City of Newton

Setti D. Warren, Mayor

CITY OF NEWTON CITY-WIDE ARCHAEOLOGICAL RECONNAISSANCE SURVEY: PUBLIC EDUCATION REPORT

Newton Department of Planning and Development
Newton Community Preservation Committee

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Native Lifeways

Paleoindian Colonizers

The lands along the Charles River, now home to Newton, were occupied by Native American groups at least intermittently over the past 13,000 years. The best documented ancient site in the area is the Neponset Paleoindian site located eight miles south of Newton center along the Neponset River. This site has been professionally excavated on a number of occasions and has produced evidence of occupation by multiple households during the Middle Paleoindian period, about 11,500 years ago. The site is comprised of a number of concentrations of stone tools and tool-making debris. The most common raw material used was a volcanic stone called rhyolite. Interestingly, though rhyolite is plentiful in the Boston area, much of the stone found at the site was likely quarried from a source near Berlin, New Hampshire.

People during the Paleoindian period lived in an environment altering rapidly as the ice-age came to an end. While the region was probably forested, winter conditions were very extreme, and the vegetation consisted primarily of spruce, jackpine, and poplar. Animals like caribou were common, and hunters might have sometimes come across giant beaver, stag moose, the giant short-faced bear, and even mastodon. These animals have been extinct in the region since the end of the ice age.

Data from sites like Neponset indicate that people stayed on the move during this time. Most camps are small and indicate use by one to three family groups for a period of just a few weeks. Very few people lived in New England during this initial phase of human colonization to the region, so groups were spread thinly across the landscape. The archaeological sites they have left behind are, therefore, very uncommon and precious to researchers. Resources at the time were probably unevenly spread across space and between seasons, so survival hinged on being in the right place at the right time. Limited competition with neighboring groups allowed these mobile hunters to take advantage of rich harvests of caribou and probably fish and waterfowl at certain points in the year. In general, life was probably quite challenging, but these initial Colonists succeeded, becoming the ancestors of many of the later Native groups that occupied New England.

Paleoindian family at work. *(Image courtesy of Illinois Museum)*

Archaic and Woodland Period Foragers

As the ice age came to a close, some Native groups shifted their range north where they could continue their traditional caribou hunting way of life.

A source of confusion regarding the ages of New England's Native American timeline can be caused by the recent practice of calibrating radiocarbon dates. Calibration converts a measured radiocarbon date to one closer to a true calendrical age. The reason radiocarbon years differ from true years has to do with fluctuation in past levels of atmospheric radiocarbon. The difference between radiocarbon and calibrated ages increases over time.

Differences in age (in years before the present) are summarized below:

Radiocarbon Age	Calendrical Age
11,000	12,900
10,000	11,500
8000	8900
6000	6800
4000	4500
2000	2000
1000	900

Others stayed in the region, and instead adapted to the new resources offered by warmer forests. New England archaeologists refer to the post-glacial period as the Archaic. This period of time is subdivided into Early, Middle and Late stages. The Early Archaic was a time of significant climatic and environmental changes after the ice age. The period, dating between about 10,000 to 8,000 years ago is marked by a transition from predominantly cold-tolerant coniferous forests to much more modern conditions at its close. Sites from this period are rare in New England, but express a variety of cultural traditions.

This Archaic period "full grooved" stone axe was found by Jesse Fewkes in the 1800s. While Fewkes associated the ax with the seventeenth-century Sachem named Waban, the artifact is likely more than 4,000 years old. It is now part of the collections of the Jackson Homestead Museum.

The Lemon Brook site (19-MD-537) was located on the south side of the Charles River, in the area of Maple Street. The site has been known to archaeologists since the latter half of the nineteenth century. It was documented initially by Jesse Fewkes (1826-1911), father of the well-known nineteenth century archaeologist, Jesse Walter Fewkes (1850-1930), who conducted archaeological excavations and surveys for the Smithsonian in the American Southwest, including Mesa Verde, Casa Grande and Montezuma's Castle. Jesse Fewkes held a deep interest in local history, especially that of Native American population in possession of the Newton area.

The Jesse Fewkes collection, now in Newton Historical Society at the Jackson Homestead, contains a large number of artifacts, many of which are attributed to the Lemon Brook site. These artifacts are presumed to have been collected by Fewkes along the Charles River and Lemon Brook in his own neighborhood near Maple and Williams Streets. While Fewkes attributed the artifacts to the Massachuset Tribal Sachem Waban and his praying Indians, none of them date to the seventeenth century. Most are, in fact, much older and span many phases of Native history in the region over an 8,000 year time period.

Although the precise origin of the artifacts is unknown, they provide an uncommon and valuable glimpse at Native activity along the Charles. Because of the degree of urban development in the area, few intact Native sites remain. The area lies just above the Charles estuary and close to the first set of falls on the river. This would have been an important fishing location in the spring and fall when schools of anadromous fish made their way up the river to spawn. Among these, Atlantic salmon, shad, alewives, and eels were the most important. It is likely that fishing attracted large groups of people to this general area for thousands of years.

The collection itself cannot provide detailed information about site use because it was never excavated. Nevertheless, the 93 artifacts from the site express a variety of activities, such as hunting or spearing fish, stone tool-making, heavy woodworking, delicate wood or bone crafting, net and line fishing, and possible plant food processing.

The oldest definitive artifacts are "Neville" spear point variants that date between about 8,000 and 7,000 years ago during the Middle Archaic period. Late Archaic points from between about 5,000 and 3,500 years ago are more common, numbering ten. Artifacts from the Terminal Archaic period (3,500 to 2,800 years ago) also number ten. It should be noted that a large Terminal Archaic cremation cemetery was discovered across the Charles in nearby Watertown.

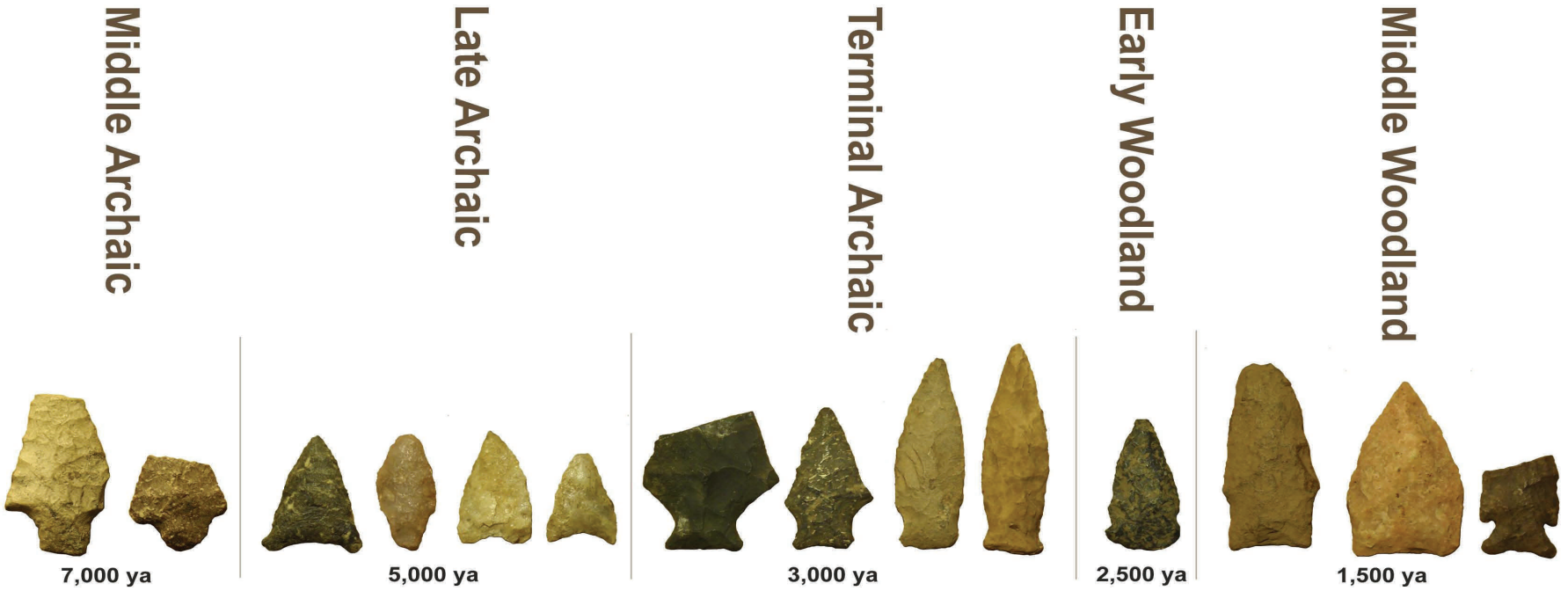
Early Woodland peoples made pottery, though none was found at the site; however, eight spear points can be attributed to the period between about 3,000 and 2,000 years ago. Middle Woodland points are represented by just three examples dating between about 2,000 and 800 years ago, while only a single Late Woodland artifact dating between 800 and about 400 years ago is represented in the collection.

Other interesting tool types that cannot be as easily dated include a perforator, a "pounding stone" probably used for plant food preparation, three stone axes used for felling trees, an adze and a gouge for heavy woodworking or canoe manufacture, four plummets (stone sinkers), and a grooved stone, both used as fish line or net weights.

Though only a small sample of Native activity along the Charles River in this area, the finds at least suggest that this was a favored location during the Late and Terminal Archaic periods, but became less commonly used over time. Perhaps as sea level rose, the nearby falls became less effective fishing locations and activity shifted to the Upper and Lower falls further upstream. Unfortunately, historical mill construction and gravel mining at these important industrial locations has likely destroyed most evidence of Native fishing activities there.

During the early phase, people manufactured leaf-shaped (lanceolate) projectile points and continued to manufacture stone tools similar to those of the preceding Paleoindian period. By about 9,000 years ago a novel technology developed focused on the use of quartz and the manufacture of ground stone tools. Though uncommon, sites of the "Gulf of Maine Archaic Tradition" occur in Connecticut, Massachusetts, New Hampshire and Maine. At large sites, such as the Sandy Hill site in southeastern Connecticut, it is apparent that these people had an economic focus on wetland resources, including cattail, water lily and arrowhead (*wapato*). Spear points are very uncommon, and hunting may have been limited to small game such as beaver, muskrat and turtles.

About 8,500 years ago, new hunting tools appear in southern New England. These are bifurcate (split) base spear points and their presence is likely linked to an increase in the importance of deer hunting as the region's forests supported a greater number of deciduous trees such as oak. The appearance of these spear points likely indicates the arrival of "Piedmont Tradition" peoples already adapted to hunting forest game in the warmer Southeast. These bifurcate manufacturing people left numerous spear tips across the region, but very few locations include artifacts indicating long-term encampment. They soon located, or learned of, excellent sources of rhyolite in the Boston area, which they preferred for the manufacture of their tools. The archaeological data indicate the presence of a very mobile population, settling in to a new region over a number of centuries.



The changing styles of projectile points help archaeologists estimate the age of Native American sites. These artifacts from the Lemon Brook site document at least 7,000 years of episodic visits to the site along the Charles River in Newton. These artifacts were collected by Jesse Fewkes in the nineteenth century and are now housed in the Jackson Homestead Museum (ya = years ago).

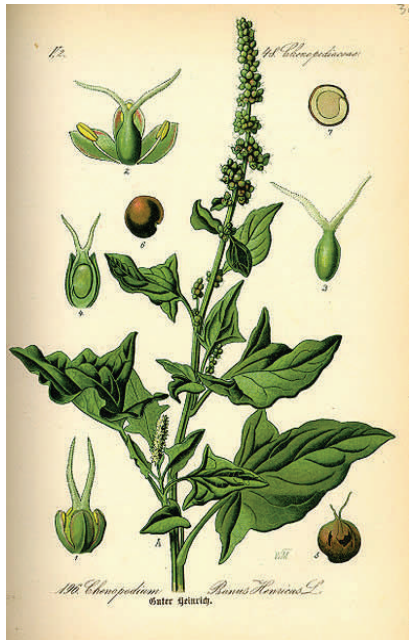
The region's Native population increased during the Middle, Late and Terminal Archaic periods, between 8,000 and 2,800 years ago. Sites become particularly common after about 5,000 years ago, suggesting the presence of well-established local populations. The observed return to the use of quartz at this time suggests to some archaeologists that a well populated landscape meant limited access to some more preferred, but distant, stone quarries. Small quartz cobbles were available in most gravelly bottomed streams across New England, and these became the focus of raw material procurement and tool manufacture. It is possible that this was a period of increased conflict between groups, though little direct evidence for this exists. Two Middle Archaic sites (8,000-6,000 radiocarbon years ago) and four Late Archaic sites (6,000-3,600 years ago) have been documented in the City. Unfortunately, these sites are known primarily through surface collected artifacts rather than professional archaeological excavation, so little is known regarding specific aspects of the Native use of the Newton area at this time. Newton's location along the Charles River and in particular the presence of falls strongly suggest that the area played a central role in the traditional fishing economy throughout history. It should be assumed that Native sites were common adjacent to the falls, though many have likely been subsequently destroyed or damaged by the construction of historic period mills.

About 3,600 years ago the archaeological record changes rather abruptly. This final phase of the Archaic, referred to as the Terminal Archaic period, is marked by the presence of elaborate cremation cemeteries that include material traded over great distances. Seasonally occupied camps also include new spear point forms, often manufactured from material quarried from outside the region. Archaeologists have long argued about the significance of this change,

many suggesting the arrival of a new population. The increased evidence of trade between neighboring groups, through formalized (even ritualized) exchange systems, supports developing relationships between people. Whatever the case may be, these Terminal Archaic peoples likely represent socially and politically sophisticated foragers of a type poorly documented in the present. Four sites dating between 3,600 and 2,800 years ago are known from Newton.

Archaeologists associate the beginning of the Woodland period with the first use of pottery 2,800 years ago. Interestingly, with the exception of a number of large coastal sites, Early and Middle Woodland finds (2,800 to 1,000 years ago) are not very common in New England. Some have speculated that this may reflect a period of population decline, perhaps associated with environmental changes or even the introduction of a new disease such as tuberculosis. In fact, the rarity of sites may reflect settlement changes that resulted in fewer, but longer-term camps. A likely increase in the use of floodplain and shoreline habitats may also make such sites difficult to discover because these areas are now deeply covered by river sediments or coastal marshes. It is likely that the use of local wild plant foods such as goosefoot (chenopodium or quinoa) and hickory nuts, as well as the gathering of shellfish, intensified between 2,800 and 1,000 years ago. The use of pottery supports the idea that increasingly sophisticated cooking methods were necessary in order to wrest greater nutrition from the local environment. Three Middle Woodland period sites have been documented in Newton.

This net sinker, from the Jesse Fewkes collection at the Jackson Homestead Museum, is an indication of the importance of fishing in the local Native economy.



Hickory nuts and chenopodium (goosefoot) were important traditional wild food sources, though the seeds chenopodium produced were very small.

(Image sources: http://www.ehow.com/how_5326168_roast-hickory-nuts.html, http://en.wikipedia.org/wiki/File:Illustration_Chenopodium_bonus-henricus0.jpg)

Late Woodland Farmers

Maize farming developed relatively late in southern New England, only after about 1,100 years ago. Evidence of maize, in the form of burnt kernels, remains extremely uncommon until the arrival of Europeans. While maize, squash and eventually beans were added to the diet, they do not appear to represent staples for most New England peoples until the 1500s. Instead, a traditional way of life focused on hunting, fishing and wild-plant food gathering remained central to the economy. It is likely that maize horticulture was first practiced by families who sought a way to provide increased security to the sometimes unpredictable harvest of wild foods. Over time, maize became increasingly important, and by 1300 AD there is good evidence that villages were established in some coastal and river bottom areas. Only two Late Woodland sites have been reported in Newton.

Native Contact with the Europeans

The area of Newton was traditionally occupied by the Massachuset. Little information was recorded about the Massachuset before their traditional lifeways were significantly altered by the impacts of European epidemic diseases. The beginning of the Contact Period is generally set at ca. AD 1600, when the first intensive European occupations began in several locations along the eastern North American coast, although there were certainly some interactions before the seventeenth century, as Italian, Portuguese, Basque and French fisherman and explorers navigated the coastal waters off of New England at the end of the fifteenth century.

Nineteenth century rendition of Reverend John Eliot speaking to the Native Americans at Nonantum. (*Image source: http://www.harvardsquarelibrary.org/chistory/section3.html)*

Native American population figures for the Middlesex County region are unavailable for the period before 1620. Between 1616 and 1618, an epidemic struck Native potions along the New England coast with devastating effect. These epidemics preceded European explorers into the interior, wiping out large segments of the population, especially those grouped closer together in village settlements. Such losses radically changed Native lifeways and identity. Many communities likely lost certain cultural traditions, and many groups relocated and formed new alliances in order to survive.

Evidence for intensive Contact Period occupation is known from other parts of southern New England, but no sites clearly dated to this period have been discovered in Newton. The presence of a Native community in Newton during the early seventeenth century at Nonantum Hill strongly suggests a Massachuset presence in the area during this important transitional period, however.

Waban's name is highlighted on the monument, together with a romanticized image of a tomahawk and oak leaves.

The location of Waban's Wigwam where Eliot preached to the Native community at Nonantum was memorialized with the construction of this monument in the 1870s, now located on Eliot Memorial Drive. The location of the monument may not be far from the actual site, and thus represents a very important archaeological resource for Newton.