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EDITOR'S NOTE

Barbara Luedtke shares the wisdom she has gained from a quarter century of studying the Boston Harbor islands, suggesting the application of additional techniques to provide more fine-grained understanding, and summarizing findings to date. The date of Ousemequin's death is often misquoted so Russell Gardner provides the reference to settle the matter. Joseph Waller and Alan Leveillee extend Dena Dincauze's work in the Upper Charles River drainage with some detailed site descriptions, and William Taylor gives an overview of the Trites Farm site, Bridgewater, from his collection. Franklin Tobey's rock provides an archaeological guessing game.

A new note to contributors specifies requirements for picture files, and I encourage all of you to send me your work to keep the *Bulletin* in print.

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ARCHAEOLOGY ON THE BOSTON HARBOR ISLANDS AFTER 25 YEARS

Barbara E. Luedtke

The year 1999 marked my 25th year doing archaeology on the Boston Harbor Islands. Milestones are always a good time for retrospection, so this paper will reflect on some of the things we've learned over these years, comment on what we still don't know, and suggest directions for future research in the coastal zone in general, and on the Boston Harbor Islands in particular. This paper is not meant to be a comprehensive summary of our knowledge of the Islands, which would require a book, but simply presents some of the issues that I consider especially interesting or significant. I will first discuss several topics regarding coastal sites that are primarily meaningful to New England archaeologists, and then discuss what the coast and islands might have meant to the pre-Contact native peoples who left these sites.

Issues of Significance to Archaeologists

First, as is true everywhere in Massachusetts, the total number of known sites has grown enormously. In 1974 there was no official state site file, and the Massachusetts Archaeological Society had by far the most complete list of archaeological sites in the Commonwealth. The only Boston Harbor Island sites known officially were those recorded by Dena Dincauze in the course of her survey of the Greater Boston Area. According to my count, 19 sites were known then, and 60 +/- are known now (depending on how one

counts areas that are now connected to the mainland but which used to be islands). This increase is the result of a great deal of fieldwork by many institutions, including the University of Massachusetts at Boston, Harvard University, Public Archaeology Laboratory, Inc., the Boston City Archaeologist, Boston University's Office of Public Archaeology, Timelines, Inc., and others.

However, I am quite certain that more than 60 sites still exist on the Islands. Some of the Harbor Islands have never been surveyed, some have only been partially surveyed, and many others need to be re-surveyed because the survey methods used in the early days would now be considered woefully inadequate (Luedtke 1975, 1978). We probably found most of the big shell middens on the twelve islands we studied in 1974, but I know we missed most of the non-midden sites, which we now realize make up a substantial proportion of the total. For example, for the three islands that have been most intensively surveyed by more modern methods (Table 1), 40 to 50% of the sites we found had no shell, and another 10% had very little shell.

Some of these shell-less sites are early, dating to the Middle and Late Archaic, before the shellfish beds developed (e.g. Luedtke 1990:39-47). Others date to periods when shellfish were available, but were simply not deposited at these particular sites. For example, several shell-less sites may be Late Woodland farming hamlets, located away from the shellfish beds but adjacent to the best soils for farming (Luedtke 1987). There could even be a Paleoindian site among the as-yet undiscovered sites on the Islands; with the Neponset/Wamsutta site just 25 km away (Carty and Spiess 1992), it is

Table 1 Types of Sites on Boston Harbor Islands

Surveys	N	Shell middens	Scattered shell	No shell
Long Island ¹	6	33 %	17%	50%
World's End ²	10	50%	10%	40%
Thompson I. ³	20	50%	10%	40%

References: 1, Luedtke 1984; 2, Luedtke 1990; 3, Luedtke 1996.

hard to believe that Paleoindians never came to this area. Therefore, my first recommendation for future work on the Islands is that we do more survey, to fill in the remaining gaps in our knowledge of site locations.

Coastal sites are especially significant to New England archaeologists because a wider range of materials are preserved than at most inland sites. But this just heightens the frustration of the "archaeometry gap," that is, the ever-widening gap between the analyses we *could* do on our sites and artifacts, and those we can actually *afford* to do. For just a few examples, we now could obtain AMS radiocarbon dates from very tiny samples of charcoal or shell, and find out the age of many of our "sites of unknown age"; we could determine the season during which clams were harvested through study of their growth rings (e.g. Lightfoot and Cerrato 1989); we could reconstruct the paleocoastlines (e.g. Aubrey 1994); we could study erosion patterns and shoreline change (e.g. Kellogg 1995); we could perform the microstratigraphic studies of soils that might help elucidate complex stratigraphy and features (e.g. Currie 1994); we could core all the saltmarshes on the islands and study changes in pollen and plant macrofossils (e.g. Simon 1991); we could use petrographic and geochemical methods to securely determine the

sources of lithic materials (e.g. Strauss and Hermes 1996); we could do stable isotope studies of domestic dog bones, to obtain insight into the diets of the people who kept those dogs (e.g. Cannon, Schwarcz, and Knyf 1999). Any issue of the *Journal of Archaeological Science* or *Archaeometry* will suggest numerous other procedures, all potentially capable of producing fascinating data. Thus my second recommendation is that in the future, any Cultural Resource Management projects on the islands should try to include at least some of these kinds of analysis in their scope of work. Also, graduate students working on MA theses and Ph.D. dissertations should be aware that there is tremendous potential for exciting and significant projects, based on existing collections from the Islands or with a little additional fieldwork.

Site formation processes may not actually *be* more complex on the coast, but coastal shell midden sites often appear especially complex stratigraphically because of the ways shell is transformed by natural and cultural processes (Ceci 1984). Unlike the massive shell piles at sites such as Damariscotta (Sanger and Sanger 1986), Boston Harbor Island shell middens are usually less than 50 cm thick and take the form of numerous overlapping lenses and features, just what you'd expect if shellfish were being gathered as part of a

diverse diet and discarded in small dumps or pits, during the course of multiple visits spanning hundreds and sometimes thousands of years. Some of these middens are a fairly uniform mixture of soil and shell, in which it can be difficult to see intrusions; I remember our surprise at uncovering a 1930's hammer head near the base of what had appeared to be undisturbed midden (Luedtke 1990:25). In some cases microstratigraphy is present, but Dena Dincauze has voiced the suspicion that some of it may be the result of bioturbation, and may even be ephemeral (Dincauze, personal communication). In other cases there are no visible strata, but as one trowels down, one can *feel* trample surfaces where the shells are lying flat. Modified Harris matrices may help us to deal with this complexity (Shaw 1994), but this will only work in conjunction with rather broad scale excavations, not the scattered test pits we have generally used. Thus my third recommendation; we need more broad-scale excavations of large contiguous areas (Mrozowski 1994: 60).

This is also one solution to the final archaeological concern I want to mention here, which is site destruction resulting from storms and sea level rise. We have laws requiring mitigation when development threatens a site, but none to deal with attacks from Mother Nature. As others have also pointed out (e.g. Kerber 1999), coastal sites are among our most endangered, primarily due to erosion (but also because of increasing pressure from people who wish to build and play in the coastal zone). Sea level rise has been a long-term trend throughout the Holocene, it is still occurring, and it will accelerate if global warming is a reality.

Although much of my research has been focused on finding sites and then leaving them undisturbed as much as possible, we now face the possibility that most of those carefully documented sites will erode away during the next generation while we all sit back and watch. My fourth recommendation is

that we begin to develop a priority list of endangered coastal sites and start excavating them while we still can.

Issues of Significance to Site Inhabitants

I would like to shift gears now and try to consider what the Boston Harbor Islands might have meant to the people who lived on them in the past. Of course, the significance of the Islands to native peoples must have varied over time, both because cultures change and because the environment changes. For an obvious example, the first people living in the area that is now Boston Harbor were really living on the shores of river estuaries, not islands. We have recovered artifacts dating from the Early Archaic on (Luedtke 1984:7-8), but the islands only began to separate from the mainland during the Late Archaic (Aubrey 1994). The Middle and Late Woodland periods are most heavily represented on the islands, but we have to assume that many sites from earlier periods could have been lost to erosion.

First, the Islands must have had considerable economic significance to people in the past. For all coastal periods, the Boston Harbor Islands would have been a *dependable* source of food in any season (certainly for shellfish, probably for certain waterbirds, and possibly for certain fish and crustaceans). This is not of minor significance to people who can't drive to the Stop and Shop when they run low on food. In certain seasons, such as when large numbers of migratory fish or birds visit the harbor, the coastal zone was also a source of *abundant* resources. What one would expect, given these characteristics, and what I see in the archaeological record, is a pattern of repeated visits to the coast, especially during the seasons of abundance but sometimes at other times of the year as well. Fall seems to have been an especially popular time to visit the Islands (e.g.

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Luedtke 1980), but some sites appear to represent spring or summer camps (Luedtke 1996:47-53). I see no evidence for sedentism at any period; these islands were simply too small to support a group of people for a whole year, and the raw and frigid winds make them thoroughly unpleasant in the winter.

Very few of the Boston Harbor Islands sites have food remains representing only coastal resources; more often floral and faunal remains indicate use of a wide range of both marine and terrestrial resources (Table 2). Though 64 species of plants and animals have been identified from Harbor Islands sites, three species (deer, cod, and soft-shell clam) predominate in their categories not only in terms of how frequently they are found, but also in terms of the minimum number of individuals represented. In the case of soft-shell clam, this is simply a reflection of availability, as this is the most common clam found in the harbor today as it has been for the last two thousand years (Braun 1974). Deer also must have been the most abundant and easily available large herbivore in the area, as they were throughout most of the Eastern Woodlands. Deer did live on some of the islands (Wood 1977:61), and may have visited others by swimming, by crossing at low tide, or by crossing on the ice when the harbor was frozen in winter. Some of the deer bone found at sites may also have been brought to the islands as scrap for making bone tools, which appear to have been manufactured at many of the sites (Luedtke 1990:22-24). Cod has been an important fish in the New England economy for many centuries (Ross 1991:145-149), but it may be impossible to determine whether it was actually the most abundant fish in Boston Harbor, or whether it was simply especially favored by the native peoples who fished there.

The Harbor Islands also provided a number of non-food resources that may have been valued,

including flakable stone cobbles on the beaches, clay deposits, shell for beads, and even sun and wind. The juxtaposition of land, which heats and cools quickly, and the sea, which warms and cools slowly, creates a thermal gradient along the coast, resulting in a nearly permanent breeze. On Thompson Island we have found a number of features on the tops of hills that appear to be locations where foods were sun and/or smoke dried (Luedtke 1996:43-44). Thus my fifth recommendation; we need more sophisticated modeling of resource use for the coastal zone, based in part on more thorough identifications of faunal and floral remains in existing collections and also on consideration of non-food resources.

It is worth noting that there are no resources available on the Islands that are not also available on the mainland, with the possible exception of access to deep water close to land. There are shallow and extensive tidal flats along much of the mainland, requiring anglers to either drag their canoes a long way over the tide flats at low tide, or to fish a dangerously long way from shore at higher tides. But this is a minor consideration, and my major point is that people probably did not visit the Boston Harbor Islands solely for economic reasons. Social, ideological, and even aesthetic factors may also have been important motivations for island visits.

The Boston Harbor Islands would also have been significant to people as part of a social landscape, with potential for shared or restricted access. I suggested early on in my career that the use and social significance of the Islands might have changed during the Late Woodland, after the introduction of farming (Luedtke 1980). Before this economic innovation, the islands might have functioned as a "commons," with access fairly unrestricted as long as one belonged to the appropriate regional group. People visiting the islands therefore generally chose to use the closer

Table 2 Species Found at Boston Harbor Island Sites**MAMMALS**

Scientific name	common name	# of BHI sites where species was identified (N=31)
<i>Odocoileus virginianus</i>	deer	12
<i>Canis familiaris</i>	dog	11
<i>Procyon lotor</i>	raccoon	5
<i>Castor canadensis</i>	beaver	5
<i>Phoca vitulina</i>	harbor seal	2
<i>Sylvilagus sp.</i>	rabbit	2
<i>Erethizon dorsatum</i>	porcupine	1
<i>Sciurus carolinensis</i>	grey squirrel	1
<i>Urocyon or Vulpes</i>	fox	1
<i>Mustela sp.</i>	weasel, mink	1

BIRDS

<i>Phalacrocorax auritus</i>	double crested cormorant	5
<i>Meleagris gallopavo</i>	turkey	4
<i>Branta bernicla</i>	brant	2
<i>Branta canadensis</i>	Canada goose	2
<i>Gavia immer</i>	common loon	2
<i>Anas rubripes</i>	black duck	2
<i>Aythya sp.</i>	bay duck	2
<i>Pinguinis impennis</i>	great auk	1
<i>Alca torda</i>	razorbill auk	1
<i>Phalacrocorax carbo</i>	common cormorant	1
<i>Corvus sp.</i>	crow	1
<i>Cygnus sp.</i>	swan	1
<i>Melanitta sp.</i>	scoter (duck)	1
<i>Bucephala sp.</i>	goldeneye (duck)	1
<i>Gavia sp.</i>	loon	1
Family Accipitrine	hawk	1
Family Tetraoninae	grouse	1
Family Laridae	gull	1
Family Ardeidae	heron	1

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Table 2 continued Species Found at Boston Harbor Island Sites**FISH**

Scientific name	common name	# of BHI sites where species was identified (N=31)
<i>Gadus morhua</i>	cod	10
<i>Acipenser</i> sp.	sturgeon	5
<i>Squalus acanthias</i>	spiny dogfish	3
<i>Lophius americanus</i>	goosefish	3
<i>Melanogrammus aeglefinus</i>	haddock	2
<i>Alosa pseudoharengus</i>	alewife	1
<i>Pomatomus saltatrix</i>	bluefish	1
<i>Tautoglabrus adspersus</i>	cunner	1
<i>Brosme brosme</i>	cusk	1
<i>Pollachius virens</i>	pollock	1
<i>Tautoga onitis</i>	tautog	1
<i>Microgadus tomcod</i>	tomcod	1
Family Serranidae	bass	1
Family Bothidae	flounder	1
Family Labridae	wrasse	1

MOLLUSCS

<i>Mya arenaria</i>	soft shell clam	29
<i>Mytilus edulis</i>	mussel	16
<i>Crassostrea virginica</i>	oyster	10
<i>Mercenaria mercenaria</i>	quahog	10
<i>Argopecten irradians</i>	scallop	5
<i>Ensis directus</i>	razor clam	5
<i>Lunatia heros</i>	moon snail	4
Family Buccinidae	small whelk	3
<i>Spisula solidissima</i>	surf clam	2
<i>Crepidula fornicata</i>	slipper shell	2
<i>Geukensia demissa</i>	ribbed mussel	1

PLANTS

<i>Chenopodium</i> sp.	lambsquarters	13
<i>Carya</i> sp.	hickory	10
<i>Rubus</i> sp.	blackberry, raspberry	10
<i>Rhus</i> sp.	sumac	6
<i>Zea mays</i>	corn	3
<i>Quercus</i> sp.	oak (acorn)	1
<i>Polygonum</i> sp.	smartweed	1
<i>Portulaca</i> sp.	purslane	1
<i>Mollugo</i> sp.	carpetweed	1

and bigger islands, and they generally camped at the "best" locations on those islands, i.e. on flat well-drained land near a spring, shellfish beds, and good coves for landing canoes. Later in the Late Woodland, some of the bigger and closer islands appear to have been suitable for small farming hamlets, and thus became incorporated into family territories. People who were not closely related to the families farming on a particular island probably felt uncomfortable visiting there. The resulting archaeological pattern, which has held up well over 25 years of research, is for large multicomponent sites to be occupied up until about AD 1200, and then apparently abandoned. Most sites dating after AD 1200 are located adjacent to good farming soil, or on the smaller outer islands, which may have still been considered "commons."

There is also new data relevant to the social landscape of the Boston Harbor Islands, based on proportions of Saugus jasper, Melrose green rhyolite, and Braintree hornfels flakes in assemblages. During our survey on Thompson Island I noted that sites at the northern end of the island often had large proportions of raw materials from the north shore of Boston Harbor, while at sites on the southern part of the island, southern materials predominated. I then plotted proportions of these key materials for other Harbor Islands sites, and found that the same pattern distinguished sites on islands in the northern part of the Harbor from those in the southern part. Some time ago, Dincauze suggested that during the Late Woodland period the Charles River functioned as a boundary between two different, although closely related, groups (Dincauze 1974:56), and my data suggest that this boundary also extended right across Boston Harbor, following approximately the shipping route known as Nantasket Road (Luedtke 1997). As mentioned previously, the boundary cuts right through Thompson Island, and it may not be coincidental that the two sites located adjacent to

that boundary produced most of the exotic lithic materials we found during our survey, including jasper, Onondaga chert, and chert from the Champlain Valley (Luedtke 1996). My sixth recommendation is that we investigate this possible boundary further, in order to determine whether the pattern I found is also evident on other islands, and whether it is apparent in any other aspect of material culture, such as ceramic decoration motifs or minor lithic style differences. Were people more likely to trade with each other at sites along such boundaries? Is this in any way related to the development of social complexity, which Bragdon has suggested occurred along the coast in late pre-Contact times (Bragdon 1996)?

Finally, the Islands surely had symbolic significance to the native peoples who visited them. The coastal zone in general would have been the portion of the pre-Contact landscape most susceptible to rapid and dramatic changes, as chunks of land were eroded into the sea, barrier beaches formed or were breached, and sand spits migrated up and down coastlines (Luedtke and Rosen 1993). The coastal zone is also fundamentally liminal, a threshold between the very different domains of land and sea. For the native peoples of the East coast it was also the "end of the known world," the edge of the turtle's shell (Bragdon 1996:214). Like other liminal states and places, the coastal zone is both benevolent to those who know how to use it properly, and harmful to those who do not. Food is always available in Boston Harbor, but the rocks, sand bars, and nine foot tidal range have drowned many a careless fisherman or shellfish gatherer. There is always a cool breeze along the coast, providing welcome relief from summer's heat, but during a nor'easter the coast is also a place of great danger and destruction.

Would the dynamic, ambivalent, and liminal character of the coastal zone have made it

an especially important location for ceremonial activities? Was it indeed favored for burials, as has been suggested (Kerber 1999:3)? Two pre-Contact burials have been excavated on the Harbor Islands (Dincauze 1974), and others are said to have eroded out in the past (e.g. Luedtke 1996:20).

My final recommendation for future research is that we attempt to investigate the symbolic or ideological aspect of the islands and coast, both through oral traditions and through some innovative hypothesis testing using archaeological data. We might also start using remote sensing methods to locate graves on the islands, not so that they can be excavated, but so that they can be protected from accidental exposure and from erosion. There are probably more pre-Contact graves, and on some of the islands there are definitely a large number of unmarked graves dating to the last few centuries. The Islands have recently been designated the Boston Harbor Islands National Recreation Area, and they are certain to face increased development the next few years. The various owners of the islands could spare themselves a great deal of trouble and bad publicity if they determine ahead of time which areas should not be developed, because of the presence of unmarked graves.

Summary

After 25 years, I know some of the Boston Harbor Islands themselves in intimate detail, but I

feel that I still have a lot to learn about how people have used them. In part, this is because my research has focused on survey and minimal testing. Beyond this, though, I believe there is simply a great deal to learn about. The increased range of materials preserved at coastal sites provides opportunities to study traditional archaeological issues such as typology, culture history, and adaptation. In addition, though, the archaeological richness of the coastal zone may also allow us to deal with so-called "post processual" concerns such as ideology, detecting the activities of the sub-groups that make up any human population, such as men, women, children and the elderly, accounting for the origin of social inequality, and determining the relations within and between social groups. I want to end this retrospective by encouraging the next generation of New England archaeologists to focus on the coastal zone in this new century. Come on in; the archaeology is just beginning to warm up!

Acknowledgments

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THE DOCUMENTED RECORD OF OUSEMEQUIN'S YEAR OF DEATH AND THE NAMING OF HIS SONS

Russell H. Gardner (Great Moose)

It is a curious fact that from the earliest publications to the present day, relating to the Pilgrim Story and subsequent King Phillip War period of our history, the true year of the death of Ousamequin, Massasoit of the Wampanoag, and the re-naming of his two sons has been variously reported from the extremes of 1656, 1661, and 1662. None of these is correct, however.

The simple truth is contained in a single page of the published *Plymouth Colony Records*, a record available in most public libraries. Both are in volume III, page 192, under the date of

June 13, 1660, as follows:

Att the ernest request of Wamsitta, desiring that in regard his father is lately deceased, and hee being desirouse, according to the custome of the natiues, to change his name, that the Court would confer an English name vpon him, which accordingly they did, and therefore ordered, that for the future hee shalbee called by the name of Allexander Pokanokett; and desireing the same in the behalfe of his brother, they haue named him Phillip.

Reference:

Plymouth Colony Records

1856-1861 [1623-1689] *Records of the Colony of New Plymouth in New England*. 12 vols. Daniel Pulsifer and Nathaniel B. Shurtleff, M.D., eds., Boston, MA.

ARCHAEOLOGY IN THE UPPER CHARLES RIVER DRAINAGE: RECENT INVESTIGATIONS IN BELLINGHAM, MASSACHUSETTS

Joseph N. Waller and Alan Leveillee

Abstract

Archaeological investigations conducted by the authors have provided evidence for prehistoric occupation in the Upper Charles River Drainage. Recent fieldwork has resulted in the discovery of four sites that contain evidence of occupation spanning the Middle Archaic to Middle Woodland Periods. The results of surveys conducted by PAL in the Upper Charles River Drainage in 1997-1998 allow for a refinement of Dincauze's work in the region that began over thirty years ago.

Introduction

Until recently very few Native American sites have been recorded in the upper reaches of the Charles River. Known sites have been limited to small and scattered hunting encampments that yielded low densities of lithic manufacturing waste but few, if any, temporally diagnostic artifacts.

The first comprehensive survey of prehistoric sites in the Charles River basin resulted in several significant observations regarding the nature and patterning of activity for the Upper Charles River Basin. In particular, the lack of avocational archaeology efforts (both collecting and digging) along the upper Charles River was viewed as creating a bias in the site distribution pattern (Dincauze 1968:29 cited in Rainey 1991). Dincauze's research concluded that site size correlated with the size of adjacent expanses

of fresh water and, with the exception of rock shelter sites, well-drained, light gravel or sandy soils (1968:30). Recent discovery of several prehistoric sites within the upper Charles River basin in Bellingham verifies Dincauze's (1968) hypothesis that sites in the upper Charles Drainage could be expected in undisturbed, well-drained locations near the Charles and Peters rivers, wetland areas, or other tributaries.

Cultural Resource Management (CRM) archaeological investigations in the town of Bellingham, Massachusetts conducted by PAL have resulted in the identification of significant prehistoric Native American sites that span the Middle Archaic through Middle Woodland Periods. The discovery of these sites in the upper Charles watershed allows for refinement of, and addendum to, Dincauze's (1968) research for the Charles River region.

Identified Prehistoric Archaeological Sites

The Blue Flag Site

The Blue Flag Site is located north of Route I-495 on a terrace overlooking the east banks of the Charles (Figure 1). Initial testing at the site locale identified a concentrated deposit of hornfels, quartz, and rhyolite chipping debris. The findings indicate that the site is spatially limited, occupying approximately 600 m². Recovered artifacts from the site included 246 pieces of hornfels, quartz, quartzite, and rhyolite lithic chipping debris and 2 rhyolite biface fragments mostly confined to the plowzone with the exception of a tightly clustered deposit of quartzite

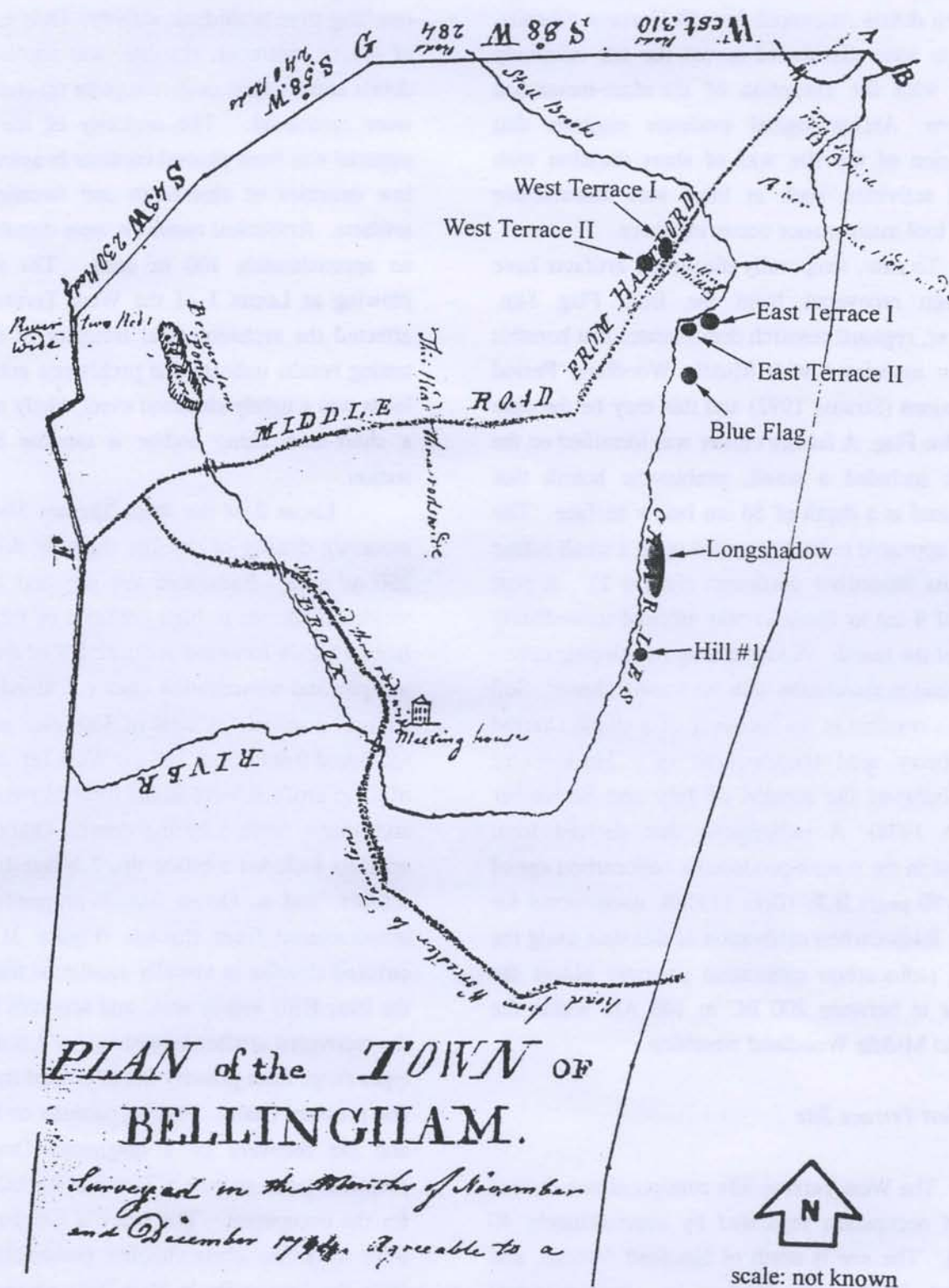


Figure 1. Locations of recently discovered sites along the Upper Charles River (Metcalf 1794).

chipping debris recovered from B Horizon subsoils. Artifacts were distributed across the site relatively evenly with the exception of the afore-mentioned site area. Archaeological evidence suggests that occupation of the site was of short duration with limited activities, such as lithic tool manufacture and/or tool maintenance occurring there.

To date, temporally diagnostic artifacts have not been recovered from the Blue Flag Site. However, regional research demonstrates that hornfels is often associated with Middle Woodland Period occupations (Strauss 1992) and this may be the case with Blue Flag. A feature cluster was identified on the site. It included a small, prehistoric hearth that terminated at a depth of 50 cm below surface. The hearth appeared to have intruded upon a small refuse pit to its immediate northwest (Figure 2). A post mold of 9 cm in diameter was situated immediately north of the hearth. A low density of chipping debris was found in association with the feature cluster. Soil samples resulted in the recovery of a single charred huckleberry seed (*Gaylussacia* sp.). Huckleberry fruits between the months of July and September (USDA 1974). A radiometric date derived from charcoal in the feature produced a radiocarbon age of 2000 ± 70 years B.P. (Beta 113789, uncorrected for $\delta^{13}\text{C}$). Radiocarbon calibration of this date using the OxCal radiocarbon calibration program places the episode to between 200 BC to 140 AD within the Early to Middle Woodland transition.

The West Terrace Site

The West Terrace Site consists of two distinct loci of occupation separated by approximately 40 meters. The site is north of Hartford Avenue, and east of I-495 (see Figure 1). Archaeological investigations at Locus 1 of the West Terrace Site did not recover temporally diagnostic artifacts or features

resulting from prehistoric activity. Only low densities of quartz, quartzite, rhyolite, and argillite chipping debris and a quartz projectile point tip and midsection were recovered. The majority of the recovered material was from plowed contexts in association with low densities of nineteenth and twentieth century artifacts. Artifactual materials were distributed across an approximately 100 m² area. The intensity of plowing at Locus 1 of the West Terrace Site has affected the archaeological integrity of the site but testing results indicate that prehistoric activity at this locus was a tightly clustered event, likely representing a short-term camp and/or a satellite lithic work station.

Locus 2 of the West Terrace Site yielded a moderate density of rhyolite chipping debris from a 250 m² area. Excavated test pits and larger units yielded moderate to high densities of lithic material from a highly localized area: 22.5% of the excavated test pits and 6 excavation units contained prehistoric cultural material. A total of 380 lithic artifacts was recovered from Locus 2 of the West Terrace Site: 375 of these artifacts were in the form of rhyolite, chert, and quartz lithic chipping debris. Other recovered artifacts included a biface tip, 2 biface fragments, a scraper, and an Orient fishtail projectile point, all manufactured from rhyolite (Figure 3). The recovered rhyolite is visually similar to material from the Blue Hills source area, and accounts for 97% of the recovered artifact assemblage at Locus 2. Flake types range from primary flakes to final stage thinning and pressure flakes. Flaking patterns on the artifacts and the recovery of a diagnostic Orient fishtail projectile point support a Terminal Archaic affiliation for the occupation. The locus is a tightly clustered lithic workshop where rhyolite, presumably extracted from the Boston Basin Blue Hills source area, was used for latter stage tool manufacturing.

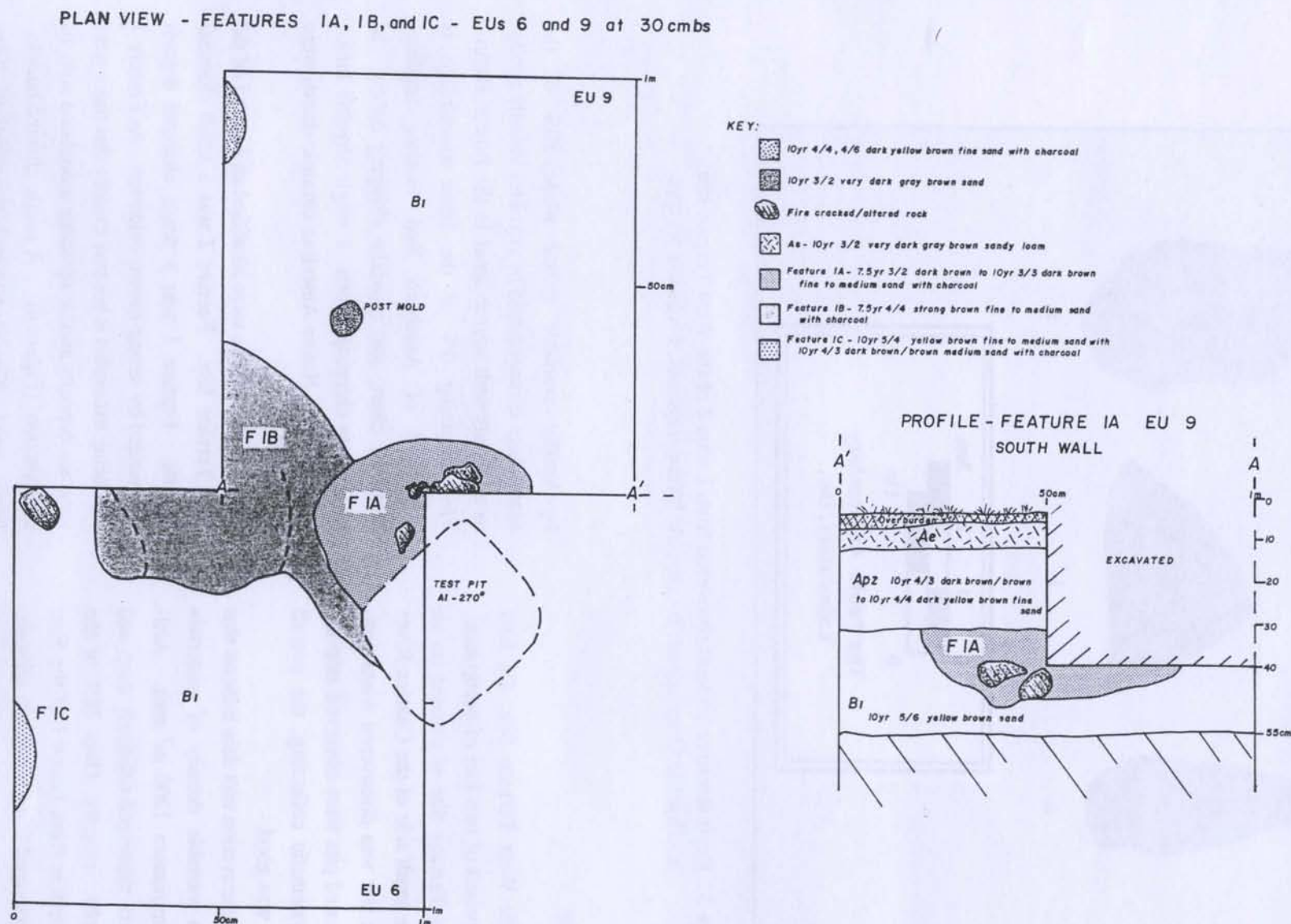


Figure 2. Features identified on the Blue Flag site.

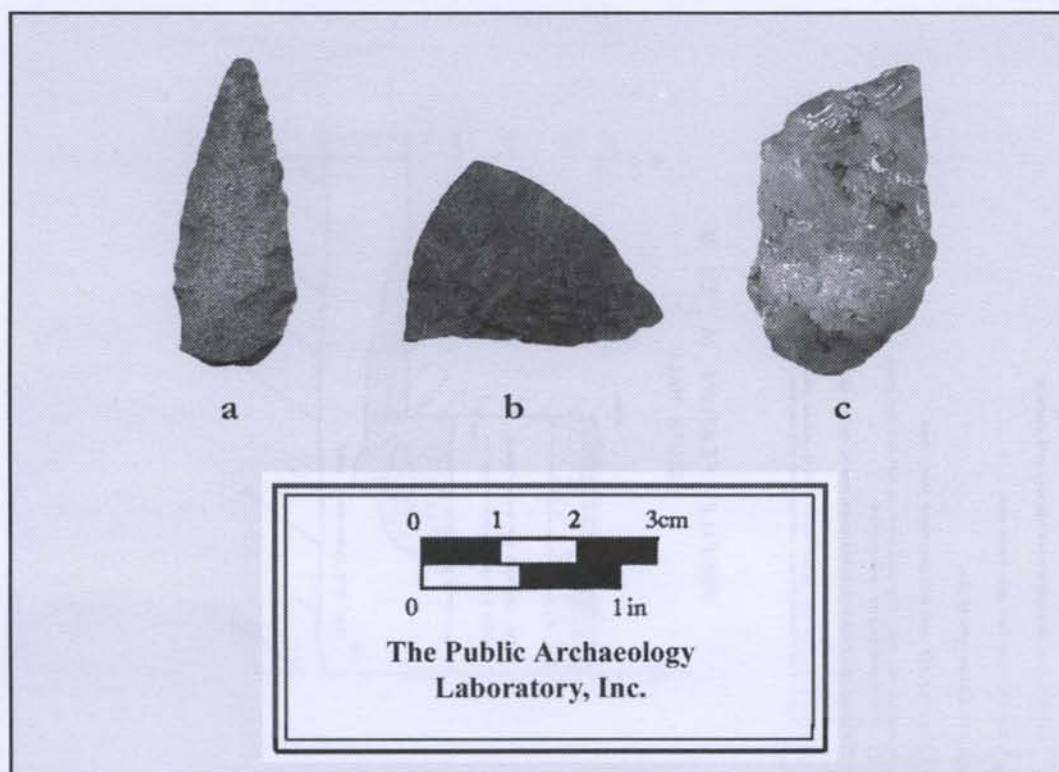


Figure 3. Representative artifacts recovered from Locus 2 of the West Terrace site: a - rhyolite Orient point, b - rhyolite biface fragment, c - quartz scraper.

The East Terrace Site

Similar to the West Terrace Site, the East Terrace Site is comprised of two loci of occupation. Locus 1 of the East Terrace Site is situated on an elevated knoll on the south side of the Charles River (see Figure 1). The site was discovered when non-systematically excavated pits were observed atop the knoll. Despite unsystematic collecting, the overall integrity of the area was good.

Test pits and excavation unit data indicate that this site exhibits a variable density of materials distributed over a minimum 1200 m² area. Artifactual materials were recovered relatively deep and with good stratigraphic integrity. Over 78% of the Native American artifacts from Locus 1 of the East Terrace Site were recovered from B horizon subsoils. Almost 74% of the lithic assemblage is represented

by locally available quartz while 20% of the assemblage is represented by rhyolites visually similar to materials with source areas in the Boston Basin. The remaining 6% of the lithic assemblage is comprised of Attleboro Red Felsite, argillite, hornfels, chert, and quartzite chipping debris. In addition to chipping debris, a single rhyolite biface and numerous Native American ceramic sherds were recovered.

Two features were identified on Locus 1 of the East Terrace Site. Feature 2 was a small charcoal deposit. Feature 1 was a dense charcoal deposit surrounded by strong brown oxidation. As Feature 1 was being excavated it became evident that there were separate deposits and/or episodes associated with its construction (Figure 4). A single charred huckleberry seed (*Gaylussacia* sp.) and charcoal were

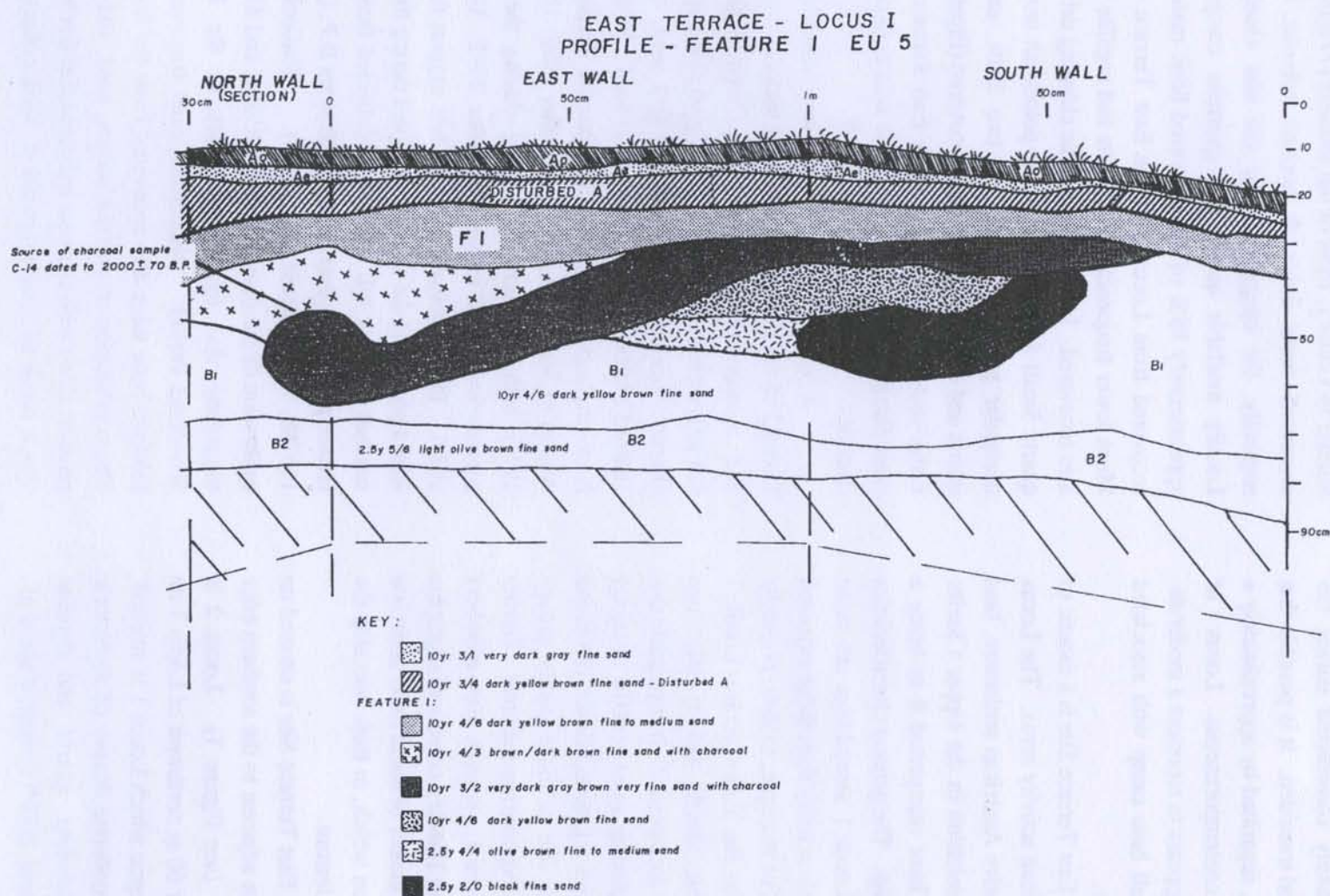


Figure 4. Profile of Feature 1, Locus I, East Terrace site.

recovered within the feature. A radiocarbon date of 2000 ± 70 years B.P. (Beta-11387, $\delta^{13}\text{C}$ corrected, calibrated) was returned from the charcoal sample. This indicates that this feature, like the one discovered on Blue Flag, was likely constructed during the Early/Middle Woodland transition. It is possible that these two occupations, separated by approximately a quarter of a mile, are contemporaneous. Locus 1 of the East Terrace Site appears to represent a moderate-sized campsite or small base camp with associated lithic tool manufacture.

Locus 1 of the East Terrace Site is a mosaic of multiple Native American activity areas. The Locus has yielded data on Native American settlement, land use, and resource exploitation in the Upper Charles River drainage. We have interpreted it as being a medium sized base camp. The general characteristics of the East Terrace Locus 1 assemblage are more consistent with domestic activity than those expected for a hunting camp. For example, to date, projectile points are absent from the East Terrace Locus 1 inventory, but ceramic sherds and at least one botanical specimen are documented. It is possible that rather than being occupied by a task-specific (hunting) party, Locus 2 represents a Late to Middle Woodland domestic space, where one or more family groups resided on the terrace overlooking the river. During the excavation of Feature 1, research team members Joseph Waller and Brent Handley noted a stratigraphic relationship between a cluster of burnt rock, underlain by a mottled substratum which, in turn, was atop the hearth element of the feature.

Locus 2 of the East Terrace Site is situated on the outwash flood plain adjacent to the southern edge of the Charles River (see Figure 1). Locus 2 is situated approximately 60 m northwest of Locus 1 on the skirt of the knoll upon which Locus 1 is situated. Locus 2 produced a moderate density of prehistoric cultural material, including quartz and rhyolite chipping debris, a quartz drill fragment, a sherd of

Native American pottery, and a Susquehanna Broad projectile point. These materials were all recovered from undisturbed contexts. At present, minimum site estimates for Locus 2 encompass a 625 m² area. Similar to Locus 1, most of the artifacts (77%) were recovered from intact B horizon subsoils. Consequently, the integrity of the site was excellent. Locally available quartz and quartzite comprised approximately 89% of the recovered lithic materials recovered from Locus 2 of the East Terrace Site. Much lower frequencies of rhyolite and argillite were also recovered. In addition to lithic chipping debris 2 quartz Small Stemmed projectile points, an untyped triangular projectile point, and two drills, one of quartz and one of argillite, were recovered (Figure 5). Lithic materials in Locus 2 of the East Terrace Site were distributed across the entire site area in moderate densities.

A single feature cluster was identified in Locus 2 of the East Terrace Site. It includes a hearth and associated post mold. Recovered botanical remains included a charred grape seed (*Vitis* sp.), a charred huckleberry (*Gaylussacia* sp.) seed, and a charred blueberry (*Vaccinium* sp.) seed. Southern New England grapes typically mature during the August to September months (Moeller 1992; USDA 1974) with blueberries maturing during the late summer/early fall months (Moeller 1992; USDA 1974). The combination of the data suggest that at least a portion of the site was occupied during the late summer or early fall. Charcoal collected from the feature produced a date of 2530 ± 60 years B.P. (Beta-113788, uncorrected for $\delta^{13}\text{C}$). Radiocarbon calibration of the date to between 810BC and 470BC suggesting that this hearth dates to the Early Woodland Period. Numerous small fragments of calcined bone were also recovered from the feature. The combination of charred berries, seed, and bone remains along with charcoal indicated that this hearth was a result of food preparation. Data collected to

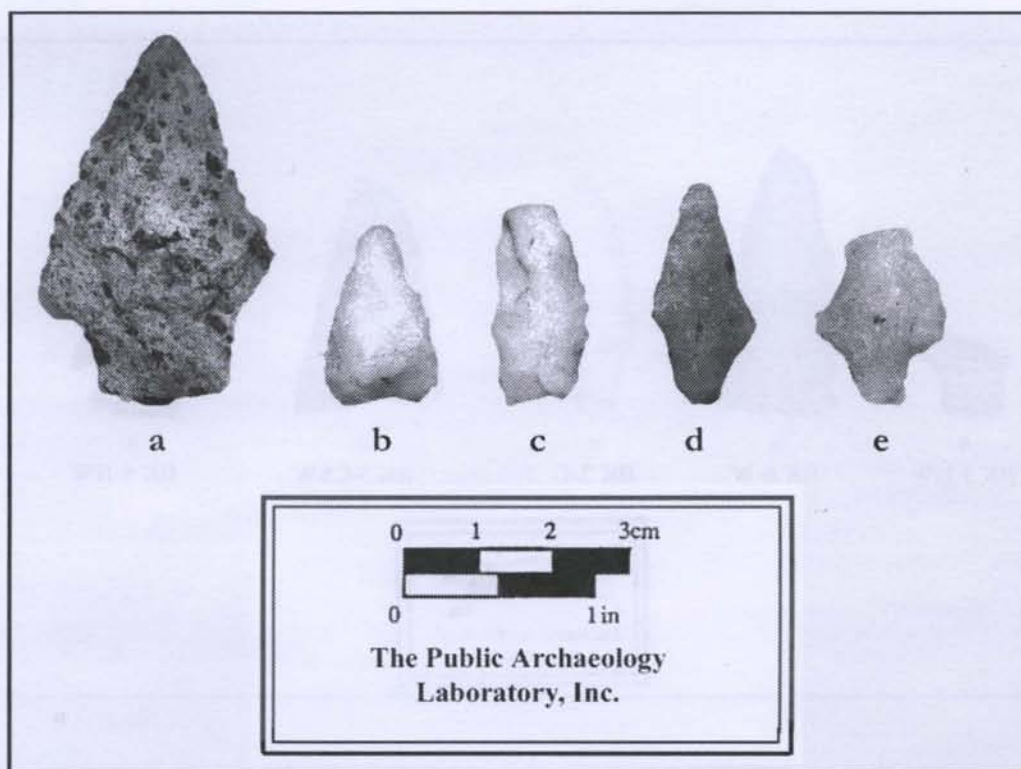


Figure 5. Representative artifacts recovered from Locus 2 of the East Terrace site:
 a - rhyolite Susquehanna Broad point; b - untyped quartz triangle point;
 c,d - two quartz Small Stemmed points; e - quartz drill fragment.

date indicate occupation spanning the Late Archaic to Early Woodland periods.

The Hill #1 Site

The Hill #1 Site is located on a remnant terrace along the east banks of the Charles River (Figure 1). Native American cultural materials were recovered from test pits during a CRM survey there in the Spring of 1999. Portions of the Hill #1 Site remain intact while others have been disturbed by gravel mining. Additionally, further inspection of the site area identified an apparent episode of "pot hunting" or other disturbance to portions of the site, therefore, undoubtedly affecting the integrity of some of the

archaeological deposits. Archaeological materials were confined to the plowzone deposits and upper levels of the subsoil.

In addition to hornfels, quartz, quartzite, and rhyolite collected from the surface of the site, test pits contained a low density of jasper, chert, and argillite. A correlation between hornfels and jasper deposits with Middle Woodland occupations in southern New England has long been noted (Luedtke 1987; Strauss 1992). Consequently, the presence of both jasper and hornfels, in conjunction with other documented Middle Woodland sites in Bellingham (Rainey et al. 1998; Waller and Leveillee 1998), suggests that a Middle Woodland component is represented at the Hill #1 Site.

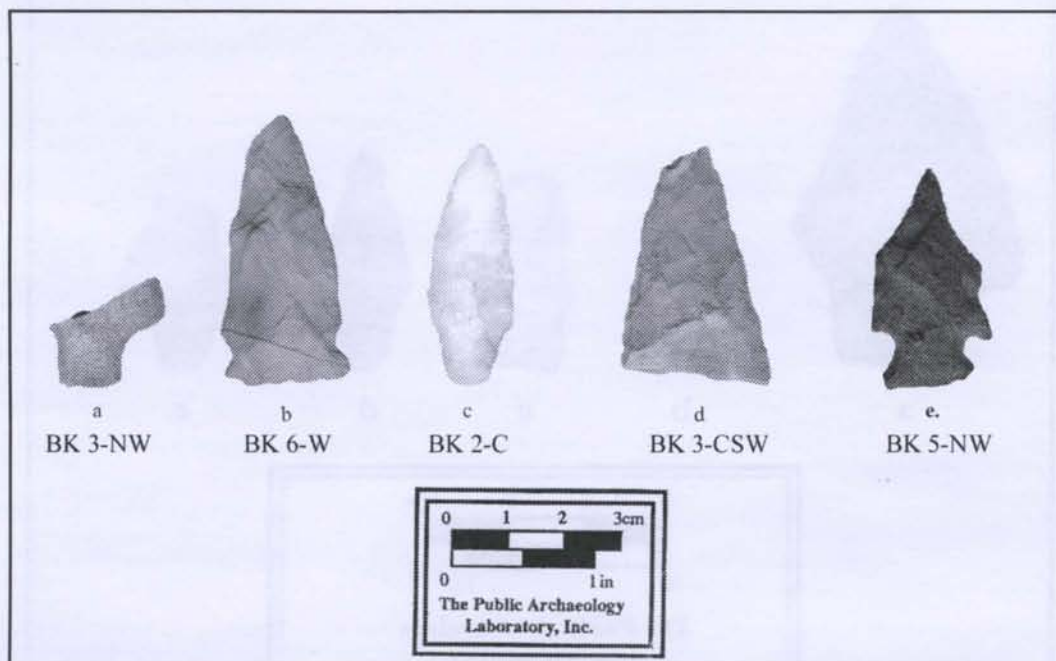


Figure 6. Artifacts recovered from the Long Shadow site: a - Neville-like base; b - Brewerton side-notched; c - Small stemmed; d - Biface fragment; e - Jack's Reef point/drill

The Longshadow Site

The Longshadow Site, like Hill #1, occupies the eastern Charles River terrace (see Figure 1). It was discovered in the spring of 1999. The Native American land use of the Longshadow Site spans at least 6,000 years beginning with the Middle Archaic Period, with subsequent occupations by Laurentian Tradition peoples of the Late Archaic Period and discontinuous but regular utilization through the Middle Woodland Period, as indicated by recovered diagnostic artifacts (Figure 6). Likely using the Charles for transportation and travel, groups of hunters and gatherers encamped along the well-drained soils of its banks. Generations of peoples, initially as hunting parties and later as more sedentary

family groups, occupied the floodplains along the River. The archaeological result is a composite of multiple sites concentrated in a band, or "edge effect", along the terraces overlooking and adjacent to the Charles River. While Native American peoples no doubt moved inland from the river to hunt and trap game and to collect plant foods, their habitation areas, campsites, and supportive activities appear to have been concentrated along the river margins, as was predicted by Dincauze in 1968.

Summary and Conclusions

The data resulting from recent surveys allow the construction of a preliminary Native American land use model for the Upper Charles River Drainage. The basic model includes three types of sites; short-

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duration locations, base camps, and nucleated base camps.

Short-duration locations are sites created when a few individuals occupy a site for a very limited time (measured in hours) for a task specific purpose. This type of site is typically considered a hunting camp, where a few people might stop, conduct expeditious maintenance of hunting implements, and perhaps light a fire for heat, light, or cook a meal. It is a single depositional event. It is generally spatially limited, has few features, and a generally low density of artifacts, which are of narrow type (i.e. broken projectile points/bifaces) and material range. Base camps are sites occupied for longer durations (measured in days) and by more people than the short-duration sites. Being occupied longer they exhibit a wider range of activities, manifested by multiple features. These features include processing (lithic workshops, roasting pits, hearths), trash pits, and possible evidence of structures indicated by remnant post molds. These sites will yield a wide range of material culture included in the resident population's assemblage of tool types (groundstone, scrapers, drills) as well as lithic workshops representing all or most of the reduction sequences. Base camps can be formed by family units. When they are, they reflect a range of both domestic and task specific activities.

Nucleated base camps are formed when multiple groups (families, clans, large communal gatherings) occupy a site for durations measured in weeks or months. If occupied for one or more seasons they can be considered semi-permanent villages. These sites are complex, with high densities of features and artifacts created by the full range of household and group activity.

The wide temporal scale of recovered diagnostic artifacts, from 7,000-1,500 years, and the spatial extent of them, indicate intensive Native American use of the terraces along the upper Charles

River. The Blue Flag Site, Loci 1 and 2 of the West Terrace Site, the Hill Site, and Locus 2 of the East Terrace Site likely served as short duration camp sites. The archaeological record of both Locus 1 of the East Terrace Site and the multi-depositional Longshadow Site could conceivably be the result of a very high density of short duration campsites, multiple base camps, or they may include elements of a nucleated base camp. It is most likely that these two locations were the settings for at least two kinds of overlapping sites, short duration camps and base camps, during many episodic occupations.

Recent excavations in Bellingham indicate that the Upper Charles River valley was a focal point for temporary camps and base camps of hunters and collectors over a span of more than 6,000 years. The area was certainly a favorable setting for hunting with the Charles River on the west and the Mine Brook to the east. The combined evidence from the Blue Flag, East Terrace, West Terrace, and Longshadow sites indicate that the upper Charles River valley in Bellingham was conducive to Native American settlement during the Late Archaic to Middle Woodland Periods, and likely was with well established territories for most of that continuum. It is predicted that high densities of sites remain to be discovered along the embankments of the dendritic network that forms the upper Charles River.

Acknowledgments

We gratefully acknowledge the PAL research teams and field crews for their contributions to the surveys resulting in the discovery of the sites discussed in this article. We would especially like to thank Patty Fragola for identification of floral materials and Gail VanDyke for drafting the article graphics. We wish to dedicate this article to the memory of Yvon R. Leveillee.

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Editor's Note: The authors choose to use the term "rhyolite" for what is more commonly referred to as "felsite."

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THE TRITES FARM SITE, BRIDGEWATER, MASSACHUSETTS

William B. Taylor

Site Description and Location

Approximately a quarter of a mile northeast of the Titicut site in Bridgewater, Massachusetts, (Robbins 1967) lies the Trites Farm site (Massachusetts Historical Commission site number 19-PL-160), now largely destroyed by building. This site was lived on since Middle Archaic times. A spring-fed brook flows through the site, while on the western perimeter an esker runs in a north-south direction and probably provided some shelter from cold icy winds during winter months. This gravel ridge is an extension of one that continues through to the Titicut site to the south.

The northern boundary line of Trites Farm does not cover the entire site, as approximately 350 feet beyond the northeast corner shows strong aboriginal occupation (about 1 acre). Several nice implements, (gouge, pestle, oval atlatl weight and pottery sherds), as well as points, knives and scrapers were found in the Maher garden adjacent to the Trites Farm Site.

During the late 1930s and early 1940s, this farm was used as a chicken range. From 1949 to 1954 a market garden covered most of the best 6 acres, before succumbing to a housing project (7 houses) in 1956. Prehistoric selection of this spot must have been prompted by the vast hunting potential, a convenient brook

running through the site, as well as a water route (Taunton River) to the ocean less than a quarter of a mile away. Following is a description of artifacts my father, the late William H. Taylor, and I obtained from surface hunting at the site.

Artifact Description

Three distinct periods of occupation were demonstrated by the types of recovered projectile points when compared to similar types at other well-stratified and dated sites. This comparison provides a culture sequence that is generally accepted as a standard to be expected at sites being excavated. Representative projectile points and other artifacts made of felsite, quartzite, argillite, quartz, and flint, are shown in Figure 1. The



Figure 1. Projectile points, knives, drills, and a scraper, found on Trites Farm and in the Maher Garden.



Figure 2. Trites Farm finds: top: 3 grooved axes in a cache: bottom: 1 celt, 1 oval atlatl weight.

potsherds were found by George Maher while digging a foundation, but were not saved. They perhaps came from a broken pot discarded in a refuse pit.

In addition to these objects, several other implements were found. Three cached axes, 1 celt, and 1 oval atlatl weight, were all collected between 1949 and 1954 through surface hunting (Figure 2). Seven knives, 1 gouge, 1 celt, and 1 oval atlatl weight are represented in Figure 3. Also found were 1 grooved weight, 1 Archaic pestle 10 in (25.4 cm) long, and numerous knives, drills, and scrapers.

On November 11, 1949, a most interesting surface recovery led to an unusual find. In the dead furrow, along the northern edge of the field, a 7 1/2 in (19 cm) chipped axe (or celt) lay exposed by the plow (Figure 2, top right). Noting the exact location, William H. Taylor returned later in the day with a shovel and hoe. Directly below this first

earliest occupation of the site, Middle Archaic, may be identified by three Corner-Removed types, #5 (Neville), #8 (Stark), and #9 (Poplar Island), plus a Cross Drill (Neville), and a Leaf Knife. (The typology follows Hoffman 1991; Fowler 1963.)

Following this comes the Late Archaic Period with Corner Removed #7 (Atlantic-Like) Corner-Removed #3 (Merrimack), Side Notched #5 (Normanskill), Side Notched #1 and Eared #3 (Susquehanna Broad), Small Stemmed (Wading River Stemmed), and Small Triangular #3 and #4 (Squibnocket Triangle) point types, a Stem Knife, and cache Blade. The third period, Woodland, is represented by ceramics, Side-Notched #7 (Meadowood), and Large Triangular (Levanna) points, and a Side-Notched Drill. Many



Figure 3. Artifacts from Trites Farm and Maher Garden: 7 knives, 1 gouge, 1 celt, 1 oval atlatl weight. Top row, third from left: green porphyritic cache blade.

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implement were two full-grooved axes, stacked one on top of the other (Figure 2, top row). Why these three axes were cached there makes for interesting speculation. Other than some soil discoloration and scattered charcoal flakes, no clear-cut feature was found.

On April 11, 1951, I found a beautiful cache blade in the newly plowed earth at the northeast corner of the site. This blade measures $2 \frac{5}{8}$ in (6.7 cm) wide by $5 \frac{1}{2}$ in (14 cm) long and is made of green porphyritic felsite (Figure 3, top row, center). Large blades like this are rarely found on the surface. This knife is one of the finest ever recovered from the Titicut Area.

Site Discussion

During the late 1940s the Bridgewater Sand and Gravel Company, which owned the adjoining land to the north of Trites Farm, uncovered two red paint burials in the course of gravel-removing operations. The graves were exposed by a bulldozer or front-end loader; no bones were mentioned. They were probably cremation burials in heavy red ochre deposits judging by the red discoloration of the artifacts. This discovery was made along the esker, 350 feet or so north of the Trites Farm boundary line. This area possibly could have been the burial area for Indian residents of this site. Burial No.1 held two perfect wing-type atlatl

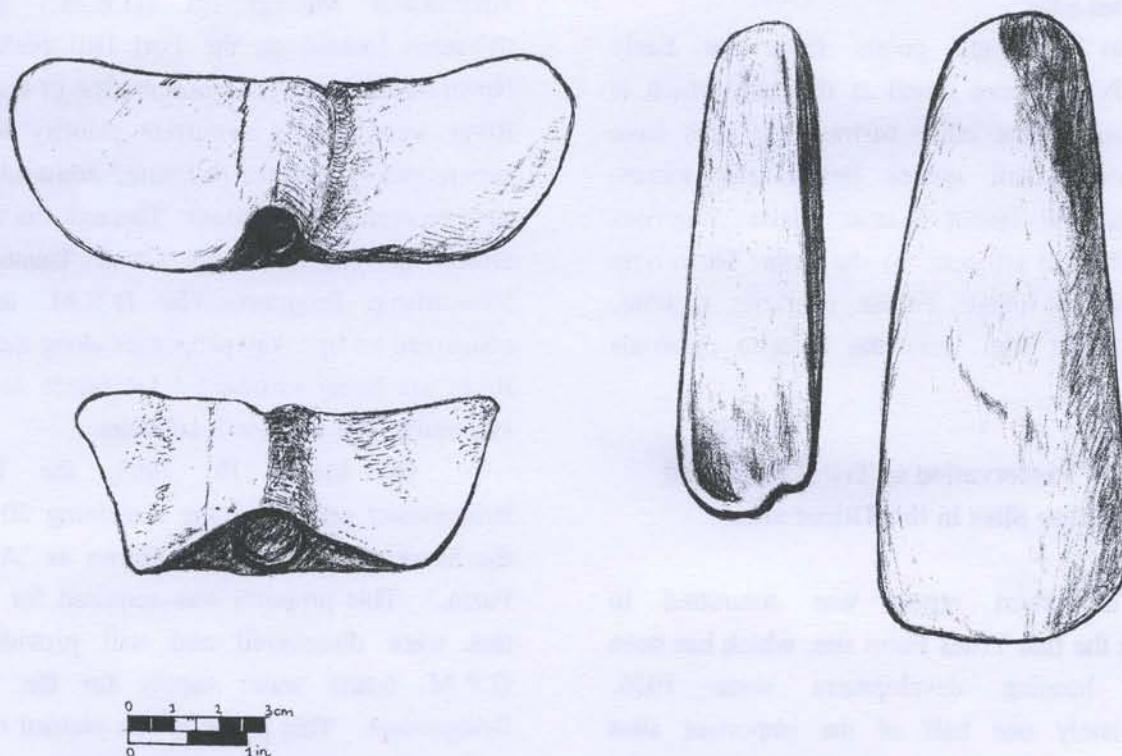


Figure 4. Artifacts from two burials north of Trites Farm. Left: 2 wing atlatl weights from Burial No. 1. Right: a gouge and adze from Burial No. 2. (Drawing by Ruth Lieberherr. A drawing rather than a photograph is shown in order to respect the burials.)

weights, while Burial No. 2 revealed a complete gouge and a complete adze blade (Figure 4). In Figure 4, the atlatl weight at top left is 2 in (5 cm) wide and 4 3/4 in (12 cm) long and appears highly polished. The atlatl weight at bottom left in Figure 4 is 2 in (5 cm) wide by 3 1/2 in (8.9 cm) long and is probably made of chlorite material. The gouge next to them to the right is 4 3/8 in (11 cm) long, and the adze at right is 6 1/2 in (16.5 cm) long.

Apparently the small brook flowing through this site held an important place in the daily living of its early occupants. Members of the Trites family found a mortar and pestle along the west bank of the stream near the street. Opposite this spot in 1951, I found a celt and 10 in (25.4 cm) pestle along the east bank approximately 10 feet from stream edge.

No bifurcated points from the Early Archaic Period were found at this site which is strange since most other surrounding sites have them. Also small quartz points are scarce. Throughout the Titicut District quartz comprises 40% of chipped artifacts. At the Trites Farm only 10 to 15% was found. Felsite, quartzite, argillite, and occasional flint were the favorite materials used.

State of Preservation of Trites Farm and Other Sites in the Titicut area

This short report was submitted to document the fine Trites Farm site, which has been lost to housing development since 1956. Approximately one half of the important sites within the Titicut Area have now been destroyed by housing projects, carried out between the years 1956 and 1972. Farming is almost non-existent today. From finding over 200 perfect artifacts annually during the years 1942 through 1965, I now am lucky to find 10 a year. On the positive side, several of the finest remaining sites have been

allowed to grow back to woods again. This has put their destruction on hold and may give a chance for future excavations.

In 1976 the Town of Bridgewater purchased the Titicut Site, 27 3/4 acres in Bridgewater and 7 1/2 acres in Raynham. This acquisition protects from future development on this property and saves some excellent areas for possible archaeological excavation. Today this property is used by Boy Scouts and other groups for camping. Long range plans called for a canoe-campsite stopover site during a 3 day canoe trip from Lake Nippenicket, via the Town River to the Taunton River and the ocean, approximately 44 miles distant at Mount Hope Bay.

In June 1998 the Department of Environmental Management (D.E.M.) purchased 10+ acres located on the Fort Hill Field Site in North Middleborough. Conservation of the Taunton River watershed is a current priority for future generations, to protect wildlife, archaeology, and save recreational resources. Through the combined efforts of The Wildland Trust, Taunton River Stewardship Program, The D.E.M. and other concerned groups, key properties along the Taunton River are being scrutinized for future acquisition. Hopefully, this trend will continue.

On March 10, 1999, the Town of Bridgewater purchased the remaining 20 acres of the Seaver Farm, formerly known as "Arrowhead Farm." This property was acquired for the wells that were discovered and will provide a 300 G.P.M. future water supply for the Town of Bridgewater. This property has yielded over 4000 surface finds through the years 1920 to 1972. It was one of the most important Early Archaic sites in New England. Indian occupation continued for approximately 8000+ years, through the Historic Period and settlement by the White Man in the early 1700s. Many early industries were established then, along the Taunton River.

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Through the 30 years that my father and I collected from this large site, 45 bifurcated points were found and at least 10 more by other collectors. Seaver Farm also had a heavy Late Archaic settlement that continued through the Woodland Period into Historic times. This was apparent from the recovery of gunflints, musket balls, copper points, copper beads, and pendants.

Although at Seaver Farm approximately 5 heavy occupational acres were destroyed in 1969-

1970 when 17 houses were erected, since that time the center 20 acres have been allowed to grow back to small trees and brush. There still remains between 5 and 6 acres with strong archaeological remains. Hopefully this area will be available for future archaeologists to excavate and study.

Acknowledgments

I would like to thank Ruth Lieberherr for her drawing of the artifacts in Figure 4.

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NEW NOTE TO CONTRIBUTORS

The Editor solicits for publication original contributions related to the archaeology of Massachusetts. Manuscripts should be sent to the Editor for evaluation and comment. Authors of articles submitted to the Bulletin of the Massachusetts Archaeological Society are requested to follow the style guide for American Antiquity 57:749-770 (1992).

*Radiocarbon ages should be reported as radiocarbon years $\pm$ sigma B.P. Please state whether $\delta^{13}\text{C}$ -corrected (give $\delta^{13}\text{C}$) or uncorrected and what material was assayed. For further information, please refer to Elizabeth A. Little *Radiocarbon Ages: How to Report* in Volume 58(2), Fall 1997.*

Authors are requested to submit their work on paper, but those with IBM-PC and MAC compatibles are encouraged also to mail disks with files in Microsoft Word, WordPerfect 5.1, or ASCII to the editor. Picture files may be submitted on disk, preferably in TIF, but EPS is also acceptable. Disks may be returned on request.

WHAT MAKES THIS ROCK SO SPECIAL?

Franklin J. Tobey

The site is so small and simple that it can't possibly be unique. While a Massachusetts example is unknown to me, there must be many more like this one lurking somewhere in the archaeological literature, and if not, it is my hope that this account will lead to the discovery of similar sites elsewhere. The finding of such a site in the Appalachian mountain chain brought its discoverers as close as they have ever come to standing in an ancient pair of Native American moccasins.

The site, in a crater-like valley of a major northeastern ridge, is situated alongside what had once been identified as an ancient "workshop trail." That trail's existence, authenticated by a professional archaeologist, appears as a minor feature (*i.e.* mentioned in passing) in an official 1917 report on archaeological sites in northern New Jersey (Schrabisch 1917). The site is at Catfish Pond, Pahaquarry Township, Warren County (Figure 1), and is situated on a north-facing slope about one tenth of a mile from the pond's eastern edge. It is at an elevation of about 1210-1220 ft (365-370 m). The site is close to the edge of the trail marked by a low rock whose top surface is about 2 ft (60 cm) square, and which varies from 8 in (20 cm) in thickness on its forward edge to about half that in the rear (Figure 2). The rock is Silurian Shawangunk ("Shawn-gum") quartzite and is either water-worn or ice-polished: probably both. For your "ordinary trailside rock" it is an exceedingly comfortable seat! The location is surrounded by saplings of the sassafras tree,

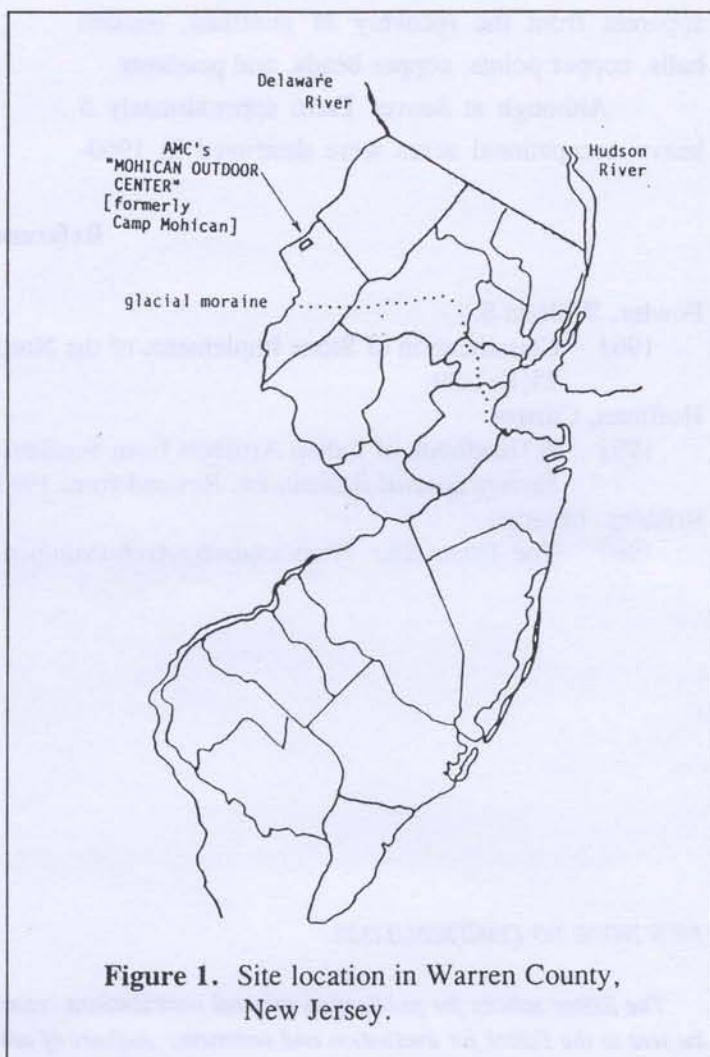


Figure 1. Site location in Warren County, New Jersey.

mountain laurel, pepperbush, and low-bush blueberry; a plant distribution probably not too different from a New England site.

By the late 1920s the area in question had become a summer camp for city boys (Camp Mohican), and is now the Appalachian Mountain Club's "Mohican Outdoor Center" within the larger Delaware Water Gap National Recreation Area. Physical evidence for the workshop trail could still be collected in the 1930s; perhaps even today. From 1927 to the time of discovery, footfalls of



Figure 2. Rock "seat" adjacent to flake scatter, Catfish Pond, Pahaquarry, New Jersey. Picture taken looking south and uphill towards trail. (Large rock at left recently displaced from being on top of two at right. Dimensions: top surface 2 ft [60 cm] square; height in front: 8 in [20 cm].)

modern campers wore down the turf on the hillside so that traces of more ancient activity were uncovered. It should have come as no surprise, then, when in 1934 several individuals started picking up gray oölitic chert chips on that trail. The chert flakes had appeared suddenly following a violent mountain thunderstorm, a real "gulley-washer." Fortunately, the camp naturalist, (Dr.) John W.H. Glasser, arrived on the scene soon after the discovery. He was familiar with the lithic materials used by the early inhabitants and had taught the rest of us to watch for them. John Glasser recognized the discovery for what it dramatically represented. A hundred or more chert flakes were found at the spot between 1934 and 1936 after storms. One simply cultivated the habit of checking the spot after each subsequent summer shower. No digging!

Some classic stone tools were, eventually,

separated from the accumulating pile of collected chips under John Glasser's careful examination. Also, there were a few larger fragments found which showed bifacial workmanship with pressure flaking probably from a deer antler tyne. When sorted by color and texture, two of the larger pieces fit together (Figure 3, bottom left). They then made the second of two crudely shaped preforms from which more functional projectile points were to be knapped. Some of the artifacts appeared to be

gravers, scrapers, and preforms or edge tools, or pieces of these (Figure 3). The fragments raised serious questions about the expertise of the old flint-knapper; or was he young, a beginner? Did he throw them down in disgust when the material he had worked didn't yield the result he expected?

By now, you have guessed what made the big rock so special. It had been the seat used by the flint-knapper as he worked the stubborn material. A seated person would have faced north, sun at the back, with feet planted on the downward slope, knees flexed for use as a table. We found it to be either awkward or uncomfortable as well as impractical to sit on the rock oriented in any other way. The many large and smaller flakes spalled from larger pieces of the chert were scattered in an arc on the northeastern side of the smooth-topped glacial boulder used as the knapper's temporary

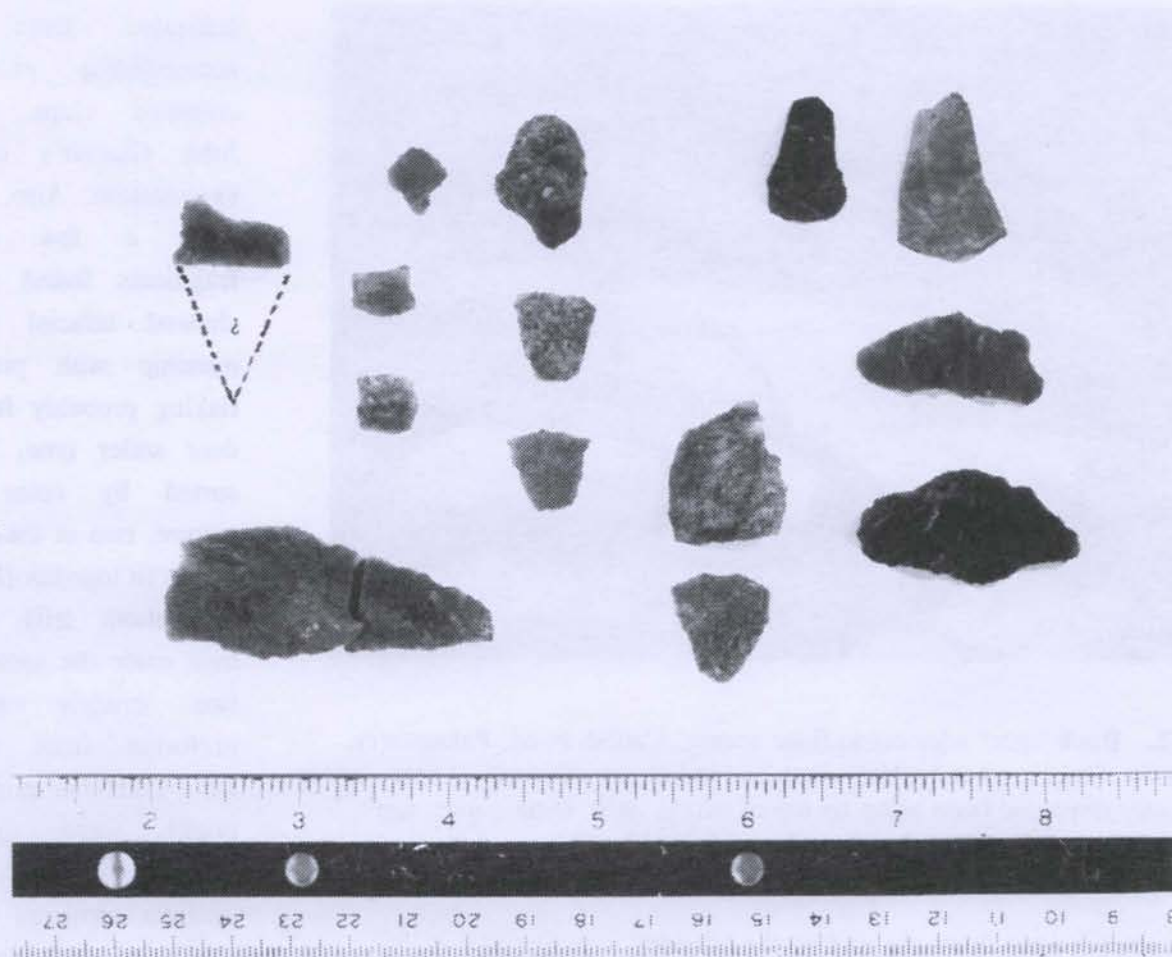


Figure 3. Artifacts found around rock "seat," Catfish Pond, Pahaquarry, New Jersey.

Top row, left: possible point base; middle: 2 graters; right: 2 scrapers. Bottom row, left and right: preforms or edge tools. The rest are flakes or fragments of tools.

resting spot. Erosion may have moved the flakes downhill on the old, once-exposed surface.

The bedrock at the site is speckled gray Allentown oölitic chert, but there are no outcrops close by. The raw materials had to be carried to the locality where they were found over a steeply ascending seven- to ten-mile trail. The ancient one

had earned the right to take a seat while he laboriously tested the quality of his material. There is plenty of local evidence of Middle and Late Woodland occupation, so an educated guess might put a flint-knapper on that rock some time between 2000 and 300 years before the present.

Reference

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Correction to WHEELER'S SURPRISE, NEW BRAINTREE, MASSACHUSETTS by Eric B. Schultz and Michael Tougas, in Vol. 60 (2), Fall 1999. Excerpted from King Philip's War: The History and Legacy of America's Forgotten Conflict, published by The Countryman Press/W.W.Norton & Company, Inc. (Endnotes for the wrong chapter were sent by the publisher.)

ENDNOTES AND REFERENCES

1. Samuel Drake, ed., *Old Indian Chronicle: Being a Collection of Exceeding Rare Tracts, Written and Published in the Time of King Philip's War* (Boston: Samuel G. Drake, 1867), 142.
2. J.H. Temple, *History of North Brookfield, Massachusetts* (North Brookfield, Mass.: Town of North Brookfield, 1887), 92.
3. Ibid., 93.
4. Louis E. Roy, *Quaboag Plantation Alias Brookfield: A Seventeenth Century Massachusetts Town* (Worcester, Mass.: self-published, 1965), 153. Speaking in 1828, Joseph Foot noted an older tradition: "According to all tradition this place is the hill at the north end of Wickaboag Pond. This Hill appears to have been used as an Indian Cemetery. When it was cultivated by the English after their return, great numbers of Human bones were exhumated" (see Foot, *An Historical Discourse Delivered at West Brookfield, Mass., Nov. 2 7, 1828* [West Brookfield, Mass.: Merriam & Cooke, 1843], 56).
5. Ebenezer W Peirce, *Indian History, Biography and Genealogy* (North Abington Mass.: Zerviah Gould Mitchell, 1878), 196.
6. Emphasis mine. This is one of the most hotly debated parts of Wheeler's description: Did "a swamp where the natives then were" refer to the camp that Ephraim Curtis had visited on August 1, ten miles from Brookfield? Or did it refer to some second location where the Nipmuc could now be found? The following sentence implies the latter-"near the said swamp"-but there is no consensus.
7. Thomas Wheeler's narrative, as quoted in Lucius R. Paige, "Wickaboag? Or Winnimisset?: Which Was the Place of Capt. Wheeler's Defeat in 1675," *New England Historic Genealogical Register* no. 38 (1884), 396.
8. A contemporary account noted that "Captain Hutchinson died, when his wife and son were within twelve miles of him in their journey to see him"; Drake believed the son to be Elisha Hutchinson, grandfather of Thomas Hutchinson, future governor of Massachusetts; see Drake, *Old Indian Chronicle*, 143.
9. Temple, *Brookfield*, 94.
10. Paige, "Wickaboag?" 398.
11. Temple, *Brookfield*, 94.
12. Foot, *Historical Discourse*, 56.
13. D. H. Chamberlain, "Wheeler's Surprise, 1675: Where?" A paper read before the Quaboag Historical Society at New Braintree, September 12, 1899, and before the Worcester Society of Antiquity at Worcester, November 14, 1899, held by the Massachusetts Historical Society.

14. *Proceedings of the Massachusetts Historical Society*, 2nd series, vol. 8 (Boston: Massachusetts Historical Society, 1899), 280.
15. Paige, "Wickaboag?" 396.
16. Ibid., 397.
17. William Hubbard, *The History of the Indian Wars in New England from the First Settlement to the Termination of the War with King Philip in 1677, from the Original Work by the Rev. William Hubbard (1677)*, vol. 1. Reprint, edited by Samuel G. Drake, (1868). Bowie, Md.: Heritage Books, 1990. vol.1, 98.
18. *Proceedings*, 2nd series, vol. 8, 279-280.
19. George Madison Bodge, *Soldiers in King Philip's War*. 1906. Reprint, Baltimore: Genealogical Publishing Co., 1991, 111.
20. *Proceedings*, 2nd series, vol. 8, 280-281.
21. Temple, *Brookfield*, 96.
22. Ibid., 95.
23. Ibid.
24. A contemporary account of the event noted that "the guide that conducted men through the woods, brought them to a swamp not far off the appointed place" (see Drake, ed., *Old Indian Chronicle*, 142.). This description of a site just a short distance from the meeting place also favors Temple's conclusion. See Temple, *Brookfield*, 94-95.
25. Temple, *Brookfield*, 97.
26. Bodge, *Soldiers*, 66.
27. Hubbard, *History*, vol. 1, 98-99. Hubbard wrote: "until they came to the place appointed; and finding no Indians, so secure were they, that they ventured along further to find the infidels as their chief town, never suspecting that least danger, but when they had rode four or five miles that way, they fell into an ambush." Note that Hubbard's estimated distances are sometimes inaccurate, like when he wrote that the distance from Providence to Nipsachuck was twenty-two miles, more than twice the correct distance.
28. Bodge, *Soldiers*, 111.
29. Roy, Quaboag Plantation, 154. Roy described it as a point one thousand feet northwest of the present home (in 1964) of Ernest Waterman.
30. We sometimes become so locked into geography by the paths of modern roads that we fail to find the most logical, direct route that a seventeenth-century woodsman might have cut; personal communications with Jeff Fiske, 1991.
31. Jeffrey H. Fiske, *Wheeler's Surprise: The Lost Battlefield of King Philip's War*. Worcester, Mass.: Towaid Printing, 1993, 42-43.

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