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THE SWAN HOLD SITE
William S. Fowler

PREFACE

During the past several years, excavation of the Swan Hold site in Carver, Massachusetts has been participated in by certain members of the Massasoit Chapter of the Massachusetts Archaeological Society. Two of these members, namely, Richard H. Bent and Charles T. Sanderson of Plymouth, have asked the writer to prepare a report with presentation of the recovered evidence. Due to the orderly way in which data have been recorded I welcome this opportunity to assist in making the evidence available for comparative study by readers of our Society Bulletin.

A debt of gratitude goes to A. D. Makepeace, owner of the land, and to Ralph Pierce for their kind permission to excavate, without whose cooperation this report would have been impossible.

On several occasions I have helped with the work of excavation and am familiar with the general location and stratigraphy of the site. Therefore, an interpretation of the evidence is not as difficult as it might otherwise have been. However, it should be said that the opinions expressed are my own and do not necessarily follow those of my sponsors. Had a closer contact with the actual work of excavation been possible it is probable that a more exact delineation of evidence would have resulted. Nevertheless, stratigraphic data are clearly divided by ceramic cultural activity in the upper strata and not in the lower, which facilitates study of ceramic and pre-ceramic manifestations.

THE SITE

A long sandy terrace with a southeasterly exposure is the terrain on which the site is situated. It extends along one side of South Meadow Brook, which is now absorbed by a cranberry bog located in Carver, Massachusetts. This empties into the Weweantic River and thence into Buzzards Bay. In prehistoric times, the amount of water flow through this river basin may have been double that of today thus making river travel by dugout canoe entirely feasible. In Colonial days, the section of land lying somewhat south of Wenham Pond was known as Swan Hold and is so recorded in Plymouth Town Records as early as 1662. Hence, the site derives its name because of its location on or near this historic spot. Today, the name of a nearby plot called Swanhold Bog is no doubt a corruption of the earlier spelling. But all this is of little concern to the report except to locate the site in its relationship to the historic past.

The excavated area of the site measures about 75 by 200 feet, and is surmounted by a sand ridge or hill that rises some 25 feet above the site’s level. Surface erosion over the centuries has conveyed sand from the higher ground onto the site where it has leveled off into an elongated tableland with an elevation of about 10 feet above the South Meadow Brook and bog. Early settlers are reported to have tilled the soil in this region, and it is likely, therefore, that certain parts of the site if not the entire area were plowed in Colonial days. However, remains of large tree trunks are still visible in some places. This indicates soil capability of supporting large timber, and suggests the existence in late prehistoric times of big trees, perhaps sufficiently large for the manufacture of dugout canoes.

Geologically, the site is deeply underlaid by a gravel deposit of probable glacial deposition. This is overlaid with a heavy covering of sand, eroded quite obviously from the sand hill that borders it on one side. The rate of sand deposit was undoubtedly greater during early ages when vegetation was absent or sparse, and has gradually diminished in more recent times with the growth of trees and the accumulation of humus. However, due to the unknown rate of sand fill from erosion, and realizing its extreme variation between wet and dry seasons little if any chronological significance can be placed upon any stratigraphic level.

STRATIGRAPHY

Natural agents have formed strata at the site composed of different degrees of humus impregnated sand. An overburden of from 8 - 10" of heavy humus-sand covers the area, and this has leveled off so that the point where it meets the subsoil is well defined and uniform. This demarkation will be referred to as the junction in this paper and has been used as the level from which the position of all artifacts has been measured. Below this junction extends a stratum of yellow sand that lightens in color until at a depth of from 28 - 33" from the top of the humus it becomes white; free of humus contamination and leaching. Several inches below this white sand appears gravel which occasionally shows through in the form of small lenses.

Artifacts occur in the humus and throughout the yellow sand to the white sand level, where their presence becomes sparse; is confined to a few stone hearths and several implements. The relatively deep extent of the yellow sand stratum represents an accumulation that may have been laid down over a long or comparatively short period of time depending upon natural conditions of rainfall and vegetation coverage. Therefore, such
artifacts as appear in this stratum may represent a relatively long or short cultural duration. This problem is fully discussed in the following section.

CULTURE ZONES OF OCCUPATION

Artifact evidence represents at least two different culture periods and may have elements of still other cultural admixtures. However, the chief index of a change in culture is the introduction of pottery making. This art is indicated by the presence of clay potsherds, which occur earliest at a depth of seven inches below the junction in the yellow sand. Therefore, it must be assumed, if this depth represents the extent of human and not intrusive deposition of material, that all evidence above it is from a ceramic culture which continued the manufacture of pottery up to Pilgrim days. Based on this thesis, all artifacts present in levels below that at which pottery first occurs would obviously belong to previous culture occupations before the introduction of ceramics. A study of these earlier lithic traits seems to place most of them, typologically, in the Stone Bowl period when household vessels were cut out of steatite. Nevertheless, there are a few trait indications included of a preceding archaic age, which may represent only an overlapping from this earlier time rather than denote a clearcut culture occupation.

Therefore, it seems best to divide site stratigraphy into two culture zones of occupation: preceramic and ceramic, referring briefly to early archaic variations of the former whenever they appear. In order to simplify discussion, these two main divisions will be referred to in this paper as the lower and upper zones respectively. From this it may be seen that since Colonial plowing probably never penetrated deeper than about 8 inches, the lower zone and lower half of the upper zone are far removed from this sort of disturbance.

EXCAVATED EVIDENCE

HEARTHYS AND PITS. While many scattered fire stones appeared throughout all levels, there were several stone hearths in place, principally at lower levels. One of these appeared 30" deep on white sand and consisted of a large flat hearthstone about which were grouped smaller stones, some of which were cobbles. Another larger stone hearth occurred on white sand at a depth of 33" from the top of the ground and in it was found an oval scraper (chopper). The deepest hearth was at an extreme depth of 37". It consisted of 10 or 12 large cobble stones that formed an irregularly shaped hearth. Quantities of charcoal appeared in association with it, but otherwise seemed to have no significance.

Charcoal pits were of common occurrence at different levels, frequently in the white sand, and sometimes in association with stone hearths. One large charcoal deposit some 25 x 40" in dimensions showed up in the humus and formed deep pits at various places throughout its extent. Whether this was the remains of dugout canoe manufacture cannot be rightly judged, but it is a recorded fact that an old dugout was taken from the cranberry bog some 200 yds. above the site several years ago, and it is now owned by a Carver resident.

PRE-CERAMIC LITHIC TRAITS. The lower zone contains the earliest evidence including artifacts that were in use before the art of making pots out of clay had been introduced. Commencing with sparse occupation evidence on the white sand level, artifact frequency increases throughout the horizon, the major part of which represents products of the Stone Bowl epoch. It is probable that steatite bowls were in use at the site. While no vessel fragments were located through excavation, a single fragment from a repaired pot perforated by two holes appeared in an adjacent sand deposit, thrown out by an animal while digging his hole. This, together with the recovered full grooved axes of this period leaves little doubt that this zone's artifacts come from the age of steatite manufacture. In this paper the nomenclature for projectile points follows in part that approved by the Massachusetts Archaeological Society as published in Bulletin Vol. 11, #4. Full descriptions have been modified by omission of size to facilitate emphasis of the base type. Hence, identification is by name and number only.

Earliest white sand level traits (Fig. 7, #4, 14) consist of: corner-removed point #9 with broad rounded base; rudely fashioned celt with large flaking; and a large oval scraper.

Next appear a few diagnostic traits from that culture identified by some as the "Early Archaic". It is felt that this culture may be manifest by intrusive elements to a certain extent by virtue of the mixed stratigraphic position of artifacts and their low frequency (Fig. 7, #3, 5, 6, 11, 15, 19): corner-removed point #5, 9; ulu; grooved sinker; deep channeled gouge; and perforated oval atlatl weight (bannerstone), (ref. "The Heard Pond Site," Massachusetts Archaeological Society, Bulletin, Vol. 10, #3).

By far the most numerous and well defined traits are those that are known to belong to the Stone Bowl age that immediately preceded the age of ceramics, (ref. "The Potter Pond Site," Massachusetts Archaeological Society, Bulletin Vol. 11, #4), (Fig. 7, #1, 2, 7, 8, 10, 12-13, 16-20): corner-removed #3, 7, eared #4, side-notched #3, and small triangular point types (all in upper zone also); full grooved ax; pipe bowl reamer; stemmed and stemless knives. Also, hammerstone, scraper, celt and graphite are present, but as they are common to all ages these traits are not considered significant as diagnostic elements. In this zone appeared a large rubbing stone with chevron incisions on two opposing faces, as if they had been cut to cause greater abrasion - reminiscent of the modern file surface.

CERAMIC LITHIC TRAITS. The upper zone, in which is found evidence of pottery making contains certain diagnostic implement traits with a few that appear to be intrusive from lower levels due to displacement by disturbances (Fig. 8). The displaced exceptions are the knobbed poll gouge, ulu fragment and corner-removed point #9. Upper zone determinate types are: small
FIGURE 7. PRECERAMIC ZONE LITHIC TRAITS. 1, Full grooved ax; 2, Pipe bowl reamer; 3, Oval atlatl weight (bannerstone); 4, Chipped celt; 5, 6, Deep channeled gouge; 7, 8, Rubbing stone; 9, Steep edged scraper; 10, Stemmed knife; 11, Grooved sinker; 12, Stemless knife; 13, Eared #4 pt.; 14, 15, Corner-removed #9; 16, 17, Corner-removed #7; 18, Side-notched #2; 19, Ulu fragment; 20, Small triangular pt.

Borrowed Implements. An interesting feature of the evidence is the appearance of certain artifacts from the upper zone with "Early Archaic" affinities, either reworked or with signs of wear as a result of strange usage. A complete ulu was found at the junction (a part of the upper zone). Both of its ends are missing, but significantly are reworked to form symmetry (Fig. 9, #1). Another unusual recovery is a large plummet weighing nearly 3 lbs. and pecked into beautiful symmetrical proportions (Fig. 9, #2). This artifact appeared at a level four inches below the junction, but still well within the upper zone. A curious feature of this plummet is its roughened base, apparently mute evidence of its probable use as a pestle. Here are excellent examples of what appear to be instances of borrowed implements from an earlier culture by a later one, which appropriated them for new uses.

Pottery sherds from this zone are from large pots with thick ware, dentate decoration, straight necks, and mineral temper. This pottery evidently belongs to the first phase of the second ceramic period: "Intermediate."

Concerning comparison of quantitative evidence from the upper and lower zones, it should be noted that frequency of all artifacts is greater in the former. Probably, this represents a more concentrated occupation during the later years of the site's existence.
FIGURE 8. CERAMIC ZONE LITHIC TRAITS. 1, 2, Dentate pottery rimsherds; 3, 4, Cache knife blades; 5, Stemmed knife; 6, Dagger; 7, Shallow channeled gouge; 8, 9, Stemmed scraper; 10, 13, Isosceles triangular pts.; 11, 12, Small triangular; 14-16, Corner-removed #7; 17, Cerated spear; 18, 19, Small stemmed pts.; 20, Side-notched #1; 21, Side-notched #7; 22, Diamond; 23, 26, Side-notched #3; 24, 25, Side-notched #2; 27, Incised gorget.

CONCLUSION

Evidence as presented at the Swan Hold site seems to indicate an occupancy of the area by only a few small family groups in ancient times. People first began to use the site probably at a time long after the Pleistocene, during the first part of the "Early Archaic" when migrants were arriving from the north with certain Eskimo-like traits, such as the ulu and plummet. However, such Eskimo-like affinity should not be connected directly with the Eskimo culture that came into the Arctic at a much later date. It may more properly be ascribed to emergence from a similar Asiatic source as that of the Eskimo. In any event, when the site was first occupied it consisted for the most part of a long white sand terrace looking out over a slow flowing river, several miles inland from Buzzards Bay. Apparently, there was no big settlement concentration during this period that may have been attended by frequent heavy rains and resultant land erosion from the adjacent sand hill.

At a later date, new arrivals came in greater numbers and made more of an established camping place of the area. They brought with them the full grooved ax and the corner-removed #7 projectile point, traits that seem to typify in part this cultural age. However, there is ample evidence to indicate continued use of some of the earlier traits, such as the corner-removed #9 point, deep channeled gouge, grooved sinker and oval atlatl.
During this last period of occupation, frequency of artifacts increases. This may mean either a longer period of occupancy, or an increasing number of people using the site which seems more probable. Large trees are known to have grown in the area and their utilization for dugout canoe manufacture is entirely possible. Wide-spread evidence of charcoal deposits some of which are extensive, together with several broken gouge blades add strength to this belief. In concluding this report, it is only fair to say that the area excavated is not defined by natural limitations in two directions, nor is it determined because of some prominent natural asset such as a spring-fed drinking water supply. Therefore, it may be assumed that evidence from this site is only a sample of what might be expected at other points in the immediate region along the extensive sand terrace bordering South Meadow Brook.

Bronson Museum,
Attleboro, Mass.
The earliest information about local Indian land transactions was given by Edward Winslow in 1624 (Good News, Young ed., p. 361). "Every Sachim," he wrote, "knoweth how far the bounds and limits of his own country extendeth; and that which is his own proper inheritance. Out of that, if any of his men desire land to set their corn, he giveth them as much as they can use, and sets them their bounds... The great Sachims or Kings know their own bounds or limits of land, as well as the rest."

On Martha's Vineyard, a number of documents, particularly those in the Indian language, recorded with the county deeds, are not sales, but grants by Sachims allotting land to a subject, according to the custom reported by Winslow. The following is a typical one, issued by "Mr. Sam," the ancient Sachim of Sengekantucket (Oak Bluffs) in the last year of his life, 1689. This translation by Experience Mayhew was recorded with it in 1740.

"Know all yee People that I Wampamog Indian Sachim say these two women Ales Sessetom and Keziah Sessetom do own a part or parcell of land att Ogkashkuppe at the place called Quenaiamuk. It is the will of me Wampamog that the eldest called Ales Setum should have the breadth of twenty-five rods and that she that is called Keziah Setum should have the breadth of fifteen rods; both these to have the width now said at the pond (the Lagoon) and so upward as far as Daggets bounds. I Wampamog say this is firmly and of right theirs because I have divided this quantity of land to them even to Ales and Keziah Setum the daughters of Thomas Setum. It is theirs I say and all their offspring forever or if they fale, to goe to their kindred. May they in peace enjoy this land forever. For I will never alter this nor shall any that defend my Sachimship do this, but let these peaceably enjoy the same land, even Ales and Keziah."

That scions of the ruling class were entitled to their portion of land, even when their patrimony had been turned over to the English, appears from the following court decision of Governor Thomas Mayhew at Nantucket on June 5, 1677. The record is in the handwriting of Matthew Mayhew, who liked to stress the fact that all Sachims were by birth nobles, although not necessarily ruling Sachims or Kings.

"Ahkeiamau laying claim to part of Tuckanuckett, his claim thereto being found no other but as he was a Duke or Principall Man uppon Nantucket, the Nantucket Sachims together with his father having sold Tuckanuckett, it is ordered, that Ahkeiamau shall have such a part and portion of land for his use at Nantucket of the present Sachims, as will become one of such qualitie, with a portion of a whale; and likewise his brethren and sisters are not to be denied a planting right there."

The "portion of whale" indicates that "Duke" Ahkeiamau was the son of a chief, as all drift whales were exclusively the property of the ruling Sachims.

It is to be noted that the over-lord Sachims, or Kings, of Nantucket, had rights in the small island owned by Ahkeiamau's father, which required them to be parties to the sale of this dependency. When we meet the familiar formula, "We, Nickanoose of Nantucket, Sachim, and Nanahuma of Nantucket, Sachim, have sold..." it is reasonably certain that the second named was the actual owner of the land granted, and that the great chief, Nickanoose, enters the transaction only by way of giving his consent.

H. B. Worth, in his "Nantucket Lands and Land Owners," (Nantucket Historical Association, 1902, page 116), remarks that both Nickanoose and Wanackmamack, the two great chiefs of the island, "signed deeds only of territory belonging to some other Sachim," never a deed to any portion of territory under their direct control; but he does not explain the anomaly. Inherent in the monarchical system prevailing both among the Indians, and also in England at the time, was the concept that the soil belonged ultimately to the crown. No manor in England, derived from the King, might be sold, except after the owner had obtained a "licence to alienate" from the King's ministers. So likewise, no minor Sachim might alienate land to the English without the consent of his superior.

Because the Indians held this doctrine that land tenure was ultimately derived from the crown, when Massoit and his confederate chiefs in 1621 acknowledged the sovereignty of King James, to obtain his aid against the Narragansets, they were knowingly subjecting themselves to his over-lordship of their lands. Robert Cushman (in Mourt's Relation, 1621, Young's ed., p. 244) expresses this quite clearly.

"The emperor (Massoit), by a joint consent, hath promised and appointed us to live at peace where we will in all his dominions, taking what place we will, and as much land as we will, and bringing as many people as we will; and that for these two causes. First, because we are the servants of James, King of England, whose the land (as he confesseth) is. Secondly, because he hath found us just, honest, kind and peaceable, and so loves our company. Yes, and that in these things there is no dissimulation on his part... is most plain in other Relations..." Thus it appears that the Pokoknetks, by their own action, were bound to recognize the validity of a Patent, issued under the authority of the King of England, granting white men the right to settle within their territory. Without doubt, Massoit conceived the Governor of the Plymouth colony to be a white Sachim, with powers over his settlers equivalent to his own over his nation. But just what areas, outside of the deserted Patuxet, were to be granted to these newcomers, was a problem of the future which Massasoit could hardly have sensed.
On Martha’s Vineyard, which the Mayhews occupied in 1642 under the King’s Charter of the Province of Maine, there is no doubt that the elder Mayhew was received as a great white Sachim. In his township grant of 1646, Mayhew reports that he had bought the “right” of Towantaticut, Sagamore of the Edgartown region, and others, which gave him this township, taking in the whole eastern end of the island. There are no written deeds of these acquisitions extant, but the remarkable fact to be noted from the records of the following generation, is that this “purchase” did not interfere in the slightest with the exercise of the Indian Sachims’ authority over their people in the area. The “right” which Mayhew acquired was merely the right to apportion house lots among his proprietors, even as the Indian Sachims, within the same territory, continued to allot land to their subjects as the need arose. Each new tract taken over by the Mayhews for subdivision, was a new purchase, for which payment was made. In other words, the original purchase of the Indian “rights” was obviously not a purchase of the soil, but a payment made to secure the recognition of Mayhew as a Sachim, co-equal with the Indian Sachims, each ruling over his own people. The chiefs retained the right to grant land for the white men for dwellings or planting fields, within Mayhew’s township.

Another document, recorded in New York by Gov. Mayhew (N. Y. Deeds, III, 66-67), because it constituted from the English point of view his original title to the town now called Chilmark, illustrates these same points.

“May 10, 1665. This writing doth witness that I Wassuton and I Nittuane did sell unto Thomas Mayhew the Younger a tract of land for him the said Thomas Mayhew his heirs and assigns to enjoy forever; the which sale was made and the goods paid unto us for the same to the value of fifteen pounds, and the tract of land delivered into the possession of the said Thomas Mayhew in the year of our Lord God 1653, that always half of them (sic) and half the whale was also sold unto the said Thomas Mayhew, being part of the purchase aforesaid. This we sold and delivered to the clear knowledge of many Indians, as Mickso, Ganawamett, Mr. John Kequissien, and many others. And this writing I do now give under my hand, because the first writing cannot at present be found. This was sold with the approbation of Ussamequin (Massasoit).” (There follows a description of the bounds.)

Again it will be seen that, from the Indian’s point of view, this was a fifty-fifty sharing of a Sachimship. The Mayhews for the first generation or two took land for home lots only; and Wassutan continued his sway over the rest of the tract, until a son succeeded him as Sachim. It will also be noted in this early transaction, that the Great Chief of the Pokonokets, Massasoit, was called on to give his approval of the admission of a white chief to land rights and the half of every whale that came ashore.

The happy accord between the Mayhews and the Sachims, under which the Sachims retained the right to grant portions of their Sachimships to white men and to their own people, lasted until about 1700. By that time, however, the entire Indian population had become either active or nominal Christians, and in government had gradually submitted to the kindly paternalism of the Mayhews. The Indians, furthermore, had been transformed into farm workers and fishermen, changing completely their way of life. Shortly thereafter, the Sachimships as such ceased to exist, or rather, became townships, dominated and controlled by white men. The transition to the days when the white men were to tell the Indians where they might live, under guardians appointed by the provincial governor, came so gradually, and so without friction on the island, that the Vineyard had no share in the crisis called King Philip’s War on the mainland.

It has often been said that the Indian did not know what he was doing, when he “sold” land to white men, hence resented being held to his bargain. The misunderstanding can be more sharply defined. The “sale” in the Indian’s mind meant the admission of the white man to a Sachim’s rights within the area specified. His pledge of this would be faithfully observed. It did not occur to the Indian, however, that the white man would demand exclusive possession of the whole area, most of which he could not put to use. Having made the white man co-equal with himself, because that was the will of the Sachim of Sachims, the King of England, the Indian could not understand why the white man denied that co-equality, expecting the Sachim and his people to surrender all of their inherited rights, and to withdraw from their land. Basically, such difficulties as arose were due to the failure of the English on the mainland to understand the age-old land customs of the Indians. The Mayhews on the Vineyard nowhere, at any time, dispossessed a Sachim from his inheritance.

It should be understood, of course, that the signing and recording of “deeds” or grants by the Sachims was an innovation learned from the white settlers. On the other hand, it is equally clear that the Sachim’s prerogative of setting apart areas and parcels for his subjects long antedated the coming of the white men. This is obvious not only from Winslow’s observation of the custom in 1624, but from the quite adequate vocabulary the Indians had for the purpose of laying out a plot on the ground, using natural bounds. Among these words are, chippinum, he sets (it) apart, with a derivative, chadchabenumonk, a bound mark; kuhkham, he marks (it) out, sets bounds or limits, with a derivative, kuhkhumhunk, a boundary; ne kishkag, the breadth or extent (of land); wonkonous, a fence. Trees, rocks, springs and brooks frequently appear in the written deeds as boundary points, and doubtless served the same purpose when a Sachim indicated the bounds on the ground, to be remembered, as the deeds say, Micheme, - forever.
CULTURE GROWTH AND CHANGE IN EASTERN MASSACHUSETTS

Ripley P. Bullen

Culture, or at least the material manifestation of culture, changes gradually over the years by the addition and subtraction of various traits. To the archaeologist such changes may be the introduction of a new tool, a difference in types of projectile points, or a minor variation in decoration of pottery.

Under aboriginal conditions these changes usually occur gradually. It takes time for everyone to adopt the new and to give up the old. Consequently, both the old and the new are apt to overlap for a period of time. Sometimes, however, changes in culture may occur rather rapidly as, for example, when metal trade axes replace stone axes.

The rate of change, or the number of new traits acquired over a period of time, may vary considerably. When a relatively large number of new traits are acquired rather rapidly we suspect the indigenous culture to be subjected to pressure by or influences from a stronger culture. A much more gradual rate of change would seem to indicate a period of relative culture stability during which the processes of local invention, stimulus diffusion, and borrowing from neighboring groups are at work.

To illustrate culture growth and change, I have prepared the accompanying chart, which gives my ideas regarding certain changes in the material culture of the Indians of eastern Massachusetts. This chart has been prepared entirely from published sources, many of which will be found in the BULLETIN OF THE MASSACHUSETTS ARCHAEOLOGICAL SOCIETY. Other references are included in the bibliography.

Typology used on the chart differs somewhat from that in use at present by the Massachusetts Archaeological Society. Those interested in these differences are referred to type descriptions in "Culture Dynamics in Eastern Massachusetts" printed in AMERICAN ANTIQUITY, Vol. 14, No. 1. (I have reprints and would be glad to send one, as long as they last, to any member of the Society who will send me a three cent stamp.)

On the chart, time starts at the bottom and progresses upward. So as to save space, vertical distances are not equal in years. Except in the case of steatite bowls, the relative width of a rectangle has nothing to do with relative quantities at any period of time. Relative locations of the tops and bottoms of rectangles, indicating when a trait is first found and then no longer found, while arbitrary are based on associations in the ground. "Vertical arrows" over "pestles," "celts," and "clay pipes" indicate that, after their introduction, these artifacts are found up to and into the historic period. Undoubtedly, their typology changed during the years. No doubt grooved axes, gouges, and, probably, ulus were made and used over a longer period of time than is implied.

For ceramic period correlations, suggested on the left of the chart, I have followed Ritchie. The dates given are my interpretation and extension of published Carbon-14 dates. No doubt many people will disagree violently with me on some or all of these dates.

No attempt has been made to include all artifacts or to formalize archaeological periods on the chart. Rather the idea has been to present a series of traits, each of which has some chronological value and the progression of which seems to give an impression of how culture changes.

It is hoped the chart will be self-explanatory. Temporal overlapping of many traits is to be noted. Examination of suggested dates will indicate a much more rapid rate of change in later than in earlier times. Both agree with what we know of culture. Many of us have experienced similar processes during our own lifetime.

The most rapid rate of change would appear to be shortly after the introduction of pottery, circa 200 A.D. I would interpret this as the impinging upon the local culture of influences originating with the early burial mound builders of the Mississippi River drainage. These waves of new influences were probably borne by new arrivals into the area and may mark the introduction of agriculture. After a time, a consolidation seems to have occurred with a reemergence of the old, albeit substantially modified, culture.

Further examination of the chart will disclose a succession of traits in what may appear to be a bewildering array. In a peripheral area, such as eastern Massachusetts, it would be expected that the old and the new would intermingle as in our rural areas today. The surprising thing is that so many influences did reach eastern Massachusetts after covering hundreds of miles.

The result is a complicated picture of culture change, one which makes it difficult to set up arbitrary time-culture periods. This is unfortunate for those who like things nicely ordered into air-tight compartments. Such an oversimplification may be very helpful and useful as a tool but not entirely realistic. Culture growth and change is a complicated process.

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CULTURE GROWTH AND CHANGE IN EASTERN MASSACHUSETTS

PROJECTILE POINTS

1630 A.D. 
IROQUOIAN INFLUENCED

Owasco INFLUENCED

MIDDLE CERAMIC

POINT PENINSULA INFLUENCED

EARLY POINT PENINSULA INF. circa 200 A.D.

VERY LATE ARCHAIC circa 1200 B.C.

LATE ARCHAIC

MIDDLE ARCHAIC circa 3000 B.C.

EARLY ARCHAIC

PALAEO-INDIAN ???

POTTERY

CLAY PIPES

CELTS

PESTLES

GROOVED AX GOUZE

BOW & ARROW ?

SPEAR THROWER ?

ULU
SUMMARY OF A CULTURAL AREA - LONG ISLAND, NEW YORK

This report has a twofold objective. The first objective is to provide a brief summary of Long Island archaeology for those not primarily interested in this section, but who desire some general knowledge of the pre-history of an adjacent area, if for no other purpose than for comparison with the area of their particular interest. The second objective is to point out the existence of an area in which a good start has been made in a chronological sequence of cultures, and to suggest the possibility of extended investigation of this area.

Long Island is an ideal place in several ways for prehistoric observations. The Island may be treated as a geographic unit. Of course it is not isolated, but it is bounded by nature and so offers a unit package for study. In addition, nature has supplied an easily obtainable food supply - from the salt marshes on the south shore, from the bays on the easterly end of the island, and from the Sound on the north shore. The land is suited to agriculture almost anywhere on the island, and historical writings, supported by archaeological finds, indicate an abundance of animal life. These factors of a plentiful food supply led to a fairly heavy concentration of Indian habitation. From an archaeological standpoint, pottery, generally associated with agriculture, has provided a perfect assist for cultural classification.

Long Island is 20 miles wide at its widest point and 120 miles long, running from west to east-north-east. The west end of the Island adjacent to Manhattan is fairly completely urbanized as far east as Hempstead. The east end is largely natural and unspoiled except for summer homes and beaches. There are undoubtedly many untouched campsites in this area. The south shore has many village sites on the necks of land protruding into the South Bay. The north shore was equally well populated on the hills and cliffs overlooking Long Island Sound.

The accompanying map shows the general division of the Island at the time of the first European contact into thirteen ethnic groups. The north-south line at the Nissequogue River shows a division of culture to be detailed later.

Carlyle Shreeve Smith, in his paper "The Archaeology of Coastal New York," has made a start in the cultural classification for Long Island. The above chart taken exactly from his paper is based on a study of 40 sites from Long Island, the New York mainland, Staten Island, Manhattan Island, and the Connecticut coast. Pottery traits form the real backbone for the classification. Every site I've investigated on Long Island has contained large quantities of clay potsherds, and judging from Smith's trait tables, he has had a similar experience. As may be noted from the chart, the classification follows the general pattern as used by Ritchie for central New York State. For example, the broadest cultural entities are called "Aspects," such as the "Windsor Aspect." Aspects are divided into sub-groups called "foci" which are generally considered of the same genetic origin, but show enough cultural difference to be separated. The difference between one focus and the next is considered to be due to a lapse of time. Components are sites illustrative of the focus to which they belong.

The dates shown are given mainly to indicate relative time sequence. The comparison with Central New York
### Cultural Sequence - Chart

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Central New York</th>
<th>Southeastern New York</th>
<th>Connecticut and Eastern Long Island</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historic</td>
<td>1700</td>
<td>Massapeag</td>
<td>Niantic</td>
</tr>
<tr>
<td></td>
<td>1600</td>
<td>Classes Point Focus</td>
<td>Focus</td>
</tr>
<tr>
<td>Late Prehistoric</td>
<td>1400</td>
<td>Castle Creek Focus</td>
<td>Sebonac</td>
</tr>
<tr>
<td></td>
<td>1100</td>
<td>Canadaguia Focus</td>
<td>Focus</td>
</tr>
<tr>
<td>Intermediate</td>
<td>700</td>
<td>Clearview</td>
<td>Clearview Focus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>East River Aspect</td>
<td>Focus</td>
</tr>
<tr>
<td>Archaic</td>
<td></td>
<td>700</td>
<td>North-Beach Focus</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Orient Focus - North-Beach-like Focus</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre-Ceramic Horizon</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lamoka Focus</td>
</tr>
</tbody>
</table>
The oldest culture in the area, Smith calls “Pre-Ceramic Horizon” and dates prior to 700 A.D. It compares in time with Ritchie’s Laurentian Aspect, Lamoka Focus. Recent Carbon 14, dating in Central New York, indicates age of 5000 years for this Focus. Only one site from western Long Island has the Pre-Ceramic Horizon as its lower stratigraphic component (College Point). Sites that I have dug or visited in the central portion of the Island do not show a Pre-Ceramic stratum.

The man-made remains, next most recent in deposition, are of the Windsor Aspect, either a development from the Preceramic or an intrusive culture - it seems to be Delaware, Algonquin. This aspect continues to the historic period except on the western end of Long Island, where the East River Aspect represents an intrusion from the Wappinger Federation from the New York - Connecticut mainland, and on the extreme easterly end of the Island, where three sites represent a Pequot intrusion called the Shantok Aspect. The north-south line at the Nissequogue River, already mentioned, shows the approximate division between the older Windsor Aspect and the newer East River Aspect. The East River Aspect on the western end of the Island overlies the Windsor and is not present east of the Nissequogue River.

The brief summary of C. S. Smith’s work on Long Island archaeology above may be supplemented to some extent by “pot hunting” observations of my own, made while in my later “teens” from 1935-1939. Two sites in particular, which I dug, were of some interest. One, at Northport (1), is just within the geographic bounds of the East River Aspect. I have sixteen potsherds from this site, fourteen from one pot, including rim pieces. Also from this site, I have several bone awls, bone arrowheads, a paint stone and paint mortar, spearhead, and problematical fragments. From this meager assortment, classification within Smith’s Sequence is rather difficult; but I would say the site is definitely Windsor Aspect, and probably Sebonac focus.

Another site (2) of interest is located at Deep Pond, Boy Scouts of America, Nassau County Council summer camp. This site is in the heart of the Scrub Oak and Pine country. The surrounding terrain, a few hundred yards from the pond, is about as unlikely a spot as could be imagined for habitation by anyone. The pond and immediately adjacent, luxurious forest growth strikes one as an oasis in the center of a desert. The site is located on the opposite side of the pond from the main Boy Scout camp, and after heavy spring rains the water actually encroaches on the lower limits of the site. The site has been pot hunted for many years with extremely gratifying results for many individuals. My own finds are few - an unusual gray, porphyritic arrow or spearhead, several quartz points, the stem section of a clay pipe, and a few minute pottery fragments. I’ve seen two finely polished celts and a rim piece from a soapstone pot from this site. Reports of many grooved axes and other interesting finds from the site might be checked through Scouting sources for a typology of this site. The site was probably Windsor Aspect, Niantic focus, although the site may have been stratified. The two other sites on the map are Bayside (3) on the North Shore, and Wantagh (4) on the South Shore. Both sites were relatively shallow and probably belong to the East River Aspect, although one potsherd from Bayside is thick, cord wrapped, and may indicate more remote ware.

John E. Wilson is, or was, an Archaeologist for the State of New York doing reconnaissance work on Long Island around 1936. His sites (triangles), finds, and conclusions might add considerably to the understanding of Long Island archaeology.

There are a few points of interest which bear separate mention. One is the manufacture of wampum - the Indian money. Long Island was the headquarters for this work, and the Long Island product was greatly in demand and extensively traded. The Indian name of Long Island, Metosac, meant Isle of Shells, and the Dutch name, Sewanacky, was equivalent in meaning. The odd part about wampum is the lack of finished beads found at campsites. I have several periwinkle shells cut, and a start made on perforation, but no finished wampum.

Another interesting point is the shell heaps on Long Island. Probably Long Island contains some of the largest heaps anywhere on the Eastern Seaboard. To me, middens with shell refuse are not the same as “shell heaps.” The term “shell heaps” is reserved for those compact piles almost exclusively shell with very little soil and with very seldom any artifacts. Such a heap, at Freeport, L. I., was roughly 100 yards long, 10 feet wide, and 8 to 10 feet deep, located on a salt creek emptying into the South Bay. I’ve noted similar heaps at Wantagh.

Long Island, as I’ve stated, made an ideal habitation site. However, it would seem that for winter living the Indians would have retired to the sheltered north hills and lived on the south shore only in the summer. This may have been true until more recent times when the Indian population grew too heavy to allow this. Certainly, the fairly recent campsite at Massapequa was a year-round village.

Smith’s sites and the addition to his of Wilson’s and my own have by no means included all the sites known on the Island. Many sites, particularly on the western end, have been buried under the City. I have extracts from early writers giving site locations throughout the present Kings and Queens Counties. There are still many sites to be recorded and probably still many to be discovered. It is hoped that some stratified sites will come to light to fill in the gaps and to substantiate Smith’s cultural sequence.
SUMMARY OF A CULTURAL AREA - LONG ISLAND, NEW YORK

- Sites of Carlyle Shreve Smith
- Sites of John E. Wilson
- Sites of W.A. Vossberg
The map made recently, east coast of Long Island, New York, showing the disposition of the streams that flow into the ocean, is a valuable outline of the geographical features of the region. The names of the streams and the surrounding towns are indicated, and the position of the important cities are shown.

There is no doubt that Long Island is the easternmost of the New York Islands, and that it is the southernmost of the New England Islands. The island is bounded on the north by the Long Island Sound, on the east by the Atlantic Ocean, on the south by the New York Bay, and on the west by the Raritan Bay.

The island is divided into three main sections: the north, the west, and the east. The north section is the most densely populated, and contains the largest cities. The west section is the least populated, and contains the smallest cities. The east section is the most scenic, and contains the most beautiful beaches.

There are several interesting points to be visited on Long Island. The first is the Long Island Sound, a large inlet of the Atlantic Ocean, which is a favorite resort for summer visitors. The second is the Long Island Race Track, a famous thoroughbred horse racing track. The third is the Montauk Point Light, a lighthouse that has been in operation since 1853.

Erie Island, on the east coast, makes an ideal sailing area. However, it is not advisable for inexperienced sailors, as the waters are dangerous and the winds are often strong. The island is also not advisable for picnicking, as the beaches are not suitable for swimming.

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Another site of interest is located at West Point, near the border of America. The West Point Cadet Chapel is an old camp. This site is at the heart of the West Point cadet academy. The surrounding land is a low, flat, and treeless area, and is a popular hiking and camping ground.

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March 31, 1921