



Who Were They?

From prehistoric times, the native people of the Gulf of Maine have been responding to its changing climate

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When we prehistoric archaeologists present ourselves to the public, we are usually asked two very basic questions. The first is, “Who were they?”—these people whose actions made all the stone tool fragments and left all those piles of shellfish and animal bones. Second, we are often asked in much more subtle and variant forms, “What good is archaeology?” Besides being entertaining and putting some time-depth into our view of the world, does archaeology have any practical use in solving today’s problems? Certainly it does along the coast of Maine, where prehistoric archaeology is particularly interrelated with environmental study. The last two decades of doing archaeology along the coast and among the islands have taught us much about the past Native American life, the ecology of coastal Maine, and how both have changed over the last 10,000 years. Our understanding of how our distant forebears adapted to that changing ecology provides a deeper baseline of information than we can get from modern ecological studies alone. And at the same time, we can flesh out the old bones and reconstruct something of the human lives as well as the environment in which they lived.

A fortunate circumstance of coastal Native American life was periodic collecting of shellfish and subsequent discard of the shells (along with the rest of the garbage) around the place of residence, forming what archaeologists call shell middens. These shells neutralize the usually acid Maine soil and consequently preserve food animal bone, bone tools, and an occasional human and dog skeleton that would otherwise have rotted away within a century. The presence of thousands of food animal bone fragments in shell middens allows us to reconstruct the hunting and fishing economy and seasonal movements of the Native Americans. In addition, it allows us to monitor changes in fish and game frequency over time scales of millennia.

As Maine coastal archaeologists learn about environmental changes in the past, we can also make contributions to the study of future environmental changes. We know that the

coast of Maine is sinking rapidly, at least in geological terms. The Penobscot Bay region is sinking at a rate of about one millimeter per year, while the area around Eastport is sinking about nine millimeters per year. If this rate were constant over the past thousand years, a campsite on the central coast of Maine built at the high-tide line 1,000 years ago would now be under more than three feet of water (or would likely have been destroyed in the process of submergence). In fact, the oldest intact Indian site yet recovered from the coast of Maine is only 5,000 years old. There are very few coastal sites with components older than 4,000 years of age. But there are several places where scallop draggers have repeatedly recovered stone tools dating from 6,000–9,000 years old from gravelly bottom between 5 and 20 fathoms of water. So the older coastal archaeological sites survive only a scattering of stone tools on the inshore bottom. This environmental-archaeological connection is an important one, but let’s first take a look at “Who were they?”

Ten years ago we began three short seasons of work on a small shell midden on Allen Island, at the request of the Island Institute and the island’s owner, Betsy Wyeth. Primarily we were there to determine whether the site was significant, and secondarily to test for evidence of George Waymouth’s visit in 1605. We found instead a wigwam and fire hearth floor containing European clay tobacco pipes dating from about AD 1675, overlying a second wigwam floor of about AD 800. Both wigwams have been occupied during the summer, and both groups had been making a living the same way: catching fish, hunting birds and trapping the now extinct sea mink (*Mustela macrondon*). This site showed that there was some basic continuity in life along the Maine coast, which had remained stable for millennia, until even after the initial European contact suggested by the clay pipes.

There were few European trading voyages into the Gulf of Maine during the 1500s except perhaps a few by Basques. Sustained European presence, and with it direct and indirect interference in Native American affairs in the Gulf of Maine,



Tranquility Farm Site, Gouldsboro, excavated by the Abbe Museum in 1930-1931 under the direction of Walter B. Smith

began only with Samuel de Champlain and George Waymouth, around 1605.

Between 1605, when Champlain's account first specifically mentions Maine ethnic groups, and 1676 when the Indian wars brought drastic change, three ethnic groups (tribes) inhabited the peninsula that is today Maine and the Canadian Maritime Provinces. From northward to southward these are the Souriquois, Etchemin, and Abenaki. Farther south along the coast were a series of Massachusett-speaking groups. The Souriquois are (primarily) the ancestors of the modern Micmac; they inhabit what is now Nova Scotia, New Brunswick, and possibly northeastern Aroostook County, Maine. The Etchemin were the primary ancestors of the Maliseet and Passamaquoddy. In the early 17th century, they lived on tidal rivers and the coast between the Kennebec River and the Saint John drainages. The Etchemin inhabited a village near the mouth of the Kennebec of the east side, while upstream another group had a village at Norridgewock.

Souriquois and Etchemin were hunters, fishermen, and gatherers of wild plant foods. The inhabitants of Casco Bay and the Saco River mouth were agricultural, growing corn and beans. Champlain originally called them Armouchiquois in his 1604 account. By 1629 he refers to an agricultural group living at Norridgewock as Abenacquiouit, now "Abenaki." We assume that the Abenaki and the Armouchiquois were one people, and that Champlain had learned that latter name was an epithet. It was a Souriquois word related to "dog."

After the Indian wars began, these names changed. Between 1676 and 1692,

two terms were used for Native Americans living east of the Kennebec: "Canada," referring to expatriates from the Kennebec River who had joined people already living on the Penobscot in 1676; and "Maliseet." "Etchemin" disappears. Also beginning about 1650, French colonial authors increasingly used the term "Abenaki" to refer to a greater and greater proportion of the Indians in Maine and the Maritime province. The Penobscot tribe descended primarily from people living in the Penobscot after 1700. Following the American Revolution, the Maliseets were split by the new border between the United States and Canada into Maliseet and Passamaquoddy.

So answering the question "Who were they?" gets a bit complex. Tracing these ethnic groups backward into prehistory more than a few centuries involves major assumptions about the correspondence between certain styles of making ceramics or arrowheads and linguistic or ethnic groups, assumptions that most archaeologists are not willing to make. The answer for prehistoric inhabitants of most Maine archaeological sites is

"They were Native Americans," and their language was probably related to modern Algonkian languages such as Penobscot or Maliseet.

The focal points of early-17th-century Indian life were a series of villages occupied for geographic name and one or more sagamore (chief or headman). The inhabitants of each village often dispersed to smaller, seasonal campsites for one or a few families. In 1614 John Smith found Penobscot River and Bay "well inhabited with many people, but they were from their habitations, either fishing among the Iles, or hunting the lakes and woods . . . [O]ver all the land, iles or other impediments, you may well see them sixteene or eighteene leagues from their situation"—that is, up to 50 miles from their home village during the season of dispersal.



Tranquility Farm Site, Gouldsboro, excavated by the Abbe Museum in 1930-1931 under the direction of Walter B. Smith



Taft Point Site, West Gouldsboro, excavated by the Abbe Museum in 1939, under the direction of Wendell S. Hadlock

All settlements were located on some sort of water shoreline (island, coastal, river or lake). The large multiseasonal villages were located in estuaries along the coast and along the middle and lower reaches of major rivers. The furthest village inland on the Kennebec was at Norridgewock.

In 1605 George Waymouth kidnapped five Native Americans from the vicinity of Allen Island and brought them to England, where they were taught English. A census of sorts, apparently derived from these captives' recollections, was published in 1625 by Samuel Purchas. Twenty-two villages were reported on the drainages from the Union River (Mount Desert Island area) westward to the Saco, each with between 30 and 160 households and between 90 and 400 men (except one small one with eight households and 40 men). Making some assumptions about proportions of men, women and children, the largest villages may have been home to 1,000 souls. Asticou's village, on Mount Desert Island, was reported by Purchas to have 50 houses and 150 men (400–500 persons). In the summer of 1613 the village was described as an area of 20 to 25 acres cleared of trees, with grass in some places to the height of a man.

The total population of tidewater Maine from Mount Desert Island to the Saco, inclusive, was probably about 12,000 people. Perhaps 20,000 to 25,000 people lived in what is now all of Maine. This population began to decline drastically in 1617–1619 with the first major epidemic of a European disease to sweep along the coast.

On May 12, 1605, Waymouth anchored in the Georges Islands (now Allen, Burnt, and Benner), and found evidence of hearths and food animal bones lying on the surface of an unused campsite. At 5 p.m. on May 30 three canoe-loads of men, women and children arrived, started fires and made camp. The account of the voyage records the delivery of a major oration by one of the arriving men, probably

the senior member of the group. Perhaps it was a welcoming speech, but it could just as easily have been an expression of indignation and request for the English to depart. Since Waymouth's ship had been in the islands for two weeks, and the English had explored thoroughly, these Etchemin (we now know) had just arrived from the St. George estuary for their summer season stay. Archaeological work on several islands off the coast confirmed that "outer" islands were used during the summer only. The shell heaps in inner islands (including North Haven and Vinalhaven in Penobscot Bay) and in the estuaries, indicate multiseasonal or year-round use. Some Native Americans lived year-round on the coast of the Gulf of Maine, as implied by Purchas' census. Thus, at least some of the larger shell middens on inshore islands and in estuar-

ies were the "home base" villages, each probably with a name and sagamore.

The archaeological evidence for political and social changes is sketchy, but we have a much more solid database for reconstructing past environmental changes, their effects on human subsistence and economy, and vice versa.

We have now located about 1,530 shell midden archaeological sites along the Maine coast. Most are located on inshore islands and estuaries. A study of shell midden site locations in the Boothbay and Muscongus Bay areas by Douglas Kellogg revealed the primary factors in the decision to use a particular coastal spot as a village campsite. A major consideration was all-tide access for a birch-bark canoe: the vast majority of shell middens are located adjacent to a (large or small) cobble, gravel, or sand beach which extends from high to low tide.

Ecological change has affected many aspects of the coastal environment during Native American habitation of Maine. As described earlier, the coast of Maine has been slowly sinking relative to sea level for at least 10,000 years. Radiocarbon dates on shells show that the 9000-year-old shoreline near Seguin Island is now under 65 feet of water. I have already mentioned stone tools from an eroded campsite underwater



Warren K. Moorehead's excavation of the Boynton shell heap in Lamoine in 1913

near Deer Isle. The campsite is associated with an underwater channel (drowned estuary) that preserves patches of large oyster shells. A radiocarbon date of the oyster shells proves that the 6,000-year-old shoreline near Deer Isle is now under about 30 feet of water.

Oysters prefer brackish and relatively warm water compared with soft-shelled clams. So, while clams may not have been as common several millennia ago, oysters or some other species of shellfish were available. The oyster shell heaps at Damariscotta represent a localized survival of the estuarine conditions necessary to maintain major oyster populations. Deposition of these oyster shell middens by human harvesting began about 2,000 years ago and ended with European contact. Most of the rest of the shell middens along the coast are composed of soft-shelled clams and mussel.

The Gulf of Maine is a unique body of water where some extreme tides are caused by the geometry of the water body. While the Gulf has become deeper and larger as the land has subsided, the tidal mixing in the Gulf has increased. Before about 6,000 years ago, tidal range was much lower than it is today. Because tidal mixing pulls cold water off the bottom of the Gulf and mixes it upward in a large upwelling off the eastern Washington County coast, the Gulf has also become colder and foggier.

We know that until about 3,800 years ago the summer surface waters of the Gulf of Maine, and Penobscot Bay in particular, were warm enough to support large numbers of swordfish. This species is now largely confined to the warm, offshore Gulf Stream. But the people of the Red Paint (or Moorehead Phase) culture around 4,200 to 3,800 years ago, and their predecessors at least as early as 5,000 years ago, successfully hunted them. One axiom of archaeology is that people butcher large animals near the kill site, and don't haul bones and viscera around unnecessarily. If swordfish were being hunted offshore, then outer island sites of this age would be the only ones full of swordfish bone. However, several sites at the inland end of Frenchman's Bay are packed with swordfish bones, including backbones and ribs. We therefore conclude that swordfish swam inshore among the inner islands and bays. Sometime about 3,800 years ago, the cool upwelling water became strong enough to affect inshore coastal ecology along the central and western Maine coast. The change was rapid, but not instantaneous. Swordfish hunting, and the Red Paint people with it, disappear to be replaced by other, immigrant folk. The coastal subsistence of even later people, after 2,000 years ago, including the ancestors of the Etchemin, was based on high inshore and nearshore biological productivity maintained by the high tidal range and cool surface waters. Sturgeon, flounder, sculpin, and juvenile cod became the most important fish, most probably taken in shallow water with the aid of tidal nets and weirs or fish spears. The proportion of shorebirds, ducks and geese in the food supply increases, which must reflect larger bird populations. And the number of seals in the food bone samples grown continuously until European contact, another indicator of increasing inshore productivity.

These ecological changes are reflected in coastal terrestrial ecology, too. The coastal spruce forest strip appears to have



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Sifting for objects at a 1984 dig on Allen Island, led by Arthur E. Spiess.

widened and extended westward to its present western limit in eastern Casco Bay over the last few thousand years. Moose and caribou would be favored by such forest cover and white-tailed deer would be reduced by the decrease of hardwood-dominated forests. If we look at the 4,000-plus-year sequence of occupations at the Turner Farm shell midden on North Haven there is a ten-fold increase in the number of moose killed for each 100 deer killed (two for 100 became 20 for 100) at this one spot, beginning 4,200 years ago and ending with the last sample about 800 years ago. Caribou, that supposed denizen of northern Maine which was extirpated by sporting hunting about 100 years ago, shows up in coastal shell middens along the Washington and Hancock county coast after about 2,000 years ago, but not farther westward.

Archaeological data accumulate slowly. Archaeology is not an experimental science in the sense that repetition of a laboratory experiment constitutes "proof." Instead, the total accumulation of facts over decades and centuries of archaeological research allows us to advance our understanding of the past. Perhaps in the next decade we will be able to see more clearly backward from about AD 1600 into the more distant past, and understand more fully how people have responded to the changing ecology of the coast of the Gulf of Maine.