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O. H. PEETS, EDITOR

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THE ARCHEOLOG

OUR COVER: The stone objects illustrated are commonly called bannerstones, but much evidence recently gathered suggests that they were used as weights on the atlatl, or spear throwing stick. A significant feature is the relatively large hole through the width or length of the stone. This may be a rough way of distinguishing atlat1 weights from gorgets or other stones of ceremonial usage for the holes for suspension of the latter are smaller and drilled through the thinner parts of the stone.

Nos. 1, 2, and 3 were found by James Parsons. No. 1 was mentioned in his article in the Archeolog of July 1951. A friend found the first half while surface hunting near the Pocomoke River in Maryland. The next year Parsons found the other half. Throwing a spear is a violent action and atlat! weights must often have been broken. Many have been found that have been mended so as to withstand a sudden and great stress. No. 3 is unfinished. The hole has been bored from both sides but does not meet. Nos. 4 and 5 are views of the same "bipenate bannerstone," or atlat! weight. It was a surface find made about 12 years ago on the west side of Marshyhope Creek near Federalsburg, Maryland, and is the property of Ralph Rosser, Jr. Dimensions are: 13 cms. wide, 4.3 cms. high, hole 1.2 cms. at top and 1.3 at bottom, weight 126 grammes. (With our enlarged membership the proportion of experienced excavators is still further reduced and statements such as the following from President Hutchinson cannot be given too prominent a place.) --Ed.

During their recent visit, our Smithsonian advisors and friends brought up a number of very important questions regarding our work on the peninsula, questions which should be answered if they are properly to analyze and appraise the material we uncover in our "diggings."

All of these questions can be answered correctly if we keep accurate and complete notes on all our work and plan each "dig" or excavation in such a way that detail sketches and comprehensive photographs can be made and are made of all characteristic features.

Photographs of all unusual features should be taken "in situ." As Dr. Stewart said, "People will believe a photograph when they won't believe a sketch," and as others have said "One picture is worth a thousand words."

In addition to photographs, sketches should be made of each pit or "dig," showing location, size, shape and dimensions, profiles as well as plans. These should show location, shape, and extent of the various elements as well as the material. It is only by making these careful records, and submitting them to the Association, that full and rightful use can be made of our findings and so carry out the purpose of our organization.

I would recommend that all "diggers" borrow from our Secretary the recent copies of "American Antiquity;"--read, carefully digest, and promptly return them for others to read. In reading these reports on various explorations you will see what importance experienced archaeotogists place on accuracy of description, location, associated materials, soil conditions, etc., etc. Since reading the last three issued, and realizing that an archaeologist must have innumerable related facts to classify his material properly, I feel that I have probably mutilated, destroyed, or ignored many important facts in my field work, so I am going to try to be much more careful and meticulous in my future excavations, and with the notes taken thereof.

Signed: H. H. Hutchinson

devries and the old cemetery in pilot town

At each of the past four or five meetings of the Association some mention has been made of a project, or the possibility of one, connected with the ancient cemetery across from the deVries monument in Pilot Town, Lewes. But before anything is undertaken, it will be necessary for the Association to decide by vote what responsibilities it is willing to incur. At the Old House site we have sifted less than four cubic yards of earth; an excavation that went down three feet at the old cemetery would call for moving more than 100 cubic yards twice; As of the present we could not promise even adequate supervision of such a project.

There is another way, however, of looking at the enterprise. One of our members, Col. W. S. Corkran, when he was in charge of C.C.C. work in this section, offered to make an examination restoration of this site for Saint Peter's Church, then nominal and now actual owner of the land. The leisurely tempo of most government work would have favored the supervision by eminent authorities whose aid could have been secured. The Church did not accept this proposal, however, and our only reason for speaking of it here is to show that under some circumstances the job would not be impossible. Unfortunately the time element has entered into the picture with the plans to landscape the whole area and lay it out in lots.

We have been very careful not to make any reference to this operation that would sound critical of those who have it in charge. Our interest is not in the graves but in finding some indications of the fort and palisade which may have been on this spot, and an excavation of only three feet should not expose any skeletons. New graves dug in this area will, however, certainly throw out many older occupants unless such information as has been current concerning the population of this very old burying ground is unfounded. The average person sees only the surface of the ground and if it is covered with grass, it looks peaceful and inviting, and he gives no thought to what may be below. In a small area of the Townsend site we uncovered some seventeen skeletons at less than three feet under the surface. In this old cemetery the graves (for a reason we submit later) are at about a 45 degree angle from the lots in the present plan. The chances of disturbing old burials are much increased by this fact. We have disturbed too many Indian graves to be much incensed by this and after all it is not our business but that of the Vestry of Saint Peter's, who must have considered the sentimental, religious and legal factors involved.

And we must correct the misconception that we are interested in this project for the chances of indulging a hobby of collecting souvenirs of the past. All we hope to find is some slight discolorations of the soil which would indicate the line of the palisade and some still slighter markings where the old graves were dug. Any remains of the old brick fort would probably have been removed to make room for graves.



Above is an enlargement of part of the map inserted in an original copy of de Vries book of his travels from 1618 to 1644 now in the Library of Congress. It is not done to any scale but, as in drawings by children, gives the largest size to those things in which the maker was most interested. The palisade is enormous as one would expect, but what is the fine big house over in the general direction of Block House Pond and the West India Fort Tract ? J.T.Scharf in his history of Delaware speaks, though without quoting any authority, of a fort or trading post of the West India Company in this area in 1624 or about five years earlior than the do Vries colony.

Do Vries was not really a member of the West India Company but one of a group of persons who had a concession from the Company. Unlike Plockhoy he did not come out with his colony but made the voyage a year later after the colony had been destroyed by the Indians. The sailors from his ship caught some whales and built a shelter but that would have been near the bay. It is probable that this house near the three Indian villages was a trading post used only when beats came in with articles to exchange for furs.

deVries' book on his voyages (it is one of the rarest of books for only three copies exist) though vague in many places is quite circumstantial where he describes looking from a small hill near the beach across the creek to the partly burned fort and palisade of the colony established only the year before, and his sketch map, though not drawn to scale and absurdly out of proportion, seems to place the fort out near the end of Pilot Town Road. The topography at this point combined with deVries' account was, no doubt, the reason for placing the monument to deVries where it is. So far as we have been able to learn, there was no investigation of the soil by experts who could have told what buildings, if any, had been erected on this spot. It is said that some Dutch bricks of the oldest type (we do not know how many) were found by the workmen and we know that one of them was sent to the State archivist of that time by the late Dr. Hiram Burton whose interest in the early history of Lewes we must thank for the preservation of much information that otherwise would have been lost. The author of a history of Delaware has taken the finding of old Dutch bricks as being proof that the brick fort of the colony sent out by deVries and his partners was where the monument now stands. But these Dutch bricks have been found in several places: a few on Lewes Beach; several were picked up along Lewes Creek where they were thrown out when the creek was dredged; several were found underground at the Townsend site; fragments of about a dozen were recovered at the Old House site; and I picked up one in the old cemetery after it had been plowed.

According to deVries' drawing, a bastion or gate of the palisade was on the edge of the stream. If this is taken to be the high point on which the monument now stands, then the brick house or fort would have been somewhere on the old cemetery site. From the south bastion or gate there would have been a path to the other gate on the creek and the angle of the old graves might be explained by this, for they would be at right angles to such a path. Making graves at right angles or parallel to a road or path is an almost universal habit. The graves in the new plan are at right angles to Pilot Town Road at this point.

It may be too fanciful to suppose (when I indulge my fancy to this extent I get in trouble with Dr. Marine) that the bones of the first colonists, two of whom were killed within the palisade, may have been collected and buried here, thus beginning the cemetery; but it is certainly admissible that in good farming country an unused enclosure should be thought a suitable place for graves. Conversely, this would lend some support to the idea that the palisade was really here.

According to the plans for the new cemetery, the main entrance road will require the removal of the few stones still left standing. The earliest is of a Jacob Art who may have been the grandfather of the soldier of the same name who enlisted for the defense of Lewos in 1812. But by probing we found a rough unmarked stone, entirely covered with earth but standing straight and in line with the others.

This might be a stone of the 17th century covered by a deposit of wind-blown earth. It has been noted also that old cemeteries tend to build up due to the many excavations made in a limited space. We cannot doubt that the location of the stones and the graves they mark will be accurately indicated on a map and that the stones themselves will be stored in a safe place. If this is done, the road will do far less harm to the story -- if there is one -- in the ground below it than new graves in the same space would do.

Interest in the archaeological confirmation of our early history is constantly growing and later generations are certain to judge us severely if we neglect to make such efforts as may be reasonably expected of us in investigating this presumably important site. Our present means are very limited however.

O.H.P.

The Archeolog will attempt a listing of the articles in Amorican Antiquity according to their probable interest to our members. This will not be a synopsis but only a glance at the contents from our point of view.

In the January 1952 issue:

Prehistoric water sources developed into walk-in wells and resevoirs by the Indians of Arizona.

A report of several years work in Huron and Lalonde sites in Ontario.

Cochise manifestations in the Middle Rio Grande Valley. (Many good photographs including one of a chisel)

A Palco-Eskimo culture in West Greenland. (A well documented study which gives considerable space to the matter of burins.)

The Viru Valley sequence: a critical review, by J. A. Bennyhoff. (In this paper the reports of Ford and other in the Viru Valley in Peru are subjected to a penetrating analysis but made from an easy chair. The field archaeologists come back effectively but one gathers that graphs and statistics have to be checked in all sorts of ways.) In "Facts and Comments" there is a warning of possible

contaminations of carbon 14 samples.

A short but excellent article by Mrs. Blaker on some pottory for which she suggests the name Roanoke Simple Stamped. (We may have found shords which could be given this designa-A small photograph shows the surface treatment very tion. well. As usual we must regret that no attention is given to the base beyond stating that it is rounded.) Also in this section there are several mentions of fluted points, one from Long Island, New York. In "Notes and News" there is something for every reader. My attention was caught by the note that in some work in Kentucky a "bulldozer with a 12 foot blade was used with great success in removing the sterilo mound top and in back filling." Among our members we have an expert with the bulldozer, but we should like the moral support of some top flight archaeologists before using it.

BANNERSTONES OR ATLATL WEIGHTS?

This controversy -- if we must call it that -- has come to us without much warning. But those who have followed the trends more closely have noted a tendency to list as problematical a number of stones formerly grouped under objects of ceremonial use and called banner-The supposition that the earliest hunters used only the stones. spear and had not yet invented or learned of the bow has long been current and is supported by many excavations. Among primitive peoples where the spear is still used, it is frequently thrown with the aid of a stick two to three feet long which, by increasing the length of these spear throwing sticks is often increased further by weights. I remember that Dr. T. Dale Stewart on his first visit to Lewes used the term "atlat1" in speaking of some stones we showed him and spoke of having seen the spear-thrower used in South America. Spears and atlatls with weights attached have been uncovered in the dry caves of the Southwest in deposits dated at more than 3,000 years E.T.

This question may seem somewhat remote to many of our members who have taken part only in the excavation of the more recent cultures that we find, almost to the exclusion of all others, in the Lewes area. But remains of the archaic period are being found in the western parts of the state and over in Maryland, and until we have an explanation for this difference, we must expect to find them here-in fact those who hold to the bannerstone idea do not believe that they belong exclusively to archaic sites. If our excavation work were so perfect and our records so complete as to allow us to be confident that later investigators could get any information they needed from them, then we might ignore all differences of opinion concerning the objects we dig up, but I doubt if any work is quite that good and we know that ours is not. Excavations up to the highest standards have been made in the past without giving a hint that bannerstones were really atlatl weights.

Among the excavations which have produced support for the atlatl contention the most noteworthy seem to be those of two large shell deposits of the archaic period in Kentucky. This work, done under the general supervision of William S. Webb, head of the department of anthropology of the University of Kentucky, has been published in two reports which are being circulated among our members. The interest in this subject led me to write to him for further information and his reply contained a paragraph giving so well the present status of this "controversy" that I asked permission to use it in the Archeolog. (Dr. Webb has served on several national commissions and as archaeologist for the Tennessee Valley Authority, but of most interest to us is the fact that he takes an active part in the Society for American Archaeology in which we have taken a membership.) The quotation follows:

"There are many persons who prefer the use of the term bannerstone to describe a large variety of prehistoric stone implements. Personally, I do not know how bannerstones were used, or for what purpose, Different writers have ascribed to them different uses. There has been no attempt on my part, or that of any one to say that all bannerstones are atlatl weights, but I have found several types of polished stones in scores of cases with the skeleton of archaic peoples where the stone, the antler hook, and the antler handles have the same size perforation and are collinear and separated from each other by appropriate distances. It has seemed justifiable to conclude that these artifacts constituted the residue, after decay, of a woodon atlatl to which they were attached. Various forms of these so called atlatl weights have been reported by me; various forms of cylinders, a few geniculate forms, a few so called butterfly stones, and some bars. Some weights have been made of discs of shell. A few have been found made of alternate shell and stone These certainly are not bannerstones. It must be said that discs. there are many types of so called bannerstones, which have not been found in such association; therefore, there is no evidence that these types were ever used as atlatl weights."

Why should an atlatl have a weight? If we were to strike a baseball with a tennis racket we should feel at once the need of something heavier, and if we were throwing a heavy spear, we should want a strong and rather heavy stick for throwing it. The baseball is not struck with the tip of the bat but at a point several inches from the end. For the same reason the early all-wood atlatls had the hook cut in them some distance below the upper end. These fin These first throwing sticks were not designed to bend but some, no doubt, did bend enough to show the great advantage of recoil in giving an increase of speed to the spear. The best illustration of recoil is the bow. It takes about three seconds to draw a bow but the arrow may fly more than a hundred feet in one second. The atlatl had no string but the inertia of the weight put on the end served the same purpose; it caused the wood to bend until the acceleration had overcome so much of this inertia that the force stored up in the wood could come into play as recoil. The boy who throws an apple impaled on a limber stick illustrates this matter perfectly. Another toy used by boys is half atlatl and half bow. A stick that has a good recoil has a short string attached to the limber end. This string ends in a loop that is put over a hook in a crude arrow. With this contraption an arrow or light spear can be thrown many times as far as it would be possible to throw it by hand. This toy which is older than history may not have been the link between the atlat1 and the bow, but with it only an easy step was needed to invent the bow. The atlat1 may have survived for many centuries after the bow was invented. Certainly, however, it had been completely forgotten by proto-historic times.

Even in a site assumed to be carlier than the bow we should screen carefully enough to avoid overlooking extremely small arrowheads. This sounds like a contradiction but microliths are reported from many of these ancient sites. James Parsons who has a flair for the archaic has found a large number of these miniature points. Could they have been used in a blow-gun, another pre-historic weapon? One cannot imagine the atlatl and spear being used on very small game.

It is not easy for anyone who has for many years thought and spoken of these objects as bannerstones to think of them now as atlatl weights, and it would not be surprising if he should ask on what evidence the name bannerstone was given in the first place. There does not seem to have been any "excavational" support for this designation but a possible explanation will occur at once to anyone who has studied the bronze age in Europe, for American archaeology was for many years the poor country cousin of European archaeology with its devotion to the past of Rome, Greece, Egypt and the Near East. Among Indian artifacts there is hardly anything that attracts more attention than the one sometimes called butterfly stone. By what we are now convinced is more coincidence it resembles the bipenne or votive double-bitted axes worn by priests in their headdress during a rather long period known as Minoan III (1400-1200 B.C.) The bipenno was also, with the solar disc, one of the attributes of Leus, the sun god. Votive axes (which represented lightning) were always too small and too frail for real use and these Indian stones though like double axes in shape were also too fragile to have been used as such. It is true that the Indians of historic times have not used them as a headdress but the solar disc was used by one large southern tribe (see Bartram's Travels) so our archaeology of the last contury, with its roots in Europe, gave the name "bipenate bannerstone" without waiting to dig up unquestionable evidence of the coromonial use of this object.

From the same source we have inherited another name of dubious value--"celt." A celt (pronunciation uncertain; we and the French use the soft "c" but the English often make it hard like "k.") is any stone implement that is sort of hatchet-y but does not seem to be an axe or tommyhawk. The heavy ones may have been hoes, others certainly were not--but little has been done with these problems for these artifacts can all be listed as celts.

0.H.P.

INDIAN EXHIBIT AT LEWES SCHOOL

Within recent weeks there has been placed on permanent exhibition in the Lewes School the assortment of Indian pottery and artifacts salvaged from the shell refuse pits which were revealed in the course of the expansion program recently completed. A plate glass show case was donated for this purpose by Virden Bryan of the Quaker Home; Furnishing Company of Lewes.

Members of the Association who helped excavate the pits as they came to light included Ralph Karl, William S. Ingram, James Moore, Roger Vandegrift and Geiger Omwake. Pottery restorations were done by Orville Peets and Omwake. Included in the collection are awls, pipe stems, pitted stones, decorated rim sherds, five restored vessels, and a selection of shells representative of the several kinds of sea food eaten by the Indians.

THE DERRICKSON SITE "WORKED" CONCHS

In the early Fall of 1951 James L. Parsons, a member of the Sussex Archeological Association who has been actively engaged in excavations in the Lewes area, recovered from a refuse pit on the Derrickson farm a cache of twenty-five conch shells (Busycon carica), of very small to medium size, from which the spiral ends had been cut off.

The cache occupied one of several saucer-like depressions in the undisturbed bottom of a shell refuse pit which differed in character from other such middins only in the respect that the bottom was not evenly rounded, smoothly concial, or approximately flat. The saucer-shaped depressions gave to the bottom an undulating appearance.

That all the worked conchs had been deposited in one of the depressions and none in any of the others suggests something more than merely accidental disposal of the rejects. Opposed to the implied suggestion that the depressions had been created with some specific intent stands the fact that caches of other types of objects had not been deposited in them--only the general mixture of oyster and clam shells mingled with dark, vegetable-stained earth in which charcoal particles were interspersed. Nevertheless one can indulge in unbounded imaginative theorization when the unusual presents itself and it must be left to others to determine to their own satisfaction the reasons why all of the conch shell rejects were deposited in the single depression.

The shells themselves lead one to conjecture what purpose impelled the Indians to remove a section of the column. Was it the conch shell itself which was to serve some useful purpose or was it the length of spiral stem? It is easily conceivable that shells of this variety served admirably as drinking cups or as ladles but for either of these uses shells of considerable size would appear to have been more acceptable whereas all of those found in the cache were of relatively small size, For either purpose, the full length of column would have been desirable.

The column of a conch shell is very hard and the tools which were available to a pre-historic Indian were crude by comparison with those into possession of which his descendants came following contact with the European immigrants. The emercise of patience unlimited and a respectable amount of ingenuity were required for the removal of sections of the columns when the only tools available were flaked and chipped knives of jasper. It seems unlikely that so much tedious work would have been applied just to shorten the handle on a cup or a ladle when the longest handle possible would have better facilitated the use of these conch shells as substitutes for either of these common household implements.

The alternate implication suggested by these intentionally altered conch shells is the possibility that the sections of column were removed as a preliminary step in the manufacture of beads. Although columnar beads have not so far been discovered in refuse pits in the Lowes erca, the possibility remains that these shells were worked with such a purpose in mind and future excavations may bring to light beads of this kind. Because of the difficulties inherent in their manufacture by the use of tools extremely inefficient for working material of such hardness, one ought not expect to find them in any great frequency. Rather the active investigator should expect to find no more than an occasional specimen. Nevertheless, he should maintain a diligent and constant watch for them as he explores each new refuse pit.

Columnar beads have, from time to time, been mentioned in archeological literature and many of the citations which treat interesting aspects of the problems suggested by the worked conch shells from the Derrickson Farm have been noted by William C. Orchard in his Beads and Beadwork of the American Indians, published in 1929 by the Museum of the American Indian, Heye Foundation, New York. Because it is now extremely difficult to obtain copies of Orchard's work and practically impossible to secure the originals which he cited, the principal references are subsequently noted here.

Orchard treats columnar beads rather vaguely in the section of his book devoted to a discussion of Wampum. While conch shell beads are, perhaps, more readily associated with personal adornment than with this Indian substitute for currency, the investigator should keep both possibilities in mind, choosing from the references those observations which are pertinent to either aspect of the question.

Orchard says, page 61, "The Nampum to be discussed in this section is to be understood as having the form of small cylindrical shell beads, avoraging about a cuarter of an inch in length by an eighth of an inch in diameter -- not the discoidal beads found at prehistoric sites, although these may have functioned in a somewhat similar way. The discoidal type of beads still survives, and in some localities they are called Wampum and are used to some extent as money. But the wampum in mind is the cylindrical kind which was made in two colors, white and purple. The quahog, or hard-class (Venus morcenaria) furnished extensively the material for the manufacture of both colors of wampum although other shells of a suitable nature, such as the columellae of the conch, were used for the white beads. Some exception, it might be added, has been taken to the use of the quahog-shell as not being thick enough for making the dark beads: The reason, perhaps, is because the necessary large clams are infrequently found among our present food supply. The large clam is too old and too tough for food, the smaller, younger clams being the only ones found marketable; consequently we see little or nothing of the larger clams and therefore find it difficult to imagine a shell thick enough for wampum making. Beauchamp, howover, illustrates a fragment in which the purple part of the shell is three eighths of an inch thick."

1. Original work: Beauchamp, U.M., Wampum and Shell Articles, Bull. 41, N. Y. State Museum, Albany, 1901

Orchard, page 62, states that wampum is referred to in the records of many of the early travellers in North America, but only infrequently do the references bear on its origin and only vaguely do they treat of the methods of manufacture, the materials used, its uses, and its value. He quotes Loshiel:2 "Wampon is an Ircquois word meaning a muscle. A number of these muscles strung together is called a string of Wampon. . . . Before the Europeans came to North America, the Indians used to make their strings of wampon chiefly of small pieces of wood of equal size, stained either black or white. Few were made of muscles which were esteemed very valuable and difficult to make; for not having proper tools (underlining mine), they spent much time in finishing them, and yet their work had a clumsy appearance. But the Europeans soon contrived to make strings of wampon, both neat and elegant, and in great abundance. The Indians immediately gave up the use of the old wooden substitutes for wampon, and procured those made of muscles, which, though fallen in price, were always accounted valuable.

Further reference to the raw materials used is noted by Orchard (page 62) in Weld:³ "The wampum is formed from the inside of the clam shell, a large sea shell bearing some similitude to that of a scallop, which is found on the coasts of New England and Virginia. The shell is sent in its original rough state to England, and there cut into small pieces, exactly similar in shape and size to modern glass bugles worn by ladies, which little bits of shell constitute wampum. There are two sorts of wampum, the white and the purple; the latter is most esteemed by the Indians, who think a bound weight of it equally valuable with a bound of silver.

"The use of wampum appears to be very general amongst the Indian nations; but how it became so, is a question that would require discussion, for it is well known that they are a people obstinately attached to old customs, and that they would not therefore be apt to adopt, on the most grand and solemn occasion, the use of an article they had never seen until brought to them by strangers (underlining mine); at the same time it seems wholly impossible that they should ever have been able to have made wampum from the clam shell for themselves; they fashion the bowls of tobacco pipes, indeed, from stone, in a very curious manner, and with astonishing accuracy, considering that they use no other instrument than a common knife, but then the stone which they commonly carve thus is of a very soft kind; the clam shell, however, is exceedingly hard, and to bore and cut it into such small pieces as are necessary to form wampum, very fine tools would be wanting. Probably they made some use of the clam shell and endeavored to reduce it to as small bits as they could with their rude instruments before we came amongst them, but on finding that we could cut it so much more neatly than they could, laid aside the wampum in use for that of our manufacture."

- 2. Original work: Loskiel, G. H., <u>History of the Mission of the</u> <u>United Brethern among the Indians of North America</u>, pt. 1, p. 26 London, 1794
- 3. Original work: Weld, Isaac, <u>Travels through the States of North</u> <u>America and the Provinces of Upper and Lower Canada during the</u> <u>Years 1795, 1796, 1797</u>, pp. 390-391, London, 1799

Orchard implies further that the manufacture of wampum on an extensive scale was post-European by citing Lawson:4 "If this Wam-pum Peak be black or purple, as some Part of that Shell is, then it is twice the Value. This the Indians grind on stones and other things till they make it current, but the Drilling is the most difficult to the Englishmen, which the Indians manage with a Nail (underlining mine) stuck in a Cane or Reed, Thus they roll it continually on their Theighs with their Right-hand, holding the Bit of Shell with their left, so in time they drill a Hole quite through it, which is a very tedious Work."

Certainly shell beads, both columnar and discoidal wore in use before the advent of the Europeans. Whether they served as money or were only articles of adornment seems indeterminable. Bailey5 states: "In some areas the native shell beads or wampum (underlining mine) became a medium of exchange after the advent of the white people. The not infrequent references to 'porcelain' in the Jesuit Relations testify to the fact that its use was not unknown among the Montagnais and kindred pooples. It is impossible to prove that wampum was used as a modium of exchange in pro-Columbian times, although the worked variety was limited in supply, and it was in constant demand for crhamental and probably religious purposes. It was, then, a commodity rather than a medium of exchange and only became so because the European materials were valued by the Indian even more highly,"

Orchard reveals (v. 63) other sources of raw material for the manufacture of wampum in a citation from Williams:0 "The Indians are ignorant of Europe's Coyne; yet they have given a name to ours and call it moneash from the English money.

"Their owne is of two sorts; one white, which they make of the stem or stock of the Periwincle, which they call Meteauhock, when all the shell is broken off; and of this sort six of their small Beads (which they make with holes to string the bracelets) are currant with the English for a Peny.

"The second is black, inclining to blew, which is made of the shell of a fish, which some English call Hens, Poquauhock, and of this sort three make an English Peny.

"They that live upon the Sea side generally make of it, and as many make as will."

In a rather long quotation from Beverley, 7 which Orchard (p. 64) cites, there is reference to the use of conch shells as raw material:

- Original work: Lawson, John, History of Carolina, p. 149, London 4. 1714.
- Bailey, Alfred Goldsworthy, The Conflict of European and Algonkian 5. Cultures, 1504-1700, New Brunswick Museum, St. John, N.B., Canada, 1937, p. 49.
- Original work: Williams, Roger, A Key into the Language of America 6. (1643), p. 128, Providence, 1827.
- 7. Original work: Beverley, Robert, History and Present State of Virginia, Bk. 3, Chap. 12, pp. 58, 59, London, 1705.

"The Indians had nothing which they reckoned Riches, before the English went among them, except Peak, Roenoke, and such trifles made out of the <u>Cunk-shell</u> (underlining mine). These past with them instead of Gold and Silver, and serv'd them both for <u>Money and Ornauent---(underlining</u> mine).

"Peak is of two sorts, or rather of two colours, for both are made of one Shell, tho of different parts; one is a dark Purple Cylinder; and the other a white; they are both made in size, and figure alike, and commonly much resembling the English Buglas, but not so transparent nor so brittle. They are wrought as smooth as Glass, being one-third of an inch long, and about a quarter, diameter, strung by a hole drill'd thro the Center, The dark colour is the dearest, and distinguish'd by The English-men that are solled Indian traders, the name of Wonpom Peak, value the wampom peak at eighteen pence per yard, and the white Peak at nine pence. The Indians also make pipes of this, two or three inches long (underlining mine) and thicker than ordinary, which are more valuable. They also make Runtees of the same Shell, and grind them as smooth as Peak. These are either large like an Oval Bead and drill'd the length of the Oval, or else they are circular and flat, almost an inch over, and one third of an inch thick, and drill'd edgeways. Of this Shell they also make round tablets of about four inches diameter. which they polish as smooth as the other, and sometimes they etch or grave thereon Circles, Stars, a Half Moon, or any other figure suitable to their fancy. These they wear instead of medals before or behind their nock, and use the Peak, Runtees, and Pipes for Coronets, Bracelets, Belts, or long strings hanging down before the Breast, or clse they lace their Garments with them, and adorn their Tomahawks, and every other thing that they value.

"They also have another sort which is as current among them, but of far less value; and this is made of the Cockle shell, broke into small bits with rough edges, drilled through in the same manner as Beads, and this they call Roenoke, and use it as the Peak."

The "Pipes" mentioned in the quotation just cited evidently were long beads, not smoking pipes. Their great length, two or three inches, suggests that their principal use was for ornamentation rather than as wampum money.

Orchard, (p. 64), believes that the tribular beads were of post-European rather than prohistoric origin and gives as his reason the need for metal tools. He says: "However, the fact is well established that few tubular beads have been found on prehistoric sites. In later burials, on the other hand, great numbers have been found, but always associated more or less with objects of European origin. It is therefore safe to assume that the particular style of wampum under discussion was mostly made after the introduction of iron by Europeans, for this metal must have been used for making the perforations."

He reinforces this theory (p. 65): "T ; drilling of cylindrical beads, the typical wampum, . . . could hardly have been done with a stone point, because the perforations are long and narrow, and a point of stone of sufficient length would be difficult to make, and if made, the least deviation from the line of drilling would break the drill, if not the bead. Copper implements of a suitable character have not been found in numbers sufficient to suggest their use for this purpose. The use of reeds or of like material in conjunction with sand and water would seem most improbable when we consider the prodigious quantities of wampum that exist and the time required to drill a bead by such means."

In seeming contradiction of the foregoing conclusion is the statement of Williams, cited by Orchard: "Before ever they had awle blades from Europe, they made shift to bore this their shell money with stones."

It is of interest to note, in view of the absence of any evidence of European contact goods in the refuse bit on the Derrickson Ferm from which the conch shell rejects were recovered, a statement made to Orchard by Dr. Arthur C. Parker, now deceased, but formerly director of the Rochester Museum of Arts and Sciences: "I have found shell beads, shaped as spheroids, ovals, and disks in village sites and graves in certain pre-contact Algonkian sites and I have found the same type of beads in pre-contact Iroquoian sites and also long heavy cylindrical beads made from the columella of the Pyrula (Busycon), but I have never found the small cylindrical beads such as are found in wampum belts and strings in any of these early sites. Where small cylindrical beads have been found they are at least three times the diameter of the historic wampum bead and made of a different variety of shell."

A personal statement of Dr. M. R. Harrington, formerly of the Museum of the American Indian, Heye Foundation, is quoted by Orchard to supplement that of Parker: "As to wanpum, I think cylindrical shell beads, mostly white and made from fulgur cones, and slightly larger than standard wampun, were made in fair quantity before the coming of the whites; but that the great development of what we call wampum began in early Colonial days, after the Indians secured steel drills. On Long Island, at Dosoris, near Glen Cove, to be exact, I found Fulgur cones (columnellae) that had been ground into slender cylinders and marked into lengths suitable for wampum, but no finished beads. On Tennessee River I found shell beads like coarse white wampum, some of them on sites where no white man's products appeared, and others, very similar, on sites where a few trade articles were seen. The Long Island site mentioned above showed nothing of European origin."

In the preceeding paragraphs occur a number of words of obscure meaning to the layman turned archeologist. Perhaps the following explanations will serve to clarify them. <u>Busycon</u> is the name of a genus of large marine snails which belong to the family designated <u>Bucinidae</u>. The words Fulgur, whelk, winkle, periwinkle and <u>Busycon</u>, have come to be used synonymonsly. <u>Pyrula (Busycon)</u> is the univalve molusks of warm seas, having a pear shaped spiral shell with a short spine and a thin lip. The <u>Busycons</u> destroy large numbers of clams, and oysters by drilling holes in their shells and rasping away their flesh.

Only two types of the large marine snails have been observed in the Indian refuse pits in the vicinity of Lowes, <u>Busycon carica</u> and <u>Busycon Canaliculata</u>. The <u>Carica means fig-like</u>, or resembling the common cultivated fig. It is difficult to apply this description to the large spiral snails whose long stems and usually broken shells become imbedded in the surrounding refuse and make the excavation of pits

8. Original work: op. cit. p. 130.

so much more difficult. The distinguishing feature of these shells is the series of tine-like horns which protrude from the encircling spiral, beginning at the top of the shell and following the spiral to the point where it bulges out to form the large, round, main part of the shell. <u>Canaliculata means channeled</u>. The spiral, having no protruding horns, is in the form of a long, continuous, winding channel beginning at the top of the shell and continuing to the point where the spiral expands to form the main part of the shell.

The Derrickson Farm conchs are all of the Busycon carica variety. The carica shells have certain characteristics which made them superior to the canaliculata shells for aboriginal bead making. The columella of carica, while having a spiraled exterior, are solid, and offer the craftsman a substantial matrix of material through which to drill the longitudinal hole. The fact that they are solid also permitted the Indian craftsman to work them into beads of uniform diameter by rubbing them on sandstone abraders. The columnar section of Busycon canaliculata is simply a hollow spiral extension of the body of the shell, offering no opportunity for longitudinal drilling. These differences would seem to preclude the use of Busycon canaliculatum for bead making and excavators need give only perfunctory examination to such shells to determine whether or not sections of the columns have been intentionally removed.

The four Derrickson Farm rejects available to the writer have maximum diameters at the point of cutting of 1.3 cm, 1.1 cm, 1.2 cm, and 1.1 cm respectively. Making allowance for abrading the beads to nearly uniform dimensions, one might conjecture that they were from .7 cm to .8 or .9 cm, or from approximately 1/4" to 3/8" in diameter. If the aboriginal craftsman did not attempt to reduce his beads to a nearly uniform diameter throughout their length, contenting himself with polishing off the rough spots, their diameter probably approximated 3/8". Such a figure would seem to correspond roughly to the descriptions of pre-contact cylindrical beads given by Drs. Parker and Harrington cited in preceeding paragraphs. No estimate can be made of the length of the missing beads, based on observations of the rejects.

The depth of the cut on all four specimens was approximately 2.5 mm. After the cut had been made in a complete circle around the column, the end of the column was snapped off, leaving a jagged rough surface in the center. Close examination of the cuts suggests, because of visible slight variations in the line of cutting and irregular scratches in the faces of the cuts, that the worker held the shell firmly against some solid surface and, using a chipped stone knife with a sawing motion, drove the cut toward the center of the column. Having reached the desired depth, he evidently then turned the shell slightly and began cutting again, repeating this turning and sawing process until he had completely encircled the column. Close examination shows that it is perfectly obvious that the cutting was not done with the aid of an advanced tool such as a steel knife blade and this fact definitely establishes the pre-contact nature of these rejects.

That the cylindrical tubes made from the columella of conchs are to be disassociated entirely from wampum and not confused with that proto and post historic development, as Orchard's general treatment of them would seem to imply has been amply and conclusively demonstrated by Webb and DeJarnette, 9 In the course of excavations in the Pickwick Basin of the Tennessee River large columella beads were established as a trait of the early non-pottery making Shell Mound people and as a trait of the Moundville-like culture of the shell tempered pottery making people who followed them into the Pickwick Basin. These cultures were entirely pre-contact and, while both also included other types of shell beads, wampum was entirely absent.

Further evidence, if needed, of the pre-historicity of columnar or shell beads may be found throughout Ritchie's¹⁰ report of his investigations of pre-Iroquoian sites in New York State.

That such beads were not so rare, as Orchard implied, is also indicated by Webb and DeJarnettell who reported finding them in numbers from 1 to 958 with a single individual in graves throughout the sites excavated in the Pickwick Basin.

It is rather amazing that neither columnar beads nor wampum were reported by Cross¹² from the excavitions carried out in New Jersey although the sites investigated were both pre and post historic. One would expect, as would also be logical for the shell refuse pit sites of the Lewes area, that people to whom the products of the sea were so important would put marine shells, expecially the conchs, to functional and ornamental use.

It would seem correct to infer, from examination of these Derrickson Farm conch shells and from study of the several references cited in addition to Orchard that these shells actually represent the raw material discarded by some ancient Indian ornamental bead maker. One is led to conclude, therefore, that investigators working on sites in the Leves area which conform to the general cultural pattern of the Townsend, Russell, Ritter, and Derrickson sites, which are pre-contact, may expect to recover an occasional columnar bead and should maintain a watch not only for such beads but also for the mutilated carica conchs from which they were cut.

- 9. Webb, Wm. S., and DeJarnette, David L., An Archeological Survey of Pickwick Basin in the Adjacent Portions of the States of Alabama, Mississippi, and Tennessee, Smithsonian Institution, Bureau of American Ethnology, Bull. 129, Washington, D.C., 1942, pp. 315-317.
- 10. Ritchie, Wm. A., Pre Iroquoian Occupations of New York State, Rochester Museum of Arts and Sciences, Rochester, N.Y., 1944.
- 11. Webb, William S. and DeJarnette, David L., op.cit., p. 219.
- 12. Cross, Dorothy, Archeology of New Jersey, The Archeological Society of New Jersey and the New Jersey State Museum, Trenton, N.J., 1941.

