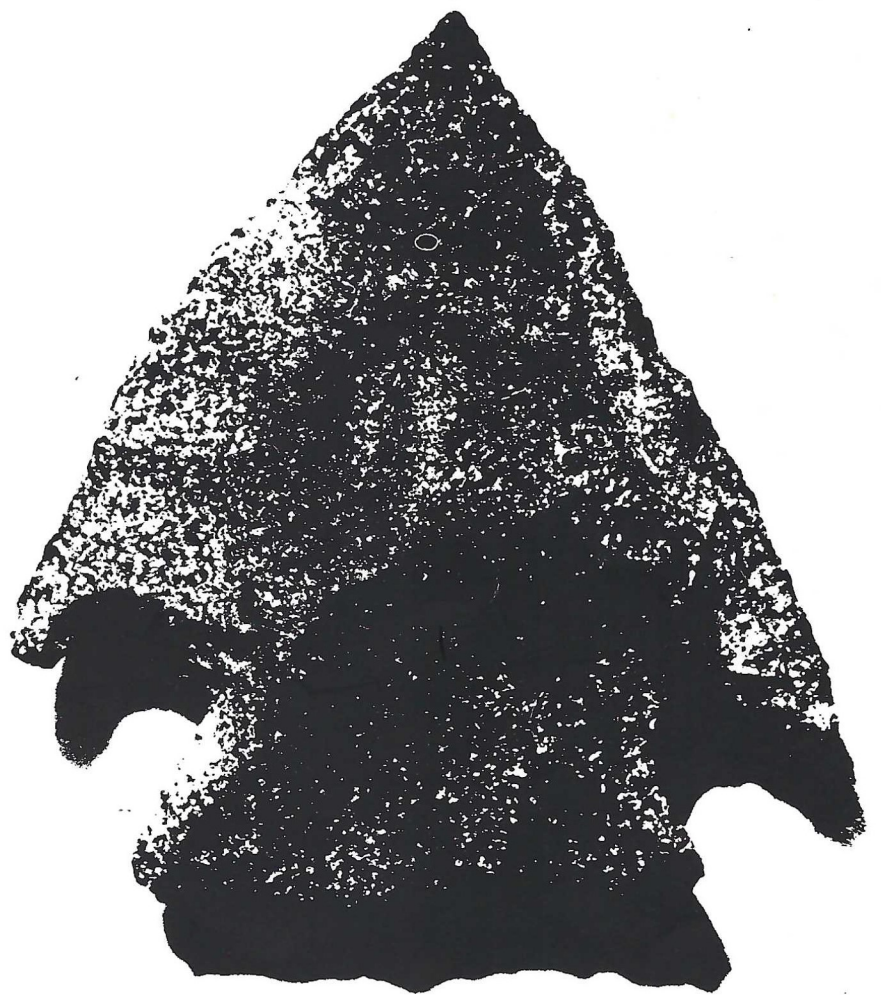


**The
Cape
Naturalist**

Spring 1980
Vol. 8 No. 4



A Small Indian Midden in Quissett

by K.O. Emery, Woods Hole Oceanographic Institution

These numerous aboriginal trash dumps can tell us much about the early inhabitants of Cape Cod and their relationships with the first European settlers.

Introduction

Early man appeared in New England at least 12,000 years ago as small roving bands of hunters using specialized projectile points. When game became scarcer, the culture gradually evolved into one dominated by agriculture and supplemented by hunting and fishing. Intensive development of agriculture permitted, and even required, semi-permanent villages. With a stable food supply, the population of Indians increased so much that by the first European visits about 1500 A.D. even firearms could not provide safety for settlements, particularly after Indian experience with kidnapping by whites for slaves and exhibits.

In 1606 Samuel de Champlain lost a pitched battle with Indians during a landing at Chatham, Cape Cod. Many other contacts with Europeans allowed disease to accomplish what firepower could not, and by 1615 a great plague reduced the Indian population of eastern coastal Massachusetts from nearly 100,000 to about 5,000. When the Pilgrims landed at Plymouth in 1620, they found many unburied dead and the cleared fields untended, an ideal situation for their settlement.

Peaceful relations were established with the remaining Indians, who provided much farm advice. One particular friend was Squanto, an Indian who had been captured at Plymouth in 1614 and had crossed the Atlantic four times before returning to Plymouth in 1619, after most of his people had died (Howe, 1943). Peace lasted until the King Philip War of 1675-76, a sort of precursor to the French and Indian Wars that continued intermittently

from 1689 to 1763 but occurred mainly inland nearer the boundary between French and English territorial claims. During the time of peace much must have been learned of the Indians' way of life and remembered history, but only part of this was recorded. As a result, most of the knowledge of Indians that lived in this region before 1600 has come from archeological studies of their trash dumps, or kitchen middens (Danish—*kjokken-modding*), which provide information about weapons, tools, and diets. These middens were not like the modern organized trash dumps, but consisted of shells, bones, and other materials discarded or lost near individual or groups of dwellings—somewhat like the piles of bottles, cans and other debris that accumulated in the corner of many backyards before tax-supported collection services or municipal dumps were available. Like such "bottle dumps," middens can tell us significant things about a vanished way of life.

The Midden

During early 1978 an access road for construction of a condominium at Treetops in Quissett (between Falmouth and Woods Hole, Mass.) was cut through a small area that contained mollusk shells and other midden material. A bulldozer pushed the top soil along with nearly all the midden into a pile about 50 feet downslope on the road, where I first saw the material. The volume of midden was estimated to be no more than two cubic yards. Fifteen auger holes off one side of the road revealed about 5 inches of black soil atop 2 to 10 inches of undisturbed eolian sand in turn overlying sandy glacial till. Midden shells were in only a few of the test holes, concentrated near the bottom of the black soil. On the opposite side of the road shells were not present, and the glacial till had been exposed by the bulldozer. No evidence of an original mound remained, and in fact during walks through the area prior to construction I had seen no mound.

Several times after rains during the next months I revisited the area and the pile of top soil in order to examine and collect midden

material. In late April 1979 the pile was removed, spread on a slope about 200 yards distant, and planted with grass. The midden originally had been deposited about 33 feet above the level of Oyster Pond and 100 yards northwest of the northern most point of the pond (at Lat. 41°32'50"N; Long. 70°38'33"W). The site is in a broad fairly flat-floored valley (the axis of an elongate glacial kettle) that continues into the pond.

Materials in the Midden

Although the midden was small and had been thoroughly disturbed and moved by a bulldozer, the materials that were in it are interesting in connection with the probable date of their deposition.

Most abundant by far are mollusks, most of which hard clam-quahog, more than 99%, a few shells of their purple color near the hinge. A few specimens each of oyster, bay scallops, and slipper shell. Next most abundant were lobster claws, split as though for extraction (Fig. 2). Bones and teeth of mammals include ones from the common diving duck, and dog. At least one represented, a small adult medium-size dog. Dog bone known from Indian middens (Young, 1912), indicating that they had three breeds whose value as food.

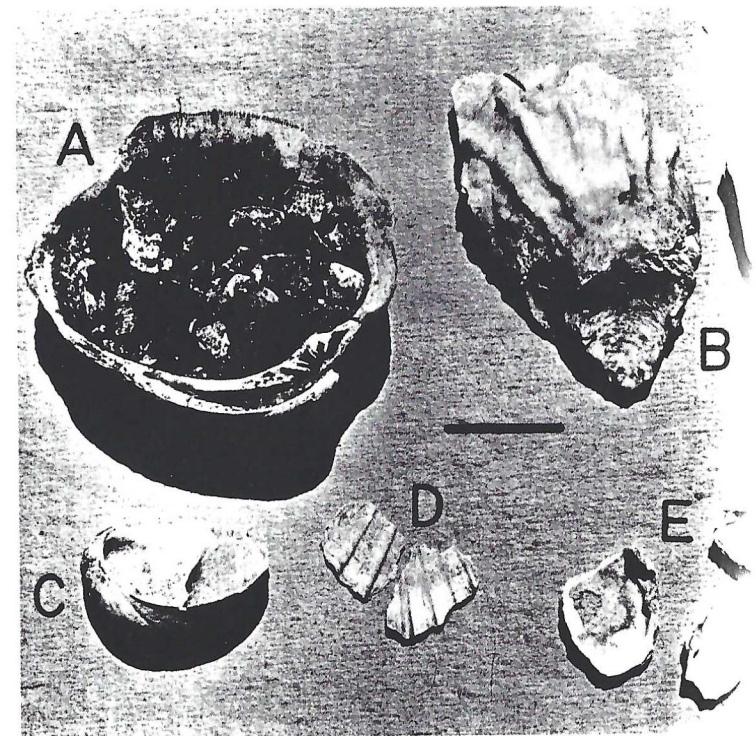


Fig. 1. Kinds of mollusk shells in the midden: A. Hard clam, or quahog (*Merca mercenaris*); B. oyster (*Ostrea virginica*); C. slipper shell (*Crepidula fornicata*); D. bay scallop (*Aequipecten irradians*); E. soft clam (*Mya arenaria*).

Artifacts are from two sources—Indian and European. The Indian artifacts made of deer bone included a chisel perhaps for opening mollusks, and a bone pierced by a drill hole (Fig. 2-A,B) for unknown use. Stone artifacts are more abundant. Two arrowheads (Fig. 3-C) consist of the same white quartzite that is typical of other arrowheads found on the ground surface in nearby Quissett. Irregular pieces of the same quartzite probably are discarded working stock, but only three chips produced during working were noted. Also present (Fig. 3-D, E) was an adze-shaped piece of metavolcanic rock (probably Triassic in age), and a piece of hard siltstone having a hole such as may have served as a bearing for a bow drill. All of these rock types are common along the beaches where they have been concentrated by wave erosion of glacial till. Larger glacial rocks occur as broken roughly-rectangular pieces, some evidently oxidized by fire—and thus considered to be hearth stones.

The second kind of artifact are those of European origin. Pieces of clay pipe include two broken bowls still bearing black discoloration from burned tobacco, and two pieces of pipestem (Fig. 4-D). Six pieces of well-rusted iron were found: one possibly an iron strap, two handmade nails, and three case-knife blades still retaining part of the tang that originally was inserted into a wooden handle (Fig. 4-A). A possible knife handle, though a rather small one, consists of a cylinder of lead within a tube of bone or ivory (Fig. 5); one projecting end of the lead cylinder had been slotted lengthwise about 0.3 inch with a hole continuing beyond the slot. Possibly a tanged iron or steel blade had been inserted into the slot and hole. Also found was a chip of blue-and-white glazed china and part of the rim of a cheap earthenware pot that retains lines indicative of turning on a pottery wheel (Fig. 4-G, H). Most curious of all is a piece of rolled sheet lead that had been cut into an ornament—a ring that connects via a narrow strip to a slightly cupped disk, on which is soldered a duck-shaped effigy (Fig. 6). On the effigy are the raised letters XP (*chi rho*) made during the lead rolling operation.

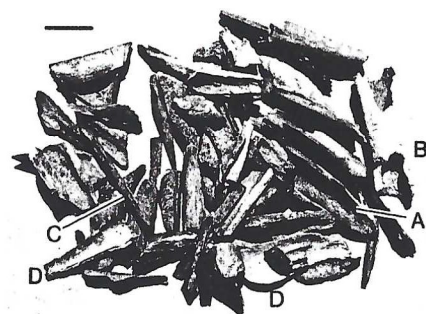


Fig. 2. Long bones mostly of deer (*Odocoileus virginianus*) perhaps split for marrow but without distinctive markings of splitting by man, according to Dennis Stanford (Smithsonian Institution). One piece, A, was shaped into a sort of chisel (for opening mollusks?) and exhibits wear near the point. Another piece, B, has a hole that may have been drilled. C is a piece of baculum (penis bone) of a small adult dog (*Canis* sp.). D are bones of a diving duck or scaup (*Aythya* sp.).

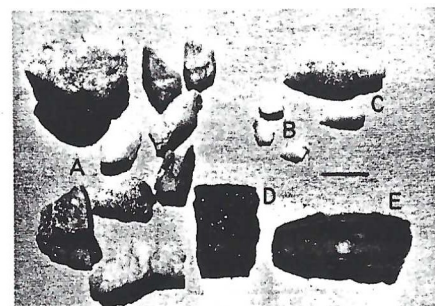


Fig. 3. Stone artifacts made by Indians: A. nine worked pieces of quartzite used as stock; B. three quartzite chips; C. two quartzite arrowheads; D. metavolcanic adze; E. hard siltstone "bearing block" for drill.

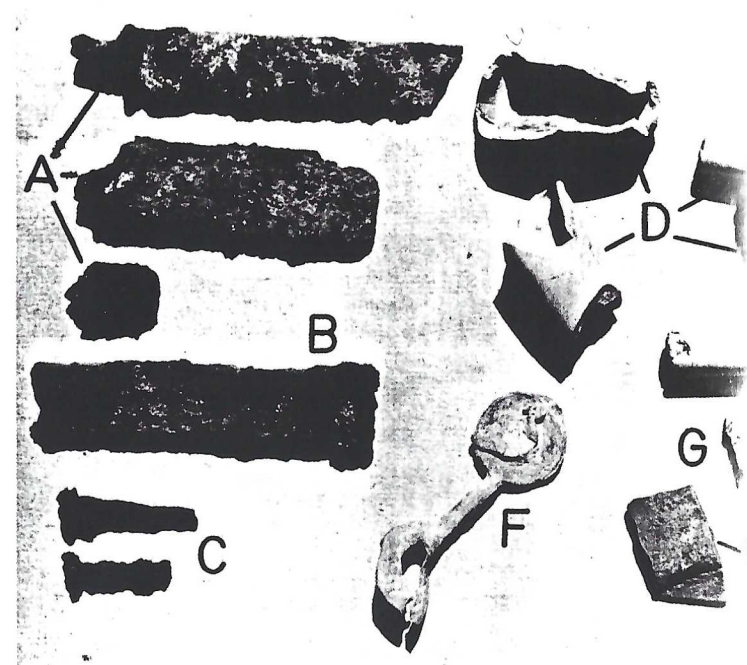
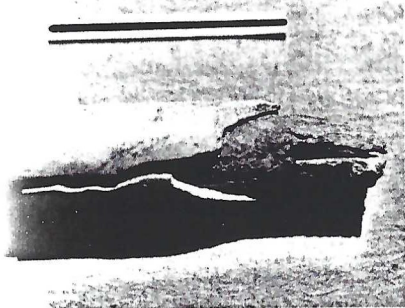


Fig. 4. Artifacts of European origin presumably used by the Indians: A. three case-knife blades; B. steel strap; C. two handmade nails; D. two broken bowls and two pieces of clay pipes; E. "Knife handle" made of bone or ivory filled with lead; F. lead with bird effigy; G. piece of blue and white china; H. two pieces of cheap earthenware.

Conclusions

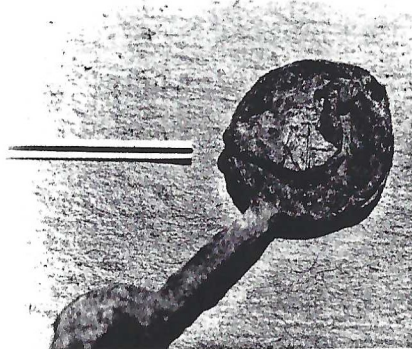
The mixture of Indian stone artifacts and European clay pipes and metal indicates that at least part of the midden was deposited probably after 1620 (Pilgrim landing) and before 1800 (when clay pipes must have become little used), probably nearer the beginning of that time range. Of course, the midden could have been stratified—with Indian artifacts at the bottom, and European ones at the top, but this midden was so small that it seems more likely to have been made during perhaps only a single feast. Support for this view is provided by negative evidence—the absence of many quartzite chips, of Indian pottery, and of glass from broken European bottles. The site is near but not at the shore of Oyster Pond. No fish bones were found,

but perhaps they were destroyed. The shells are of common species that do not now live in Oyster Pond. Prior to about 1765 the population of oysters and perhaps all of the other mollusk species in the midden, but not the mollusks that lived only near the shore that borders Vineyard Sound, were harvested by natural growth and finally by road but not by tidal exchange with high-sea water, changed the bay into a pond by seepage of ground water, and diminished and finally eliminated the population of oysters and other mollusks (Emery).



5. Possible knife handle (Fig. 4E) made of wood that fills a bone or ivory tube. Found by pey-eyed Robert L. Edwards.

In summary, the small midden may have been the site of a single feast by the local Wampanoag Indians (part of the large Algonquian language group). Their name for the region was adopted as the original name for Falmouth by the European settlers—Wampanoag (where the black wampum is made). Wampum beads were made from quahog. One group at the feast may have brought mollusks from the beaches of Vineyard and or perhaps from the south end of Oyster Pond and ducks from the pond, while another group brought venison and village goods from the uplands. The assemblage of



6. Lead ornament (Fig. 4F). Note XP in small letters on lead of bird effigy.

artifacts in this unimportant but locally interesting site suggests that the feast occurred sometime between 1620 and 1800, and perhaps even more likely between 1660 (the date that Falmouth was settled) and 1765 (near the end of clay pipes and before Oyster Pond became too fresh for oyster life). The European artifacts remaining in the midden are ones most likely for the Indians to have been given, traded for, or otherwise obtained.

References

Emery, K.O., 1969, *A Coastal Pond Studied by Oceanographic Methods*: New York, American Elsevier, 80 p.

Howe, H.F., 1943, *Prologue to New England*: New York, Farrar & Rinehart, 324 p.

Loomis, F.B., and D.B. Young, 1912, *On the shell heaps of Maine*: Amer. Jour. Science, v. 34, p. 17-42.

Leafy Lunches

The Museum Library constantly acquires new material, and now that the season of greenery and growth is approaching it might interest you to know that we have a number of books about wild foods, their identification, value and preparation.

To find these books in our library look in the Subject Catalog under PLANTS, EDIBLE or COOKERY - WILD FOODS or PLANTS, USEFUL. A partial bibliography includes the following:

Feasting Free on Wild Edibles - Angier
Field Guide to Edible Wild Plants - Angier
Using Wayside Plants - Coon
160 Edible Plants Commonly Found in the Eastern U.S. - Freitas

Stalking the Good Life - Gibbons
Stalking the Wild Asparagus - Gibbons
The Wild Flavor - Kluger
A Naturalist's Guide to Cooking With Wild Plants - Krochmal
Wild Foods - Pringle
Foraging For Dinner - Russell

Helene Dunbar,
Museum Librarian

Nature Notes

Compiled by Robert Prescott

Usually when I complain about the lack of things happening during various quarters of my reporting, I find that I end up filling five pages with natural events. However, this time when I say nothing has happened, I mean it. It is as if nature took a holiday, with many creatures just passing us by and others staying just north of us. Often we blame the weather, and such is the case this year. Plain and simple, the early winter was just too nice. I'm not really complaining, you understand, but there is nothing like a good storm or two to perk things up. If it were not for the unprecedented mass stranding of harbor seals, this would have been a dull winter.

The fact that chipmunks were still at the bird feeders at Christmas is a good indicator as to how mild it was. The goldeneyes, those ice-loving diving ducks, didn't put in an appearance until after the New Year. No unusual invertebrates washed ashore, nor were there any mystery fish along the beaches. With no ice to sit on, the cormorants couldn't gather to dive for fish; and without the cormorants, there were fewer eagle sightings. (Eagles can usually be counted on to show up, harassing and stealing fish from the cormorants). Even the eiders seem to be scarce. Normally they can be seen flying into Nauset Marsh to feed on the Snow Shore mussels. This year's early January bird walk found no birds at all in Nauset Marsh. The eiders and the mergansers all remained far offshore, still able to feed in the mild open sea. This mild weather even induced both manx and greater shearwaters to remain well past Thanksgiving. The migratory woodcock and yellowlegs have also been spotted frequently and both will apparently try to make it through the winter.

We did manage to get reports on a variety of wildlife, however. Nature's ways were not completely deserted, nor quite as lean as I have portrayed. Let me document for you what has transpired this quarter.



African wood stork (Ibis ibis).

Two very unusual birds put in appearances this fall. In late October, an avocet, typically a mid-western bird, dropped into a Nauset Marsh tide pool where John Hay's Dartmouth group had a good look at the bird. Later the avocet was seen associating with some yellowlegs around Stage Harbor. The next surprise was an apparent African wood stork. I say apparent because its identity was confused. It was first seen by one of our members, Dr. Robert Pyle, as it flew over route 6A near Orleans. As you might imagine, this report was greeted with some skepticism (the author included.) No more was seen or heard until a week later when another member, Allan Lyford, reported a white ibis in the Wellfleet area. Once again the bird disappeared and could not be relocated that day. Over the next several days an intense bird hunt was on. The question was whether we had an ibis or a stork or both on Cape Cod. The ibis identification was made on the basis of a red face, while the stork was identified from its size and black wing tips and secondary feathers. As it turns out, the African wood stork fits both descriptions, being a red-faced, black wing-tipped bird. Positive identification of the bird as such finally came from Wallace Bailey of the Wellfleet Audubon Sanctuary. Mystery solved, except, where did it come from? Was it an escapee from someone's collection?