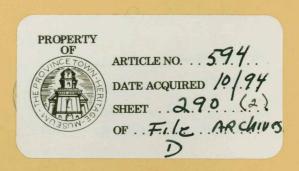
THE ROSE SITE, A STRATIFIED SHELL HEAP ON CAPE COD, MASSACHUSETTS

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THIS report deals with the results of excavating the last intact portions of a shell heap long known to collectors as one of the richest sources of artifacts on Cape Cod. Although the primary aim is to give a factual picture of the site, some idea may also be conveyed of the general archaeology of this isolated area, which exhibits cultural shadings differing somewhat from those of the rest of eastern Massachusetts.

As a preliminary, it may be noted that the historic Indians of Cape Cod were a coastal Algonquian group known as the Nauset: According to Willoughby (1935, p. 277), the

Nauset probably constituted a subtribe of the Wampanoag centered on the southeastern mainland of this state. Natives in fairly large numbers were found on this 70 mile cape by Champlain in 1605, but these Indians were greatly reduced by plague a few years later, and with the establishment of white settlements, this decline continued. At the time of King Philip's war their remnants had neither will nor strength for fighting. Of the natives of the immediate area of the site here concerned, we have some account from first-hand observations by the Pilgrims, who, in 1620, twice reconnoitred the section they called

"Paomet," now a part of the town of Truro, Massachusetts. The "Journal of the Pilgrims" contains graphic descriptions of dome shaped, mat covered houses, and their equipment of baskets, earthen pots, and wooden dishes. There are also notes on the evidences of hunting, agriculture, and the practice of burial with red ocher. It is probable that at least the more recent of the prehistoric remains treated herein were left by this people.

The Rose site is 1½ miles northwest of the village of Truro Center, and about 9 miles from the extreme end of Cape Cod. It is in a section in which the terrain is markedly glacial, with steep rounded hills of gravelly sand, interspersed with numerous kettle holes. Crossing the cape, which is here only 2½ miles wide, is another glacial feature, a series of transverse valleys, containing tidal creeks and marshes, and emptying to the west into Cape Cod Bay.

In respect to its immediate position, the shell heap is on a strip of nearly level ground at the base of a small knoll, which rises from the bottom of a large depression, connecting to the south through a narrow opening with one of the transverse valleys, the now dyked Little Pamet River. Hills enclosing site and knoll slope abruptly to heights of from 50 to 100 feet. For the most part, the shell heap is on the property of Albert Rose, whose dwelling stands on the knoll, while the remainder is on the grounds of Miss B. L. Link. As nearly as can now be determined, the midden originally had substantial depth over an area of about 30 by 200 feet. It may be observed that the site is especially well placed, since it is sheltered, near a spring, and also near a formerly navigable marsh leading to the bay, 3/4 of a mile distant.

The greater, and apparently the most productive, part of the midden was dug out some 12 or 15 years ago by the Rose family and other amateur collectors. By all accounts, artifacts in large numbers were then unearthed. In 1945, Edward Rogers and I spent four days investigating the area on the Link property, work of which brief mentions have appeared (Moffett, 1946, p. 21; Bullen, 1948, p. 43). As already indicated, this paper is concerned chiefly with later excavations made in 1949 and 1950, to obtain as full information as possible from the small area remaining undisturbed. The lately dug section is in the south

part of the site and lies on both sides of the line fence. Most of it, however, is on a portion of the Rose property that was not available to earlier excavators. In all about 850 square feet were excavated.

Since three cultural divisions were revealed, it will be convenient to think of the artifact bearing strata as having comprised three zones. (1) The upper zone consisted primarily of an 8 to 12 inch layer of compact black earth and shell. An overlying 3 to 4 inch stratum of dark gray earth, of meager artifact content, is included in this zone, as are also pits going down from black earth and shell. (2) The intermediate zone was a 4 to 7 inch layer of dark brown, discolored sand, which held only a small amount of shell. (3) The bottom zone was the normal, light yellow, glacial sand, which contained artifacts and broken rock to a depth of 8 inches. Shell was absent from this level. At a short but varying distance down in the yellow sand, a thin layer of gravel was encountered, and at the border nearest the spring it was found that this gravel had once outcropped to form the surface of early Indian times. As the southern end of the site was approached, there was a noticeable thinning of the dark shell bearing stratum. Throughout most of the area the shell heap was covered with from 15 to 25 inches of gray sandy top-soil, which from its content appeared to be entirely a post-Indian accumulation washed down from adjoining fields. An exception to this was observed in a few squares farthest removed from high ground, with a plowed mixture of loam and camp debris extending from the grass roots to a depth of 16 inches.

Pits belonging to the black earth and shell layer were found in nearly every square. The first of two general types, apparently a refuse pit, was commonly V shaped, relatively narrow, and filled with black earth and shell, or with the latter mottled with dirty sand. This sort of pit often extended through the yellow sand to end at the gravel. The second type of late pit was a scooped out basin shaped depression in which fires were built. In this case the fill was complex, with lenses of black earth and shell, lines of fine burned material, and deposits of mottled sand alternating with one another in a confused manner. Pits originating in the second zone were more rare, and when

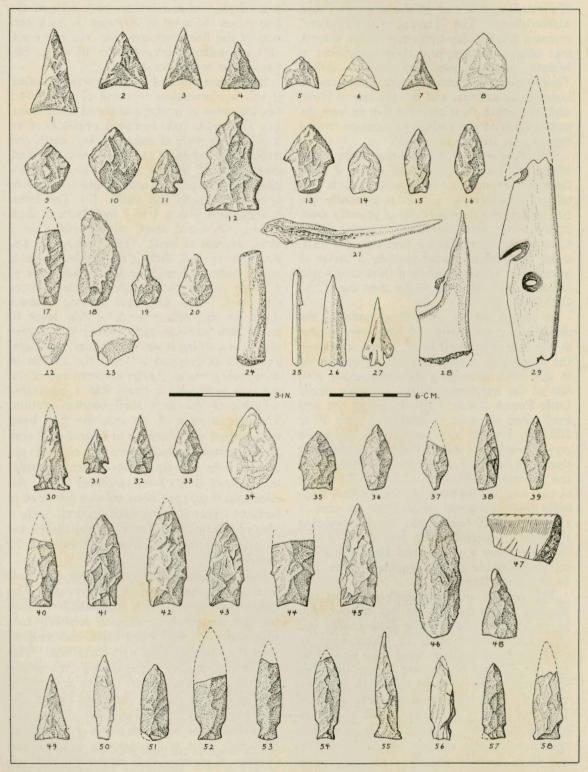


Fig. 44. Rose site artifacts of stone, bone, and antler. Top zone: 1-29. Intermediate zone: 30-45. Bottom zone: 46-58. Stone materials: 6, 8, 14, 22, 23, 34, 50, quartz; 10, 12, 13, 30, 41, 43, 44, 46, 49, quartzite; 56, 58, slate; 45, chert; all others are felsite.

found were usually shallow and filled with either brown sand or reddish burned sand. Patches of the last material sometimes occurred in connection with this zone where no pit was involved. No burial pit was found during the late work or, according to the Rose family, had been at any previous time. However, I discovered a human femur in thrownout dirt, indicating that someone had disturbed a grave.

The oyster was the favorite shellfish, with the clam and the quahog next in order. Scallops, mussels, and other varieties of shellfish were consumed to a lesser extent. It will have been noticed, however, that most of the shell remains date from the last period of occupation. Fish were used, including among large fish, the sturgeon. The deer was the most important game animal. Bones of the dog were present, as well as those of smaller animals not identified as to kind. Water fowl and other birds were hunted. No trace of vegetable foods was recognized, although it may be presumed that agriculture was practiced in at least the last occupation stage.

Essential information about the classifiable artifacts found in the late excavations is embodied in Tables 3 and 4, and Figures 44 and 45. Although the forms of chipped implements are to be seen in Figure 44, it may be

TABLE 3, CHIPPED STONE ARTIFACTS

Type	Fig.	0	Length,		Material		
Top Zone	No. 44	Quantity	MM.	Qtz.	Fel.	Qtzite	Misc.
Broad Triangular	1-7	96	30-55	42	50	2	2 Chert
Trianguloid, Squared Base	8	7	34-52	5	1	1	2 Chert
Trianguloid, Rounded Base	9	4	40-60	1	1	2	
Trianguloid, Pointed Base	10	5	53-60	2	2	1	
Trianguloid, Corner Notched	11	2	32		2		
Trianguloid, Multiple Notched	12	1	75		-	1	
Trianguloid, Stemmed, Sharp Corners	13	î	55			1	
Ovate, Stemmed, Round Corners	14	2	37	1	1		
Lanceolate, Straight Base	15	1	50		1		
Lanceolate, Stemmed, Round Corners	16	1	52		1		
Elongate, Stemmed, Round Corners	17	2	75		2		
Asymmetrical Knives	18	2	60	1	1		
Drill	19	1	37		1		
Round-base Point	20	1	40		1		
Blunt Point	22	3	25-37	3			
Scraper, Snub Nose	23	2		2			
Intermediate Zone							
Trianguloid, Side Notched	30	1	60			1	
	31	1	60 35		1	1	
Trianguloid, Corner Notched	32	1			1		
Trianguloid, Short Stem	33	1	45		1		
Ovate	34	1	40 60	1	1		
Ovate, Stemmed, Sharp Corners	35	2		1	2		
	36	1	45, 53 50		2	1	
Lanceolate, Tapering Stem	37	3			1	2	
Elongate	38	1	40-45 58		1	4	
Elongate, Spurred	39	1	58		1		
Lanceolate, Straight Stem	40, 41	4	62-70	1	2		1 Shale
Lanceolate, Straight Stell Lanceolate, Stemmed, Concave Base	42-45	9	65-90	1	2	6	1 Chert
	72-73	2	03-90		2	0	1 Chert
Bottom Zone							
Trianguloid, Eared	49	1	50			1	
Lanceolate		1	65		1		
Elongate, Convex Base	51	1	58		1		
Elongate, Stemmed	50	2	62	1	1		
Elongate, Notched	52-58	13	60-90		8	2	3 Slate
Elongate Scraper	46	1	95			1	
Asymmetrical Knife	48	1	54		1		La line

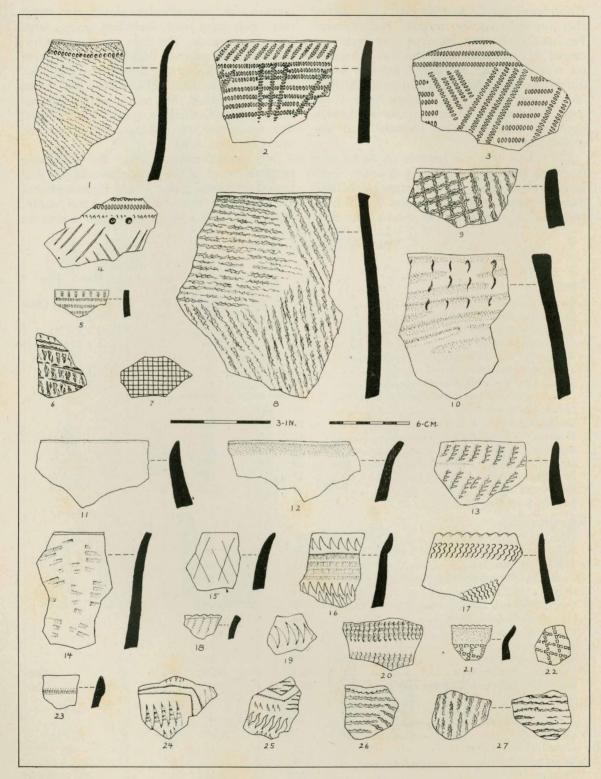


Fig. 45. Rose site pottery. 1-10, shell tempered; 11-27, mineral tempered.

TABLE 4, ARTIFACTS OTHER THAN CHIPPED STONE

General Type	Illustration	Quantity
Top Zone		
Pottery, Shell Tempered	Fig. 45, 1-10	49
Bone Harpoon	Fig. 44, 29	1
Bone Awls	Fig. 44, 21, 26-2	8 5
Solid Bone Points	Fig. 44, 25	2
Bone Needle		1
Antler Flakers	Fig. 44, 24	2
Stone Axe		1
Stone Balls		1
Hammerstone		1
Whetstone		1
Intermediate Zone		
Pottery, Shell Tempered		4
Pottery, Mineral Tempered	Fig. 45, 11-26	45
Solid Bone Point		1
Antler Flaker		2
Bottom Zone		
Pottery, Mineral Tempered	Fig. 45, 27	1
Steatite Bowl Sherd	Fig. 44, 47	1
Hammerstone		1

well to comment respecting diagnostically important types. Triangular points have a broad base, with about 75 per cent of them suggesting the equilateral. They are usually medium to large, only 16 per cent being less than 30 mm. long. Over one-half have straight sides, with the frequency of excurvate, incurvate, and double curvate, or S shaped, sides decreasing in the order named. While some specimens in this category are finely chipped, the general run of work is mediocre, many of the objects being thick and lopsided.

In regard to the spearheads having concave bases, which are distinctive of the intermediate zone, the lower part of the artifact is usually carefully retouched, giving a thin base, with often sharp basal corners (Fig. 44, 44, 45). The stem is relatively wide, sometimes barely narrower than the blade. In cases where the shouldering is well pronounced, the lateral corners also are sharp or spur-like (Fig. 44, 43, 44), the latter being a feature extending to other chipped traits of this zone. The fact that a large percentage is of quartzite is also characteristic of these spearheads.

Elongate notched points, diagnostic of the lower zone, might well be subdivided into two types. One would include well made specimens with a relatively narrow base and a blade that expands slightly as it rises (Fig. 44,52-54). The other would take in cruder points with a wide base and a contracting blade (Fig. 44, 55,

56, 58). The two varieties, however, were closely associated, and it is possible that the latter form represents the former in imperfect material.

Of the heavy stone implements, none of which are illustrated, the one axe is large and unpolished. Although broken, a contracting bit indicates the grooveless type. The two stone balls, unusual artifacts for this area, have a spherical shape and seem to have been smoothed, suggesting use in some process of grinding. Both specimens are of felsite, and the slightly larger of the two has a diameter of 9 cm. Recognizable hammerstones were rare. The two examples are oval beach pebbles with abraided ends. The one whetstone is an unmodified cobblestone, 8 by 9 by 19 cm., on which there is a natural concavity. The latter is well polished over a space of 4 by 11 cm.

Felsite patination as an indication of age is hard to evaluate on the end of Cape Cod, where glacial pebbles of this material occur in a great variety of colors and textures. Some pebbles are more stable than others. Felsite artifacts from the two higher zones show no patination worth mentioning. But of 22 felsite specimens from the lowest zone, 11 are much grayed and the remainder are moderately to slightly so. When contrasted with the darkness of higher specimens, this amount of weathering in the bottom zone appears significant.

POTTERY

For the purpose of description, I have divided the pottery into four classes. The first two have shell temper, and, with four exceptions, the sherds were found in the top zone. The last two classes have mineral temper, and, save for one occurrence in yellow sand, the specimens came from the intermediate zone. It may be observed that, with the possible exception of class 1, the broad affiliations of the pottery seem to lie with the Point Peninsula (Ritchie and MacNeish, 1949) and the Windsor (Smith, 1950) traditions of, respectively, interior New York, and coastal New York and southern Connecticut.

CLASS 1, FINE SHELL TEMPERED (Fig. 45, 1).

Rim; everted. Lip; narrow, flat. Bottom shape; not known. Wall thickness; 4-7 mm. Exterior; entirely covered with unsmoothed cord paddling. Interior; smooth, speckled with fine to medium shell flakes. Decoration; one annular line of indentations, probably from the edge

of the paddle. Color; dark gray. Condition of sherds; hard and firm. Coiling; no evidence. Comment; this ware was relatively unimportant at the site, nearly all of the recovered sherds pertaining to one vessel.

CLASS 2, COARSE SHELL TEMPERED (Fig. 45, 2-4, 6, 8-10).

General description: Rim; straight or nearly so, usually inclines inward. Lip; flat, sometimes outsplayed. Bottom shape; globular for the one pot determined, others may have been conoidal. Wall thickness; 8-13 mm., usually about 10 mm. Interior; usually coarsely channeled. Color; tan to gray, sometimes reddish on cord surfaced specimens. Condition of sherds; soft and friable. Coiling; evidence strong. Size of pots; large, mouth diameters up to 40 cm. Comment; nearly all of the top zone pottery is of this class.

Type A, Corded-STICK Decorated (Fig. 45, 2-4). Exterior; smooth. Decoration; horizontal corded-stick lines, commonly also oblique lines. Unusual variant; corded-stick combined with incised lines and punctation (Fig. 45, 4, from the collection of the Rose family).

Type B, Cord Surfaced, Undecorated (Fig. 45, 8, 9). Exterior; entirely covered with coarse cord paddling. Decoration; none.

Type C, Scallop Shell Decorated (Fig. 45, 10). Exterior; shallow rounded grooves, made by dragging the back of a scallop shell. Decoration; indentations from the edge of a scallop shell. Comment; rare, very crude.

MISCELLANEOUS SHELL TEMPERED SHERDS.

Plain rims; none found in the late excavations, the few known from the site belong in the coarse, shell tempered class. Coarse fabric or matting surfaced (Fig. 45, 6); two small sherds of class 2 were found. Very fine corded-stick (Fig. 45, 5); one sherd in the collection of the Rose family. Square checked (Fig. 45, 7); one sherd in the above collection, apparently made by impressing a thin square-edged strip; unusual for this area.

Class 3. Medium to Coarse Mineral Tempered (Fig. 45, 11-26).

General description: Rims; usually a slight to pronounced eversion, sometimes thickened. Lip; either flat or rounded, sometimes notched. Bottom shape; not determined. Wall thickness; usually 7-9 mm. Exterior; smooth to gritty, except on rare cord surfaced pots. Interior; smooth to gritty, never channeled. Color; grayish tan to dark gray. Temper; derived from granite. Coiling; evidences occasionally present. Size of pots; medium. Comment; in this area this class of pottery exhibits many variations and combinations; since it is difficult to recognize steady recurrent types, the several known methods of decorating will be merely noted.

KINDS OF DECORATION. Plain (Fig. 45, 11-12). Dentate (Fig. 45, 13); carelessly jabbed imprints of a toothed object. Obscure rectangular indentations (Fig. 45, 14); made by dragging a square toothed imple-

ment. Scratched lines (Fig. 45, 15). Plain rocker (Fig. 45, 16, 19). Scallop shell (Fig. 45, 17, 20). Crossed lines of square indentations (Fig. 45, 21, 22). Complex rocker (Fig. 45, 24, 25); areas of scallop shell rocker and dentate rocker enclosed within two-line borders probably made with the edge of a clam shell. Cord surfaced (Fig. 45, 26); only one sherd found.

CLASS 4, COARSE MINERAL TEMPERED (Fig. 45, 27).

Exterior and Interior; cord surfaced. Thickness; 10 mm. Comment; this is the ware usually called Vinette 1

As respects the top zone, class 1 pottery may have been relatively late, since the recovered sherds were higher than nearby specimens of class 2. The four small shell tempered sherds listed from the intermediate zone were probably intrusive, although it is hard to be certain about this. Another ambiguity involves the only two specimens of Vinette 1 type, both from the same pot, one at the juncture of the second and third zones, the other two inches lower and definitely in vellow sand. From general experience with this pottery in this area, I would attribute these sherds to the start of the intermediate period. At any rate, they appeared to be disassociated from early stone artifacts.

Specimens excavated years ago by members of the Rose family have already been mentioned. This collection, which includes many more objects than were found during the late work, has been of value as a check in the preparation of this report. Of 232 chipped points, which takes in only complete specimens, 78 per cent are triangular and only 12 per cent are stemmed. Other stone implements include: a celt; two notched net-sinkers; fragments of two slate gorgets; and sherds from at least two steatite bowls. About 60 bone and antler implements are present, mostly awls, but included is a large harpoon similar to the one here illustrated. The pottery is largely of the coarse shell tempered class. It is obvious that, although undocumented, most of this material refers to the latest period of occupation. The collection indicates for the late excavation, a fairly adequate sampling of the site.

DISCUSSION AND COMPARISONS

As anticipated early in this report, we have at this site a pattern of stratigraphic relationship disclosing three distinct cultural compartments. To generalize, it may be said of these: that the latest is defined largely by an association of class 2 pottery with broad triangular points; that the intermediate is marked chiefly by an association of class 3 pottery with stemmed points; and that the earliest is characterized in the main by narrow notched points. We may now examine each of the typological groups as to its place in the more general sequence indicated for this area.

The late group has been reported from the higher of two zones at two other shell heaps at this end of Cape Cod (Torrey, 1946; Bullen, 1948, Fig. 8), and it has been discovered at other local sites not published. That this association is probably to be found over all of Cape Cod is indicated by the fact that it has been made known from a series of shell heaps near the mainland (Bullen and Brooks, 1948). The association, therefore, marks a well developed, late ceramic horizon of this region. As this manifestation occurs from site to site, however, there are as regards pottery certain variations, which, as Bullen (1948, p. 39) has indicated, probably have chronological significance. Although definite stratigraphic evidence is lacking, it seems likely that a first phase of the horizon is featured by class 2, type B vessels alone; a second phase, by a concurrence of the latter type with type A; and a last phase by the emergence of a ware which Bullen (1948, p. 39) has called Late Prehistoric 2, of which the present class 1 pottery is a probable variant. It appears, then, that the bulk of the topzone material from Rose may be tentatively placed at about midway of this late horizon.

As regards the intermediate compartment, we again have an association found at both reported (Torrey, 1946; Bullen, 1948, Fig. 8; Moffett, 1949) and at unreported sites. It is at some locations overlain by materials of the late horizon, and at some underlain by still earlier artifacts. Thus, we have here an intermediate, or early ceramic, horizon which is well distributed on Cape Cod. This horizon is typologically richer than the late, and it shows also more variation from site to site. Although class 3 pottery is the most steady diagnostic, this ware is sometimes accompanied by an appreciable amount of Vinette 1. Stemmed points may differ noticeably from one place to another, in the type of stemming, in the shape of the blade, and so on. To give instances of the latter, bringing in the present site, the distinctive concave-base spearheads of Rose are to be found rarely at other local sites, and conversely, a type often called corner-removed (which has a stem relatively narrow in respect to blade) was at best only dubiously represented in middle Rose (Fig. 44, 13, 33), although the type is an important associate of class 3 pottery at other components of the horizon. The near absence of quartz is another divergent aspect of this level of Rose. This certain lack of conformity doubtless has chronological import. Although the last is obscure from a typological point of view, the fact that the present felsite implements are unpatinated, whereas those of the same horizon, and from deposits of similar nature, at some other shell heaps are strongly weathered, suggests that the second zone here may date from near the end of a manifestation of long duration.

The stone artifacts from the lowest zone of Rose, which were concentrated mainly near the spring, in an area in which no pottery was found, I consider to represent a probable preceramic stage. However, such a horizon, as it is better known in this section, is distinguished by such traits as the following: eared points; very small quartz points, both stemmed and triangular; large, patinated felsite blades; whale-tail pendants; choppers; gouges; and plummets. Since, with the exception of one eared trianguloid, no example of the above traits was found in this level of Rose, the latter must be considered somewhat unique for this area.

When comparisons are extended to include the mainland of eastern Massachusetts, it becomes apparent that Cape Cod is not, archaeologically, an exact replica of the rest of this state. Although divergencies are perhaps not great enough to effect broad sequential aspects, they seem worth mentioning. For one thing, some ceramic traits do not appear to have reached those portions of Cape Cod about which much is known. This is particularly true of anything resembling an Iroquoian influence. On the other hand, class 2, type A, prominent here, seems to be rare on the mainland; Bullen (1948, p. 42) gives only one offcape occurrence of this type, which he calls Late Prehistoric 1. Another variant feature involves the fact that the abrupt division based on both type and temper that cuts through this region seems to become blurred elsewhere. Then too, ceramic types and stone types are not always synchronized in the same way in both areas. A notable instance of the latter is the occurrence of corner-removed and straight stemmed points in ceramic strata on Cape Cod, whereas on the mainland such points are distinctive of non-pottery levels (Bullen, 1949, pp. 76, 133; Fowler, 1950). In regard to the above it is well to observe that the isolation of this area may have made for a development differing somewhat from that of the rest of this state.

In respect to comparisons with still more distant regions, it will be remembered that pottery affiliations with areas well to the west and southwest have been mentioned. To enlarge on a view first outlined by Bullen (1948, pp. 44), it appears that the two ceramic horizons found at the present site, and extending also over much of Cape Cod, are roughly parallel with certain foci of the Windsor aspect of the Coastal phase, as defined by Smith (1947, 1950) and by Rouse (1947) for coastal New York and Connecticut. I regard the late horizon of this area as broadly corresponding with the Sebonac Focus of the above aspect. Rim forms and rough interiors of coarse shell tempered pottery appear to be the same in both instances, although horizontal and oblique corded-stick decoration is not reported on any Windsor sherds, and seems to be distinctive of East River specimens. At this level on Cape Cod we probably have a direct extension of influences from the Long Island Sound region. Regarding the earlier ceramic horizon here, there is a general equation with the Clearview and North Beach foci of the Windsor aspect. It would seem that on Cape Cod we have something resembling a telescoping of the last two foci. In the case of the early ceramic level of this area, however, it might not be correct to envisage a coastal movement from the southwest, for the class of dentate and rocker stamped pottery involved does not seem to

have had as varied a development in the latter quarter, including New Jersey (Cross, 1941), as it had in interior New York (Ritchie and MacNeish, 1949, Fig. 37), on Cape Cod, and in coastal areas to the north thereof, including Maine (Willoughby, 1935, Figs. 109, 111).

SUMMARY

The earliest of three occupational periods at the Rose site sees a band of early campers, whose artifacts, so far as known, consist mainly of elongate notched points. These Indians used a few steatite bowls, but they were probably unacquainted with clay pottery. The presence of bone and the absence of shell in their scanty debris suggests a hunting economy. That this first occupation was somewhat remote in time is indicated by the patinated condition of many of the felsite implements. In the second period we have a people using mineral tempered pottery and several types of stemmed points, of which concave-base spearheads are the most distinctive. Since a midden deposit was formed, this occupation was obviously more intense than the first. Shellfish, however, were still not much sought, and it is not known whether agriculture was practiced. In the last and most populous stage of the site, we find a group using shell tempered vessels of large size, along with chipped implements largely of broad triangular type. In addition to game, a great many shellfish were consumed. Despite a lack of evidence, by this time agriculture was doubtless a part of the economy. The materials of the two latest periods represent two, definitely marked and widespread, prehistoric levels on Cape Cod. Furthermore, each of the three horizons of the site, although exhibiting some rather local features, appears to be of broad connection in the general northeastern region.

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