THE DUKES COUNTY INTELLIGENCER

Published by

DUKES COUNTY HISTORICAL SOCIETY, Inc.
Edgartown, Massachusetts

AN ARCHAEOLOGICAL STUDY FROM MARTHA'S VINEYARD

by

E. GALE HUNTINGTON

November 1959 — Vol. 1, No. 2
AN ARCHAEOLOGICAL STUDY FROM MARTHA'S VINEYARD

We know well enough when the first White settlers came to the Island. When the first Indian settlers came is another matter. Perhaps they came dry-shod before the sea had broken through into what are now Vineyard and Nantucket sounds. Perhaps they came later after the Island was an island, in their dug-out canoes. But whichever way they came it was a long time ago. A time ago measured not in hundreds but in thousands of years.

This article is based on archaeological evidence from a site at what was formerly the head of Lagoon Pond, and its title might just as well be "An Artifact Sequence from Martha's Vineyard." The earliest Indian settlers used tools and weapons that were quite different from the tools and weapons of the historic Indians of the sixteenth and seventeenth centuries. The site shows when pottery was first used by the Indians, and what sort of pottery. It also seems to show the introduction of the bow and arrow, and how the bows and arrows increased in size and power until they completely replaced the earlier thrown spears. The site also gives at least a glimpse at the home life and village life of the early inhabitants of the Island.

The site lies on a bench of nearly level land some eighteen or twenty feet above the level of the pond. Today the bench is badly eroded with several large gulleys cutting across it. The erosion that the site bears witness to may have been quite sudden and catastrophic, causing the abandonment of the village. At any rate the site was probably abandoned before, or at least not much after, the beginning of the sixteenth century. The only articles of European manufacture found were three iron nails, the bowl of a clay pipe, and one small sliver of glazed pottery. And all of these could have been intrusive.

The site gives evidence of continuous occupation, or at least, continuous seasonal occupation over a very long period of time. Tentative dates for the occupation might be 1000 B.C. to 1500 A.D. Those dates are based mainly on artifact type. We have two carbon 14 dates which will be discussed later.

Permission to excavate the site was kindly given by the owner of the land, Bayes Norton of Vineyard Haven. Perhaps a dozen amateur archaeologists availed themselves of the opportunity to dig. But unfortunately no one was in charge of the dig, everyone doing his digging and keeping his records, if any, in his own way. Thus the findings in this paper are entirely the work of the author, and represent the excavation down to sterile subsoil of slightly more than eight hundred square feet of the site. In some places sterile subsoil was less than fourteen inches below the surface, and in other places it was more than eight feet down.
This is a stratified site, which is very important from the point of view of chronology and sequence. There are three quite distinct strata, and all artifacts found are referred to the stratum from which they come, and to their relative position within that stratum. This gives us a good basis for our artifact sequence from the very earliest to the latest, and each stratum could probably be correlated with a cultural horizon. But the author does not feel that he is competent. The following is a description of each of the three artifact bearing strata.

The yellow earth. This stratum lies directly above the undisturbed sterile subsoil. Only its texture and the fact that it contains artifacts distinguishes it from the subsoil beneath it. The yellow earth varies from a few inches to slightly more than three feet in depth. It produced the fewest artifacts of any of the strata, and it produced no pottery or bone. If there are hearths in this stratum they are not clearly identified as such. There is charcoal in varying amounts all through the yellow earth, and we have a c 14 reading from below the middle of this stratum. It is Y-583 and gives a date of 1430 ± 60. That would be about the year 500 A.D. But the author feels that the oldest artifacts from the yellow earth are considerably older than that.

The brown earth stratum lies directly above the yellow earth with no sterile stratum in between. Sometimes the dividing line between these two strata is quite clearly defined, and then again they blend together almost imperceptibly. The textures of the two strata are almost identical. Hearths can be clearly identified in the brown earth stratum, and there are also some large and clearly defined lenses of ash. This stratum also varies from a few inches to several feet in thickness and it contains many more artifacts than the yellow earth stratum.

The shell stratum lies above the brown earth stratum and usually the line of demarcation between the two is clearly defined. The shell stratum also varies from a few inches to several feet in thickness. It is typically composed of black earth mixed with shell. Usually the shell is finely broken seeming to indicate trampling when this stratum was the surface of the habitation site. A c 14 reading from near the bottom of the shell stratum, Y-582 gives a date of 1050 ± 70. That would mean that shellfish were not utilized for food much before 900 A.D.

There was, of course some disturbance of the site by its occupants. Thus, pits dug by the people who occupied the site at the time that the shell stratum was being laid down extend into the brown earth stratum beneath it. But such disturbance can almost always be clearly recognized for what it is. Also post molds from the houses of the people of the shell stratum often extend down into the brown earth.

The prevailing type of projectile point found in the shell stratum is the triangle, but some stemmed and side notched points which are not intrusive from below are also found in the shell stratum thus indicating that various types of points were used simultaneously by the people of the shell stratum. A total of 45 steatite shards (pieces of broken soapstone bowls) were recovered. Forty-two of them were found in the top third of the brown earth. The three that were found in the shell are clearly intrusive from below probably being turned up when pits were being dug. Thus we can state definitely that steatite pottery was not used by the people of the shell stratum.

Both mineral tempered and shell tempered ceramic shards are found in the shell stratum, though only mineral tempered ceramic shards are found in the brown earth stratum beneath the shell. And these mineral tempered ceramic shards are found in association with the steatite shards. This should show clearly how important stratification is in attempting to arrange an artifact sequence.

Almost all the bone artifacts recovered were found in the shell stratum. And most of them are very well preserved due to the action of the lime in the shell. All the copper beads recovered were from the shell stratum.

Above the shell stratum there is an overlay of sterile topsoil evidently washed down from the high land to the west and northwest of the site.

Diagram I illustrates the method of recording the material recovered from the site. Each square measures six feet on a side. Each artifact as found was given a number for its square and recorded on the plot of the square by its number and by the relative depth at which it was found within one of the three soil strata.

Thus #1, a broken triangular point, was the first artifact found in this square and it was found in the middle third of the shell stratum. And it is located on the plot as 1 M.S. It would make no difference if the shell stratum here was six inches or three feet in thickness. This method of recording places the artifact accurately within its stratum.

Many of the artifacts were not found at the depth at which ideally they should have been found. Thus #3 a broken gorget or perforated tablet — if my analysis of chronological sequence is correct — should have been found in the top third of the brown earth, as contemporary with the steatite pottery. But it wasn't found at that level. This could mean that this particular type of artifact continued in use longer than the author had thought. Or it could mean disturbance of the site by later occupants.

Plates I through IV illustrate the types of projectile points that were found in the site. With a few exceptions which will be noted they represent a chronological sequence. The numbers after the type letter indicate how many of this particular artifact were found.
Square # Q7

The eastern half of this square has been lost to erosion.

Legend:
- T.S. top of shell
- M.S. middle of shell
- B.S. bottom of shell
- T.B. top of brown earth
- M.B. middle of brown earth
- B.B. bottom of brown earth
- T.Y. top of yellow earth
- M.Y. middle of yellow earth
- B.Y. bottom of yellow earth

Diagram I

Plate I

All artifacts illustrated are 3/4 actual size.
Figures a - h in Plate I illustrate what are certainly the oldest artifacts found in the site. They are all of slate, or slate-like sedimentary material, and they are all from the bottom of the yellow earth. And they are almost surely earlier than the c 14 reading of about 500 A.D.

That slate alone was used for projectile points by the earliest occupants of the site seems very strange. We can only speculate that the use of slate was traditional with these people, and that when they came here they continued to use slate though it is one of the least frequently found stones in the glacial deposits. Many of these points give every indication of having been re-worked and re-sharpened until nothing much is left but a blunt stub. This could indicate a scarcity of the preferred artifact material on the Island. These slate points were used with the thrown spear and the thrusting spear and not with bow and arrow.

Also in the lower part of the yellow earth, and directly above the slate-culture artifacts, are the types represented by figures i - m. These seem to be a direct continuation in type and style of figures a - d of the slate culture and are definitely the next artifacts in the chronological sequence. The chief differences are that they are a little better in workmanship and that they are made of materials other than slate. It is as though the slate tradition had simply been broken, and that the people on the site had come to the conclusion that other materials than slate would make good artifacts, and that they might as well use such common materials as the environment afforded. None of the large spear points were found unbroken.

Next in the chronological sequence are the small artifacts indicated by figures n - q. These are also found in the yellow earth. They are in association with the corner-removed points just discussed, and also with some of the stemmed points illustrated in Plate II. I can not place them more accurately than that. Thus they seem to have come into use in the early archaic, but may possibly be later. At any rate, they are the so-called small stemmed points and represent the introduction of the bow and arrow. From the small size of these points one must assume that the bow and arrow at its introduction was of limited importance, and only fit for very small game, and quite secondary to the thrown and thrusting weapon. It is interesting that by far the larger part of these small stemmed points are of white quartz. Except for a few rough scrapers this is the first appearance of white quartz as artifact material.

The artifacts indicated by figures r and s are burins, or gravers, or stone awls. Only a very few of these small artifacts are found completely worked and finished. Most are just a roughly triangular flake worked on the tip. Many are just worked on one side of the tip and thus could be accidental. But there is no doubt at all that some of them are definite artifacts. Figures t and u in Plate I represent the side-notched triangles. They are a distinct type and are found in the lower third of the brown earth in association with
some of the larger stemmed and side-notched points illustrated in Plate II. Thus they come after the small stemmed points. With them the bow and arrow combination seems to have been becoming larger and more powerful.

The stemmed points in Plate II figures a through l show a wide distribution of depth in the site, beginning in the yellow earth as the successor type to the corner-removed points and continuing through the brown earth and up into the shell. They were probably used to tip thrown spears or lances. There seem to be two general types of these large stemmed points. The first is represented by figures a through f and the second by figures g through l. It is very difficult to separate these two general types chronologically as they are found in association from the top of the yellow earth, all through the brown earth and up into the shell stratum. But a and b are probably the oldest in the chronological sequence, and c, d, e, and f the most recent.

The chief difference between the two types is in the width of the base. In figures a through f the base is as narrow or narrower than the body of the point. And in figures g through l, in general, the base is wider.

Figures m, n, and o in Plate II are the leaf and modified leaf shaped artifacts. These were probably used as knives. They are found only in the brown earth stratum. Figure p is probably also a knife of some sort. It was found in the top of the brown earth. Figures q and r seem to belong with the leaf artifacts.

Figures a through n in Plate III are probably all knives, some hafted and some unhafted. I have not been able to separate them chronologically. They were probably used as wood-working tools and as skinning knives and for butchering. Some are very beautifully made.

Figures o, p, and q in plate III are the five-sided points. They can be placed quite definitely in the bottom part of the brown earth. Figures r, s, and t are the small triangles, and at least in this site, they are not diagnostic. They are found in the top of the brown earth and on up into the shell. Some of them seem to be quite contemporary with the larger triangles and pretty much undifferentiated from them except for size.

Figures a through q in Plate IV are the large triangles. They seem to fall into types as illustrated, but so far, classifying them as to type has not proved diagnostic. The various types can not be separated chronologically and all are found in the top of the brown earth and in the shell. Most of them were undoubtedly used as arrow points but some may also have been used as drills, knives, scrapers, etc. These large triangles are the largest class of artifact found in the site and they are the most beautiful in workmanship, design and material.
Figure h in plate IV is a side notched sinker. Figure i is a gorget or perforated tablet. Two of these were found in association with steatite shards. Figure j may be a projectile point or it may be a very thin knife or scraper. It is beautifully worked of a gray flint-like stone, and it is so very unlike anything typically “Island” that it may be a trade piece. The point represented by figure k, is almost surely a trade piece brought from off-Island. It is of yellow jasper and the whole piece is unlike anything usually found on the Island. Figure j is from the middle of the shell and figure k from the very top of the shell.

Figure m is also from the top of the shell. It is soapstone and is probably a shard of a soapstone bowl reworked by the later people on the site. It may have been used as a sinker. It is the only steatite shard found near the top of the shell.

Figure l represents a broken drill. It was found at the bottom of one of the pits in association with finely broken shell and bone fragments, and so is undoubtedly from the shell stratum despite the depth at which it was found. Very few drills that could be definitely identified as such were found in the site. This could mean that ordinary projectile points were commonly used as drills. At any rate, all of the drilled holes examined would indicate that the angle of the bit was wide, and thus could have been made by a common triangular or other point.

No steatite pottery is illustrated in this paper because no whole steatite artifacts were found except the sinker described above. The broken pieces of one steatite dish were found. The dish is roughly oval and measures about 5½ by 6½ inches. It is pecked out to form a depression a little more than an inch deep. And it may have been made from a piece of a broken pot. A much smaller broken dish was also found. It is square and measures about 3½ by 2½ inches. The pecked depression is ¾ of an inch deep, and this also may have been made from a shard.

Besides the two dishes 44 steatite shards were found, and they seem to have come from at least six different pots. Shards from one pot show a row of serrations on the lip. That is the only trace of decoration on any of them. Several of the shards have holes drilled in them, probably for the purpose of holding cracked or broken pots together with rawhide binding between the holes. All but two of the shards of the broken pots as well as the three dishes were found in the top of the brown earth.

Considerably more ceramic shards than steatite shards were found. The ceramic shards are about evenly divided between mineral and shell temper. The earliest ceramic shards are found in the brown earth in association with the steatite shards. Steatite pottery was probably used before the introduction of ceramic pots, but the site does not clearly show this. The earliest ceramic shards — those in association with the steatite shards — are all mineral tempered.
Shell tempered shards begin to be found in the shell stratum. But mineral tempered shards are also found in the shell stratum perhaps indicating that the two types of temper were used side by side.

The illustrations in plates VII and VIII show only rim shards as presumably being most diagnostic as to type and period. Considerably more designs than those shown were found but they are not illustrated because they were not rim shards. In the majority of cases where a design does show it is superimposed on cord-marking, for cord-marking is found on a majority of the pieces. But in no instance does cord-marking show on the inside of a pot. Both the coil and strip method and the lump method were used in making these pots, but it is not clear which was used first. All the shards in plate VII are mineral tempered, and all those in plate VIII are shell tempered.

The artifacts and bone items illustrated in plates V and VI are all from the shell stratum and the very top of the brown earth, with a few from the pits that extended down into the brown and yellow earth strata. Many more stone than bone artifacts were found down where bone ceased to exist. That would seem to indicate that in this site stone was a much more important artifact material than bone.

Figures a and b in plate V are sliver awls. They seem to have been made from any casual sliver or broken piece of bone that was picked up from the trash of the site. Most of them have very sharp points, and thus probably are true awls. With a suitable grinding stone it probably took only a very few minutes to fashion one of these sliver awls.

Figures c and d are finished awls, that is, the whole artifact gives evidence of having been worked and finished, which is not true of the sliver awls. A good deal of effort must have gone into the making of these artifacts. The points as a rule are not as sharp as those of the sliver pieces. Figure e shows what is evidently a specialized awl of some sort. Figure f illustrates an open-pointed awl. That is, a hollow bone was utilized in making these artifacts. If the natural knob of the bone were not intact they could easily be mistaken for bone points.

Figures g and i in plate V are pistol-grip awls. They were made for both right and left-handed individuals. In each case the natural conformation of the bone was utilized so that they fit very comfortably in the hand. Also, in every case there is a scar on the side of the shaft of the awl that could have been made by the thumbnail of the user. The shafts of these pistol-grip awls are all very thin in section, as a result of which nearly all of those found were broken.

Thus from this site there are at least five distinct types of awls. And because of difference in shape, sharpness of point, thickness of section, etc., it is natural to suppose that they were made for different purposes. Indeed, while "awl" is a good general name for this class of artifact, some of them are probably not awls at all, but may have
been used in shredding fiber for twine making, as aids in weaving baskets and mats, or even as knives for opening shellfish.

Figure h in plate V is a bone point. It is the only one of its kind found and is very nicely worked. Figure j is the tip of a piece of antler, hollowed out at the base, and presumably was used as a point. Figure k is the hollow socket type point made to fit onto the arrow shaft. When the bone was green these were probably very strong and serviceable points.

Figure l is probably not an artifact at all, but a natural piece of bone used as an awl. I would not have included it on the plate except for the fact that it has the color and patina so characteristic of bone artifacts that one does not usually find in the casually broken and discarded bone of the site. Figure m is a beautifully worked piece of bone, but as both ends are either broken off or worn off it is impossible to say what it was used for.

Figure n in plate VI is interesting. All but one of them were found together in a bundle as though they had been tied together with a piece of cord or wrapped up in a piece of leather. All were broken in one or more places. The fact that they were sharpened at both ends makes it very doubtful if they were used as awls. They may have been gorges (an alternate device to the fishhook) or they may have been bodkins or hairpins.

Many of the bone slivers illustrated in o of plate VI were found. They may have been used as the barbs of compound fishhooks. But not one shows clear evidence of working, so all of them may be accidental. Figure c is a needle or bodkin. It is very nicely worked, but if it ever had an eye, the eye-end has been broken off. Figures d and e, as Mr. Byers pointed out to the author after the plate was drawn, are unaltered and unworked pieces of bone. d is the pre-maxillary bone of a deer and e is the mandible of a heron. Of course there is a possibility that both of them may have been used, d as a fishhook, and e as a point. Figure f is antler. Knife marks at the base show clearly where it was cut off. It is probably a flaking tool for stone point making.

Figure g is not an artifact, though like the heron's mandible it may well have been used as a projectile point of some kind. It is the barb or sting from a stingray's tail, as Mr. Byers and Mr. Stoddard pointed out to the author. Figure h is a deer's toe bone with a hole drilled in it. And figure i shows how the natural bone was cut across to provide the material for some of the bone artifacts. There need not have been any special tool for this purpose, but perhaps there was.

One shark's tooth (not illustrated) was found in the shell stratum in association with three triangular points. And though it does not show working it may well have been used as an arrow point.

Figure a in plate IX is not an artifact. It is a geode of bog iron broken open to expose the ochre core. Only a very few geodes were
found intact, but a great many of the broken geode casings were found. The geodes may have been gathered for the ochre in them. The ochre ranges in color from creamy white, through several shades of yellow and red to a very deep red. Mixed with oil or grease it may have been used as paint.

Also, the geode casings may be the “mineral stone” that Gosnold’s expedition of 1602 reports that the Indians used in making fire. Gosnold’s reporters state the fire was made by striking a “mineral stone” and a piece of flint together. The broken geode casings are in both the brown earth and shell strata.

Figure b was used as a grinding stone of some sort. As it shows distinct traces of red ochre it may well have been used for grinding paint material. A number of these rough grinding stones were found but only two show traces of color.

Figures c, d, and e are scrapers. c and e were found in the shell stratum, and d in the yellow earth stratum. These three scrapers, and a few others like them show working on both faces of the edge. But by far the larger number of scrapers show chipping on only one face. Indeed, most of the scrapers are very crude, and the indications are that almost any stone with a sharp edge might be used as a scraper. None of them seem to be in the least diagnostic as to period, for the same scraper types are found from the top to the bottom of the site.

Figure f is probably a rough knife of some sort. Several of these artifacts were found. In every case the body of the stone is left rough while the large blade is rather carefully worked. One supposes that they could have been used for any of a number of purposes.

Figure g is not bone. It is dark gray slate and shows definite grinding on all its lateral surfaces. As Irving Rouse pointed out to the author, it looks like a paint stick, but evidently is not.

Figure h looks more like an effigy than anything else found in the site, but it may be purely accidental. It is stone. Figure i is the only object found in the site, besides some of the ceramic shards, that shows a geometrical design. It is evidently the broken stem end of a rather large clay pipe.

Figure j is a copper bead. Several of these beads were found by others working the site, but this was one of only two found by the author. In every case the beads are of thin sheet copper rolled to form a cylinder. Presumably they were used much as the later wampum was used. Brereton, reporting for Gosnold’s expedition of 1602, gives a very good description of them.

For a long time it was thought that these copper beads were made of European copper traded to the Indians. But it looks very much indeed as though the beads found in this site at least are of native copper, traded perhaps, as far as from the Great Lakes region. All the beads were found in the shell stratum.
The points illustrated in \( k \) and \( l \) are included because they do not seem to fit in any of the classifications in plates I to IV. They do not seem to be trade pieces. Both were found in the brown earth.

A number of objects not illustrated in any of the plates should be mentioned. Several large crudely worked stone objects were found that could be either hoe or spade blades. An unidentified object of baked clay was found that could be part of a broken effigy. It could also be a lump of clay with which a child was playing which fell into the fire. All through the site there are surf-rounded and surf-polished beach stones. These beach stones were the materials for making stone artifacts. Like the geodes they were picked up and lugged home to the site. Many casual hammer stones were found.

Several charred hickory nuts were found in the site and one charred hazel nut. Two other charred objects were found which could be the silk ends of ears of corn. But they are probably charred pine cones. Some other charred material was found that at first was thought to be squash rind, but it is probably bark.

A very brief summary of some of the findings follows. First, the site seems to have been occupied continuously for a long period of time, perhaps more than two thousand years. And this particular Indian site seems to have been abandoned before the white settlement, perhaps because of erosion. The time when shellfish were first utilized for food is clearly indicated and seems very late.

Stoneware and ceramic pottery are found in association, as are mineral and shell tempered ceramic pottery. And most of the material traits seem to be the result of diffusion through trade and intercourse rather than of any radical shift in population such as might have been produced by invasion or conquest.

No human burials were found, and no large stone artifacts such as axes, adzes or pestles.

The people of the site seem to have enjoyed a very stable and secure economy which for the last period of occupation was based largely on the utilization of shellfish. And lastly, and very surprisingly no sure indications of agriculture were found; surprising, because we know that the Indians did have a sound agricultural economy when the Whites came here to settle.

Because of space limitations it was necessary to cut this article very considerably from its original inception. All citations have been omitted, as well as appendices dealing with the Great Ponds, and shellfish and animals used as food. The author does wish to thank all those who helped him with his study of the site and with the study of the material uncovered.

---

BIBLIOGRAPHY FOR GENERAL REFERENCE

Byers, Douglas S., and Frederick Johnson

Banks, Charles Edward
1911. The History of Martha's Vineyard. George H. Dean, Boston, Mass.

Burrage, Henry S., Ed.

Mayhew, Eleanor R., Ed.

Driver, Harold E., and William C. Massey

Flannery, Regina

Smith, Carlyle Shreve

Willoughby, Charles C.

Fowler, William S.

Moffett, Ross

Tyzzer, Ernest E.

Hurt, Wesley R., Jr.