of the manor and in exposing its foundations. Pennsbury is a striking tribute to the first Pennsylvanian—one, incidentally, who received his American welcome in Delaware!

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#### *J. Alden Mason Addresses Society*

On Saturday, December 14, 1940, the Society was pleased to hear Dr. J. Alden Mason speak on "The Golden Treasure of Cocola." Dr. Mason is among our most illustrious members, and we may be pardoned for exhibiting a home-town pride in his accomplishments. Dr. Mason's expedition to Panama last spring, under the sponsorship of the University Museum of the University of Pennsylvania, resulted in the recovery of valuable artifacts and in the compilation of important data concerning a vanished people.

Dr. Mason showed for the first time unedited motion pictures of the work. In addition to preserving the details of the archaeological work, the film depicted incidents in the routine of camp life. Among the most important objects encountered during the work were those made of native gold, characterized by rare craftsmanship and ingenuity. Hundreds of pottery vessels were also brought back to the University Museum for exhibition and study. The full importance of Mason's work will not be realized until all of the Panama material is studied and a report published. However, none in his audience doubted that his name will long be remembered in the pages of American archaeology as a result of this project and his earlier work in Central America.

### *Authorities on Archaeology*

Charles Amsden, writing in the October 1940 issue of *American Antiquity*, cites a story of a Nevada enthusiast who came to the Southwest Museum and asked who was the archaeological authority on his region. He was somewhat abashed to be told that *he* was the authority.

Yet, is it not perfectly natural that one educated and bred in a specific area should have at his fingertips certain facts which if properly studied would make him an authority on that area? Does it not seem obvious, for example, to consult a Delaware resident for answers to questions pertaining to local lore rather than an outsider who has only a casual knowledge of the state?

The point Amsden makes is that the amateur tends to overrate the professional and the professional to underestimate the amateur. Certainly such a barrier has no foundation for perpetuity. Indeed it is a pleasure to report that such a barrier is non-existent among members of the Delaware Society where professionals and amateurs consult together freely, each benefiting from the other. We have never hesitated to voice an opinion on questions familiar to us, and, in fact, have at times violently disagreed with professionals over local matters. It is true that a trend of the past lingers on, namely, a few amateurs are more concerned over specimens *per se* than the professional, although admittedly no one is immune from the thrill of discovery. It is true that a decade or so ago most amateurs were exclusively relic hunters. The criticism of some of our present amateurs—and a proper one—is that their interest has not risen above the narrow limitations of the artifact. No one can ever be a true authority who can not modify and enlarge his point of view.

Each of us in Delaware has an equal opportunity to be an archaeological authority in his own right—without benefit of college education. To do so, he must rise above the level of an interest in relics and relics alone. He must know the history of his area. He must read the archaeological literature of the past and remain tuned to the writings of the present. He must meet and discuss his problems with others. He must have an opportunity to record his observations. He must consider the artifact merely as one of the means to an end—not the end itself.

It is for the attainment of such objectives that the Archaeological Society of Delaware exists.

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## NOTES FROM THE DELAWARE FIELD

### *Alexander Cedar Creek Site*

L. T. Alexander of our Society located a hitherto unknown site on Cedar Creek in Sussex County, southeast of Milford, Delaware. In recognition of its finder, the site will be referred to hereafter as the *Alexander Cedar Creek Site*. The site was visited on November 2, 1940 by C. A. Weslager, James Scott and Mr. Alexander, and permission obtained from the owner to make several exploratory test pits.

These tests revealed that the humus is heavily charged with clam, oyster and conch shells. At least ten areas, circular in shape, were noted on the surface where the shells were densely concentrated. Excavation in one of these areas showed that it was the top of a shell pit identical with the pits at Slaughter Creek. This particular pit was approximately four feet in diameter and extended three feet into the subsoil.

From surface materials, and those uncovered in the pit, it was apparent that the site falls under the broad classification of the Coastal Aspect of the Woodland Pattern as we recognize it in Delaware. The following traits are associated with this cultural group: stemmed and triangular arrowpoints (with equilateral triangles predominating) and thumb scrapers made of local pebble jasper; bi-pitted hammerstones; celts and one-hole pendants; gorgets; pottery pipes with obtuse angle stems; bone awls; bone gorgets; bone bodkins; antler tine arrowpoints. The pottery vessels are typically conoid in shape with incipient collars, or no collars at all. The deterministic design elements are incised parallel bands or incised triangles appearing around the throats of the vessels. The ware is shell tempered, and the exterior bears the marks of a cord or net-wrapped paddle.

Further exploration will be made at this site in the spring for the purpose of definitely ascertaining its relationship to Slaughter Creek.

### *Paynter Site*

The *Paynter Site* lies only a short distance from the Moore Shell Heap, below Lewes, Delaware, which was excavated last year by members of the Society. On November 23 and 24, 1940, the site was visited by Ted Stern of the University of Pennsylvania, Richard E. Stearns, Curator of Archaeology, Maryland Natural History Society, James Scott and C. A. Weslager.

The purpose of the visit was to sample the site to determine tentatively its relationship to the Moore Shell Heap, Slaughter Creek and the Alexander Cedar Creek Site. Features identical with these were observed, the most conspicuous being the shell pit whose exact purpose has not yet been established.

A shallow disturbance some six feet long and four feet wide was encountered which contained a concentration of shells, animal bones, pebble jasper chips and a few potsherds. This pit had been badly mutilated by the plow and it was impossible to take accurate measurements. Subsequently test holing exposed Pit No. 2. The top of this pit was completely bared and a vertical cut made along its outer edge. The pit was excavated from this vertical face, both from a horizontal and vertical position.

The pit was oval in shape—eight feet long and four feet in width. Its maximum depth in the center was 30 inches. It was heavily laden with clam, oyster and conch shells, some of which had been in contact with heat. Dear, fish bone, and turtle carapace were observed. One bone awl, several worked jasper pebbles, and about 10 potsherds were the only cultural materials in the pit.

The floor was badly burnt, but no charcoal was present at the bottom. From all indications, this discoloration was the result of hot stones having been placed in the bottom of the pit.

Pit No. 3, excavated by Stearns and Weslager the following day, was a hearth or fire pit. It was circular, some five feet in diameter and extending 14 inches from the surface of the ground. The plow had cut into the top of this disturbance, scattering shells, the bottom of a conoid vessel, and an arrowhead on the surface.

On the floor of this pit, there were about 85 stones and pebbles, all fire burned or fractured by heat. They seemed to have formed a fire base, since there was plenty of charcoal above and mixed with them. About eight sherds were found, all part of the same vessel, and all bearing marks of fire. Several flaked jasper pebbles were recovered, probably representing arrowheads in process. The shells in this pit were all discolored from contact with flame.

Based solely on this limited work, it is our feeling that the Paynter Site, Alexander Cedar Creek Site, Moore Shell Heap and Slaughter Creek all represent components of a single focus. This has been tentatively called the Slaughter Creek Focus of the Coastal Aspect of the Northeastern Phase of the Woodland Pattern. (We admit that the identification of a focus may be presumptive at this early date, so this is subject to change.) Future work at the Paynter Site will permit a more detailed comparison with the other stations.

### *Worth Steel Site*

In New Castle County, some 100 miles north of the sites in Sussex County mentioned above, the Society has just completed its work at Crane Hook near Wilmington. The traits at Crane Hook are quite different from those of the sites just mentioned. The Crane Hook material is now being studied and photographed preparatory to the compilation of a report.

In the meantime, aware of the need for more data from New Castle County, to permit cultural identification, permission has been obtained to excavate a site at Claymont on property owned by the Worth Steel Company. The Society wishes to acknowledge its thanks to Mr. E. H. Worth, President of the company, who has kindly granted permission to dig on the site.

The following committee was appointed at our last meeting to make the necessary investigations: C. A. Weslager, H. G. Omwake, William Habbart, James Scott, A. Crozier, and John Swientochowski.

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## PETROLOGY OF THE CHIPPED ARTIFACTS OF THE STATE OF DELAWARE

By HORACE G. RICHARDS

*Many different terms are used to describe materials employed in the manufacture of chipped artifacts. In the following paper, Dr. Richards describes each mineral and gives its proper designation. It is recommended that local students adopt this approved nomenclature.*

The petrologic identification of the rocks used in the manufacture of Indian artifacts presents certain difficulties. In the first place, it is rarely possible to obtain a fresh surface for examination, and very frequently, weathered or polished surfaces of artifacts can be very misleading when an attempt is made to determine the nature of the rock. In the second place, it is difficult to make exact identifications of such small fragments of rocks as those used for arrowheads, knives, etc. There are many intergrades between the various types of rocks, for instance between sandstone and shale, or between sandstone and quartzite, and frequently exact determination is a matter of personal opinion.

The following notes have been prepared in an attempt to define the various lithic materials used for the manufacture of artifacts by the aborigines of the State of Delaware. Inasmuch as the larger ground implements such as celts, axes, etc., are often exceedingly difficult to determine because of their polished surfaces, the present discussion will be largely confined to the chipped materials.

### *Sandstone*

As the name implies, this rock is consolidated sand, formed by the natural cementing of the sand grains into a solid mass. The grains may be coarse or fine, and we speak of a fine-grained sandstone and a coarse-grained sandstone. The cementing material may be calcium carbonate, silica, limonite or other material. When the rock is broken, it breaks *around* the grains; in other words, the individual grains can easily be recognized. The color is variable.

Sandstone is frequently used for larger implements such as axes, and celts, and is only rarely used for arrowheads and other smaller artifacts. Some of the sandstone used probably was derived from the relatively soft Triassic rocks of Central New Jersey and eastern Pennsylvania; however, the majority of the sandstone artifacts are of a finer grained rock tending toward quartzite such as is found in the Paleozoic formations of northern New Jersey or possibly from similar formations of southeastern Pennsylvania.

### *Quartzite*

Sandstone that has been altered or metamorphosed is known as quartzite. It is produced by a recrystallization of quartz sandstone under heat and pressure. When quartzite is broken, it breaks *through* the grains, thus distinguishing it from sandstone. Frequently the difference between sandstone and quartzite is not easy to recognize and various intergrades can be noted such as "quartzitic sandstone." As in the case of sandstone, the color is variable. Quartzite is used for the larger implements, as well as for arrowheads, spearheads and the like.



The majority of the quartzites for arrowheads, etc. in the State of Delaware, were probably derived from the Paleozoic formations that cross northern New Jersey, southeastern Pennsylvania and the extreme northern tip of Delaware. Quartzite pebbles and boulders are common in the glacial outwash and drift in Delaware Valley, and frequently occur as pebbles in the Pleistocene formations of Southern Delaware. Some unusually large quartzite boulders are known from the Delaware Bay shore at Big Stone Beach, about 6 miles south of Bowers, Delaware. It is possible that these or similar rocks might have served as a source for artifact material.

Many projectile points from Cumberland County, New Jersey, are made of the so-called "Cohansey Quartzite" which occurs locally along the Cohansey Creek near Fairton and Greenwich. It may be recognized by its sugary texture, light buff or white color, and frequently by the presence of fossil mollusks. The rock is of the Kirkwood formation of Miocene age and is one of the rare cases of massive indurated rock in the Tertiary of the Coastal Plain<sup>1</sup>; occasionally it occurs as a sandstone. Although this formation is not known to occur in Delaware, arrowheads of "Cohansey Quartzite" are occasionally found in that State particularly along the Delaware River south of Wilmington.

#### *Shale*

Shale is consolidated clay or mud. It usually occurs in thin layers and scales off readily when exposed to the weather. The color is variable depending largely upon the nature of the original sediment. Sandy or arenaceous shale contains a considerable amount of sand with the clay and all intergrades between it and true sandstone are found. Calcareous shale contains varying amounts of calcium carbonate and gradually grades into limestone. The color is variable although red and brown shades are the most frequent.

Shale is frequently used for the manufacture of arrowheads and other small implements and rarely for larger implements such as celts and axes.

Shale implements are much more abundant in New Jersey than in Delaware, probably because of the abundance of shale outcrops in the former State.

Some shale implements were probably made from the Triassic "red shales" that cross central New Jersey and eastern Pennsylvania, but most were made of the harder Paleozoic shales which outcrop somewhat farther north or west.

True shale can always be nicked with the finger nail.

#### *Argillite*

Shale that has undergone a higher degree of induration is called argillite. It is compact, without lamination and breaks with a curved (conchoidal) fracture. Although argillite is far more durable than shale, the two intergrade and it is often impossible to make an exact determination. Argillite readily forms sharp edges and therefore is suitable for the manufacture of knife blades, scrapers, etc.

There are no known argillite outcrops in Delaware. The artifacts found in the State were probably imported from central New Jersey where Triassic argillite is most abundant.

#### *Slate*

Shale that has been very much compressed and has become completely metamorphosed is known as slate. It is much harder than shale and does

1. Richards, Horace G. A New Miocene Locality in New Jersey. Amer. Midl. Nat. Vol. 16. pp. 208-209 (1935).



not readily crumble; furthermore it has acquired slaty cleavage whereby it splits readily into thin sheets. These laminations are secondary in nature and have no relation to the bedding of the original shale.

Although slate is abundant in parts of New Jersey and Pennsylvania, it is rarely used for the manufacture of projectile points. It is, however, frequently used for bannerstones and other ornamental objects.

#### *Flint - Chert - Jasper - Chalcedony*

Flinty material frequently occurs as lenses in chalks or limestone. It is a microscopic mixture of crystallized silica or quartz ( $\text{Si O}_2$ ), and non-crystalline silica containing some combined water (opal). It is extremely hard and can not be scratched with a knife. It has no cleavage, but a conchoidal fracture.

The words flint, chert, jasper and chalcedony have been much confused in the literature. Tarr<sup>2</sup> has recently shown that the terms are synonymous and that all should be called "crypto-crystalline quartz" (where the crystalline structure is not readily apparent) with color designations to indicate the various types. However, for convenience, the following classification is suggested:

Flint.....	Black
Chert.....	Grey, green or creamy
Jasper.....	Red or brown (stained with hematite)
Chalcedony.....	Translucent, especially on edges

Flinty material is abundant in the Paleozoic and pre-Paleozoic rock of northern New Jersey, eastern Pennsylvania and extreme northern Delaware. Flint pebbles are also present in the glacial outwash of the Delaware Valley and occasionally in the Pleistocene formation of Southern Delaware.

The fact that no rocks occur in place in southern Delaware probably explains the relative scarcity of flint artifacts south of Dover.

At many of the sites near Newark, Del. and Elkton, Md. there is a predominance of a certain type of jasper artifact. Although, geologically strictly a form of jasper, it differs from the usual "pebble Jasper" of Delaware by its impure quality and high limonite content.

There is evidence to believe that the rock was quarried somewhere near Iron Hill, 3 miles south of Newark. According to the United States Geological Survey<sup>3</sup> the hill is composed of gabbro with inclusions of "yellow chalcedony," the latter probably representing the artifact material.

Locally the rock is occasionally called "ferruginous quartz"; however, since the term is too general, the phrase "Newark Jasper" is suggested inasmuch as there is fairly good evidence that it was quarried near Newark. This is apparently the only rock quarried in the State of Delaware by the aborigines.

#### *Quartz*

Crystalline quartz (as opposed to the cryptocrystalline variety in the previous section) can readily be identified by its vitreous appearance, conchoidal fracture, and lack of cleavage. It is very hard and cannot be scratched with a knife, but itself scratches glass and feldspar.

It is one of the commonest minerals and occurs in igneous, sedimentary and metamorphic rocks. Vein quartz is usually white or colorless, but the impure variety may be almost any color.

2. Tarr, W. A. Terminology of the Chemical Siliceous Sediments. National Research Council, Washington, D. C. (1936).

3. Bascom, F., and Miller, B. L. Geology of the Elkton and Wilmington Quadrangle. U.S.G.S. Folio 211 (1920)



Quartz is present in the Paleozoic and pre-Paleozoic rocks of southeastern Pennsylvania and northern Delaware; furthermore, quartz pebbles are abundant in the Pleistocene deposits of southern New Jersey and southern Delaware and it is probably from these that most of the quartz artifacts were made. The fact that quartz is so abundant in southern Delaware probably explains why so many of the projectile points are of this material.

#### *Limestone*

Limestone is a compact rock composed of calcium carbonate with occasionally some magnesium carbonate. It is formed in the sea chiefly from limy mud, or ooze made up of fragments of mollusk shells, corals and other sea life. Limestone of variable purity occurs depending upon the quantity of sand or clay mixed with the limy sediment. Nodules of flint or chert frequently occur in limestone; hence the name cherty limestone.

Limestone is rarely used for artifacts. Although this type of rock occurs in Pennsylvania adjacent to northern Delaware, the aborigines would probably have passed it by in preference to a more durable stone. Limestone is completely absent from the Pleistocene formations of southern Delaware which accounts for the absence of such artifacts in that part of the State.

Limestone can easily be identified by its effervescence with hydrochloric acid.

#### *Porphyry*

Igneous rocks that are composed of crystals of two sizes—some large and conspicuous and others much smaller that form a matrix in which the large crystals are imbedded—are termed porphyries. The matrix is called the *ground mass* while the large crystals are the *phenocrysts*. A simple analogy to porphyry would be a cup of custard with raisins, the custard being the *ground mass* and the raisins the *phenocrysts*.

Porphyries may be granite porphyries, diorite porphyries, etc., depending upon the type of igneous rock; however for archaeological purposes the general term porphyry should suffice. Although this type of rock is used primarily for celts, axes and other large implements, and is almost never used for projectile points and the like, mention of it is included here because of its striking nature.

No porphyries are known to outcrop in New Jersey or Delaware, the archaeological material found there probably having been imported. Apparently the nearer out-crops are in York and Adams Counties, Pennsylvania, and adjacent northern Maryland. Other porphyries occur in northern New York.

#### *Mica Schist*

Crystalline schists are metamorphic rocks and are recognized by their obviously crystalline appearance and their foliated or shistose texture. A coarsely foliated rock is a gneiss, while one in which the foliations are well developed and closely spaced is a schist. The most frequent type of schist is a mica schist which in addition to the mica often contains well formed crystals of garnet, quartz or other minerals. These rocks are abundant in the pre-Cambrian and early Paleozoic rocks of the Wilmington-Philadelphia-Trenton region.

Although poorly suited for the manufacture of artifacts, an occasional pestle or ornament or still more rarely a projectile point, is found of Mica schist.



### *Steatite*

Steatite or "soapstone" is the massive variety of talc which, in turn, is the end product in the weathering of several different silicates. It forms a large proportion of some schists which are termed talcose schists. It also occurs as lenticular masses associated with serpentine and other metamorphic rocks.

Steatite occurs along the Delaware River near Phillipsburg, N. J. and at various places near the Schuylkill River, for instance at Miquon (Lafayette), Pennsylvania. Recently, Crozier<sup>4</sup> has reported a large ancient steatite quarry near Christiana, Lancaster County, Pennsylvania. This probably served as a source of supply for at least a large part of the steatite used in Delaware.

Steatite was occasionally used by the Indians for vessels and was frequently used as tempering material for pottery. It was also used for bannerstones and other ornamental objects.

### *Rhyolite*

Rhyolite is a light-colored dense igneous rock related to granite and consisting essentially of feldspar and quartz, with a lesser proportion of ferro-magnesium minerals. In general it is rather similar to other extrusive rocks of acidic type and because it is sometimes difficult to identify without the aid of a microscope, it might be better to replace the term "rhyolite" as frequently used in archaeological literature by the more general term "felsite."

Rhyolite projectile points are occasionally found in Delaware, particularly in the northern part of the state. It is probable that either the artifacts themselves or the material was imported from south-central Pennsylvania, for the nearest known rhyolite outcrops occur in Adams County, Pa. Rhyolite artifacts are exceedingly rare in New Jersey.

### *Miscellaneous Rocks*

Other rocks occasionally used by the Delaware Indians, although more especially for larger implements than for the chipped variety are granite, diabase ("trap"), diorite, and "ironstone."

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### **Acknowledgment**

*Certain of the information in this paper has also been included in a report on the petrology of the New Jersey artifacts which will ultimately be published in the results of the New Jersey W. P. A. Indian Site Survey (O.P. No. 665-22-3-369), sponsored by the New Jersey State Museum. Thanks are hereby given to the New Jersey State Museum and the Work Projects Administration of New Jersey for permission to include the data in the above report.*

*Thanks are also due Mr. Meredith E. Johnson, State Geologist of New Jersey, for advice on certain points of terminology.*

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4. Crozier, A. The Steatite Quarry near Christiana, Lancaster County, Pennsylvania, Bull. Arch. Soc. Del. Vol. 3, No. 2 (1939).

## AN INCISED FULGUR SHELL FROM HOLLY OAK, DELAWARE

By C. A. WESLAGER

ACKNOWLEDGMENTS: *The writer wishes to express thanks to the following persons who kindly provided information in the preparation of this paper: William B. Marye, Richard E. Stearns, Horace G. Richards, William Ritchie, Charles Phillhower, Neil M. Judd, J. E. Graff, Frank G. Speck.*

IN THE current discussion of early Man in America, dramatically reopened by the Folsom discoveries in the Southwest, it seems to the writer that certain dormant findings in the East might well be resurrected and reviewed in light of the newer data. That there is some connective relationship between Folsom industry of the Southwest and the Folsom-like points found on scattered sites in the East, is inferred by many archaeologists, although the evidence is too scant to permit specific correlations. It is not inconceivable that Folsom Man, who seems to have been nomadic, may have pushed eastward and left along the eastern littoral a few isolated camping stations which have remained undiscovered. The presence of such a site, or sites, in the State of Delaware might explain the finding during the past years of eight projectile points of unmistakable Folsom characteristics<sup>1</sup>. At least this possibility cannot be discounted until some other acceptable theory is advanced to explain their origin.

Quite apart from these Folsom points, a unique object was found in Delaware many years ago, which has only been casually mentioned in the literature, but which, in view of the fauna associated with the more recent Folsom finds, may have greater relevancy than we hitherto suspected. The object is a marine shell, approximately 5 inches long, incised on its exterior surface with the likeness of a mammoth or mastodon, and perforated with two holes for suspension. This object is now on exhibit at the Smithsonian Institution, Washington, D. C. The writer has gone to no little pains to compile for the first time all facts relating to this object as his modest contribution toward redirecting attention toward it.

Perhaps the most conspicuous reference to this incised shell was made by Lucas in 1901. In discussing evidence pointing toward the antiquity of Man in America, he said<sup>2</sup>:

*"A much better bit of testimony seems to be presented by a fragment of Fulgur shell found near Holly Oak, Delaware and now in the U. S. National Museum, which bears a very rudely scratched image of an animal that may have been intended for a mastodon or bison. This piece of shell is undeniably old, but there is unfortunately the uncertainty just mentioned as to the animal depicted."*

Considerable difficulty was encountered in gathering all details pertaining to the finding of this shell, due to the insufficiency of museum records. It is regrettable that more detailed data are not available for so rare an object. However, one cannot censure present museum officials for the sins of omission of their predecessors.

1. A. Crazier, "Delaware Folsom Points," Bull. Arch. Soc. of Del., Vol. 3, No. 1, 1939.

2. F. A. Lucas, "Animals of the Past," 1901.



In the General Meeting of the Boston Society of Natural History, February 5, 1890, it is recorded<sup>3</sup> that Professor F. W. Putnam discoursed upon early man in America and cited as new evidence a "rude figure unquestionably representing a mammoth scratched on a portion of a Busycon shell found under peat in Clairmont County, Delaware." (There is no Clairmont County in Delaware, and the illustrious Professor Putnam was referring to the town of Claymont.) Then follows this important paragraph:

*"Mr. H. T. Cresson has furnished the following additional information in relation to the shell: 'It was found in 1864, near Holly Oak station (two and a half miles from Naaman's Creek) by M. Surault in the presence of Michael Furlin, Timothy Leary and myself. The shell lay in a peat bed, which at the spot named, rests on red gravel (Lewis), covered by the Philadelphia brick clay (of Lewis). It was discovered while Furlin and Leary (farm laborers) were digging muck and bastard-peat, to be used for fertilizing purposes. Human bones, charcoal, bones of animals and stone implements surrounded the shell. These remains of early man have been carefully preserved, and at present are in the possession of Mrs. Spencer of New York. They will shortly be sent to the Peabody Museum for examination, and I hope will remain there, either permanently or as a loan exhibit. I regret that more details upon the subject cannot be given at present until the specimens have been carefully studied at our Museum. It may be interesting to add that the engraved shell has been examined by Professor Putnam of Harvard University and Professor Dall of the Smithsonian Institution, and if I am not mistaken, they deem it a beautiful specimen of aboriginal American art. The shell is heavily incrustated with dendrites, and has to be handled with great care in order to prevent it from disintegrating."*

The Mrs. Spencer referred to in the foregoing excerpt was a Mrs. Bessie D. Spencer of Brooklyn, N. Y., who seemingly was either a close friend or relative of Cresson. Cresson, of course, was the same Dr. Hilborne T. Cresson who, as special assistant to the Peabody Museum, conducted several excavations in the vicinity of Claymont and Holly Oak, Delaware<sup>4</sup>. He appears to have been a thorough and reliable investigator. Whether Mrs. Spencer sent the shell to Peabody Museum remains a moot question, inasmuch as the present museum authorities have no records in their files of ever having received material from her either as gifts or on a loan basis<sup>5</sup>. Dr. Cresson supplied the Museum with considerable Delaware material, and in fact, the greater part of the present Museum collection of Delaware specimens was obtained from him.

On August 6, 1891, which was some 27 years after the finding of the shell, we find this entry in the National Museum Report for 1892:<sup>6</sup>

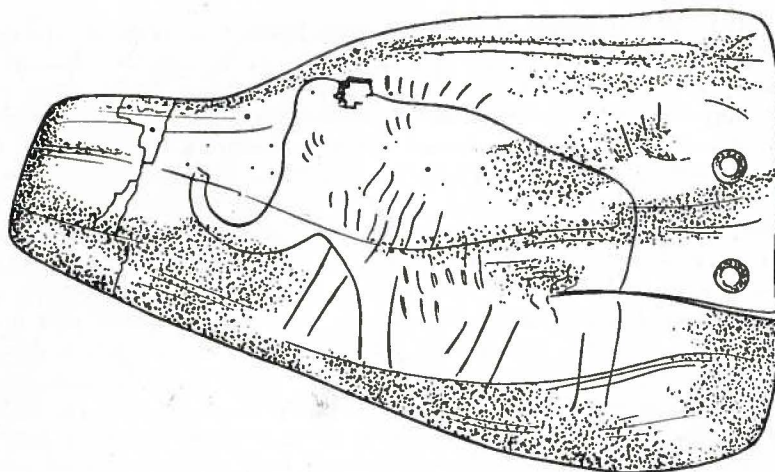
*"From Mrs. B. D. Spencer, Brooklyn, N. Y. (through Dr. H. T. Cresson of Philadelphia, forwarded by Prof. F. W. Putnam of Peabody Museum): A pyrula shell with an engraving of a mastodon or grand pachyderm, human and animal teeth, shell beads, bone implements, stone arrow and spear heads, perforators and scrapers and a piece of wood, showing the cutting marks of a stone axe, from the peat and fallen forest layer and neighboring locality near Holly Oak Station, Philadelphia, Wilmington and*

3. "Proceedings," Boston Soc. of Nat. Hist., Vol. 24, P. 467-469.

4. Reports of Cresson's work in Delaware cited by the present writer in Vol. 3, No. 1 this Bulletin, P. 7.

5. A letter from Mrs. Wallace Newman of Peabody Museum dated Nov. 22, 1940 advises that the museum has no record of the shell having been in their possession.

6. National Museum Report, Wash. D. C. 1892, P. 141.



*A drawing of the incised shell, made by Richard E. Stearns. The animal characteristics are plainly those of a mammoth or mastodon. Note the short lines at the back and haunches of the animal, probably representing hairs. The object is shown horizontally so that the animal features can be seen. However, when in use, it was apparently suspended in a vertical position by the two perforations shown along the right margin.*

*Baltimore Railroad, Delaware. These objects were discovered by Dr. H. T. Cresson and M. Sarault in 1864. Seventy-nine specimens. (Acc. 24659)."*

It is not clear how many, if any, of the 79 specimens were originally associated with the engraved shell, although as previously cited "human bones, charcoal, and bones of animals and stone implements surrounded the shell."

An illustration of the shell and a brief description of it was made by Dr. Thomas Wilson in his monograph on prehistoric art<sup>7</sup>. Dr. Wilson states that it was "found on the surface of a tilled field which had been covered for manuring purposes with peat." This is at variance with the statement made by Cresson that the shell was excavated in a bed of peat. Since Cresson was dead at the time Wilson wrote his monograph, the statement remained unchallenged. More recently, Nelson<sup>8</sup> has referred to the shell.

The importance of the shell lies in the fact that it is incised with the likeness of an animal (with a more or less accurate knowledge of that animal) believed to have been extinct during the period that the Indians occupied Delaware. In this respect, it is not unlike the Lenape stone, a "gorget" found at Doylestown, Pa. bearing the incised figures of primitive hunters pursuing an animal that resembles a mastodon<sup>9</sup> and to another "gorget" found at Gettysburg, Ohio, also incised with a figure resembling a mastodon or mammoth<sup>10</sup>. It is true that such likenesses are extremely rare. Ritchie<sup>11</sup> tells me he knows of nothing like this from New York, and Philhower<sup>12</sup> has seen no similar incisions on New Jersey artifacts. It is indeed

7. Thomas Wilson, "Prehistoric Art," 1896, P. 381.

8. N. C. Nelson, "Antiquity of Man in America in the Light of Archaeology," 5th Pacific Sci. Congr., Canada, P. 87-130.

9. H. C. Mercer, "Lenape Stone," 1885.

10. H. K. Landis, "Mammoths on Gorgets," Penna. Archaeologist, Vol. 5, No. 3, 1935.

11. Personal letter from William A. Ritchie, Archaeologist, Rochester N. Y. Museum Arts and Sciences.

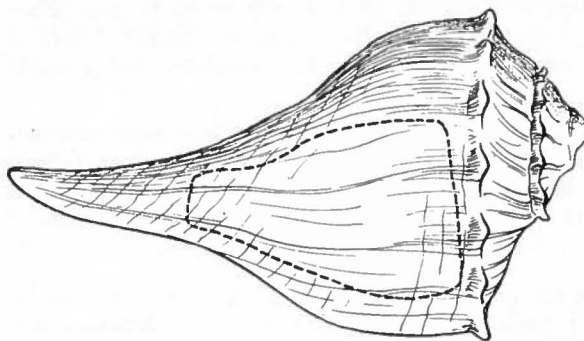
12. Personal letter from Charles Philhower, N. J. Arch. Society.



the extreme rarity that suggests such objects may have been products of other, and possibly, earlier cultural groups.

The matrix in which the shell lay was described as a peat bed resting on red gravel of Lewis and covered by Philadelphia red brick clay of Lewis. Both of these terms are now obsolete and their equivalent is the Cape May Formation in the Delaware Valley, which is of marine or estuary origin, probably dating from the last interglacial stage of the Pleistocene<sup>13</sup>. The peat layer is a local formation which has not been dated. From the scant description of the setting, it is impossible to draw anything definite except to state that there are no facts given which preclude a respectable antiquity for the formation, although on stratigraphic grounds, it is more recent than the underlying Cape May Formation. The shell itself is one of two extant *Fulgurs* (Busycons) common to Delaware Bay, probably the *Fulgur Carica*, popularly known as the knobbed conch. The shell bears a patina that is commensurate with age, although the extent of preservation of such an object is unsatisfactory as a criterion of its age.

I cannot emphasize too strongly the simple fact that worked shells or shell ornaments are exceedingly rare in Delaware and are alien to the tentative list of cultural traits which has been established as diagnostic of the



A *Fulgur Carica*, or knobbed conch, showing (in dotted lines) the section that was cut away and used for the ornament. The knobbed conch is a common mollusk in Delaware Bay, but the ornament illustrated above is the only one known in Delaware made from a conch shell.

cultural pattern of the Woodland peoples who occupied the state. None of the excavations made in Delaware in recent years has produced shell artifacts, nor do the thousands of surface-collected specimens include shell materials. This, by the way, is true of surface material collected on sites in the vicinity of Holly Oak, where the incised shell was found, as well as elsewhere in the state. It is of interest that one of the eight known Delaware Folsom points was found on the surface near Holly Oak.

Unworked clam, oyster and conch shells are, of course, abundant in the midden refuse of Delaware sites and in the shell heaps along the Bay shore. *Fulgur Carica* are well represented in all these middens, but like other mollusks, they were primarily gathered for food. It appears that shells were so common to the Delaware Indian that they held no intrinsic value to him as ornaments.

Thus, the findings of a worked shell in Delaware is as momentous as the finding of a Folsom point, and, like the Folsom point, cannot be assigned to any of the identifiable culture groups, to which all other artifacts can

13. I am gratefully indebted to Dr. Horace G. Richards, Research Associate, The Academy of Natural Sciences of Philadelphia, for identifying this formation.

be broadly allocated. And when one particular shell—the object in question—was dug from a peat bed, a matrix manifestly different from the thin humus line characteristic of the vertical distribution of Delaware artifacts, its intrusive nature is further accentuated. Moreover, when that particular shell is found to bear an incising of an extinct animal, its significance as a hybrid must not be underestimated.

There is little reason to deny that the animal depicted on the shell bears a close resemblance either to a mammoth or mastodon. By no stretch of the imagination is it a bison, such as Lucas intimates. (If it were a bison, the piece would still be somewhat of a mystery since Delaware lies far beyond the buffalo belt.) Richard E. Stearns, an artist-archaeologist who has sketched the shell and who has a keen artistic eye, is in thorough agreement with the writer that the animal traits are definitely proboscidian.

Both the *Mastodon Americanus* and the *Elephas Primigenius*<sup>14</sup> occupied North America in Pleistocene times. Both were similar in appearance: long tusks, shaggy hair, small tail and small eyes; and each is a distinct branch of the elephant family believed to have spread into America from Asia. It is now a matter of scientific fact that the mammoth and mastodon were existing at the time the makers of the distinctive Folsom points roamed the plains. To quote Roberts<sup>15</sup> "Folsom artifacts are found in association with bones from extinct species of bison, *mammoth*, the larger American camel, extinct and living forms of musk ox, extinct antelope, and possibly the native horse."

This association of extinct animal remains with the Folsom complex was well established at Folsom, Black Water Draw, Lindenmeier Clovis-Portals Sites and at Sandia Cave. At the last named station, artifacts occurred in association with camel bones, ground sloth, *mastodon*, carnivores, and the horse—characteristically Pleistocene fauna.

Other observers have recognized the association of mammoth remains and primitive artifacts in recent years elsewhere in North America, e.g. Sellards<sup>16</sup>, Collins<sup>17</sup>, Romer<sup>18</sup>, Rainey<sup>19</sup>.

The inescapable conclusion is that in the west, at least, certain Pleistocene fauna, including the mammoth and mastodon, survived until the time the nomadic Folsom peoples made their first appearance upon the American scene. The earliest date which can at present be attributed to these people is approximately 15,000 years ago. At that time, a few lingering herds of mastodons and mammoths still remained although others of their kind had perished from causes yet unknown.

14. See Encyclopedia Americana; International Encyclopedia; also H. Neville, "On Extinction of Mammoth" Smithsonian 1919; F. A. Lucas, "Truth About Mammoth," Smithsonian 1899; W. J. Hamilton, Jr., "American Mammals," N. Y. 1939.
15. Frank H. H. Roberts, "Developments in the Problem of the North American Paleo-Indian," Smithsonian Misc. Coll., Vol. 100, 1940.
16. E. H. Sellards, "Artifacts Associated With Fossil Elephant," Bull. Geol. Soc. Amer., Vol. 49, July, 1938.
17. Henry B. Collins, Arctic Area, Notes and News, American Antiquity, Vol. 3, No. 2.
18. Alfred S. Romer, "Pleistocene Vertebrates and their Bearing on the Problem of Human Antiquity in North America."
19. Fredrick Rainey, "Archaeological Investigations in Central Alaska," American Antiquity, Vol. 5, No. 4, 1940.



I do not know of any evidence from the East which permits anything except speculation regarding the dating of the mastodon and mammoth remains which have been found in New Jersey, Pennsylvania, Maryland, etc. Perhaps isolated remnants of such animals lingered on as they seemed to have done in the southwest after others of their kind had perished. However, we have no record in Delaware, nor do I know of any in the entire northeastern area, of artifacts having yet been found in association with such remains<sup>20</sup>.

It is not the purpose of this observer to advance any wild-eyed theories relative to the incised shell found at Holly Oak because he realizes the weakness of speculations based solely on typology. The objective of this paper is to bring the shell out of hiding and to present the salient facts pertaining to it. Possibly the light of future discoveries may help us to discern its significance more clearly.

20. Dr. Horace G. Richards was kind enough to furnish me with a list of locations in New Jersey, Pennsylvania and Maryland where mammoth or mastodon fossils have been found. This list does not purport to be complete, but is introduced as evidence that these huge creatures were not uncommon in this area. I have been unable to locate any reference to such fossil remains in Delaware, although a reasonably thorough search was made in the records and letters written to Natural History and Geological students in Delaware. However, three of the finds listed below are very close to the Delaware state line (Mannington, N. J., Oxford Neck, Md. and Chadds Ford, Pa.). It is reasonably certain that both the mammoth and mastodon occupied at least the northern parts of Delaware, although no specific data are available.

*Mammut americanum* (Kerr) AMERICAN MASTODON

1. Mannington Township, Salem County, N.J.
2. Harrisonville, Gloucester County, N.J.
3. Mullica Hill, Gloucester County, N.J.
4. Woodbury, Gloucester County, N.J.
5. Pemberton, Burlington Co., N.J.
6. Trenton, Mercer Co., N.J.
7. Cape May, Cape May Co., N.J. (Dredged from ocean off Cape May).
8. Port Kennedy, Montgomery Co., Pa.
9. Reading, Berks Co., Pa.
10. St. Mary's City, St. Mary's Co., Md.
11. St. Clements, St. Mary's Co., Md.
12. Towson, Baltimore Co., Md.

*Elephas primigenius* (Blumenbach) NORTHERN MAMMOTH

1. Trenton, Mercer Co., N.J.
2. North Plainfield, Union Co., N.J.
3. Chadds Ford, Chester Co., Pa.
4. Oxford Neck, Talbot Co., Md.

*Elephas columbi* (Falconer) SOUTHERN MAMMOTH

1. Middletown, Monmouth Co., N.J.
2. Oxford Neck, Talbot Co., Md.
3. Queen Anne Co., Md.

*Elephas* sp. ?

1. Washington, D. C.

For further data see:

Hay, O. P.—Pleistocene of North America and its Vertebrated Animals. Carnegie Inst. of Wash. Pub. 322 (1923).

Lucas, F.—The Elephants of the Pleistocene. Md. Geol. Surv. Plio. & Pleist. pp. 149-169 (1906).

## THE NEW ARCHAEOLOGICAL MUSEUM AT THE UNIVERSITY OF DELAWARE

By H. GEIGER OMWAKE

*The attainment of one of the Society's aims—an Archaeological Museum—has at last come to pass. Mr. Omwake has been the valiant one in this crusade, and none is better informed to relate the sequence of events leading to victory.*

The opening of the Society's Museum at the University of Delaware occurs just eight years, lacking two days, after a group of amateur archaeologists and enthusiastic friends gathered in the Dover High School to organize the Archaeological Society of Delaware. This group possessed mutual feelings that certain aims, to be incorporated a month later in the original constitution of the Society, were worthy of further development and of common effort to bring about their attainment. How much success has attended this common effort can best be judged by the magnificent growth of this publication, by the public interest in the archaeology of Delaware, by the increase in the number of students of Indian material in our state, by the almost universal adoption of the scientific attitude by the members of our Society.

It is the purpose of this brief article to indicate how well our group succeeded in its aim, quoting the constitution, "to establish, thru the State Legislature, an adequate and fireproof Museum building to be erected in the State Capital, with sufficient financial provision for its upkeep and maintenance, in order to house properly the priceless historical relics of the State."

The need for a repository was already evident at the organization meeting in 1933. The minutes of that meeting reveal that, "Mr. Ralph Beers . . . promised to turn over his collection to a museum, once one is established," and that, "Mr. Albert Early brought word that Mr. Harold Purnell's collection of three thousand pieces would be available as soon as there was a museum in which to house the collection." Mr. Beers stressed the importance of finding a place to display Delaware's relics in order to keep them in the State. As might be expected, there was even then an intense pride in keeping for Delawareans the stone heritage left here by the original dwellers of our state and equally intense determination that Delaware material should not find its way into institutions outside the state. Too often the transportation ticket has been found to be for one way only, and it has been extremely difficult to effect the return of such material.

Following out the purpose of the constitution, the author, then president of the Society, obtained an interview with former Governor C. Douglas Buck. The governor expressed interest in finding room in the State House for exhibiting our material. Unfortunately the expansion of governmental services had been so rapid that a long time previous the 'standing room only' sign had been posted. Dr. George H. Ryden, State Archivist, historian, friend and member of the Society, came to the rescue and made available a display case in the quarters of the State Archives Commission in the Old State House. This case your present author immediately filled with items from his collection. For all the intervening years this single case has housed the only public continuous exhibit of Indian material in the state.



A year after the founding of the Society, at a meeting held in Wolf Hall at the University of Delaware on January 20, 1934, Dr. Ryden reported that Dr. Walter Hullihen, President of the University, was interested in having the permanent collections of the Society housed there and expressed an opinion that the University might bear part of the expense of providing exhibit cases. A committee to investigate these possibilities was appointed. This committee never reported, but individual members of the society made contact with the officials of the University. Mr. Arch Crozier and your author sorted, mended, and placed on exhibit at the University two collections which had found their way to President Hullihen's attic.

Although no committee report was received at the meeting following in April, discussion of the problem continued and the Society decided to ask former State Senator W. Vernon Steen of Dagsboro, a member, to interview former Secretary of State Charles H. Grantland relative to finding a permanent place at Dover for archaeological specimens and such other collections as would merit housing in a museum. It was the consensus that, in the meantime, the possibility of a permanent repository at the University should be further developed. Senator Steen's untimely death ended negotiations with Mr. Grantland.

On May 26, 1934 a third consecutive meeting was held at the University. Dr. Hullihen welcomed the Society and extended an invitation to house the permanent collections of the Society there. It is interesting to note parenthetically that during all this time and protracted discussion there was no permanent collection belonging to the Society except some pottery and bone material which had been excavated by Dr. D. S. Davidson of the University of Pennsylvania and which was in the custody of that institution. Nevertheless, a Permanent Home Committee was appointed. For some reason or reasons unknown this committee failed to get very far with its efforts.

During the following year, interest in a museum gave way to more immediate problems and it was not until March 1935 that the subject was again discussed. This time, members desired to seek the cooperation of the Natural History Society of Delaware in the erection of a museum. Mr. Crozier and your author were designated to contact the officers of that society to discuss the subject. There followed a number of conferences at the home of Dr. Frank Morton Jones, their president. At one of these a representative of Ward, Wells, and Dreshman, fund raising campaign managers of New York City, presented a plan by which money for a museum could be raised. It was felt by everyone, however, (a number of members of both societies had been invited to this discussion) that the time was not opportune for undertaking such a campaign.

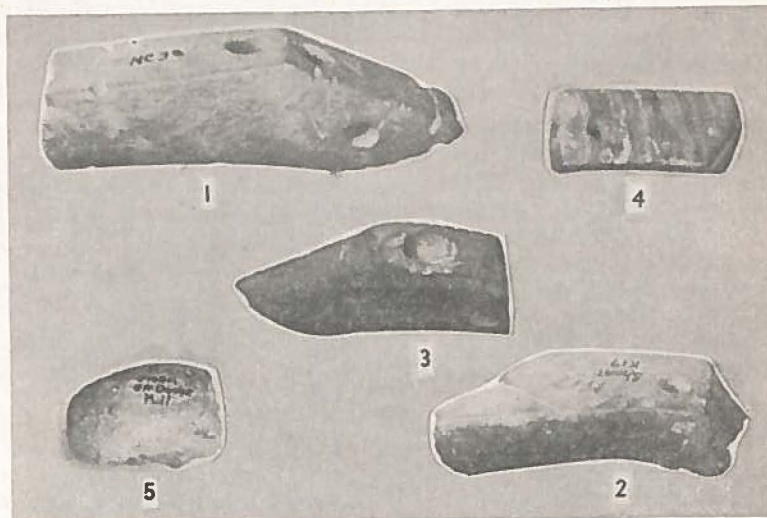
Seemingly effectively stymied at every turn, the members of the society again lost interest in a museum. Then in the spring of 1938 the Society lost one of its most loyal supporters and enthusiastic members through the death of Joseph Wigglesworth. The collection which he left behind was and is one of the nations' outstanding private collections and contains very valuable Delaware material.

Quick to recognize the challenge to save this fine collection for the state and acting solely on their own responsibility and without authorization by the Society, but with the full approval of President Crozier, Mr. Weslager and your author contacted Dr. Hullihen and again opened discussions



which they resemble. In that case, the holes, of whatever kind, would have given a firm hold to the thongs which bound the arrows to the amulet, a matter of importance in an irregular figure.

"These perforations form the most important feature. The amulet may be but a simple bar, but at each end of the base is a sloping hole,



*The fragmentary Birdstones shown are the only such specimens officially recorded from Delaware. They are all surface finds and are fully described in the accompanying article. These Delaware specimens are very crudely made when compared to the beautiful Birdstones found in the midwest. The Birdstone was definitely not a trait in the culture of the Coastal peoples who occupied Delaware, and thus the presence of these forms has not yet been satisfactorily explained.*

bored from the end and base and meeting. To this necessary feature may be added a simple head or tail, and there may also be projecting ears. None of these are essential. They are but appropriate or tasteful accessories.

"They were variable in material as well as form, although most commonly made of striped slate. Perhaps full half have projecting ears, when of bird form. In the wider forms, usually of harder materials, there are often cross-bars on the under side in which the perforations are made. This seems to prove that they were not intended as a means of attaching them to any larger object, on which they would rest, but rather for fastening articles upon them as in the Zuni amulets already mentioned, and which were illustrated by Mr. Frank H. Cushing, in the second Report of the Bureau of Ethnology. On comparison a general resemblance to these will be seen, and in a few cases it is quite striking. That they were used in this way, rather than in those suggested by others, is a reasonable conclusion which gains strength with fuller study."

Mr. Henry Gilman<sup>4</sup>, describing one of these objects, states that "similar ornaments have been found throughout the U.S., and as there has been considerable discussion as to their use, I will here state that I have heard

4. Annual Report of the Smithsonian Institution, Washington, D. C. 1873.



through an aged Indian, that in olden time, these ornaments were worn on the heads of Indian women, but only after marriage. I have often thought that these peculiar objects, which are always made of some choice material, resemble the figure of a brooding bird; a familiar sight to the 'children of the forest,' that thus they are emblematic of maternity, and as such were designed and worn."

Dr. C. C. Abbott<sup>5</sup> in commenting on Gilman's theory says, "This view of their significance has been met with considerable ridicule on the part of some, who, however, offered no better explanation of these objects, as a substitute. Their occurrence in graves that were known to be those of females, by the fact that they were not associated with weapons of any kind, is certainly in favor of the view expressed by Mr. Gilman."

He also refers to Schoolcraft as designating these objects as "knife handles", and that—"by many they have been called "idols", and strangely enough, have been seriously described and commented on as "corn huskers", although their use as a husking peg would tend rather to retard than to facilitate that work, as none have yet been found with a really sharp point, or one in any way available for piercing the husks as the common hickory peg, now used, is expected to do.

"As an indication that these bird-shaped stones were not knife handles, or corn huskers, attention has been called to the fact that halves of these objects have been carefully ground smooth, and polished on the fractured end, and a hole subsequently drilled for suspending them; which could be done more conveniently through the new hole, than through the two basal perforations common to all these bird effigies.

"Easily pleased as the Indian was in the matter of decoration, it is hardly probable that a broken "husking peg" would ever have been used as a charm or pendant; but if the unbroken object had a significance such as has been mentioned by Mr. Gilman, then nothing is more natural than that a piece of one should have been utilized in the manner described."

Dr. Abbott also says that fractions of these bird-shaped stones in great numbers have been found along the Delaware near Trenton. This is very unusual, as nowhere else are they reported to be found in "great numbers," and the finding of a single specimen is usually reported as a rare find.

Dr. Charles C. Jones<sup>6</sup> comments on their rarity in the country occupied by the Southern tribes, and states—"Their use is not well understood, but it is probable that they possessed some conventional significance and importance in connection with the religious ideas of the Indians. It has been suggested by some that they were used for husking corn. This idea we regard as fanciful. It appears much more probable that they were esteemed and worn as charms, as badges of distinction or as religious tokens."

Mr. George X. Allen<sup>7</sup> reports an interview in 1934 with a Methodist clergyman, the Rev. John Silas, a well educated, full-blooded Chippewa Indian. He states: "I handed Mr. Silas a beautiful porphyry bird stone—representing the figure of a beaver. He looked at it fondly, pressed it closely between his hands, cast his eyes upward and said: 'This is the sacred totem of our clan.' His eyes brightened, and he recalled that whenever a feast was held, the totem would be erected, and presents brought by those attend-

5. "Primitive Industry—of the Native Races of the Northern Atlantic Seaboard of America." Dr. C. C. Abbott. Cincinnati, Ohio. 1881.

6. "Antiquities of the Southern Indians." Dr. Chas. C. Jones, New York. 1873.

7. "American Antiquity." Vol. 1, No. 3. Ann Arbor, Michigan, January 1936.



ing would be placed around it." It would seem very far-fetched to consider all "bird-stones" as totems, based on this one instance of a "bird stone" which an Indian fancied as resembling the totem of his clan.

W. S. Webb and W. G. Haag<sup>8</sup> advance the theory that "Banner stones," "Winged stones," "Butterfly stones," "Boat stones," "Bird stones" and "Geniculate" forms were atlatl or spear-thrower weights. This theory, while ingenious, does not seem to have yet been very generally accepted by Archaeologists.

Notwithstanding these various theories, the assertion made by Squier and Davis nearly one hundred years ago that: "It may reasonably be concluded from the uniform shape of these articles, and from their apparent unfitness as implements as also from the wide range of their occurrence, that they were invested with a conventional significance as insignia, or badges of distinction, or as, amulets," comes as near the real explanation of their use as we shall ever know.

Bird stones vary much in size, the smallest that we know of measuring about  $1\frac{1}{4}$  inches, Phillips Academy collection, Andover, Mass. A picture of this one appears on page 96 of Mooreheads "Stone Ornaments of the American Indian"<sup>9</sup>. The largest measures  $9\frac{7}{8}$  inches, and is pictured in the N. Y. State Museum report for 1897.

Bird stones are rarely found in graves or mounds. The earliest record of a grave find was in a cemetery excavated at Swanton, Vermont about 1865 by Prof. Geo. H. Perkins<sup>10</sup>. This specimen was placed in the museum of the University of Vermont.

Mr. Chas. E. Brown reports a few grave finds in Wisconsin and one in Illinois<sup>11</sup>.

Dr. Arthur C. Parker states that bird stones are found in New York where there is evidence of Algonkian or mound occupation. None is found on Iroquoian sites except intrusively<sup>12</sup>.

A fine series of these stones, including all the various forms, is included in the collection of the Ontario Provincial Museum, Canada. Many examples have been shown in the annual "Archaeological Reports of the Minister of Education."

Many beautiful ones of all types have been found in Wisconsin and Michigan. The Wisconsin ones have been figured and described by Mr. Charles E. Brown<sup>13</sup>.

As indicated in Bulletin No. 30 of the Bureau of Ethnology the Middle Western States north of the Ohio River is the area of most frequent occurrence of these stones, so one would not expect to find them on the Delmarva

8. "The Chiggerville Site, Ohio County, Kentucky." University of Kentucky, Reports in Anthropology. Vol. 4, No. 1. Lexington, Ky. March 1939.
9. "Stone Ornaments of the American Indian." Dr. Warren K. Moorehead. Andover, Mass. 1917.
10. "A Report on the Archaeology of Maine." Dr. Warren K. Moorehead. Andover, Mass. 1922.
11. "The Bird Stone Ceremonials of Wisconsin." Mr. Chas. C. Brown, Wisconsin Archaeologist. Vol. 8, No. 1. Milwaukee, Wis. 1909.
12. "Archaeological History of New York." Arthur Parker. 1922.
13. "Birdstones of North America," Joseph Ringeisen, Jr., Wisconsin Archaeologist, Vol. 2, No. 2, New Series.



Peninsula. However, we have record of five from this territory. They are all broken, but even, so, they are very interesting. A description of these is as follows:

No. 1—Gray, dense sandstone, about  $3\frac{1}{4}$  inches long, 1 inch high and  $\frac{5}{8}$  inch broad, triangular in section. A hole has been drilled through the head, and a deep notch made where the head is broken. A series of tally-marks along the top and four deep notches toward the tail. This object was no doubt used long after it was broken. Found by Mr. H. Geiger Omwake near MacDonough, New Castle Co., Del.

No. 2—Banded slate,  $2\frac{1}{4}$  inches long,  $\frac{7}{8}$ -inch high,  $\frac{3}{4}$ -inch broad. The tail and head of this specimen are missing. Talley marks on right side of neck. No signs of re-working. Found on Short farm along St. Jones River, Kent County, Del., by Mr. H. Geiger Omwake.

No. 3—Banded slate,  $2\frac{1}{4}$  inches long, 1 inch high and  $\frac{1}{2}$ -inch broad. Head and tail are missing, but the tail end has been ground and highly polished, and a neat hole has been drilled transversely through the rear end. Talley marks along the top and both lower edges, triangular in section. Found at North East, Cecil County, Maryland along the North East River by the writer.

No. 4—Banded grey slate,  $1\frac{1}{2}$  inches long,  $\frac{7}{16}$ -inch high,  $\frac{11}{16}$ -inch wide. This is the rear section of the object, and has a raised tail  $\frac{5}{8}$ -inch high. Half spherical in section, and broken end is polished. Found in Kent Co., Del., by Mr. Wm. O. Cubbage.

No. 5—This object is of soapstone and is probably the "head" of a "birdstone", although there is not a sufficiently large part of the stone to definitely decide the question. Found on the Knight farm, east of Dover, Kent Co., Del., by Mr. H. Geiger Omwake.

These are the only ones we know of from our section, but if there are others we shall be glad to hear of them.

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## KILLEN'S MILL POND

By WILLIAM O. CUBBAGE

The latter part of July 1938 brought a veritable flood in this area of Kent County causing damage to the highway bridges and requiring much dirt for repairs. Several pits are in use to supply these needs in the county, and the one about which I am writing is located on the east side of the road and south side of the stream at Killens Mill Pond, about 3 miles east of the town of Felton, Delaware.

During the road repairing, one of the highway crews found an Indian burial when the wall of the pit caved. Parts of the skeletons and artifacts came tumbling down when the wall was undermined. I was informed by those present at the time that a soil disturbance was first noticeable, also a cache of broken pebbles, and after the cave-in, this disturbance was seen to extend about six feet below the surface. As the workmen observed the wreckage, they claimed to have seen at least six skeletons. Among the bones and dirt there were many excellent specimens of Indian art.

One skeleton is said to have had a complete line of some kind of tiny objects very close together and of irregular shape, lying on each collar bone and extending well below the breast bone. These small objects were so soft the men could not pick them up. Across the lines mentioned lay a green slate gorget, nearly eight inches long and in perfect condition. Also with it were 12 large white arrowheads apparently arranged in a semicircle. The arrowheads were divided among the workmen and some were probably lost in the dirt, but 12 were recovered.

Of the artifacts recovered, I have in my custody one spearhead that was broken into three pieces by a shovel and two pieces recovered; a perfect knife about five inches long, one medium sized blade, three perfect gorgets (one was broken into three pieces but all were recovered). Also, I understand from reports that a tubular stone pipe was among the objects uncovered.

Other spearheads and knives were found, but where they are now is something of a mystery, probably because the Engineer of the Highway Department had issued instructions some time ago that all reports of such finding should be made promptly to his office. I am informed that this has not been done in this instance, and it is not the first time that valuable finds have been made and lost in highway sand pits.

From the information I could gather, the bodies were buried in an extended position, heads toward the west, and the bodies had been placed one over the other. With the exception of a few long bones, every evidence was totally destroyed when I arrived upon the scene. My presence would not have been of importance scientifically, but scientific help is available, and I might have prevented destruction of the evidence until such help could be procured.

Just why such a grave was made will probably never be known, but the artifacts are of different workmanship; they are more artistic, and the materials used are not of local derivation. Nothing resembling pebble material was found, and the arrowheads are of the same general shape and size as those that I have seen from the Susquehanna River Valley. The gorgets are of green and gray slate and steatite and the large chipped specimens are of very unusual workmanship for this area and are undoubtedly quarried material.

Possible evidence might have been contained in this grave to establish the reason for the burial. The artifacts cause one to wonder if a war party had met a formidable foe. It certainly imposes a puzzling question to one who is familiar with the artifacts found along the Murderkill, and realizes that they are totally unlike most specimens found in this drainage.

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### Federation Meeting

Mr. and Mrs. A. Crozier and Mr. and Mrs. H. V. Lang represented the Society at the meeting of the Eastern States Archaeological Federation, Nov. 8 and 9, New Jersey State Museum, Trenton, N. J. Mr. Crozier reported on the progress of archaeology in Delaware. The minutes of the Federation meeting appear in the current issue of "The Pennsylvania Archaeologist," and members should consult that publication for full details.



## INDIAN LAND SALES IN DELAWARE

By LEON De VALINGER, JR.

*The first part of this article appeared in the last issue of the Bulletin, Vol 3, No. 3. We consider this contribution to Delaware History as one of the most important in recent years.*

### PART II.

The loss of Fort Casimir rankled the Dutch so much that they laid plans to regain this lost position. At the same time they were arming their expedition for the attack on the Swedes, they were apparently arming themselves with Indian deeds to justify their claims to the land. On July 19, 1655, about two months before the conquest of New Sweden, the Sachems Amattehooren, Peminackan, Ackehoorn, and Sinquees, the rightful owners of the land on the west shore of the Delaware River, presented Tamecongh (New Castle) and the surrounding land to Governor Stuyvesant. This grant is described as "beginning at the west point of the Minquaas Kil, called in the Indian tongue Suppeckongh, unto the mouth of the bay or river called Boomkjis hook, and in the Indian language Canaresse, and so far landward in as our right extends. To wit, to the bounds and limits of the Minquaas country; which lands were never before sold or conveyed to any nation in the world<sup>18</sup>." Besides the Dutch witnesses to this deed there were the Minquaas Sachems Jonnay, Tonna-hoorn, Pimadaase, and Cannowa Rocquaes. Inasmuch as this tract of land was "given," so the deed said, by the natives, it is interesting to see what the Dutch gave in return. Among the articles given were twelve coats of duffels, twelve kettles, twelve axes, twelve adzes, twenty-four knives, twelve bars of lead, and four guns with some powder<sup>19</sup>.

September of 1655 witnessed the surrender of the Swedish forts and the assumption of power by the Dutch in the Delaware River Valley. The Dutch ruled until 1664, when they in turn were conquered by an English expedition sent against New Netherland by James Duke of York. It is interesting to note that after the deed of July 19, 1655 the Dutch did not negotiate any land transfers with the natives in the Delaware area. Likewise, the English authorities did not purchase lands of the Indians in order to secure their claim to the settlements on the Delaware.

However, we find during the Duke of York period that individual citizens, not governmental authorities, purchased land from the Indians. The Indian Mehocksett<sup>20</sup> was described as of Cohansey in West Jersey on the east side of the Delaware River. He was also designated as "Indian lord of all the land between Duck Creek and Blackbird Creek<sup>21</sup>." He granted, on February 20, 1674, to John Hi'lyard, of Kent County, four hundred acres of land on the southwest branch of Duck Creek. In return for satisfaction already received the sachem granted "all rights and privi-

18. Pennsylvania Archives, 2nd series, vol. 5, p. 250.

19. Ibid. p. 251.

20. This name is spelled by the interpreters in the following different ways: Mehoxett, Mehockesett, Mehocksett, Mahockett, Mahockesett, Mehoxoy, Mehoxett, Mechaecksitt, Mechacksitt, Meghacksett, and Mechacksitt.

21. Kent County, Delaware Deeds, Liber B1, folio 11, Court House, Dover, Delaware.

ledges of hunting, hawking, fishing, and fowling<sup>22</sup>." The same day Mehocksett granted two tracts of one thousand acres each on Duck Creek to Francis Whittwell under the same conditions as the other deed<sup>23</sup>. The next record we found of this Indian was dated May 4, 1679, at which time he was known as the chief sachem of Cohansink and the owner of Bompies Hook (Bombay Hook). Then he sold to Peter Bayard of New York, for one gun, four handfals of powder, three matchcoats<sup>24</sup>, one ancker<sup>25</sup> of liquor, and one kettle, the land at Bombay Hook (known to the Indians as Navasink) and the land extending along the west side of the Delaware River to Duck Creek. The deed which gave Peter Bayard the title to all the lands, marshes, woods, creeks, and waters in the described tract was signed with the turtle totem of Mehocksett and also with the mark of his son, Moissaplnackin<sup>26</sup>.

We learn a number of interesting facts from the deed which passed from Mehocksett to Ephraim Herman dated New Castle, November 1, 1680. This Sachem is described as Chief of Cohansy and natural owner of all land lying between Duck Creek, called by the Indians quinquingocipus, and Appoquenemen Creek on the Delaware River. For two half anckers of drink, one blanket, one matchcoat, two axes, two knives, two double handfals of powder, two bars of lead, and one kettle, Ephraim Herman received title to a tract of land beginning: "at a creek near the land of Morris Liston<sup>27</sup>, by the Indians called Winsacco, then up the creek through the Cedar Swamp to its head and from the head of the Swamp upon a line down through the woods to Duck Creek as far as the land formerly taken up by Will. Sharpe and now possessed by Christopher Ellitt, and from there down Duck Creek to a marsh by Fabian's Island to the River side, which place the Indians call Appoquemen, where they haul their canoes into Duck Creek, and from thence up the river to the first mentioned creek called Winsacco<sup>28</sup>." There is apparently some discrepancy in this description because it was impossible to lay it down on a map as described. In an earlier deed (February 20, 1674) Mehocksett was the owner from Blackbird Creek to Duck Creek. He was probably selling this same tract to Ephraim Herman as much of the land he purchased lies within those bounds. The next we learn of the Sachem Mehocksett is at a meeting of the Court of St. Jones County (Kent County) on December 20, 1681, when he acknowledged to have received full satisfaction of Francis Whittwell for two thousand acres on the north side of the southwest branch of Duck Creek<sup>29</sup>. We obtain our last information of Mehocksett on February 16, 1682-3 when he confirmed a grant of ten thousand acres, called "Mill Range," on the branches of Duck Creek to John Richardson and Francis Whittwell<sup>30</sup>. Unfortunately we do not know what trinkets the Sachem received for this valuable tract

22. Idem.

23. Idem.

24. A loose coat of cloth or skins made for the Indian trade.

25. A Dutch unit of measure equal to about thirty-two gallons.

26. New Castle County, Delaware Deeds, Liber B1, folio 62, Court House, Wilmington, Delaware.

27. Morris Liston lived at what is known as Liston's Point, near Taylor's Bridge which is east of Fieldsboro in lower New Castle County.

28. The original signed Indian deed in the State Archives, Hall of Records, Dover, Delaware.

29. Kent County, Delaware Deeds, Liber A1, folio 21, Court House, Dover, Del.

30. Ibid. liber B., folio 12.



of land because the deed refers to "valuable consideration to me in hand already paid by John Richardson."

Let us now consider the Indian Petequoque<sup>31</sup>, called by the English, "Christian." From the various deeds that were executed in his name we find that he was lord and owner from Duck Creek to St. Jones Creek, and in some cases to Murderkill Creek. It is also of interest to learn that he was Chief Sachem of the land of Missawokett<sup>32</sup> and the brother of the Sachem Mahaxy<sup>33</sup> or Mehocksett, whom we have just discussed and whose land adjoined that of Petequoque to the north. The first deed we find being conveyed by this Sachem is on September 20, 1676 when he granted two thousand acres of land on the south side of Duck Creek to John Richardson. In addition to the privileges of hunting, fishing, and fowling that Petequoque extended, he was also to defend John Richardson from other Indians and, in the event that any of his cattle or hogs strayed into the woods, the Sachem was to drive them back to the plantation. The purchase price of this tract of land was eight bottles of rum, three matchcoats, four and a half yards of "frize," some buttons, and thread<sup>34</sup>.

The next sale made by Petequoque was to Barnard Hodges on October 20, 1677. For three matchcoats, four double handfuls of powder and shot, and a number of bottles of drink, the Sachem sold four hundred acres of land in his kingdom between Duck and St. Jones Creeks<sup>35</sup>. The year 1679 witnessed three more land transfers by this Indian for land now included in Kent County. Daniel Jones, on February 4, 1679, paid four matchcoats and two blue shirts for four hundred acres of land known as "Popular Neck" lying between St. Jones' and Little Creeks<sup>36</sup>. Fifteen hundred acres of wood and upon "Murther Creek" was sold to Thomas Heatherd on February 6, 1679. The purchase price or "full satisfaction given" was the usual three matchcoats, four double handfuls of powder and shot, and twelve bottles of rum<sup>37</sup>. For the same price Petequoque sold six hundred acres of land to John Burton on March 10, 1679.

Petequoque's largest real estate activities apparently took place in 1681, the year before William Penn arrived in the New World and became Proprietor and Governor of the Province of Pennsylvania and the Three Lower Counties on the Delaware. Alexander Humphreys obtained a tract on the south side of St. Jones' Creek<sup>38</sup>; for the customary matchcoats, ammunition, and bottles of rum Robert Bedwell received eight hundred acres along St. Jones' Creek<sup>39</sup>. Others who obtained land at this time were: John Glover, five hundred and seventy acres on the south side of Little Creek<sup>40</sup>, John Brinckloe, six hundred acres on the north side of St. Jones' Creek<sup>41</sup>; and for one gun David Morgan received four hundred acres on the south side of St. Jones' Creek<sup>42</sup>.

31. Other interpretations of his name were: Petoquoque, Peticoquewan, Peteocaquewan, Pettequoque, Pettecoque, Petocoque, Petiquoque, Peatequoquen, and Pet-teicque.

32. Kent Deeds, op. cit. Liber B1, folio 21.

33. N.Y. Colonial Docs. vol. 12, page 629.

34. Idem.

35. Kent Deeds, op. cit. Liber B., folio 2.

36. Ibid. Liber B1, folio 9.

37. Ibid. Liber B., folio 1.

38. Ibid. Liber B., folio 10.

40. Ibid. Liber A1, folio 42.

41. Idem; Delaware Register, vol. I, page 177.

42. Ibid. Liber B., folio 35.



The year 1682 also witnessed a number of deeds from this Sachem. Daniel Jones, on January 28th, obtained seven hundred acres on the west side of St. Jones Creek for five matchcoats<sup>43</sup>. Shortly afterward Robert Porter received title to four hundred acres he already had<sup>44</sup>. The brothers Richard and John Walker, on March 20, 1682, gave the customary three matchcoats, twelve bottles of drink, and four handfuls of powder and shot for eight hundred acres on the west side of St. Jones Creek to which they gave the name "Brother's Portion"<sup>45</sup>. Instead of twelve bottles of drink, Petequoque received three gallons in addition to three matchcoats and four double handfuls of powder and shot from Henry and Robert Bedwell Jr. and Adam Fisher on December 10, 1683<sup>46</sup>. In exchange they received eleven hundred acres along St. Jones Creek. For the same consideration Isaac Webb received on February 19, 1683-4 the tract known as "Shoemaker's Hall" which contained four hundred acres<sup>47</sup>. The last we learn of Petequoque is on May 2, 1688 when he sold to Norton Claypoole one thousand acres of land in Kent County on the St. Jones River "about three miles from the place that Dover town is intended to be built"<sup>48</sup>.

To the south of the kingdom of Petequoque was that of Socorocet<sup>49</sup>. His kingdom is described variously in the deeds as extending from St. Jones Creek to Murderkill, Mispillion, or Cedar Creek. These three water courses are close together and it may be that Cedar Creek or Mispillion Creek is a truer description of the southern boundary of this Sachem's kingdom than Murderkill Creek. The first deed found for Socorocet was dated December 30, 1682. He sold at that time one thousand and fifty acres of land near St. Jones Creek to Benny Bishop<sup>50</sup>. Other deeds negotiated with this chieftain were the following: January 5, 1682 to Benony Bishop, 1000 acres at Murderkill Creek called "Indian Point"<sup>51</sup>; January 16, 1682 to Edmund Gibben, 1000 acres at Murderkill Creek<sup>52</sup>; January 16, 1682 to William Durnall, 1200 acres on south side of Murderkill Creek<sup>53</sup>; August 7, 1683 to Nicholas Bartlett, 948 acres<sup>54</sup>; December 16, 1684 to John Manlove, 1000 acres near Murderkill Creek called "Barren Point"<sup>55</sup>; and June 26, 1684 to Peter Groenendick, about five acres on a small point at the north side of Murderkill Creek<sup>56</sup>. In return for these tracts of land Socorocet received matchcoats, powder and shot. He also received in one transaction a cotton waistcoat and in another enough corn to satisfy him. The remarkable fact is that the deeds do not show that he received any bottles of drink as did the other sachems. Possibly it was because he was an abstainer.

43. Ibid. Liber B., folio 12.

44. Ibid. Liber B., folio 21.

45. Ibid. Liber B., folio 10.

46. Ibid. Liber B., folio 19.

47. Ibid. Liber B., folio 20.

48. Some Records of Sussex County, Delaware, by C. H. B. Turner, Allen, Lane & Scott, Phila., 1909, p. 122.

49. His name also appears as: Socorocret, Secorockett, Saccorockett, Sackorocket, Sackoracket, Sackorocket, Shokearocan, Schokearcon, Sockaroccon, Sackarackin, Soccorocco, and Soxorocco.

50. Kent Deeds, Liber B., folio 10.

51. Ibid. Liber B., folio 69.

52. Ibid. Liber B., folio 3.

53. Ibid. Liber B., folio 3.

54. Ibid. Liber B., folio 107.

55. Ibid. Liber B., folio 45.

56. Ibid. Liber B., folio 91.



Unfortunately the kingdom of the sachem to the southward of Cedar Creek is not as clearly defined as were those we have already considered. A few documentary fragments permit us to piece together facts concerning other Indians of present Sussex County, Delaware. On January 10, 1681 the Indian Shackamacker or Sachem Parritt complained to the magistrates at Lewes that Henry Bowman and others took his lands without giving him satisfaction for them. The court then ordered that everyone who took up land should pay the Indian proprietor one matchcoat for each parcel of six hundred acres or less and two matchcoats for more than six hundred acres. If anyone refused to pay the Indian the sheriff was to collect the payment for him<sup>57</sup>. Accordingly, in June of 1682, the Indian Parritt acknowledged that he had received full satisfaction from Henry Bowman for the sale of one thousand acres on the neck of land between Slaughter and Cedar Creeks<sup>58</sup>. How far to the southward the kingdom of Parritt extended we do not know. It could not, however, have extended beyond Indian River for, in February of 1683, the Assawomack Indian Harmattamale acknowledged in court that he had sold one thousand acres on the south side of Indian River to Alexander Molleston. I will not say anything further of the Assawomacks as they were quite ably described by Mr. William B. Marye in a recent article in the Bulletin<sup>60</sup>.

Let us now consider some of the other Indians of what is now Sussex County, Delaware. The Proprietor of Maryland on July 2, 1713 granted a tract of one thousand acres in Worcester County, Maryland (now Dagsborough Hundred, Delaware) to the Indians Weatomotones, Wasposson, Robin (the interpreter) and his son Robin<sup>61</sup>. This land, on the south side of Indian River, was called by the natives Acksquessance. On November 15, 1736, Queen Wiocomoconus, Tonquaton, Knuconum, and Robin, the interpreter, sold two hundred acres of this tract to William Burton<sup>62</sup>. Two hundred more acres were sold by these Indians in May of 1741 to Joshua Burton, and on October 8, 1743 Weatomotones and Young Waspasson conveyed four hundred acres to William Burton<sup>63</sup>. These deeds are important as they give us the names of Indians who may have been among the last in what is now the State of Delaware. These Indians were in the Nankicoke region and it is probable that, following the sale of their lands to the Burtons, they moved to the Nanticoke Reservation near present Laurel, Delaware. By 1748 most of the Delaware and Nanticoke Indians had gone from the reservation near Laurel. By 1753 they had settled in Indian villages along the Susquehanna River under the protection of the powerful Iroquois<sup>64</sup>.

There are several other Indian deeds for portions of land in New Castle County that are well worth our attention for the information they

57. C. H. B. Turner, *op cit.* p. 62.

58. *Ibid.* p. 76.

60. "Indian Towns of the Southeastern Part of Sussex County" by William B. Marye, pages 18-25, Bulletin the Archaeological Society of Delaware, Vol. 3 No. 2, Oct. 1939.

61. A certified copy in the State Archives, Hall of Records, Dover, Delaware, from the original Worcester County records.

62. *Idem.*

63. *Idem.*

64. History of Delaware, by J. Thomas Scharf, published by L. J. Richards & Co., Phila., 1888, Vol. I, p. 21. Cf. pages 1285 and 1328, Vol. II which state that the Nanticokes occupied the reservation until about 1768.

65. A facsimile and transcript of the text was printed as item 145 of the American Art Association Anderson Galleries Inc. sale of Wednesday afternoon, Feb. 5, 1936. Dr. A. S. Rosenbach of Philadelphia purchased this deed.

contain. The Indians Kanockere, Alom, Eliggene, Nogcotta, Towis, Wipaycam, and Winappenegge sold, on July 10, 1680, to John Moll of New Castle, a large portion of land in New Castle County, Delaware. The tract of land acquired by this deed extended from Bread and Cheese Island in Christina River and to the north of it along White Clay Creek and Red Clay Creek 'as far as the precincts of Maryland<sup>65</sup>.' The region known to the Indians as Musse Critter was included. The only witness to this deed was Johanis deHaes, of New Castle, who frequently acted as an interpreter with the Indians. Later, on February 21, 1682, John Moll conveyed to William Penn all of this land except a plantation of two hundred acres on White Clay Creek<sup>66</sup>. William Penn's policy toward the Indians was of kindness. In order to accomplish this he purchased the lands of the various sachems even though he had received a royal grant from the crown for his Province. As a fulfillment of this policy we find that on October 18, 1683 he purchased a quantity of land from Machalaha or Ow hala. This Indian described himself in the deed as owner of the lands from the Delaware River to the Chesapeake Bay and to the Falls of the Susquehanna River. The witnesses to this deed were: "Pieter Alricks, J(ohanis) deHaes, Arnoldus de la Grange, Lasse Cock, E(dmond) Ca(ntwel), (Samuel) Land, and the Indians, Mario, Lehlrie, Pishea, Whisanoit, and Sahsochan<sup>67</sup>." The Pennsylvania Historical Commission erected, in 1924, a handsome bronze marker at London Tract Baptist Church, in southern Chester County, to mark the site of Minguannan Indian Town of which Machalaha was the chief<sup>68</sup>. It may be that a portion of this town extended into Delaware as this sachem claimed to be the owner of the land from the Delaware River to the Chesapeake Bay and Susquehanna River.

Other Indians who claimed ownership of land between the Delaware and Susquehanna Rivers were Keke'appan and Opasiskunk. They sold their half of the land nearest the Susquehanna River to William Penn on September 10, 1683. At the same time, Keke'appan promised the other half of his land in the spring upon his return from hunting. The witnesses to this deed were the Sachem Essepenaicke, Penn's Saxon secretary Phillip Theodore Lehnmann, and Captain Lasse Cock<sup>69</sup>.

Shortly afterward, on December 19, 1683, William Penn purchased of Seketorius, Kalehickop, Nochcotamen, Toonis, Le'eghanan, and Wippais all the land lying between Christina River and Upland (Chester) Creek. The articles given in exchange for the land were: "a very good Gun, some powder & Lead, two pair Stockins, one Match Coat & Tenn bitts Spanish Money<sup>70</sup>." The deed was signed only by Seketarius and the witnesses Tho. Holme, John Moone, and John Sanghurst. At the left side of the road from Guyencourt to Chadds Ford and adjacent to the estate of Mr.

66. Idem.

67. Pennsylvania Archives, 1st series, Vol. 1, pages 67-68; cf. William Penn His Account of the Lenni Lenape Indians, by Albert Cook Myers, Moylan Penna., 1937, p. 92.

68. Myers, op. cit. p. 92.

69. Pennsylvania Archives, 1st series, vol. 1, p. 67.

70. The original deed is owned by Mrs. Francis deH. Janvier, who rescued it from being burned after it had been torn into four pieces and discarded. An illustration and a transcript are published on pps. 93-94 of Myers, op. cit. The name of this sachem was spelled Seketarius, Secretareus, Sacetores, and Sacetorus. This Indian was also regarded as a sachem in present Salm County, New Jersey; cf. Myers, op. cit. pages 60-62.

71. Myers, op. cit. p. 94. For the location of Rattlesnake Run and the Indian trail of the same name see map of Wilmington in 1772 as end papers of Wilmington Delaware Three Centuries Under Four Flags, by Miss Anna T. Lincoln, published by the Tuttle Co., Rutland, Vermont, 1937.



Norman Road, just across the Delaware boundary in Pennsylvania, is a bronze tablet marking Queonemysing Indian Town. The Pennsylvania Historical Commission in locating this town, of which Seketarius was the chief, described it as "on the other side of Brandywine Creek from here in the Great Bend; Rattlesnake Trail led thence over Point Lookout to the Rocks on Christina Creek in present Wilmington<sup>71</sup>." If Quenonemysing is not now within the boundaries of the State of Delaware it surely was prior to the resurvey of the Circu'ar Line between Delaware and Pennsylvania in 1892-93.

Still adhering to his policy of land purchases from the Indians, William Penn on October 2, 1685 bought the land on the west side of the Delaware River from Duck Creek, called by the Indians Quing Quingus, to Upland or Chester Creek. For value already received the Sachems Pare, Packenahan, Tarickha, S'chais, Pittsquassitt, Towis, Essepenaick, Petkhoy, Kekelappan, Eomus, Machaloha, Metheconga, Wissa, and Porrey conveyed the land lying between these creeks and as far inland "as a man can ride in two days with a horse<sup>72</sup>." There is a marked similarity in the method of determining the extent of this land transaction and that of the famous "Walking Purchase" which took place between Penn's representatives and the Indians at Bucks County in 1737.

An Indian deed recorded in May of 1726 shows that the Sachems Shickokonickan, Mekanappy, and Talowlis George, alias Seegaghtackman, sold land in New Castle County to the Penns that overlapped the above grant. These Indians sold the land on both sides of Brandywine Creek, "from the mouth thereof where it enters the River Delaware up to a certain rock in the said Creek near the upper line of Abraham Marshall's land."<sup>73</sup> Abraham Marshall's land was probably in Pennsylvania as an examination of the early Delaware land records failed to disclose any references to his name. Although not a deed record, I wish to introduce here the names of Oholykon, Peyeashicon, and Wikimkyona who were described as chiefs of some of the Delaware Indians on the Brandywine. These names were recorded in the Minutes of the Pennsylvania Provincial Council of May 20, 1728<sup>74</sup>, and are important as they reveal to us that there were Indians a'ong the Brandywine as late as 1728.

Having presented the available facts relative to Indian land transfers or deeds of the area now included within the boundaries of the State of Delaware, let us now formulate some conclusions from the data considered. We learn first of all the names of about seventy Indians, the majority of whom were sachems, and the Indian place-names of nearly a dozen localities. These facts alone add much to our knowledge of the aborigines of Delaware. We have identified by name a number of the sachems from the beginning of our State's history in 1631 to the year 1743, shortly before they migrated from Delaware soil.

Various writers tell us that the Lenni Lenape nation of Indians, who inhabited much of this State, was divided into such clans or totem groups as the Minsi (wolf), Una'achtigo (turtle), and the Unami (turkey)<sup>75</sup>. How-

72. Penn-Physick Manuscript Collection, vol. 4, p. 160, Historical Society of Pennsylvania, Philadelphia.

73. Idem.

74. Pennsylvania Colonial Records, vol. 3, p. 328.

75. Handbook of American Indians North of Mexico, edited by F. W. Hodge, Smithsonian Instit. Bur. of Amer. Ethnology, bull. 30, pps. 385-387. Wash., D. C., 1907. 2 vols. Our Indians of Early Delaware, by Miss Anna T. Lincoln, published by Delaware Citizens Association, 1932, pps. 6, 7.

ever, I do not believe that it has previously been shown that the Indians of Delaware were established in such rather well defined "kingdoms" as these land records indicated. We found that these natives were not wandering about, but apparently were exercising authority within the bounds of their kingdoms. During the years 1676-1688 the Sachem Petequoque granted at least thirteen deeds within his kingdom of Missawakett, which extended from Duck Creek to the Murderkill. We do not find him executing land transfers in other parts of the State, as would have been the case if a definite system of kingdoms had not been observed. It is true, however, in some cases that the boundaries of kingdoms overlapped. This was especially true in the case of Petequoque and Socorocet. The kingdom of the former extended from Duck Creek to St. Jones River or to Murderkill River, while the latter ruled over the territory between St. Jones River and the Mispillion River. As yet no records have been found which explain the cause of such an overlapping. Another point worthy of our attention is that the Delaware River was not necessarily the eastern boundary of the Indian kingdoms. Mehocksett, who ruled the kingdom extending between Duck Creek and Blackbird Creek in 1674-1682 was described as "Chief Sachem of Cohansey." Cohansey Creek in New Jersey is nearly opposite Duck Creek. Likewise, Seketarius, Sachem of the land between Christina River and Chester River, gave deeds in present Salem County, New Jersey on March 27, 1675, and on April 10, 1676<sup>76</sup>. Thus we see that he too ruled on both sides of the Delaware River. This was also the case of the Sachem Mitatsimint, during the years 1638-1651 when he ruled the kingdom of which Mehocksett was later the chief sachem.

In the course of presenting the various deeds conveyed by the Indians it was noticed that the Swedes and Dutch frequently purchased lands which had previously been sold to them by other Indians. Following a comparison of the texts of numerous Indian deeds and with the knowledge that the deeds were written by the white men, it is my conclusion that the Indians were not as capricious as may be supposed. It seems clear to me that the sachems were only granting the rights of hunting and fishing, as the deeds stated in part. It is doubtful that the natives intended to surrender forever to the white men their own hunting and fishing grounds. As an example of the manner in which the Indians' intentions were misinterpreted and the way in which they were deprived of their lands let us refer to the conversation between Mattahoorn and Governor Stuyvesant in 1651. Mattahoorn is reputed to have said that "the Swedes bought only the plot where Fort Christina stood and some other lands near the Schuylkil" and that "the Swede builds and plants, indeed, on our lands without buying them or asking us." If the statements of Mattahoorn may be relied upon, we see in this one instance how the Indians were deprived of their lands, for the Swedes claimed nearly all the land on the west shore of the Delaware River as far north as the Schuylkill.

It is a notable fact that no trade articles have been found at any of the Indian sites excavated in this State. In many cases the deeds listed the articles which were exchanged for the Indian's lands. Many of the trade articles may be classed as consumable goods, namely: rum, matchcoats, cloth, powder, and lead for bullets. That being the case, the only trade goods we may expect to find will be axes, adzes, knives, and guns. There is, I believe, little chance of finding any of these as such articles were seldom

76.. Myers, op. cit. pages 60, 61.



buried with the Indians. Many of the deeds we have considered listed "one ancker of liquor," "twelve bottles of rum" or some other quantity of intoxicating liquor among the articles received by the Indians for their lands. It was surprising to find that so many of the deeds executed during the proprietorship of William Penn listed liquor among the "gifts" received by the natives. The reason such "gifts" were surprising to me was because William Penn wrote a letter from England on April 21, 1682 addressed to the Indians of Pennsylvania in which he said: "I have already taken care that none of my people wrong you, by good Laws I have provided for that purpose, nor will I ever allow any of my people to sell Rumme to make your people Drunk. If anything should be out of order, expect when I come, it shall be mended and I will bring you somethings of our Country, that are useful and pleasing to you"<sup>77</sup>.

The law Penn referred to was chapter 18 of the Great Law, passed at Upland (Chester), December 5, 1682. This act prescribed a fine of five pounds for each person convicted of selling intoxicating liquors to the Indians<sup>78</sup>. Despite the letter Penn wrote and the law he had enacted, we saw evidence that much liquor was given to the Indians during his regime.

In conclusion may I say it is regrettable that the Indians left Delaware as soon as they did, thereby depriving us of more facts that may have been recorded of them. On the other hand it should be a cause of rejoicing to us that they had migrated by 1753. By so doing they removed the impasse and conflict that developed in western Pennsylvania due to difficulties with squatters and defective land titles. The tension became so great that there was bloodshed, with the result that Governor John Penn issued a proclamation, "July 7, 1764, offering bounties for the lives or scalps of all Indian enemies, whether male or female, adults or children"<sup>79</sup>. We are dismayed by the thought that the Indians of Delaware, had they remained, might have been subjected to the same treatment merely because they defended their rights to their lands.

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(EDITOR'S NOTE: *With no desire to detract in the slightest from this excellent work, the Editor feels obligated to advance the suggestion that the "kingdoms" referred to by the author may, in effect, have been Family Hunting Territories rather than the modern concept of kindgoms. In fact, this possibility has already been discussed with Dr. Frank Speck and Father Cooper, eminent scholars of Indian land tenure. The possibility is now being considered, and may well result in an important ethnological contribution.*)

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FINIS

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77. The original document signed by William Penn is in the possession of the Historical Society of Delaware, Old Town Hall, Wilmington, Del.

78. Myers op. cit. p. 85.

79. History of Proprietary Government in Pennsylvania, by William R. Shepherd, Columbia Univ., New York, 1896, page 115.

## SITES ON THE EASTERN SHORE OF MARYLAND

By RICHARD E. STEARNS

*Mr. Stearns recently presented a paper before members of the Delaware Society on the archaeology of Maryland. That portion of his paper relating to sites in the Delmarva Peninsula area is given below as well as his comments on the types of artifacts found in Maryland. The author is Curator of Archaeology of the Maryland Natural History Society.*

Although we know of a number of sites on the eastern side of the bay, we have done little work with them because of the difficulty of transportation from one side of the bay to the other.

Another factor in our neglect of the eastern shore is the rapidity with which the sites on the western shore are disappearing through the establishment of summer colonies. These sites of course demand immediate attention.

The shell field sites that are known to us on the eastern shore are in the vicinity of Worton Creek, Fairlee Creek, Tolchester, Swan Creek, the Chester River, and at Love Point on Kent Island. Pottery is present on all these sites, but we have not recovered enough to form any inferences other than that they seem to resemble the ware of the western shore. One site was found at the mouth of Swan Creek above Rock Hall that produced decorated sherds and implements similar to those recovered from the west bank of Forked Creek in the Magothy River on the western shore.

Let us now turn our attention from the tidewater sites of the Chesapeake to the village sites along the fall line, beginning with the large site at Conowingo on the Susquehanna, twelve miles above its mouth. An enormous amount of material has been recovered here by various persons, and our own collection from this place is by far the largest in stone objects that we have gathered from any site. Every form of stone object that we have collected so far from the sites on the fall line southward in Maryland has its counterpart at Conowingo, but every form from Conowingo has not been found in these more southern sites. From Conowingo comes great numbers of bannerstones of two general types; one with long thin wings and another with short thick wings. These are made of slate, steatite, granites, and many other forms of rock and are found complete, broken and bored for repair and reworked for other uses. Round, flat beads of slate and steatite are found, possessing plain and notched edges, and gorgets are fairly numerous. Axes are frequently found and run to fairly large sizes, occurring with both horizontal and diagonal grooves. This later form, as a rule, has the groove placed close to the poll, leaving a long blade below the handle. Celts are not very numerous and are usually poorly made. Sherds of steatite are common here, together with picks used in working this stone. To the southwest of Conowingo are great outcrops of steatite, centering about the town of Dublin in Harford County. These quarries were extensively worked by the Indians. Chipped implements are very numerous; they have been found by the thousands, and cover all the types common to the Chesapeake, Potomac tidewater province. I have sometimes wondered if it could not be possible that the entire Chesapeake Bay region was settled from the north, deriving part of its material culture from such sites as Peach Bottom and Conowingo. From Conowingo we have recovered several thousand pottery



sherds, the bulk of which is of Popes Creek type, from large, coarsely textured vessels bearing impressions of cords, nets and fabrics, and tempered with crushed quartz, granite and steatite. This last mentioned material sometimes forms fifty percent of the composition of the paste. A small proportion of sherds of other types have been found that do not correspond to those recovered from the Chesapeake tidewater sites. It is probable that their counterparts will be found to the northward in Pennsylvania; however, I do not think that they can be attributed to the Susquehannocks. These sherds are stone-tempered and decorated with incised lines and dots but as previously mentioned, do not resemble tidewater pottery.

Leaving Conowingo we go southward on the fall line, and find a group of sites scattered around the head of tidewater on the Gunpowder River. These sites produce the same forms of implements that are to be found at Conowingo but the more specialized forms are rare or entirely lacking. On the other hand, certain bannerstones and obliquely grooved axes that we have observed as coming from these sites are so like those of Conowingo that it would seem that they were made there. Pottery is very rare and so little has been recovered that it is at present impossible to place it accurately, especially so since the sherds are broken into bits as a result of cultivation.

I have mentioned the similarity of artifacts from the eastern shore with those on the western shore, and I will briefly enumerate the general types of specimens found in Maryland on tidewater sites. The potsherds are of the two general types referred to by W. H. Holmes as "Popes Creek Ware" and "Potomac Creek Ware."

The chipped implements, principally projectile points, are the most numerous of all artifacts we find. Most arrowpoints are stemmed, although triangles are present. The materials used in their manufacture are rhyolite, quartz, quartzite, jasper and other forms of flint, and rarely, argillite. The scrapers that have been recovered are made either of broken arrowpoints or flakes. Larger chipped implements are of two forms: a straight-sided, flat-based knife and stemmed spearpoints. They are made of rhyolite and occasionally quartzite, and rarely, jasper.

Grooved axes and celts have been found in great numbers. Occasionally double-grooved axes and grooved adzes are found.

Roller pestles and stone mortars are not common. Steatite sherds are found on most large sites.

Gorgetts and bannerstones are both present, but bannerstones are the scarcer of the two. We have found only three pipes in Maryland shell field sites; one is a broken slate platform pipe; the other two are crudely made of clay.

Most of the bone objects are simple awls made from splinters of deer bone. Aside from splintered awls, we have found one arrowpoint of antler and one flat bone needle or bodkin. The ulnas of deer were also used to make pointed implements whose purpose is unknown.

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## THOREAU, A STUDENT OF THE INDIAN

Arthur Volkman of our Society reminds us that Thoreau, the great American poet-naturalist was a lover of Indian lore and an active collector of Indian artifacts. In Thoreau's Journal, we find many references to his hobby, and we are indebted to Mr. Volkman for submitting the following excerpt:

"October 29, 1837: A curious incident happened four or six weeks ago which I think it worth the while to record. John and I had been searching for Indian relics, and had been successful enough to find two arrowheads and a pestle, when of a Sunday evening, with our heads full of the past and its remains, we strolled to the mouth of Swamp Bridge Brook. As we neared the brow of the hill forming the bank of the river, inspired by my theme, I broke forth into an extravagant eulogy of those savage times, using most violent gesticulations by way of illustration.

" 'There on Nawshawtuct,' said I, 'was their lodge, the rendezvous of the tribe, and yonder of Clamshell Hill their feasting ground. This was, no doubt, a favorite haunt; here on this brow was an eligible lookout post. How often have they stood on this very spot, at this very hour, when the sun was sinking beyond yonder woods and gilding with his last rays the waters of the Musketaquid, and pondered the day's success and the morrow's prospects, or communed with the spirit of their fathers gone before them to the land of shades.

" 'Here,' I exclaimed, 'stood Tahatawan; and there (to complete the period) is Tahatawan's arrowhead.'

"We instantly proceeded to sit down on the spot I had pointed to, and I to carry out the joke, to lay bare an ordinary stone which my whim had selected, when lo! the first I laid hands on, the grubbing stone that was to be, proved a most perfect arrowhead, as sharp as if just from the hands of the Indian fabricator! "

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*The Delaware Society is affiliated with  
The Eastern States Archaeological Federation*



# **BULLETIN**

**THE ARCHAEOLOGICAL SOCIETY  
OF  
DELAWARE**

**VOL. 3, No. 5**

**MAY, 1942**



# The Archaeological Society of Delaware

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C. A. WESLAGER, *Editor*—23 Champlain Ave., Wilmington, Del.

*Meetings*

Since the last issue of the *Bulletin*, the Society has held a number of interesting meetings. On June 21, 1941, Dr. Maurice Mook addressed us on the subject of Virginia ethnology. On Nov. 22, F. M. Setzler of the Smithsonian Institution was our feature speaker in a presentation of the archaeological aspects of the midwest mound region. Dr. D. S. Davidson spoke at our Dec. 13 meeting, outlining the results of his recent investigation in Australia. On Jan. 31, 1942, Dr. George Vaillant was our guest lecturer on the topic of Aztec civilization.

April 11, at the invitation of President L. D. Copeland of the Wilmington Society for Fine Arts, the Society met in the Art Museum to view the pre-Inca gold and fabrics in the John Wise Collection, and to be entertained and instructed by the museum staff.

It is apparent that the varied programs have given members and their friends a wide range of archaeological contact. In serving host to distinguished scholars, and in sponsoring their lectures, a contribution is being made to the community.

*New Volume*

This issue concludes Volume 3 of our *Bulletin* series which contained five numbers. It is suggested that members have the five issues bound in a single volume for future reference. This volume, constitutes, in the opinion of many, the most significant written contribution that has been made in Delaware archaeology and Indian lore.

*New Officers*

Attention is called to the list of new officers shown on the opposite page. We want to take this opportunity to extend our thanks to all of them for consenting to serve in administrative capacities.

Separate acknowledgment is made to Mr. Crozier for the splendid efforts he put forth as President during the past several years. In his new post as Treasurer, he will continue to serve the Society with loyal devotion.



## EXCAVATIONS AT THE CRANE HOOK SITE, WILMINGTON, DELAWARE

By JOHN SWIENTOCHOWSKI and C. A. WESLAGER<sup>1</sup>

The Crane Hook Site is situated at the junction of the Christiana and Delaware River, approximately three miles east of downtown Wilmington. The site is well known to local enthusiasts and has perhaps produced more surface specimens of Indian origin during the past 50 years than any other northern Delaware site.

The name Crane Hook refers to a "cape" where cranes (possibly herons) were observed by the early explorers. The location was called "Trane Udden" by the Swedes, meaning cape or point of the cranes, and the Dutch called it Kraen Hoek." The area is frequently mentioned in the early records. One of the oldest documented references is on Lindestrom's map (1654-56) whereon he calls it "Crane Udden<sup>2</sup>."

According to investigators on the WPA Writer's program who have studied the documentary entries pertaining to the area<sup>3</sup>, the Crane Hook lands are cited in official land records as early as 1680-1685 at which time the properties thereon were owned by Symon Johnson, John Matson, Hendrik Lemmons, William Johnson and Hendrik Andriesson. There are no references of any kind to Indians, even in the earliest documents which pertain to the Crane Hook lands. It appears that the Indian occupation of the site had ended before the white men settled there. This is corroborated further on Augustin Herrman's map of 1670 whereon he indicates "Crain Hook" but locates only Swedish plantations thereon, although elsewhere on the map he shows the Indian villages then in existence on the Delmarva Peninsula.

Studious perusal of deeds, wills and other colonial documents has revealed a clear and hitherto unknown chronology of land ownership at Crane Hook from 1685 down to the present. While these details may seem irrelevant from an archaeological viewpoint, they are of great historical significance. Among other things, it has been proved conclusively that the Alrich (or Aldrich or Alricks) family were not, as has been believed by some historians, the pioneer settlers at Crane Hook<sup>4</sup>.

Peter Sigfredus Aldrich, the first of the family whose name is authentically linked with the specific land in question, did not establish tenure until March 25, 1751, at which time he acquired the property owned by Hendrik Andriessen<sup>5</sup>. One of Peter's two sons, Lucas by name, remodelled the family house in 1785 and fixed his initials (LA) and the date in wrought iron on the north side of the house. This house is still standing and is known locally as the Aldrich House.

In 1667, a log church was built at Crane Hook by the Swedish and Dutch congregation for their joint worship. This location was selected because it was the population center and is said to have been readily accessible by boat. The Crane Hook Church served as a place of worship for 32 years and in 1699 it was abandoned in favor of a stone structure known today as "Old Swedes Church."

After the church was abandoned it apparently fell apart and nothing



remained on the surface of the ground to mark its foundation. In 1896, a stone monument was placed on the alleged site of the old church, with attendant ceremony<sup>6</sup>. This marker is still standing, but has been moved several times in recent years.

These brief statements should satisfy any doubt as to the historical traditions of Crane Hook; thus it seemed inevitable that archaeological investigation would uncover traits of the colonial occupation as well as the earlier Indian occupation which is unrecorded in the documents.

During the commercial expansion of the 80's, industrial plants began to appear on the Crane Hook lands, and soon it became the heart of Wilmington industry. Each new factory encroached upon the former Indian-occupied area, and the site became smaller and smaller. In the various digging operations, Indian artifacts were encountered, as for example, a cache of 60 argillite blades on property owned by the Lobdell Car Wheel Works<sup>7</sup>. During the excavations for oil tanks, many stone artifacts were uncovered.

Eventually nothing remained of the one time extensive site except a plot of approximately 5 acres adjacent to the old Aldrich House and flanked by industries. It was to this last isolated remnant that members of the Archaeological Society of Delaware turned their attention, hopeful of gathering all shreds of information before it, too, was surrendered to industry. This work was started none too soon, for as this report is being written, a new industry, The Red Comb Mills, is in operation, having been erected directly on the site where the archaeological work was carried on.

The last vestige of the site lay on a natural hillock arising to a maximum height of 25 feet above mean Delaware River level. It was owned by the City of Wilmington and under the supervision of the Wilmington Marine Terminal. We are deeply grateful to Lieut. Col. Charles Gant, former manager of the Terminal for his splendid cooperation and assistance. We also owe our thanks to T. J. McDonnell of the Terminal for his engineering guidance. Fred Lewis, foreman, and his crew of workers, also merit our sincere thanks. We also acknowledge assistance of geological advice given by Dr. J. L. Gillson and Dr. Horace G. Richards. Dr. F. W. Parker was extremely helpful in making soil analyses and assisting in their interpretation. Miss Jeannette Eckman, Director of the Federal Writer's Project and Jerry Sweeney, a worker on the project, were both of invaluable help in providing certain historical data. Leon de Valinger, Jr., State Archivist, also supplied important historical information.

Members of the Archaeological Society of Delaware who participated in some phases of the work were A. Crozier, James Scott, Arthur Volkman, Seal Brooks, H. Geiger Omwake, Theodore Buckalew, Arthur Kamperman, Ella McComb, C. V. Davis, S. C. Robinson, L. T. Alexander, Stanley Swientochowski, C. A. Weslager, and John Swientochowski. Mr. Alexander's assistance and generosity in making motion pictures of certain stages of the work should be especially mentioned.

## METHODOLOGY

Excavations were begun Saturday, May 13, 1939 in what seemed to have been the area of concentrated occupation, based upon surface specimens and test pitting. A north-south working trench was dug on the western