Locus Q-6, Site M52/65, Quidnet, Nantucket, Massachusetts.

By Elizabeth A. Little.

Massachusetts Archaeological Society Bulletin 45(1):24-41 (1983).

****

LOCUS Q-6, SITE M 52/65, QUIDNET, NANTUCKET, MASSACHUSETTS

Elizabeth A. Little

Locus Q-6, excavated in 1976 and 1977 by the Nantucket Historical Association, is a small portion of a large Woodland site, M52/65, which has been extensively excavated by Nantucket collectors. Locus Q-6 included part of a structure defined by an arc of post molds and part of an adjacent shell midden. Two radiocarbon dates have been obtained for the site. Because the M52/65 site has potential for helping to define coastal Woodland occupations in southeastern Massachusetts, we report our preliminary findings.

The Island of Nantucket is fortunate in the number and size of sites of prehistoric occupations (Little 1979), as well as in the number of archaeologists who have excavated parts of these sites and reported their findings (Little 1980). However, most prehistoric sites on Nantucket consist of many components, dating from ca. 11,000 to ca. 350 years ago on stylistic evidence, vertically intermixed in a thin layer of soil. A number of multi-component sites which may have had some stratification have been excavated without records.

The resulting variety of projectile points, for the most part untyped, in private collections has contributed little to our knowledge of how and when prehistoric man lived on the island.

I report here on the details of a small controlled excavation at Locus Q-6 of the site M52/65. In addition, 732 catalogued artifacts in a private collection, representing a large sample of what has been excavated from other loci of M52/65, were available for examination. These complementary studies allow some conclusions to be drawn about the occupants of site M52/65 and the Woodland Period on Nantucket.

The excavation of Locus Q-6 was carried out for the Nantucket Historical Association by Paul C. Morris, Jr., with Barbara Kranichfeld as 1976 field director and Cynthia Young and Elizabeth A.Little as field directors in 1977. Young and Little supervised the laboratory work and produced a prelininary report on the archaeological findings (Little 1977). After completion of a survey of island collectors (Little 1979), and with the advice of Dena F. Dincauze, I have revised the 1977 report, especially with respect to the temporal and spatial context of Locus Q-6 and its significance.

THE LOCATION AND ENVIRONMENT OF M52/65

Quidnet is located at the east side of Nantucket Island, adjacent to the rich cod-fishing waters of the Atlantic Ocean (Figure 2). However, site M52/65 is an interior site overlooking a small fresh water pond, about 0.8 km from the open ocean on the east and about 2.4 km from the shellfish habitat at Polpis on the west. About 0.3 km to the east of the site is the large fresh-to-brackish Sesachacha Pond, which is occasionally open to the ocean, and is today the only place on the eastern shore of Nantucket which produces oysters (Zube and Carlozzi 1967). With a history of shore-line erosion, the east side of Nantucket may have once had additional oyster habitats. However, the dominating presence of oyster shells in the midden at Locus Q-6, coupled with reports of other large Woodland sites having oyster shell middens around the shores of Sesachacha Pond (Little 1979) and inland as far as 0.6 km from the pond (Bullen and Brooks 1949), suggests that M52/65 was one of a number of Woodland settlements associated with the oyster habitat of Sesachacha Pond.

A close view of the environment of M52/65 (Figure 3) shows that the "Bonanza" Site, as it is called by Nantucket collectors, lies in a shallow depression in the hilly north-

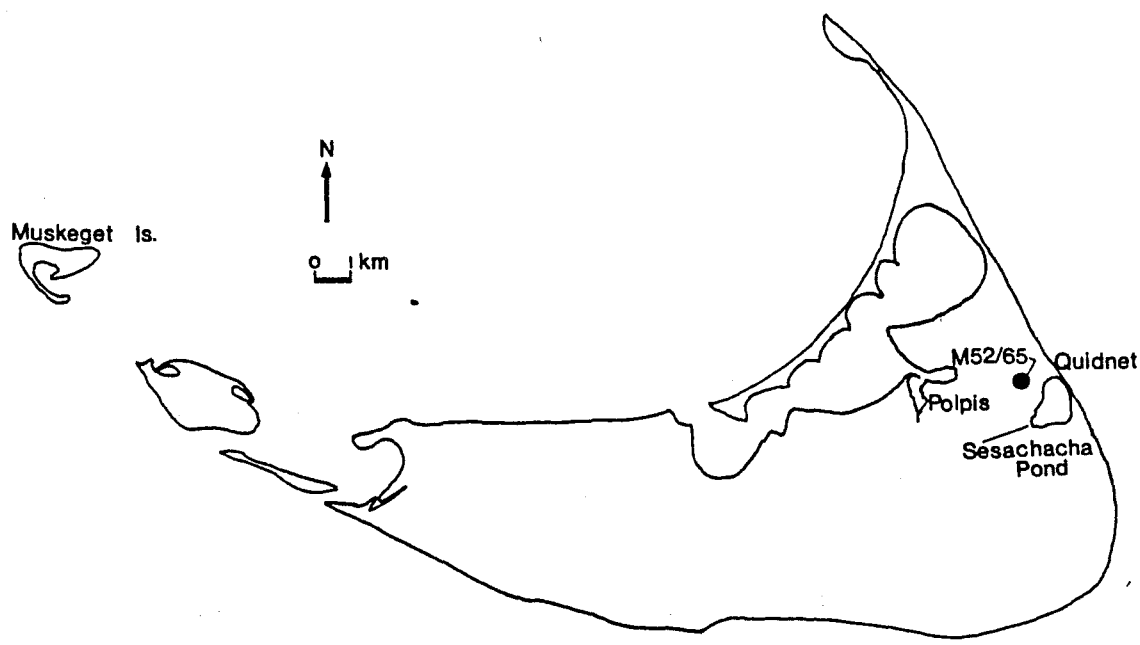

Figure 2. Map of Nantucket Island, showing location of Site M53/65.

eastern part of the island, once covered by late Wisconsinan ice (Oldale 1982:16). Although occasional boulders (diameter 0.5-1.0 m) were encountered below the ground surface of Locus Q-5, the surficial glacial deposits found below the humus layer of Locus Q-6 consist of water-sorted sand and pebbles (diameter 0.5-1.0 cm) (David Folger, USGS, Woods Hole, comments at the site 1976).

At the lowest part of the depression, a sedge (*Scirpus cyperinus* ?) covered area, surrounded by tall shrubs (mostly *Ilex verticillata*), was dry for the summers of 1974-1977, and a test boring in August 1977 showed the water table to be at 67 cm below ground surface. However, the shrubs show a coating of scum for about 0.5 m above the ground, and off-season visits to the site proved that there was in fact a seasonal pond here, about 0.15 m deep in December in 1976, and about 0.3 m deep in March of 1977.

The seasonality of the pond at M52/65 suggests occupation only between late fall and spring. Protected from the prevailing northwest winter winds by hills to the north and northwest, the site is today noticeably warmer and less windy in December than the nearby tops of hills. Additional evidence that M53/65 was used during the winter and spring is provided by the presence of teeth from gray seals in the Q-6 midden. According to Andrews (Andrews and Mott 1967; Andrews, personal communication), gray seals can be obtained most easily by clubbing on beaches during the winter and early spring, when they haul out for pupping or moulting. Gray seals today frequent Muskeget Island (Figure 2), and may have been found off the eastern shores of Nantucket in prehistoric times.

Since there are many protected sites of a similar age to M53/65 in the Quidnet region with year-round water, the use of a marginal site such as M52/65 suggests a large population density.

Before leaving the subject of the pond, I would like to note that there is a very slight suggestion in the artifact spatial distribution that later occupations tended to be closer to the present pond edge than did earlier occupations. Therefore, in reconstructing the environmental history of this pond, one would look for evidence that in the past the pond had a higher water table than it does today

THE EXCAVATION OF LOCUS Q-6

Complete details of the excavation of Locus Q-6 have been published (Little 1983), and only the highlights will be included in this report. The excavation of Locus Q-6 was carried out in 1976 and 1977 in undisturbed ground adjacent to a group of previously excavated loci, Q-5, and N1-1 through N1-10 (Figure 3).

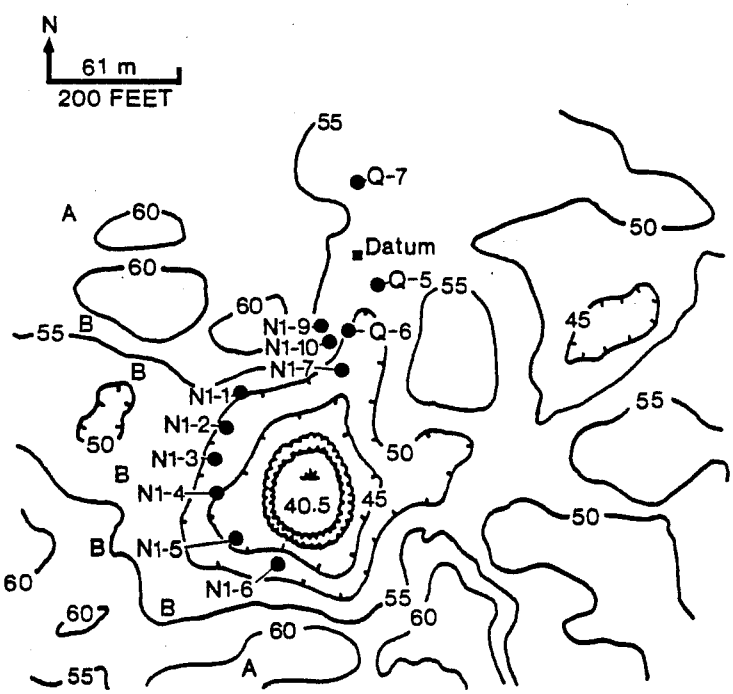

Figure 3. Topography of Site M53/65, based on Map Sheet #21 (Schofield Brothers, Inc, 1976). Elevations are in feet (0.305 m) above half tide. Q-5, Q-6, Q-7, N1-1. N1-2, N1-3, N1-4, N1-5, N1-6, N1-7, and N1-9 are loci which collectively constitute site M52/65, as reported by Paul C. Morris, Jr., and the 1978 site survey (Little 1979). A, gives the location of new houses, and B, of a new driveway, where earth moving operations in 1978-1979 revealed no signs of prehistoric sites. Datum is a concrete post marking the northwest corner of the property of Paul C. Morris, Jr.

A base line running north and south (magnetic) was laid out and a grid of two-meter squares was staked. Each square was identified by its southwest stake, which was labeled with its coordinates, in meters and direction, from the stake EONO. The stake EONO was 10 meters east and 16 meters south (magnetic) from the concrete bound labeled "datum" (Figure 3) which marks the northwest corner of the Morris property. Locus Q-6 consisted of the 10 contiguous squares shown in Figure 4, which also gives the elevations of the corners of the squares as measured from ground level at W22S26. Ground level at W22S26 is 69 cm below the top of a buried boulder at ground level in W10S2. The top of this boulder is approximately 16 meters above half tide (Schofield Brothers 1976).

Tools used for excavations included trowels, paint and dust brushes, 1/4 inch (0.635 cm) mesh screens, dust pans and buckets, line levels, meter sticks, and a two-meter stick marked in centimeters. Since no natural levels were discernible in the material above the sandy subsoil, excavation proceeded in 10 cm levels, in 14 cm levels, or in 20 cm levels, under various field directors. Three coordinates were taken for each artifact *in situ*, and records were kept on artifact cards as well as in field notes. The numbered artifacts, field notes, detailed summaries, and faunal and soil samples are stored and available for study at the Nantucket Historical Association's archaeology department at Nantucket.

Vegetation present at the site at the start of excavation was: milkweed, grape, bayberry, beach plum, viburnum (arrow wood), wild rose, blackberry, scrub oak, red cedar (23 cm tall), sumac, cherry, pokeweed, choke cherry, golden rod, and poison ivy. Traces of ancient trees or plowing were not observed.

The soil at Locus Q-6 generally consisted of 20 to 40 cm of dark brown-gray sandy, silty humus, underlain by a yellow-orange sand with a scatter of water-washed pebbles. These levels are described as "dark soil" and "yellow sand" in field notes and drawings. The top 5 cm of the yellow-orange sand showed dark mottling. At the north (Figure 5), a shell midden with whole oyster shells formed a layer from 0 to 17 cm thick directly on the yellow sand layer. Above the layer of whole shells, a layer of dark soil containing shell fragments ("shell bits") and other occupational debris covered the whole-shell midden and extended downhill to cover the yellow sandy subsoil in all but the three squares at the extreme southeast (Figure 5).

FEATURES

Figure 5 shows the locations and horizontal dimensions of the tops of eight pits identified at Q-6. These pits ranged from 30 to 100 cm in diameter and were basin-shaped, conical, or oval with depths from 5 to 73 cm, as shown in Table 3. With the exception of Pit A, which was first noted in the middle of the layer of dark soil and shell bits, pits were detected only at the top of the yellow sand from which they extended down as much as 45 cm. They were filled with dark, greasy soil, and dark silty sand, and occasionally contained small fragments of charcoal, burned bone, burned stones flakes, shell, and pottery fragments. All of the pits were located in the five southeastern squares, with the exception of Pit C in the shell midden.

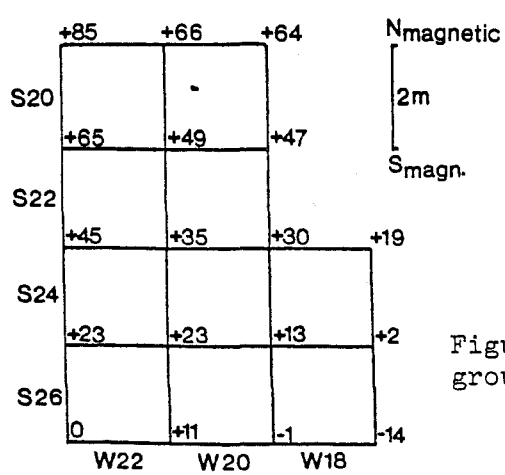

Figure 4. Elevations at Q-6, in centimeters from ground level at S26W22.

TABLE 3. PITS AT LOCUS Q-6

PIT	LOCATION	DEPTH(CM) Top-bottom	DIAMETER TOP(CM)	SHAPE AND FILL
A.	W18S24	12-85	100	Large basin of dark soil, containing intrusion with shell, bone, flakes.
B.	W22S26	20-65	75	Deep, conical, with dark soil, bone, shell, flakes.
C.	W20S20	30-35	60	Shallow, oval, in midden.
D.	W18S24	26-46	30	Shallow, oval, dark soil with shell.
E.	W22S26	25-30	15 X 84	Shallow, long, dark soil.
F.	W18S26	20-25	75	Shallow, oval, dark soil.
G.	W20S26	26-31	40	Shallow, oval, dark soil.
H.	W20S26	28-36	35	Shallow, oval, dark soil.

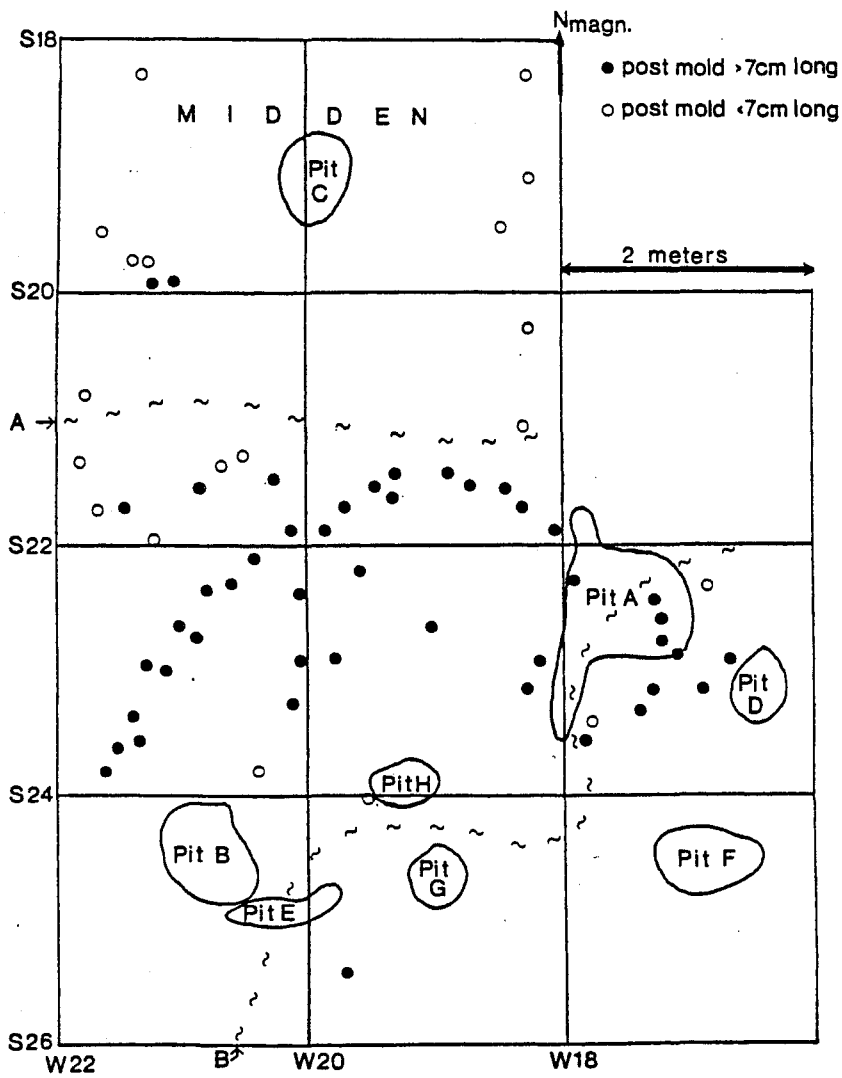

Figure 5. Horizontal map of features at Locus Q-6, showing pits, shell midden, and post molds, as well as the approximate southern boundary of the whole shell midden, A, and the approximate southeastern boundary of shell bits in dark soil layer, B.

Sixty-six post molds were identified (Figure 5), of which 22, sometimes paired, described a 4.75 meter arc between W22S24 and W18S22. This arc suggests the outline of a structure or structures, but because of probable overlapping, does not quite define either a shape or dimensions. However, the north and northwest walls of a structure are defined by this arc of post molds, and the interior of the structure would have included Pits B, E, G and H.

The post molds, 7-10 cm in diameter and usually tapering to points, penetrated the yellow sandy subsoil as much as 35 cm, and were in most cases filled with the broken shell and dark soil of the top layer. In the most southeasterly squares, where there was no broken shell in the top layer, it was very difficult to identify post molds. The molds could not be traced in the layer of dark soil and shell bits: the excavators never found any evidence that

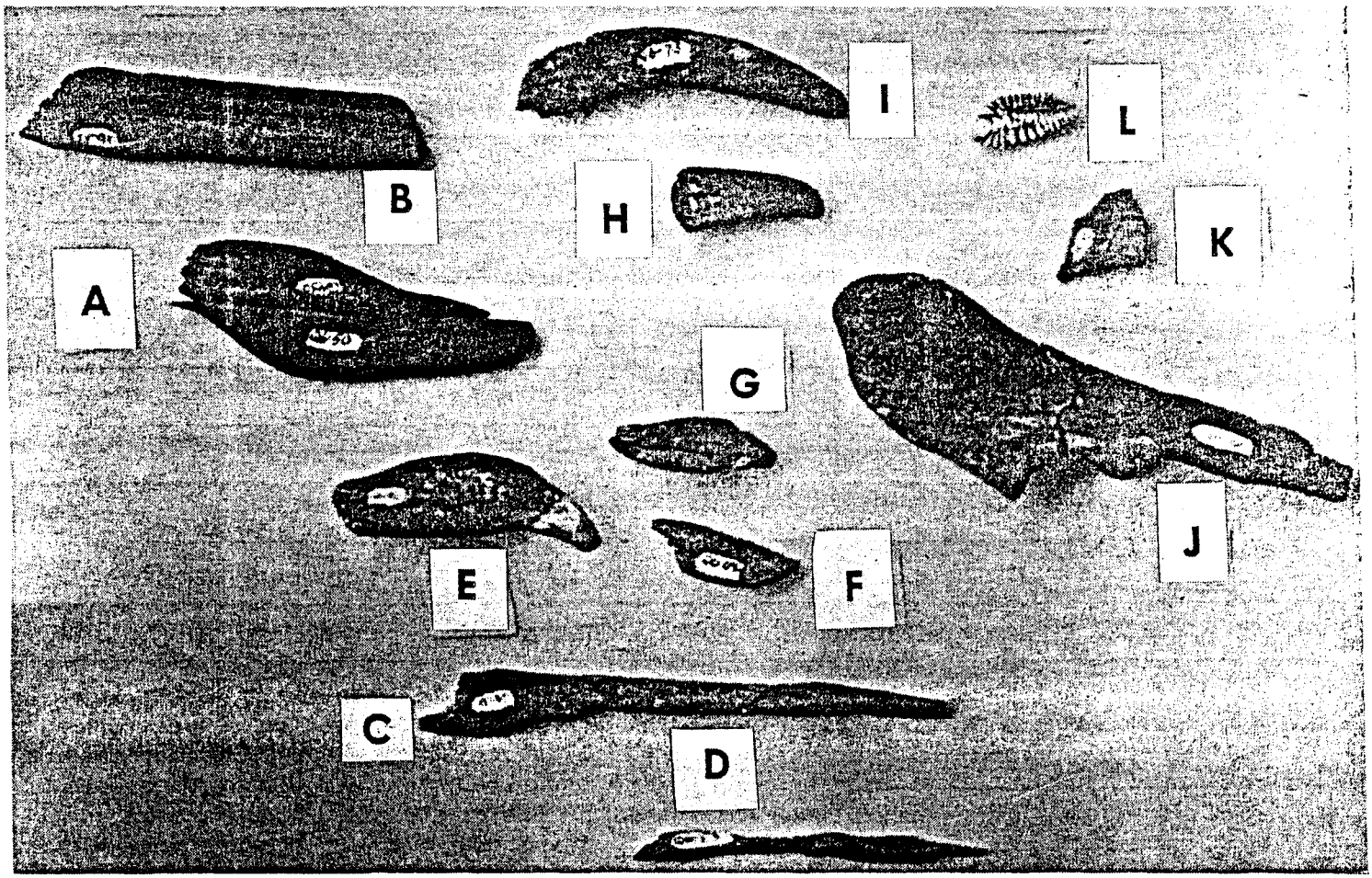

Figure 6. Q-6 organic artifacts and other items, with comments by Dena F. Dincauze, 1977. Deer bone, not worked: A, B; deer bone awl: C,D; tooth: E, F, G; antler tips: H, I; worked bone?: J; fragment of turtle carapace: K; codfish ear-bone: L.

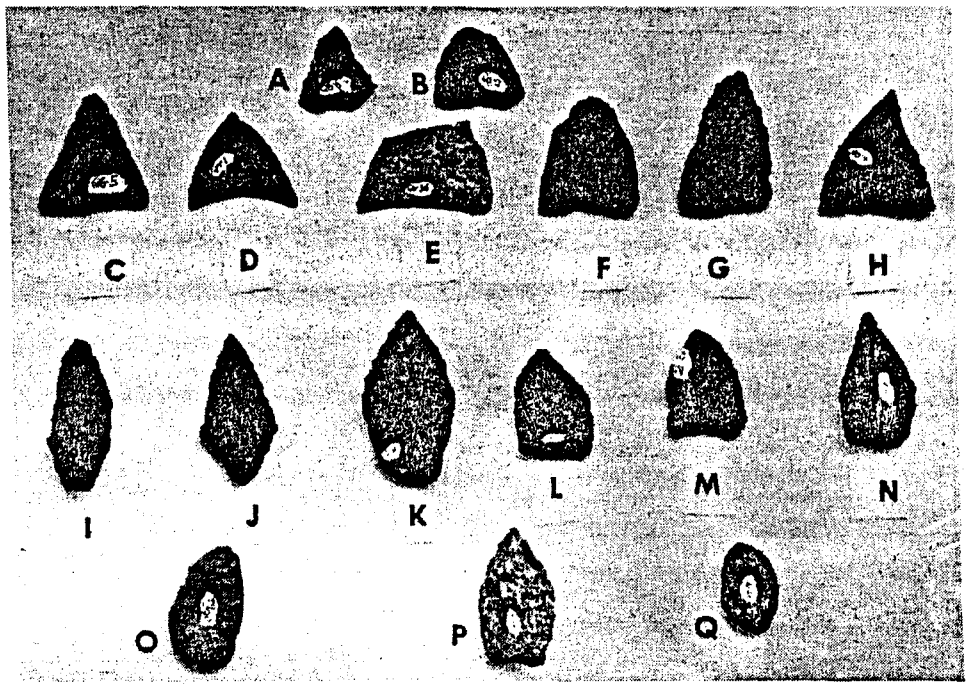

Figure 7. Q-6 artifacts with comments by Dena F. Dincauze, 1977. Small Woodland triangles: A, C, D, E, F, H; Late Archaic or Woodland Triangles: B, M; Fox Creek-like: K; Fox Creek-like?: L, N, O, P; Rossville or reused Stark: J; no comment: G, I; ?-important: Q.

the molds extended above the yellow sand. Some doubtful post molds, less than 7 cm deep, are included in Figure 5 as open circles in case a pattern of posts supporting beds or cooking frames might have emerged. The resulting scatter of molds suggests multiple and sequential uses of this ground.

Closely packed whole shell and other debris were found 20-40 cm below ground surface in the northern squares of the locus, as shown in Figure 5. Table 4 lists the contents of a sample of the midden, which included nearly whole shells, large fragments of deer bone (Figure 6: A, J), seal teeth (Figure 6: G, F), a bone awl (Figure 6: D), and a Rossville or re-used Stark point (Figure 7: J).

ARTIFACTS

The figures illustrate certain finds at Q-6 according to kind: Figure 7--mostly diagnostic artifacts; Figure 8--selected pottery; Figure 6--organic remains of particular interest. For the complete set of artifactual finds, see Little (1983). Dena F. Dincauze in 1977 helped us group the finds for the photographs, and her comments have been indicated on the captions to the figures. With a few uncertain exceptions, the diagnostic artifacts of Locus Q-6 indicate Woodland occupations.

Most of the pottery sherds are too small to be informative beyond noting that all are medium thick (0.6 to 0.7 cm), and that some are grit tempered, with mineral grains as large as 3 mm on an edge, and others are shell tempered. According to Moffett (1957) and Fowler (1966), both Stages II and III of the M.A.S. classification are represented here.

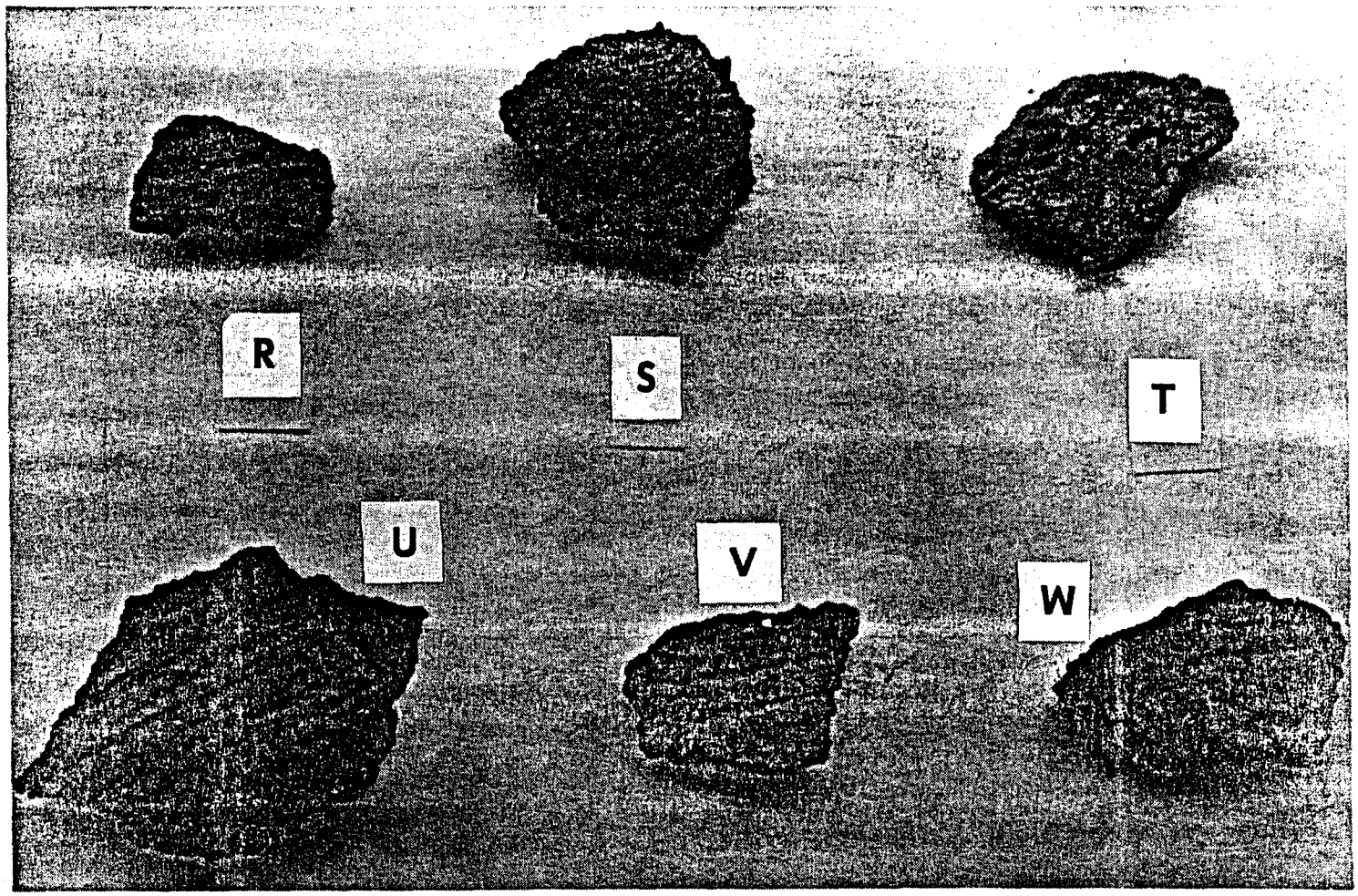

Figure 8. Q-6 pottery, large fragments only, see text for comments by Dena F. Dincauze, 1977.

TABLE 4. CONTENTS OF SHELL MIDDEN, LOCUS Q-6

(List prepared by Little and Young, with the help of Martha Noblick and Robert O'Hara of the Maria Mitchell Association, and J. Clinton Andrews of the University of Massachusetts Field Station at Nantucket.)

From one bucket of midden contents, square W20S20, 20-30 cm below ground surface, material not passing through a ¼ inch screen consisted of:

Oyster (Crassostrea virginica): 90% by weight, whole shells, some very mature specimens, and fragments.

Quahog (Mercenaria mercenaria): 10% by weight, mature (diameter larger than 6 cm), and immature.

Miscellaneous: less than 1% by weight, and consisting of:

Soft shell clam (Mya arenaria): occasional whole and broken shells.
Bay scallop (Pectens irradians): small fragments, rare.
Surf clam (Spisula solidissima): a single large hinge.
Oyster drill (Urosalpinx cinerea): one specimen.
Ribbed mussel (Volsella plicatulus): several fragments.
Boat shell (Crepidula fornicata): occasional whole shells.
Jingle shell (Anomia simplex): occasional whole shells.
Knobbed whelk (Busycon caricum): a single knobbed fragment.
Blue crab (Callinectes sapidus): four claws.
Striped forest snail (Anguispira alternata): 20; probably inhabitants of the midden.
Eastern mud snail (Ilyanassa obsoleta): about 5.
Barnacles: several whole specimens.
Turtle: fragment of carapace of small turtle (Figure 6:K).
Fish: occasional bones, unidentified.
Perch: possibly a couple of bones.
Cod: one codfish earbone (Figure 6:L).
Gray seal (Halichoerus grypus): two teeth (Figure 6:E, G).
Harbor seal (Phoca vitulina): possibly one broken tooth (Figure 6:F).
Bird: fragments of hollow bones, generally small.
White-tailed deer (Odocoileus virginianus): antler, leg bones, jaw bone (Figure 6:A,B,H,I).
Bone: many fragments, often burned, unidentified.
Pottery: 17 small fragments grit tempered; 40 small fragments shell tempered.
Flakes: occasional dark grey felsite flakes.
Stones: several fire-burned and fire-shattered stones.
Tools: Deer-bone awl (Figure 6:D), and red felsite Rossville point (Figure 7:J), found at bottom of whole shell midden.
ETC.: Owl pellet containing fur and bones of small mammals, and shrew skull, both probably inhabitants of midden.

An inspection of the largest and best preserved sherds resulted in the following descriptions of some of the pottery, with comments by Dena F. Dincauze. Pottery found above and in the whole shell midden (W20S20), Figure 8: R, S, and T:

R. Grit tempered, wet wiped interior, quahog shell (the serrated edge) impressed exterior, thickness: 0.6 cm.
S. Grit tempered, wet wiped interior and exterior, thickness: 0.6 cm.
T. Shell (?) tempered, plain, weathered, thickness: 0.6 cm.

Figure 8: U, found under whole shells; V, W, found among whole shells, at the bottom of the midden in W20S22:

U. Shell tempered, platted, trailed incisions, thickness: 0.7 cm.
V. Shelland grit tempered, wet wiped interior, quahog shell and cord wrapped stick impressed experior, thickness; 0.7 cm.
W. Grit tempered, wet wiped interior, quahog shell and fabric impressed exterior, thickness: 0.6 cm.

Flakes not passed through the 1/4 inch screen were saved and bagged. Due to the variable range of depths bagged together under different field directors, it is not possible to distinguish occupation layers by changes in the vertical flake density or material. The horizontal density variation for flakes showed the following distribution in the number of flakes per square: 76 (W22S20, 42 (W22S22), 271 (W22S24), 166 (W22S26), 111 (W20S20)), 90 (W20S22), 188 (W20S24), 48 (W20S26), 497 (W18S24), and 103 (W18S26). The variation in flake density is due in part to the many flakes found in pits. Of the flakes, 92% were green/gray, gray, or black felsite, and 8% were quartz, percentages which reflect the composition of the flaked stone tool materials at Q-6, as well as at most Nantucket sites (Luedtke 1980:128, Little 1979).

CARBON-14 DATES

A carbon-14 date of 1575 ± 160 C-14 years B.P. (GX-4528; half life:5570 years; 67% confidence interval; apatite fraction; P.= 1950) was obtained from Geochron Laboratories in 1976, for 140 grams of deer bone fragments collected from the balk between squares W20S24 and W22S24, 20-25 cm below ground surface near the bottom of the layer of dark soil and shell bits (Figure 9). This sample represents the lowest stratum of occupational debris inside the post mold outline, excluding pit contents.

Another carbon-14 date, 1680 ± 80 C-14 years B.P. (I-9734; half life: 5568 years; 67% confidence interval; outer 7% of shell removed with acid washes, inner 25% dated; P.= 1950) was obtained in 1977 from Teledyne, courtesy of David Folger, on whole oyster shell from the bottom of the shell midden, 40 cm below ground surface in W22S20. This should represent the oldest date for the whole shell midden (Figure 9).

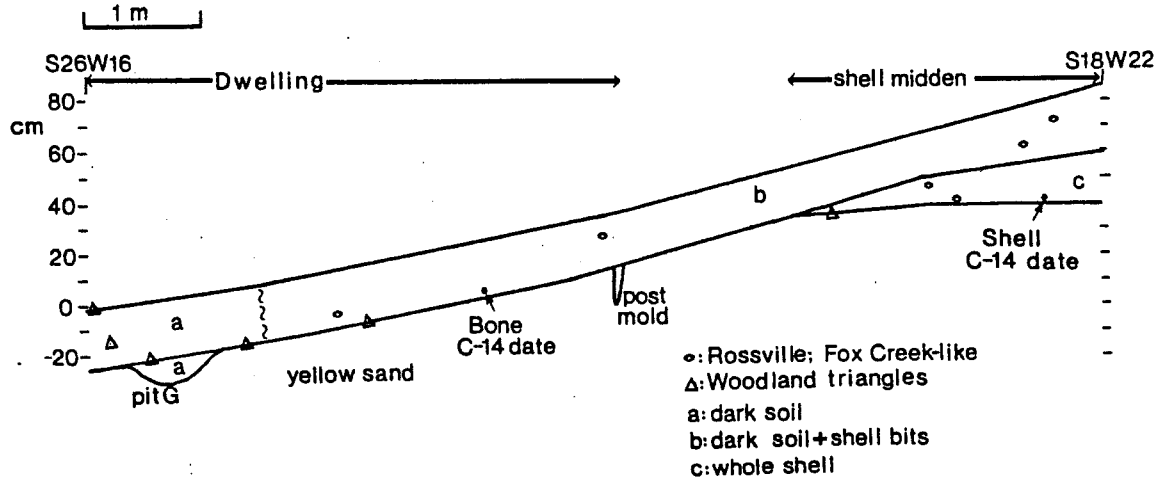

Figure 9. Schematic diagram of stratification at Locus Q-6, projected onto a vertical plane through stakes S18W22 and S26W16, i.e., a plane which is central and runs nearly parallel to the downward slope at the site. Rossville and Fox Creek-like artifacts, which appear to originate at the shell midden at the upper right, may have moved downhill at least as far as the boundary between "a" and "b", along with bone and shell debris, to cover the Woodland Triangles within the arc of post molds. Note the locations of the bone and shell samples taken for C-14 dating.

These two dates, taken on different substances, are not strictly comparable. However, estimating and applying corrections for fractionation, reservoir effect, C-14 half life, and atmospheric C-14 variation with time (Stuiver and Polach 1977:357-358; Klein, Lerman, Damon, and Ralph 1982), we find a corrected date range of 460 A.D. to 155 B.C. for bone, and 580 A.D. to 65 A.D. for shell (95% confidence interval). These two dates cannot with confidence be considered to be different (Long and Rippeteau 1974:211).

ANALYSIS

Since the lack of archaeological expertise at Nantucket limits our ability to interpret these results, I shall attempt to present our findings without encumbering them with speculation. Also, because of the lack of good definitions for the Early, Middle, and Late Woodland periods in New England (Ritchie 1969:226,228), I shall avoid these terms.

Locus Q-6 represents, with only a few exceptions, Woodland Period occupations (Ritchie 1969 225:228). By plotting the artifact finds for Locus Q-6 against depth, one finds two peaks in the number of artifacts, one at 10-16 cm and one at 18-26 cm below ground surface. Woodland Triangles dominate the lower peak, but Rossville and Fox creek-like artifacts are found at all depths to 25 cm. However, this analysis is too coarse, and obscures significant horizontal variations in the depth distribution. Figure 9, in which location downhill is combined with vertical position, more accurately describes the vertical distribution of diagnostic artifacts at Locus Q-6.

Our analysis of the vertical and horizontal distribution of diagnostic artifacts has proved the major stumbling block to understanding this site. Most of the Woodland Triangles were excavated at the base of the layer of dark soil with shell bits, that is, below the occupational debris inside the arc of post molds defining a structure. On the basis of stratification, one hypothesis has to be that these triangles date to 460 A.D. or earlier. Alternatively, since nowhere in New England have Woodland Triangles been dated earlier than 700 A.D. (Ritchie 1969:232; 1971:31), we are led to propose that the triangles represent the latest occupation at Q-6, and that the earlier midden material has moved downhill to cover, in part, the later cultural remains.

There are many mechanisms which might have moved the midden debris downhill. A layer of pebbles noted in W18S24 at 14 cm below ground surface faintly suggests an episode of slope wash. On the other hand, the high density of possibly non-synchronous occupational loci at M52/65 would argue for prehistoric man as the earth moving agent. Since some of the shell debris has filled the post molds, the abandonment of the structure associated with the post molds and the movement of the shell midden debris could not have been very far apart in time.

Except for the Woodland Triangles, all disgnostic artifacts are of the Fox Creek-like or Rossville style, which have been C-14 dated elsewhere on charcoal to dates between 1450 to 2400 C-14 years B.P. (Libby half-life)(P=1950) (Ritchie and Funk 1973:120; Ritchie 1969:231). Therefore, the Q-6 dates are not inconsistent with published dates for Rossville and Fox Creek-like styles.

THE CONTEXT OF LOCUS Q-6

There is some information available about the other parts at Site M52/65. A controlled excavation was carried out at Locus Q-5 in 1974-1976 under the direction of Barbara Kranichfeld (Kranichfeld 1975). Eighteen two-meter squares were excavated between W2S2 and E10N8, on the same grid as that used for Q-6, and 14 m east and 18 m north of Q-6 (Figure 3). The Q-5 artifacts include diagnostic Rossville and Greene points (Ritchie 1971:122), as well as variants (Little 1983). Two large quartz square-stemmed points (*Inquirer and Mirror*, August 21, 1975), together with two Side-Notched points (Little 1983), may represent the earliest Woodland remains at Locus Q-5 (compare Ritchie's Side Notched and Wading River styles at Peterson Stratum 2B (Ritchie 1969:231). A rolled

copper bead (Little 1983) found at Q-5 in an Early Woodland context suggests a native origin for the copper (Ritchie 1969:225). The lack of triangles at Q-5 is notable, and could indicate a changed water level, or other environmental differences, between the Rossville/Greene period and the triangle period.

Q-7 (Figure 3), which lies approximately 22 meters north of Q-5, has a surface scatter of shell and flakes, and represents the presently known northern extent of M52/65. The tops of several hills nearby have recently been excavated for new houses, and, along with a driveway on the west of M52/65 (Figure 3), proved to have no evidence of prehistoric occupations. In 1978 we were fortunate to be able to study and photograph 732 artifacts collected by Paul C. Morris, Jr., from the Bonanza Site (M52/65), Loci N1-1, N1-2, N1-3, N1-4, N1-5, N1-6, N1-7, and N1-9 (Figure 3). Many of these artifacts have been examined by Barbara Luedtke and Dena F. Dincauze. The diagnostic artifacts consist primarily of Woodland Triangles, Rossville points, and Greene points. Also included are untyped pentagonal points, and intermediate forms which include those classified by the Massachusetts Archaeological Society as Tapered Stem, Diamond, and Leaf (Fowler 1963). Not identified at M52/65 are: Orient Fishtails, Meadowood, Fox Creek Stemmed, Jack's Reef Corner Notched or Jack's Reef Pentagonal points (Ritchie 1971:26-28), although all of these have been found at Nantucket in fairly substantial numbers in the first four cases (Nantucket Historical Association Files). We summarize the artifact distribution as a function of locus in Table 5. The heading "Rossville, Green, and Variants" includes Fox Creek-like, and untyped pentagonal styles.

Woodland Triangles occur almost equally in number and distribution with other artifacts at M52/65 (Table 5), but we presume that the Triangles are the youngest artifacts at the site. The earliest C-14 date for them at Martha's Vineyard is 920 ± 70 A.D. (Ritchie 1969:206), and at Nantucket is 940 ± 100 A.D. (Stockley 1965; and letter 1982). We find some support for an early rather than late date for the Triangles from their strong association with Greene points (Ritchie 1969:226), and from the thickness and crudeness of the pottery (Dincauze, personal communication). However, studies of Nantucket ceramics associated with C-14 dates are required before pottery can be used as a chronological marker.

In summary, M52/65 has produced a large number of diagnostic artifacts (569), almost entirely of the Woodland Period, with a strong representation from the first half of the period.

NANTUCKET

From inspections at Nantucket collections in 1978, Woodland artifacts dominate the diagnostic materials found on the island. At least 18 sites with Woodland components similar to those of M52/65 were inventoried (Little 1979; see for example Bullen and Brooks 1947, 1949). Although many of these sites had additional components, the Woodland Period includes the most intensive occupations so far identified on Nantucket.

MARTHA'S VINEYARD

William Ritchie (1969) excavated six sites at Martha's Vineyard, each of which contained some Woodland material. However, Locus Q-6 can best be compared to Ritchie's data for the Cunningham Site, C-14 dated to 400 ± 80 A.D. and 1150 ± 80 A.D., which produced 21 Woodland Triangles, eight Jack's Reef Corner Notched points, and 18 artifacts of Lagoon, Rossville, Fox Creek, Greene, and Jack's Reef Pentagonal styles. In addition, there were two Side-Notched points and two Susquehanna points (Ritchie 1969:111). With one possible exception, M53/65 does not include Jack's Reef Corner Notched points; and M52/65's pentagonal points, which I am calling untyped, are more similar to Greene points than to Jack's Reef Pentagonal points. Ritchie found at Cunningham the only recognizable post mold patterns of all his sites, and 16 features (hearths or pits); both findings compare well with our results for Locus Q-6.

Like Q-6, Cunnungham was occupied in the fall, winter and spring (Ritchie 1969:116; Ritchie and Funk 1973:358), and the diet consisted mainly of deer. Both Q-6 and Cunningham included remains of gray seal, bone awls, and shell and/or grit tempered pottery. The major difference, aside from the lack of Jack's Reef Corner Notched points at Q-6, is that oyster shell dominated the midden at Q-6, while bay scallop and quahog formed most of the shell midden at Cunningham. Problems of stratification were severe at both sites.

THE MAINLAND

There is a great deal of similar "Middle" Woodland material on Cape Cod (see, for example, Eteson, Crary, and Chase 1978), where it is associated with an increase in population intensity and the first use of shellfish (Moffett 1957).

Although there are problems in definition, "Early to Middle" Woodland sites similar to M52/65 can be traced from southeastern New England through eastern New York, eastern Pennsylvania, New Jersey, and Maryland, to Virginia (Kinsey 1974).

SUGGESTIONS FOR FUTURE RESEARCH

The excavation procedure, record keeping, and curation of materials from the excavation of Locus Q-6 represent a considerable advance over most previous archaeological projects on the island. Considering the challenging stratigraphy we encountered, a gratifying amount of analysis has been achieved. However, if we could excavate the site again, we would want to collect botanical samples by flotation, especially from pit features, stabilize and record small pottery finds in a more permanent manner than just putting them in envelopes, and record individual flakes by depth and stone type. We also need to acquire on the island the expertise necessary to study and identify faunal, floral, lithic, and pottery remains. Pottery and botanical studies for Woodland sites could help identify changes in subsistence strategies as well as fine-tune our knowledge of chronology for the Woodland Period, during which major prehistoric occupations occurred on the island. Particularly valuable information might have been obtained from botanical samples and C-14 dates from pits at Locus Q-6, which, on stratigraphic grounds, may have belonged to the Woodland Triangle component.

SUMMARY

Repeated use of the same sites, the thin soil of New England, and a lack of cultural definition have resulted in the under-reporting of Woodland sites (Dincauze 1974, Ritchie 1969). While site M52/65 has most of these problems, the significance of this marginal and seasonal site lies in the limitation of its occupations to the central portion of the Woodland Period. As an explanation for this limited occupancy, we postulate that, on the basis of the other Nantucket sites of this same period, the population density of this time was high, perhaps at its peak, considering the diminishing area of the island over time with the rise of sea level.

We have described evidence for a Woodland structure and shell midden at Locus Q-6, site M52/65, Nantucket. Deer bone remains above the floor of a structure defined by post molds and Woodland Triangles have been dated to between 155 B.C. and 460 A.D. (95% certainty). Although we have not been able to exclude the possibility that there were Woodland Triangles in use before 460 A.D., Ritchie (1969, 1971) gives evidence that Woodland Triangles reached New England only after 700 A.D. In this case, we show data which would support the proposition that midden debris of about 150 A.D. has moved downhill to cover a structure abandoned sometime after 700 A.D. If this is what happened, then the earth movement, caused either by man or by nature, took place after 700 A.D. One could speculate that the earth movement was effected for the purpose of gardening. Unfortunately, no flotation samples were taken to address these issues.

TABLE 5. SUMMARY OF ARTIFACT STYLES AT SITE M 52/65

LOCUS:	N1-1	N1-2	N1-3	N1-4	N1-5	N1-6	N1-7	N1-9	Q-5	Q-6	PCM	WB & RH	Missing	Total
ROSSVILLE, GREENE, & VARIANTS:	10	4	12	54	129	5	76	38	17	5				350
WOODLAND TRIANGLES:		9	19	34	97	4	26	24		6				219
ARTIFACT TOTAL:	11	15	45	155	251	9	140	104	31	56	2	24	3	824

Included in the artifact total are: six bone awls, one bone flaker, two copper beads, one double-pitted hammerstone, two grooved hammerstones, one (broken) celt, two two-holed gorgets, six one-holed gorgets, four worked red ochre stones, a large number of scrapers, three untyped Side-Notched points, two Late Archaic or Woodland Triangles, three Stark or Rossville points, two quartz square-stemmed points, and a skate tail. WB, RH, and PCM are collectors with artifacts from M52/65 without exact provenience.

Deer bones and oyster shell dominate the food remains at Locus Q-6. Late fall, winter and spring occupation of Q-6 is suggested by the remains of gray seal, the current seasonality of the pond, and the wind protection afforded the site by the hills around it.

Woodland artifact styles in southeastern Massachusetts are variable and ill-defined in the literature. However, artifacts like those at M52/65 are common on Nantucket, Martha's Vineyard, and Cape Cod, and can be found along the coast south to Virginia (Kinsey 1974). A major prehistoric occupation of the southeastern Massachusetts coastal islands, such as this, deserves to be more fully studied and described than it has been heretofore.

ACKNOWLEDGEMENTS

The excavation of Locus Q-6 was directed by Barbara Kranichfeld, Cynthia Young, and Elizabeth A. Little, under the guidance of Paul C. Morris,Jr. Cynthia Young, Elizabeth A. Little, Mary Lou Campbell, Ann Ross, and Jane Murphy have helped with the lab work and 1977 report. Shirley Blancke of Concord, Massachusetts, contributed advice and references. Barbara Luedtke helped catalogue Morris's Bonanza collection. Dena F. Dincauze examined and commented on the materials from Locus Q-6, Morris's Bonanza collection, and other Nantucket collections. We are particularly grateful to Paul C. Morris, Jr., for permission to excavate on his land. I thank Dena F. Dincauze and Barbara Luedtke for their sustained help and many constructive suggestions during the writing of this paper.

REFERENCES CITED

ANDREWS J. Clinton, and Peter R. MOTT
1967 Gray Seals at Nantucket, Massachusetts. *Journal of Mammalogy* 48(4):657-658.

BULLEN, Ripley P. and Edward BROOKS
1947 The Squam Pond Indian Site, Nantucket, Massachusetts, *Bulletin of the Massachusetts Archaeological Society* 8(4):56-59.
1949 The Herrecater Swamp Site, Nantucket Island, Massachusetts. *Bulletin of the Massachusetts Archaeological Society* 10(4):81-89.

DINCAUZE, Dena F.
1974 An Introduction to Archaeology in the Greater Boston Area. *Archaeology of Eastern North America* 2:39-67.

ETESON, Marie, Marilyn D. CRARY, and Mary F. CHASE
1978 The Mattaquason Purchase Site (M48/N6), North Chatham. *Bulletin of the Massachusetts Archaeological Society* 39(1):1-38.

FOWLER, William S.
1963 Classification of Stone Implements of the Northeast. *Bulletin of the Massachusetts Archaeological Society* 25(1):1-29.
1966 Ceremonial and Domestic Products of Aboriginal New England. *Bulletin of the Massachusetts Archaeological Society* 27(3 & 4):1-68.

INQUIRER AND MIRROR
1975 Indian Village unearthed at dig, possibly oldest on island. *Nantucket Inquirer and Mirror* August 21, 1975.

KINSEY, W. Fred, III
1974 Early to Middle Woodland Cultural Complexes on the Piedmont and Coastal Plain. *Pennsylvania Archaeologist* 44:9-19.

KLEIN, Jeffrey, J. C. LERMAN, P.E. DAMON, and E.K. RALPH
1982 Calibration of Radiocarbon Dates. *Radiocarbon* 24(2):103-150.

KRANICHFELD, Barbara
1975 The Quidnet Site on Nantucket, Massachusetts. Report submitted to the Nantucket Historical Association.

LITTLE, Elizabeth A.
1977 Report on 1976 Excavation at Site Q-6, Quidnet, Nantucket, Massachusetts. Report submitted to the Nantucket Historical Association.
1979 An Inventory of Indian Sites on Nantucket. Report submitted to the Massachusetts Historical Commission.
1980 A Brief Historical Sketch of Archaeology on Nantucket. In *Widening Horizons*, Curtiss Hoffman, editor:75-79. Massachusetts Archaeological Society, Attleboro, Massachusetts.
1983 *Locus Q-6, Site M52/65, Quidnet, Nantucket, Massachusetts.* Archaeology Department Nantucket Historical Association, Nantucket.

LONG, Austin, and Bruce RIPPETEAU
1974 Testing Contemporaneity and Averaging Radio Carbon Dates. *American Antiquity* 39:205-215.

LUEDTKE, Barbara
1980 Survey of the University of Massachusetts, Nantucket Field Station. In *Widening Horizons*, Curtiss Hoffman, editor:95-129. Massachusetts Archaeological Society, Attleboro, Massachusetts.

MOFFETT, Ross
1957 A Review of Cape Cod Archaeology. *Bulletin of the Massachusetts Archaeological Society* 19(1):1-19.

OLDALE, Robert N.
1982 Pleistocene Stratigraphy of Nantucket, Martha's Vineyard, the Elizabeth Islands, and Cape Cod, Massachusetts. In *Late Wisconsinan Glaciation of New England*, G.J.Larson and B.D.Stone, editors, pp.1-34.

RITCHIE, William
1969 *The Archaeology of Martha's Vineyard.* The Natural History Press, Garden City, New York.
1971 *A Typology and Nomenclature for New York Projectile Points.* New York State Museum and Science Service, Bulletin No. 384, Albany, New York.

RITCHIE, William, and Robert E. FUNK
1973 *Aboriginal Settlement Patterns in the Northeast.* New York State Museum and Science Service Memoir No. 20. The University of the State of New York, Albany.

SCHOFIELD Brothers, Inc.
1976 The Town and County of Nantucket, Mass. Nantucket Assessor's Maps.

STOCKLEY, Bernard H.
1965 Preliminary Report, Ram Pasture 1, A Stratified Site on Nantucket Island, Massachusetts. *Eastern States Archaeological Federation Bulletin* 24:11.

STUIVER, Minze, and Henry A. POLACH
1977 Reporting of ^{14}C Data. *Radiocarbon* 19(3):355-363.

ZUBE, Erwin R., and Carl A. CARLOZZI, editors
1967 *Selected Resources of the Island of Nantucket.* Cooperative Extension Service, University of Massachusetts, Amherst.

****