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Editor's Note

Welcome to the Fall 2010 issue of the MAS Bulletin! This issue returns to the more usual Bulletin format, with a series of articles contributed by MAS members. These include a report by Jay Waller of the Public Archaeology Laboratory about a culturally sensitive site in Lakeville, MA; a study of a coastal site in Warwick, RI by Alan Leveillee, also of Public Archaeology Laboratory; a brief study of hammerstones from coastal sites in the Plymouth area by long-time member Bernie Otto; a linguistic study of the Algonquian root “skug” by Robbins Museum Coordinator Gene Winter; and a review of several small sites in the Titicutt area by MAS Board member and frequent Bulletin author Bill Taylor.

I have received a small number of critical comments, mostly second-hand, about the content of the Spring 2010 issue. I wish to make it clear that I welcome direct comments in the form of letters to the Editor, and that I will be happy to publish these, along with rejoinders if I feel they are warranted, in these pages. Early issues of the Bulletin, which are now available in .pdf format through our Museum store, provided this feature, and, in the interest of forwarding archaeological science, I will be happy to renew it. Critiques posted on social networking sites, such as the ones which have been communicated to me about the last issue, do not rise above the level of rumor, and therefore have no standing in scientific discourse.

One of the critiques that have been brought to my attention is that the three studies in the Spring issue were of a speculative nature and did not involve subsurface archaeological testing. I would respond as follows. First, the study of stone structures in New England has long been avoided by professional archaeologists, for a variety of reasons explored both in my introductory essay and in Ted Ballard’s article. Thus, the application of professional archaeological standards has been slow in coming to this field of study. Some of the early attempts by uninformed individuals to excavate these structures have unfortunately resulted in misguided reconstructions, when the researchers have projected their own theories onto what they were excavating. These efforts have sometimes resulted in making it impossible for later researchers, armed with more systematic techniques, ever to determine what the actual configuration of the sites were. In light of this, it is more responsible for researchers to exercise restraint in investigating these sites and to practice non-destructive archaeology focused upon the above-ground remains.

There is an additional reason why eschewing excavation is appropriate at sites of the type described in the Spring issue, and that is that a number of these sites are claimed by local indigenous groups to be part of their sacred landscape. While these groups may have no objections to archaeologists (amateur or professional) excavating their past habitation and work sites, they do object in the most strenuous terms to the unearthing of burials, due to the sacred nature of these sites in their belief systems. Under NAGPRA, this is now the law of the land. They are also expressing similar concerns about the disturbance of non-mortuary sites of importance to their beliefs. If we, as social scientists, care to respect the cultural sensibilities of the descendants of the people whose sites we excavate, let alone respecting established U.S. law, it is responsible practice for us to avoid such disturbances wherever possible.

Another critical comment has been that the authors are not scientists and therefore have no right to comment on archaeological matters. However, in point of fact, all three authors have academic degrees in scientific fields, and they understand the nature of hypothesis construction as well as do most archaeologists. MAS has always been an organization which embraces multiple approaches to archaeology, both amateur and professional, and our Bulletin has from its inception included articles from both groups. So long as I remain Editor, it will continue to do so.

Curtiss Hoffman
Recent Examination of a Native American Burial in Nemasket Indian Territory, Southeastern Massachusetts

Joseph N. Waller, Jr.
Public Archaeology Laboratory, Inc.

Introduction

Planned construction of a multi-family residential housing development west of the Nemasket River in northeastern Lakeville, Massachusetts (see Figure 1) invited comment by the Wampanoag Tribe of Gay Head/Aquinnah in 2007. The Aquinnah expressed a concern that unmarked Wampanoag Indian burials might be located within the proposed development, given the presence of known archaeological resources in the area and other lines of Tribal information. The Massachusetts Historical Commission, in consultation with the Aquinnah, agreed to archaeological monitoring of topsoil removal within proposed project impact areas to ensure that unmarked burials would not be disturbed by construction. Archaeologists from PAL (The Public Archaeology Laboratory, Inc.) under the direction of the author were retained by project proponents to monitor the removal of topsoils within the project area. Archaeological monitoring resulted in the documentation of numerous cultural deposits associated with the previously known Riverside 2 (19-PL-703), Riverside (19-PL-702), and Riverside 4 (19-PL-701) archaeological sites and the identification of four new loci of Native American activity named the Riverside 9 (19-PL-1044), Riverside 10 (19-PL-1045), Riverside 11 (19-PL-1046), and Riverside 12 (19-PL-1047) sites (Waller 2009). A number of archaeological features associated with several of these sites were within the size range and shape of burial features known from the Taunton River Drainage. Continued project consultation ultimately resulted in a decision to assess the function of any potential burial features in accordance with relevant state and municipal laws. What follows is a description of the Riverside 11 archaeological site, and one feature contained at the site in particular.

The Riverside 11 Site (19-PL-1046)

The Riverside 11 Site presented itself as a cluster of circular to oval features measuring between 120 and 240 centimeters in dimension (mean = 163 cm; median = 147 cm), which were concentrated within a roughly 200 square meter area atop a low hill on the east side of the Nemasket River (see Figure 2). Features were generally slightly tapered or parallel-sided, and terminated at depths ranging between 48 and 121 centimeters (mean = 82 cm; median = 82 cm) below the machine stripped surface. Few cultural materials were associated with these features, though many contained charcoal flecks. A quartz Wading River projectile point was recovered from Feature R11-28 (see Figure 3), while two small, mineral tempered Native American clay pot sherds were recovered from Feature R11-32. Feature R11-45 yielded a piece of antler and a portion of a carbonized log from 60 cm below surface. Additional cultural materials from the site included a rhyolite hammerstone and a few quartz and rhyolite flakes.

Features R11-27, R11-28, R11-29, R11-30, R11-32, R11-35, R11-44, and R11-45 at the Riverside 11 Site were either storage pits or former storage pits adaptively reused to receive site refuse. Storage function was assessed using a number of morphological criteria: generally large size in plan, large interior volume (high volume and depth-to-diameter ratio), parallel to slightly expanding sides, and flat to slightly curved bottoms (after Bendremer et al. 1991). Similar features, some of which contained carbonized maize kernels, have also been reported from such Nemasket River drainage sites as Pratt Farm (Hoffman 2010 personal communication), the Little League (Hoffman 2003, 2007) and Muttock-Pauwating (Chartier 2007, 2008a, 2008b; Donta and Wendt 2006).
Size, shape, fill, and cross-sectional profiles for storage/refuse features R11-32 and R11-45 were consistent with storage pits contained at the site. The difference between storage pits and storage/refuse pits was in their materials content, with artifacts or other discarded waste being incorporated within the fill of the latter type. The most parsimonious explanation for similar morphology yet different function is that storage-refuse pits reflect a trajectory of use starting as storage facilities and ending as refuse receptacles (see DeBoer 1988; Weinstein 1986). No botanical remains were recovered from any of these features, providing little clue as to what was being stored. However, carbonized maize recovered from feature contexts dated to 710 ± 50 radiocarbon years B.P. (Beta-246374; wood charcoal; Δ13C = -24.9‰) or 1210 to 1390 cal A.D. at the Riverside 4 Site, situated roughly 200 meters from the Riverside 11 Site to the east, offers one such possibility (Waller 2009).

The appearance of the Riverside 11 storage pits is consistent in many respects with seventeenth-century accounts of Indian storage. William Wood (1977[1634]:113) described the Native storage facilities as “great holes digged in the ground.” Samuel de Champlain (1906:126) described storage among the Nauset Indians of Cape Cod in 1606 thusly:

“they make trenches on the hillsides in the sand, five or six feet, more or less, deep; put their corn and other grains in big sacks made of grass, and throw them into these trenches and cover them with sand three or four feet above the surface of the earth. They take from their store at need, and it is as well preserved as it could be done in our granaries.”
Storage media were located in an area of extremely well-drained Windsor loamy sands. There are multiple likely reasons for this. Firstly, organic preservation often correlates with areas of well-drained sediments. John Winthrop observed as much in August of 1632 when he stated “[t]his summer was verye wett & colde…the Corne in the drye sandy grondes was muche better then other yeares, but in the fatter grondes muche worse” (Dunn et al. 1996:78). Secondly, deep storage protected perishable foods from scavenging animals. Thirdly, deep storage also provides natural refrigeration. Fourthly, the inability of well-drained sands to retain water retards a locking freeze permitting access to subterranean food stores during the colder months, when a reliance on stored foods might be particularly useful or necessary. Finally, Windsor loamy sands are extremely easy to dig.

Charcoal from Features R11-28 and R11-45 produced radiocarbon assays of 820 ± 40 B.P. (Beta-246375; wood charcoal, δ13C = -24.7‰) (1160 to 1270 cal A.D.) and 960 ± 40 B.P. (Beta-246376; wood charcoal; δ13C = -26.2‰) (1020 to 1200 cal A.D.). These ages are consistent with the 950 ± 40 B.P. (Beta-247963; wood charcoal; δ13C = -24.8‰) 1010 to 1170 cal A.D.) age from burial R11-31 described below. Thus, the Riverside 11 dates fall within a tight eleventh through thirteenth century A.D. radiocarbon range. The archaeological evidence from the Riverside 11 Site suggests its occupational history is single component, resulting from either a single occupation or from one or

Figure 2. Plan of Native American Features, Riverside 11 Site (19-PL-1046).
There was a temporary cessation of fieldwork, and a follow-up onsite consultation meeting was conducted in accordance with agreed protocols established between project proponents and the Aquinnah and Mashpee Wampanoag peoples prior to the discovery of human remains. With the discovery of skeletal materials, the project moved from a proactive to a reactive phase with regards to the treatment of human remains. On-site consultation involved the Massachusetts Commission on Indian Affairs, the Aquinnah, Mashpee, and the Assonet bands of the

Figure 3. Quartz Wading River projectile point from Feature R11-28, Riverside 11 Site.

Figure 4. Plan and Profile of burial feature R11-31, Riverside 11 Site.

more occupations separated by very brief intervals of abandonment.

**Burial Feature R11-31**

Human cranial fragments and pieces of long bones, some of which appear to have been marred by burning on both their interior and exterior surfaces, were exposed at a depth of 47 centimeters below the machine stripped surface within Feature R11-31 in July of 2008. Human remains were tightly clustered along the extreme western edge of the feature. The fragmented, burned remains and the orientation of the cranium (its base, where it articulates with the first cervical vertebrae, was situated along the outside edge of the feature) suggested to PAL archaeologists at the time that the skeletal deposits were out of anatomical configuration and might represent a secondary burial deposit.

The discovery of human remains provides added support for the Wampanoag Indians’ claim that the lands surrounding the Nemasket River and Assawompsett Pond represent a significant cul-

Figure 3.

Figure 4.
Wampanoag, project proponents, and other interested parties. It was evident at this meeting that the Wampanoag wished to develop a plan that would permit the buried individual to remain in the ground. Unfortunately, leaving the burial in place was not an option available to the developer as it was located in the center of a proposed building. Ultimately, the Tribal Historic Preservation Offices of the Aquinnah and the Mashpee agreed, however reluctantly, to the relocation of the burial.

Following selection of an appropriate re-interment locale, a plan for the excavation of the burial was developed. Methods for the disinterment included the archaeological exposure and hand removal of remains. Skeletal materials were to be immediately transferred into tribal possession for cultural ceremony and reburial. The Wampanoag were hesitant to allow analysis of the remains of any kind but capitulated to non-destructive aging and sexing, based on visual criteria alone, to be made at the time of the removal. The Massachusetts Commission on Indian Affairs also agreed to have a single piece of charcoal radiocarbon dated to determine the burial’s age. The most contentious issue raised during the discussion concerned the

Figure 5. Plan of cremated human remains feature R11-31, Riverside 11 Site.
need for photographic documentation, to which the Aquinnah were vehemently opposed. Conversely, the Massachusetts Historical Commission under whose permit the relocation would be conducted responded that photographic documentation was a necessary requisite under the law and to ensure compliance with professional archaeological standards. Once again, the Wampanoag reluctantly agreed to permit on-site photography for archival purposes only under the stipulation that no photographs be released to the public. In accordance with our agreement and out of due respect to my Wampanoag friends, visualizations of Riverside 11 Site’s human remains are limited to line drawings.

What We Learned From Burial R11-31

Hand excavation of burial feature R11-31 commenced with the removal of the eastern portion to the level where human remains were first observed in the western feature portion. The feature was then exposed in its entirety at a depth of roughly 50 centimeters below the machine stripped surface (see Figure 4). The feature was roughly circular in plan, measuring some 204 centimeters along its north/south axis and 208 centimeters east to west. An inner light olive-brown (2.5 Y 5/3 and 2.5 Y 5/4 on a standard Munsell color scheme) fine sandy soil contrasted with an outer soil band or “ring” of coarser dark yellowish brown (10 YR 4/6) sands with gravel. The outermost soil band contained a concentrated, secondary deposit of highly fragmented and partially cremated human remains concentrated along the western feature edge at 50 centimeters below machine stripped surface. Human remains were limited to a shallow 10 to 12 cm band that persisted to 62 centimeters below the stripped surface, while the feature itself terminated with a flat bottom into compact silt at 99 centimeters below surface. A dense deposit of charcoal, burned earth, and possible red ocher (5 YR 4/6 and 5/6 yellowish red and 7.5 YR 4/6 strong brown) was observed near the bottom of the feature between 85 and 90 centimeters below the stripped surface. The nature of this deposit is uncertain, although it may represent waste debris from the original crematorium and burned earth deposited in the feature bottom beneath the human remains.

A single charcoal specimen in association with the cremated remains yielded the previously reported radiocarbon age of 950 ± 40 B.P. This date is roughly contemporaneous with the radiocarbon ages of 1155 ± 230, 1035 ± 120, 1015 ± 125, and 890 ± 130 B.P. from the cremation component at the Indian Neck Ossuary site in Wellfleet (McManamon et al. 1986).

Cremated remains represented a secondary deposit (see Figure 5). Skeletal elements ranged from highly calcined to marginally discolored. Remains identified by our resident physical anthropologist, Michael Hubbard, included cranial fragments, elements of the arms (ulnae, radii, and humeri), medial portions of the left and right tibiae, femoral elements, a probable piece of the calcaneus, and a lower incisor. We estimate that less than 25 percent of the individual’s skeletal elements were contained within Feature R11-31. The cranium, though it was highly fragmented especially along its suture lines, retained some of its natural shape, suggesting it was partially articulated at the time of its placement in secondary burial context. No skeletal elements were duplicated, indicating that the cremated remains were those of a single individual. The individual’s brow ridge was quite pronounced, with the glabella and superciliary arches being strongly marked: a typically male trait. The dull and rounded superior borders of the orbits were similarly masculine. These data suggest the individual interred within Riverside 11 feature R11-34 was male. A fused proximal radius was also recovered from the burial. Tim White (2000) claims this indicates an individual greater than 14.5 to 19 years of age. His cranial sutures had fused but were neither obliterated ecto-cranially nor endo-cranially, suggesting that the remains belonged to a young adult of less than 30 years of age. All in all, the physical remains appear to be those of a young male in his late teens or perhaps early twenties. Approximations of age and sex must remain tenuous, however, given the limited bone assemblage, its highly fragmented nature, and the insufficient level and degree of examination prior to the remains being transferred to on-site tribal representatives.

Bones from feature R11-31 reflect a range of burning from inconsequential to completely calcined.
Human bone ranged in color from pale yellow to stark white, sometimes over the course of a single bone. Patrick McCutcheon (1992) has made a study of calcined bone, correlating burned bone hues with firing temperatures. According to McCutcheon’s calcination scheme, bone hues from the Riverside 11 burial feature (2.5 Y 7/4 pale yellow, 7.5 YR 5/4 brown, 5YR 2.5/1 black, Gley-1 5/N gray, Gley-1 6/5 greenish gray, Gley-1 7/5 light greenish gray, Gley-2 6/5 bluish gray, 2.5 Y 7/2 light gray, and stark white) reflect firing temperatures that ranged from less than 340º C to perhaps in excess of 600º C.

As the human remains from feature R11-31 appear to be those of a single individual, it is possible to infer that the different bone hues on the remains reflect the distance between the bones and the main source of heat in the crematorium and/or the duration of a bone’s exposure to heat. Partially burned bones included numerous cranial fragments and elements of the lower body (medial tibiae and calcaneous). Assuming the deceased was placed directly over the center of a fire, one would expect that the chest, pelvis, and upper thigh area to have been exposed to that portion of the fire that produced the hottest temperatures and maintained those temperatures for the longest duration. The individual’s extremities would have been located furthest from the fire’s heart in less-hot areas or areas exposed to direct flame for shorter durations, resulting in incomplete cremation of the head and feet. If true, one would expect to find fewer core skeletal remains relative to the extremities, as they would have been more completely consumed by the fire, which was exactly the case for the individual recovered from burial feature R11-31.

Fully calcined bones were recovered from mixed feature soils above the intentionally placed cremation. These data imply the deliberate collection, arrangement, and placement of the larger bones following cremation of the body with less rigorous collective measures applied to the remnant small and highly fragmented bones, which were chaotically deposited above them. The tight and flat nature of the cremation deposit suggests collection and tight bundling of the remains in a skin or fur. Burial may not have been the original intent of this feature’s construction. Similarity in morphology (size, shape, depth, and profile) between feature R11-31 and all the other storage facilities at the Riverside 11 Site suggests that this feature likely originated as a storage pit. Once the pit was opened and the stores contained within it were removed, the open hollow was apparently deemed acceptable as a burial receptacle with the burning waste from the original crematorium deposited in the bottom of the emptied storage pit and remaining cremated human elements carefully collected and interred mid-depth within the open pit.

Summary

The Riverside 11 Site represents a small locus of concentrated early Late Woodland Native American storage on a small hill situated west of the Neasket River. The relative lack of cultural materials within the investigated features suggest that sustained human occupation, which would have led to the generation of much domestic refuse and likely its discard into open storage pits, did not occur in the immediate vicinity of the site area. Burial feature R11-31 was identical in size, shape, and fill to all of the other pit features exposed within the Riverside 11 Site, though it represents the only human burial documented within the archaeological district to date. During the relatively short history of the site, a young man died and his cremated remains were committed into one of the larger storage pits. No evidence for the crematorium remains, suggesting that cremation either occurred elsewhere or that the nature of Late Woodland cremation was such that it did not markedly affect the subsurface composition of the surrounding area.

Few Woodland Period cremations are known from southeastern Massachusetts. Most cremation burials in the region tend to be associated with Transitional Archaic Susquehanna tradition occupations and Late Archaic Small Stemmed tradition components (e.g. Wapanucket). The closest reported analogy to Feature R11-31 of probable Woodland origin appears to be Burial 3 located off Nook Road in Plymouth. Here, members of the Massasoit Chapter of the Massachusetts Archaeological Society reported “a partially cremated bundle burial” in 1951 (Sherman 1951:38). Charles F.
Sherman provides a detailed description of the burial, which in many respects is similar to that observed at the Riverside 11 Site. At Plymouth:

“The long bones of the skeleton had been placed in the grave shaft much as one would place the sticks in laying a camp fire, at a depth of thirty inches from the present surface. Above these were the pelvis, crania, and other large bones. All were badly charred by fire, several badly worn teeth, presumed to have come from this skeleton, indicate the age of the individual as middle or old adult” (Sherman 1951:38)

Though rare, data from Plymouth, Wellfleet, and now the Riverside 11 Site indicate a mortuary practice within the southern New England region that involved cremation of the dead during the early Late Woodland Period. Throughout the Late Woodland and certainly by the Contact Period, regional archaeological evidence demonstrates that cremation was abandoned in favor of inhumation for managing the deceased.

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In May and June of 2008, we were surveying in the Governor Francis residential development that was built in the mid-twentieth century. Seven soil stains and artifacts were discovered in a machine trench. Further excavations were recommended to document and evaluate the seven archaeological features and their contents. We designated the find the Cove Terrace Site because it was descriptive of general area, overlooking a small cove in the northern reaches of Narragansett Bay (see Figure 1).

Archaeology in the Coastal Suburbs: The Cove Terrace Site
Warwick, Rhode Island

Alan Leveillee
Public Archaeology Laboratory, Inc.

Abstract

Cultural Resource Management studies are being conducted throughout Warwick, Rhode Island as a new sewer system is being constructed along the western margins of Narragansett Bay. Recent archaeological survey in the Governor Francis suburban neighborhood has provided new insight into Native American occupation just prior to European contact and settlement; a time when the ancestors of the Narragansett Indians were making uniquely human imprints on the area’s ecology.

Project History

Warwick is Rhode Island’s second largest city. By 1642, the lands had been transferred from Native American to English settlers’ hands. For a thousand years prior to that transfer, and for decades after it, the near coastal fringe of western Narragansett Bay was thickly settled Indian country. That changed dramatically, however, during and after King Phillips War (1675-1676), during which every standing home in Warwick, save one, was burned to the ground. Today, over 300 years later, there are no visible indications that ancient Native Americans were ever there. But there are still places that can tell us about those ancient inhabitants, and, as unlikely as it seems, new sewer lines that are being built under our neighborhood roads have an interesting story to tell.

New sewers throughout Warwick are being designed and built with federal dollars. Accordingly, they are subject to environmental studies that include considering the past history of the area, and whether or not any archaeological sites exist there. Archaeologists from the Public Archaeological Laboratory, Inc. (PAL) have been surveying neighborhoods as part of the planning for the new construction.

Figure 1: Location of the Cove Terrace Site
The Cove Terrace Site was recognized as an important cultural resource with potential to add information on Native American settlement and site types within the larger Greenwich and Narragansett Bay ecosystem.

In July 2008, the results and recommendations following the discovery of the Cove Terrace Site were provided in a summary report submitted to the Warwick Sewer Authority (WSA), the Rhode Island Historical Preservation & Heritage Commission / State Historic Preservation Office (RIHPHC/SHPO), the Narragansett Indian Tribal Historic Preservation Office (NITHPO), and subsequently to the Environmental Protection Agency (EPA). Through 2009, the project proponents, governmental and tribal representatives, and PAL coordinated and consulted regarding archaeological findings within several ongoing sewer-related undertakings in Warwick, the Cove Terrace Site among them.

In September 2009, agreement was reached between the EPA and NITHPO that:

“the Warwick Sewer Authority can proceed to connect eight homes on Algonquin Drive provided that any excavation is closely monitored by the archaeological consultant firm, Public Archaeology Laboratory, and that all artifacts found will be handled in a manner that will ensure their preservation and safe delivery to the Tribe” (US EPA 2009)

Accordingly, PAL submitted a permit application to conduct archaeological recovery and research within the sewer easement along Algonquin Drive. The RIHPHC issued the permit to PAL on November 4, 2009 and the fieldwork was conducted in November and December 2009. Processing, cataloging, and analyses continued through January 2010. The field investigations were coordinated with Narragansett Indian Tribe.

**Fieldwork**

Following saw cutting of asphalt and removal of the road and gravel bed, a flat-bladed backhoe was utilized to reopen the Algonquin Machine Trench 7 (see Figure 2). Over the course of four days, the new machine trench was dug to the point of where the original ground surface was covered by the road fill. The process resulted in re-exposing the features we had initially identified in 2008, as well as additional, related features. Specific representative features were selected for further

![Figure 2: Opening the Machine Trench](image)

![Figure 3: Mapping the Features](image)
excavation. Excavated features were sectioned to provide plans and profiles, and to collect chronological and/or culturally diagnostic data. Following excavation of half of the sectioned features, plans and profiles were drawn and photographs were taken. The remaining half of the feature was then excavated and/or selected soil samples were collected for flotation.

Results

Excavations resulted in the exposure of thirteen soil anomalies that were further investigated; these included five of the features we found in 2008 and an additional eight newly exposed features; four of which proved to be natural root stains upon close examination. The discovered features were clustered tightly within the trench (see Figure 3).

The Cove Terrace feature cluster was within a sloping “hollow” along a swale drainage depression at the time of site occupation. The former surface level where features were clustered was 110 cm below the existing road surface and it abruptly rose to less than 20 cm from the road surface as the trench continued east toward the end of Algonquin Drive. The dark brown and black loams of the features were in clear contrast to the overlying light yellow-brown fill that was medium-textured clean sand. The former ground surface was distinct in profile along north and south trench walls, and in color and texture was consistent with wetland-related fine sandy loams.

Features 1, 1A, and 2

Features 1, 1A, and 2 were contiguous and related, occupying the easternmost cluster of features in Trench 7 (see Figure 4). Feature 1 and Feature 2 were shallow shell concentrations, and Feature 1A, to the immediate south and east, is best described as a “living” surface — a 10 cm stratum of mottled topsoils with mixed and relatively dense

![Figure 4. Numbered Features in the Machine Trench](image-url)
concentrations of a variety of cultural material types, the boundaries of which extend to, and beyond, the north and south walls of the excavated trench. Feature 1 and a portion of Feature 1A were investigated through Excavation Unit (EU) 1 (1-x-1 m). The remainder of Feature 1A was investigated with EU 2 (0.5-x-2 m). Feature 2 was bisected and the southern half was excavated to sterile subsoils.

The shallow shell deposits that represent Features 1 and 2 (which were likely part of the same feature at one time) included oyster and quahog shell fragments, one quartz tool fragment, and single pieces of argillite, quartz, rhyolite, and quartzite chipping debris resulting from making stone tools. From the surface, Feature 2 extended vertically for 15 cm and ended abruptly.

While the feature 1A stratum was not deep, extending vertically for 10 cm, it contained a wide range and variety of cultural materials and artifacts, as discussed by type below.

Feature 1A, the “living surface” dominated the eastern limits of the feature cluster and as noted above extends beyond the north and south walls of the excavated trench. It extended east for a length of approximately 3.5 m then abruptly ended where disturbed clean sand fill associated with road and utility construction were encountered. Feature 1A was investigated through excavation of EU 2 (0.5-x-2 m) and by shovel scraping and screening the mottled dark brown feature fill that

![Figure 6. Three Hammerstones Recovered from Feature 1A.](image6)

![Figure 7. Orient Fishtail Point or Knife](image7)

![Figure 8. Attleboro Red Felsite Perforator](image8)
extended north of EU 2 in the eastern limits of the remnant feature.

**Debitage and Hammerstones**
Rhyolite dominated the Feature 1A chipping debris assemblage, with 658 pieces, the majority of which were in the size range of 1–3 cm (see Figure 5). The debitage assemblage included lesser amounts of argillite (n=108), quartz (n=31), and quartzite (n=13). The debitage results from stone tool manufacture and maintenance activity on the site.

![Figure 9. Aboriginal Ceramic Fragments](image)

Further evidence that Cove Terrace Site activities included stone toolmaking includes four metamorphic quartzite hammerstones, three of which are illustrated in Figure 6.

**Stone Tools**
Broken and complete stone tools recovered from the Feature 1A “living surface” included two scrapers; a rhyolite Orient projectile point or knife (see Figure 7); an Attleboro red felsite Orient projectile point reworked to serve as a perforator (see Figure 8); a rejected quartzite projectile point perforam; a chert projectile point tip and mid-section; and seven small fragments of bifaces that could not be further identified to function or type, three of which were of argillite, three were of quartz, and one was of rhyolite.

![Figure 10. Shell Bead/Wampum Blanks](image)

**Aboriginal Ceramics**
The Feature 1A artifact assemblage includes 29 fragments of an aboriginal ceramic vessel. They were concentrated spatially and all are uniform in color, temper type, interior treatment, and exterior treatment (see Figure 9). The interior of the vessel had been smooth; and the exterior treatment had been achieved through cord-wrapped paddling. The tempering had been of grit.

**Nutshell**
Flotation of soil samples from Feature 1A resulted in the recovery of three small charred nut fragments. Preliminary processing indicates they are consistent with hickory, but the specimens are small and the identification is tentative.

**Shell Bead Blanks**
Two white shell bead or wampum blanks were recovered from Feature 1A (see Figure 10). They are both ground whelk column fragments and show no evidence of drilling. The larger of the two blanks split into two fragments after being exposed during recovery.

**Feature 3**
Feature 3 was a small circular anomaly with weakly defined edges west of Feature 2 near the north wall of the trench. It was approximately 5 cm in diameter and colored very dark gray against the surrounding yellowish brown subsoils that surrounded it. The feature fill contained no cultural materials and extended vertically for less than 5 cm before fading completely. We could not determine the function of this feature; it may have originated in natural transforms.
Features 4 and 5

Features 4 and 5 were roughly circular dark gray soil stains (colored primarily by tiny charcoal flecks). Feature 4 was approximately 80 cm in diameter. Feature 5 was approximately 30 cm in diameter to the immediate west of Feature 4. Because of the close proximity of Feature 4 and Feature 5, they were excavated and recorded concurrently. They were bisected on an east/west axis and excavated in 10-cm levels to 40 cm in depth, where Feature 4 terminated in glacial subsoils.

Feature 4 yielded two artifacts: a quartz scraper and a broken fragment of a triangular projectile point; possibly a Levanna, based upon size. Feature 4 contained no shell and no chipping debris. Flotation of soil samples from Feature 4 resulted in the recovery of 36 carbonized carpetweed seeds.

Feature 5 extended vertically to 20 cm, and no cultural materials were recovered during excavation of the south half of the feature (see Figure 11). A concentration of what appeared to be small fragments of bird or fish bone was noted in the north half of Feature 5, so its entirety was collected as a soil sample. This sample was subsequently subject to flotation and processing, during which hundreds of small fragments of burned fish (and possibly some bird) bone was recovered (see Figure 12). Flotation of soil samples from Feature 5 resulted in the recovery of 23 carbonized carpetweed seeds.

Features 6 and 7

Features 6 and 7 were both identified as either post molds or root stains during the initial excavation of Machine Trench 7 in 2008. Both were situated west of the feature cluster investigated in 2009 in a section of trench 7 that was not re-excavated during the 2009 mitigation.

Feature 8

Feature 8 was a small (35–40 cm diameter) dark soil stain along the southern edge of the trench, immediately east of a gas line disturbance and situated between Feature 10 to the west and Feature 11 to the east. The soil stain continued to a depth of 20 cm, and contained no cultural materials or shell. At 20 cm it became obvious in profile that the remnants of a tap root extended beneath the bowl-shaped upper limits of the stain. Accordingly, Feature 8 is likely the result of natural, not cultural transforms.

Feature 9

Feature 9 was centrally located in the cluster of features identified in Machine Trench 7. It was roughly oval in plan, and was 110 cm below the depth of the road surface above. Feature 9 measured 110 cm north/south x 85 cm east/west. It was a very shallow very dark gray stain with shell
fragments. The feature extended vertically for 5 cm and abruptly ended in yellowish brown subsoil. Feature 9 contained small fragments of quahog (n=11) and oyster (n=14) shell, but nodebitage or tools.

**Feature 10**

Feature 10 was the westernmost anomaly in the investigated cluster, and was situated along the south wall of the machine trench immediately west of a gas line utility trench that bisected the trench floor. It was a black circular soil stain, 50 cm in diameter and extending to a depth of 75 cm.

Feature 10 contained no lithics or shell. It contained large fragments of charcoal to 30 cm, and included three fragments of aboriginal ceramics and a single carbonized maize kernel (see Figure 13). Flotation of soil samples from Feature 10 resulted in the recovery of 295 carbonized carpetweed seeds.

**Feature 11**

Feature 11 was a generally circular, very dark grayish brown anomaly; with a diameter of approximately 20 cm (in the southwestern feature cluster) in close spatial association to features 8 and 11. In profile, it was bowl-shaped, and extended vertically to a depth of 20 cm, where it terminated in subsoils. Feature 11 contained no cultural materials, no shell, and no floral or faunal materials.

**Feature 12**

Feature 12 was a dark brown circular anomaly, approximately 40 cm in diameter (in the east-central feature cluster in the floor of the machine trench) 110 cm below the level of the road surface. It was generally bowl shaped and extended for 30 cm. No pre-Contact material culture was recovered from the excavated feature fill. A single Contact or post-Contact fragment of refined tin enamel delft earthenware ceramic was recovered from the feature.

**Features 13, 14, and 16**

Features 13, 14, and 16 were small circular stains initially believed to represent possible post molds. Ambiguity remained after excavation because their remnant profiles lacked sufficient detail and character to differentiate between decomposed tap roots and deliberately placed stakes. They were not distinctively linear. The three anomalies were not spatially related; they were spread intermittently in the eastern half of the trench that was dominated by fills associated with road construction; and were not in proximity to other pre-Contact confirmed features. Accordingly, it is considered likely that they are not contemporaneous with or associated to the pre-Contact feature cluster in the western portions of Machine Trench 7.

**Feature 15**

Feature 15 is similar to features 13, 14, and 16 in that it is east of the pre-Contact feature cluster. It was noted near the northern wall of the trench at 68 cm below the road surface. Feature 15 was oval, measuring 38-x-32 cm and was very dark grayish brown surrounded by the sterile glacial sand matrix. It yielded no cultural materials, but contained small charcoal fragments. After sectioning and excavation, it was determined that Feature 15 likely resulted from natural transforms, a probable root burn.
Interpretations

Because our evaluation and archaeological mitigation was confined to where the sewer will be constructed, we have a narrow view of the horizontal extent of the Cove Terrace Native American archaeological site. From what we can see, however, it is clear that evidence of Native American occupation and activity extends along and well beyond the coastal margins of this section of Warwick. Ongoing and past archaeological surveys have documented evidence of long-term occupation of the coastal interior and near interior all along western Narragansett Bay, and there are other sites nearby.

The features and artifacts that mark the Cove Terrace Site were the only pre-Contact cultural materials from the Governor Francis section of the city. This may be due in part to extensive landscape modifications during the construction and development of the neighborhoods in this section of Warwick. It’s likely that more archaeological remains could (and someday will) be found in the less-developed coastal margins and wetland edges around the neighborhood that have been less impacted by historic changes.

During our excavations in the Governor Francis neighborhood, one homeowner told us that “arrowheads” were collected in the yard when his house was being built in the 1950s. Accordingly, while our work was confined to the sewer line construction, the site extends, or extended, to the south and to the east to the edges of the cove.

Vertically, the feature cluster that constitutes the Cove Terrace Site is between approximately 85 and 150 cm below the existing grade of Algonquin Drive. The remnant of the site was “capped” by a meter-thick stratum of clean sand fill that was deposited when the surrounding area was developed and the roadway was constructed. While the cluster of features had been capped by fill, the areas to the east, beyond Feature 1A had been cut and then filled from the eastern edge of the feature cluster to the terminal point of Algonquin Drive. Accordingly, some elements of the site have been destroyed by post-Contact period landscape modifications. During the times the site was occupied, the activities that created the features we discovered and excavated were situated along a sloping hollow with a rising aspect to the east and the cove to the south. The nature of the remnant features indicates that we have probably discovered the edges of the site, where refuse materials were deposited over a period of repeated domestic group occupations or activities, the main foci of which were nearby.

Temporal indicators include artifact and material types. Combined datable materials reflect at least three periods of occupation: one during the Transitional Archaic between 3,800 and approximately 3,000 years ago, as indicated by the Orient-related artifacts; the second during the Late Woodland after 1,100 years ago, as indicated by the ceramics and triangular point; and the third is just before or during the Contact period, about 350 years ago, based on the radiocarbon date. The single fragment of delft ceramic recovered in Feature 12 could indicate a Contact period occupation and incorporation of English material culture into aboriginal use. Alternatively, it could have resulted from a Euro-American depositional event that followed the Native occupations. The ceramic fragment was the only artifact in the feature fill, and the only Euro-American cultural material on the site. The question of its precise temporal and cultural association remains open.

The Susquehanna tradition of the Transitional Archaic Period is reflected in the technology that produced the rhyolite Orient point/knife from Feature 1A. Susquehanna origins are also apparent in the Attleboro red felsite perforator made from an Orient Point, although it is also possible that the artifact had been collected and re-worked long after its initial manufacture. Woodland occupation (or multiple occupations) is reflected in the ceramic assemblage from Features 1A and 10; the recovery of bead or wampum blanks from Feature 1A; from the maize kernel within Feature 10; and likely in the many tiny fish bones recovered from Feature 5.

Shell fragments from Feature 1 were dated to 1160 ± 40 years B.P. (Beta 276041), and confirm the Late Woodland occupation. A Contact period date of 320 ± 40 years B.P. (Beta 276040) was indicated from Feature 10, where we also recovered three
pieces of Native American pottery and the burned kernel of maize.

Is the Cove Terrace Site Significant?

The Cove Terrace Site is significant in terms of National Register Eligibility criteria because it yielded information important to studying ancient Native American lifeways during a time we know very little about. The features encountered on the site to date reflected integrity of place, and the related data provide insights into the lives of Native peoples who occupied today’s western Narragansett Bay between 4,000 and 400 years ago, and well into the Contact period. The site results from initial occupations of hunting and collecting peoples of the Late Archaic Period whose material culture (lithic raw materials) reflects travel and/or trade along the northeastern seaboard where sources of fine-gained igneous volcanics were quarried from the greater Boston area. Through time, with increasing familiarity of and dependence upon coastal and marine resources, including Narragansett Bay argillites, these people began to focus settlement and ceremony along the bay and on its islands (Leveillee and Van Couyghen 1991; Simmons 1970), while maintaining trade networks across and beyond southern New England. Further lithic analyses of the site’s artifact assemblages can provide additional information about specific raw material source areas and consideration of temporal changes of stone tool manufacture along the site’s occupational timeline (Cowan 1999). For example, one could compare and contrast stages of manufacture during the transition between Archaic Period nomadic hunters and collectors and those of semi-sedentary Woodland Period horticulturalists.

The Woodland Period occupants of the Cove Terrace Site were more sedentary than their Archaic Period predecessors. By approximately 1,000 years ago, population nuclei included semi-permanent villages in coastal areas where maize horticulture supplemented seasonal hunting, fishing, and collecting rounds (Leveillee et al. 2006). The Woodland Period assemblage from Cove Terrace results from occupation of peoples who lived in one of these types of settlements, the precise location of which is as yet unknown, but was very likely nearby. The activities reflected in the Woodland assemblage from the Cove Terrace features include production and processing associated with domestic space and the related domestication of maize (scrapers, perforator [assuming the perforator was re-worked by Woodland occupants], pottery, maize, shell and bone). This is important information about site location in western Narragansett Bay, chronologies of pre-Contact land use, and refinement of subsistence practices during a time of dynamic social processes (Lardy and Morenon 2008).

The recovery of shell bead or wampum blanks from the designated “living surface” of the Cove Terrace Site reflected in the shallow but expansive limits of Feature 1A is noteworthy as a rare archaeological occurrence that contributes to the significance of the site. Shell beads were used during the Late Woodland and Contact period first for decoration, ceremony, and symbolism, and later in the Contact period as a medium of exchange (Leveillee 2001). Recovery of beads, wampum, and blanks is rare outside of burial contexts; Fort Ninigret being a notable exception (Robinson et al. 1985; Rubertone 2001; Simmons 1970; Taylor 2006). Excavations over several seasons by archaeologists from Brown University on the seventeenth and eighteenth century Spring Greene Site, in close proximity to the Cove Terrace Site, have resulted in recovery of Native American cultural materials including projectile points, wampum (including several blanks), and trade beads (Krysta Ryzewski and Caroline Frank, personal communication 2010).

The collection of the maize kernel in association with aboriginal ceramics from Feature 10 is also noteworthy as a rare recovery. To our knowledge, the carbonized Cove Terrace kernel is only the second instance in which indigenous maize has been recovered in Warwick, and in the first instance the related radiocarbon date indicated a probable post-Contact period origin (Lardy and Morenon 2008). The assemblage of fish bone from Feature 5 can provide refinement of targeted marine species and possibly provide further insights into the seasonality of occupation(s). The recovery of carbonized carpetweed seeds from features 1A, 4, 5, and
10 of the Cove Terrace Site parallels other Middle and Late Woodland sites in eastern North America and is generally viewed as reflecting an increase in grasses and weeds concurrent with increasingly nucleated Native American settlement and horticulture.

The Cove Terrace Site has yielded important data and has the potential to yield additional data relative to the pre-Contact archaeological landscape of western Narragansett Bay, contributing to research about the transition from hunting and collecting to sedentary village life along Rhode Island’s coastal and bay margins between 4,000 and 350 years ago. As such, it is important and could be eligible for listing in the National Register of Historic Places.

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The Cobble Hammerstone

Bernard A. Otto

From the many years I have excavated intact coastal archaeological sites, I learned a lot about stone tools and their diagnostic association with prehistoric components. The cobble hammerstone, largely unmodified, was an everyday implement for various pre-Contact indigenous people. Its uses were many:

- As a heavy percussor, for making spalls and rough preforms;
- As a muller (see Figure 3);
- For smashing white-tailed deer tibiae for making bone awls, perforators, needles, scrapers, and harpoon barbed points (see Figure 7);
- For smashing large animal bones for the marrow;
- As weights for soaking hides for buckskin clothing and drum heads;
- For smashing acorns and other nuts and pits of wild fruit;
- For pecking thumb depressions for finger holds;
- For breaking up mollusc shells for making temper for ceramics;
- For powdering clay for making ceramics;
- For driving bone or stone wedges for splitting wood;
- For loosening bark on birch trees;
- For flattening native copper nuggets after heating (see Figure 8);
- For pulverizing horseshoe crab shells to be used as a fertilizer for their culti vars;
- For beating cut pieces of oak and hickory into splints for basket weaving. (Wilbur 1978:36)

I have in my artifact assemblage more than sixty hammerstones of various sized cobbles. They were carefully collected by the pre-Contact inhabitants from coastal cobbled beaches. The stone materials of the hammerstones are mostly siltstone, sandstone, coarse- and fine-grained granite. I have some that are round and flat in cross section with extensive battering around the edges, probably used for reduction purposes (see Figures 5 and 6). Some are pitted for hand grasping (see Figure 4). One is perfectly round and smooth, the size of a grapefruit; its use is problematical (see Figure 1). I hypothesize that its smooth surface is likely from handling, and I suggest it may have been some sort of game ball.

Excavating at the Powell Trust site in Kingston,
Figure 1: Round Ball-like Hammerstone, Powell Site, Kingston, MA

Figure 2: Grooved Hammerstone for Hafting, Rocky Nook Site, Kingston, MA

Figure 3: Muller with Metate, Powell Site, Kingston, MA

Figure 4: Thumb-holed Large Hammerstone, Holmes Field Site, Plymouth, MA

Figure 5: Fist-Sized Hammerstones, Powell Site, Kingston, MA

Figure 6: Medium Sized Hammerstones, Powell Site, Kingston, MA
MA, I found more than one feature of small cobbles in four or more clusters in close grouping. Most all cobbles are oval and round in shape, proof of special beach selection. I have a medium-sized cobble grooved for hafting (see Figure 2). Whenever these useful cobbles were found in my excavations, they were always a source of interest and fascination to me.

The collegiate classroom textbooks for professionals were never my luxury; my intensive hands-on years of field archaeology have been my life-long strength and forte.

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**Skug River: The Meaning of a Landscape Name in Andover, Massachusetts**

**Eugene C. Winter**

**Introduction**

This paper represents a survey of pertinent documents to explain the meaning of a landscape name in Andover, Essex County, Massachusetts. The name of interest is that of a tributary stream of the Ipswich River which was printed on early maps and is still used today. Its meaning and origin has baffled local historians for many years, despite the fact its meaning has been documented in a variety of historical sources from the early seventeenth century. It is called the Skug River.

About twelve years ago a friend gave me a three page photocopy made from a book of Abenaki vocabulary. This item was copied multiple times to serve as an example for tourists visiting various museums and historical societies near the Maine coast. This title page states: *Extracts From a Spelling Book In The Abenaki Language*, published in Boston in 1830 and called Kimzowi Awighigan, the last word being the term for book. The author’s name is not included. “Skog-snake” was printed on this word list.

I have not been able to verify the origin of this manuscript or its author. It was probably copied at an early date from one of the three dictionaries produced by Jesuit missionaries prior to 1830 who were working in Maine among the Penobscots,
Passamaquoddy and Abenaki people. (Lappomar-
da 1977:286) [Editor’s note: A web search revealed that this source was most likely published in Boston in 1830, cited by Frederic Kidder (1860:246).]

Naturalist-educator Barbara Bulls, of the Harold Parker State Forest staff, asked for assistance in documenting some of the history and landscape features within and adjacent to the forest. She served many hundreds of campers at the forest each summer and fall who have an interest in the area. Additionally, local citizens and their children often ask the meaning of Skug, the curious name they see on maps. I accepted the research challenge and looked for a Native American presence.

Development

In 1880, Sarah Loring Bailey (1880:575) wrote a history of Andover in which she mentioned:

In 1715, Henry Gray had a mill for grinding scythes on or near Scoonk river . . .

Mofford (1980:201) explains this strange spelling of Scoonk, suggesting that Skug having evolved through misspelling and mispronunciation from SKUNK / SCOONK. This is in error, for the word used to name the river is a Native Indian word for snake.

In the handbook of trails titled, The Bay Circuit and AVIS Guide to Walks in Andover (1999), the Skug River Reservation is discussed in terms of history. The first sentence states that “The Skug River got its name from a phonetic misspelling of Skunk.” The Mofford history of AVIS (Andover Village Improvement Society) is credited for this interpretation. Obviously, the landscape name was never researched.

Once we know that Skug is the Native word for snake, we can verify it by finding the entry in Trumbull’s (1903) Natick Dictionary as an English word. This yields a variety of spellings and the sources from which they were recorded. Then, turning to the Natick Indian section we learn from the Native words the differing spellings used by various authors from the 17th century to the 19th century, and the tribal units where the words were collected.

The Bureau of Ethnology at the Smithsonian Institution published an extensive catalogue of published and unpublished material for North America. (Pilling 1891). This work was consulted to create a checklist of possible sources and as a check on data from the Natick Dictionary.

According to Gordon Day, there are certain rules which we should follow in studying place names (Day 1998:196-197):

First in order to ascertain the meaning of a place-name, we need the actual form which the Indian used – not a version garbled by whites who had trouble hearing and pronouncing what the Indian spoke. One must consider the age of the historical source, the integrity of the speaker or recorder, the native language of the recorder, and the recorder’s ability to hear and record the Indian language. We need to know the significance of the name – and how it fits the place so named.

Geographical Context

Two adjacent drumlin hills in South Andover are highly prominent landscape features known as Prospect (or Holt’s) Hill, 128 meters above mean sea level (amsl), and Boston Hill. Both shed water to the south into a low, level meadow about fifty acres in extent (see Figure 1). This meadow is the source of the Skug River at an elevation of about 57 meters amsl. The stream course meanders south to a point near the North Reading town line and then turns west and flows at an elevation of 22.5 meters amsl into Martin’s Pond in the adjacent town. At the southern end of the Pond, it flows out and ultimately combines its water with the Ipswich River at an elevation of 21 meters amsl. From the meadow where the stream begins at 57 meters elevation to the Ipswich River at 21 meters, the water drops 36 meters in a ten mile (16 km) run.
Upon the melting of the glacial ice, water began eroding the area. Gullies were cut into the hillsides on the southern slope, feeding water to the stream (Zink 1956:17-18). Rain and snowmelt carved out a small valley which was once wider and sometimes deeper that it is now. Swamps developed during dry seasons when the upper reaches dried up, and only disconnected shallow pools at various points along the stream formed where there was wide and level terrain.

**Historical Context**

The Town of Andover once included North Andover as well, and settlement began just prior to 1646. Early settlement was located in the north near the Merrimack River. People eventually received grants to the south of town and gradually occupied that area.

In contrast, Lynn was a seaside town established in 1637. Part of Lynn was split off and called Reading in 1644. People settled in the southern sections and then eventually spread northward. North Reading split off from Reading in 1653.

Nicholas Holt was one of the original settlers of Andover who eventually received a grant of land in the southern section of town. In 1662 Holt increased his acres from the original allotment of fifteen acres to at least 457 acres to the south of town (Greven 1970:59-60). His land included the Skug River area.

At that time, in the middle of the 17th century, Native people were still living in the Merrimack Valley. Some worked for local settlers on farms, building stone walls, rail fences, hunting and other chores. Early histories indicate considerable Indian traffic up and down the Merrimack River during the 17th and early 18th centuries. A Native American woman, Nancy Parker, was making her rounds among the farmers of the area working as a weaver and spinner of yarn in the early 1800s (Fuess 1959:29).

Contact with Native people would account for the transfer of the river name, Skug, to the Holt family. From time to rime, the Holts sold, rented and leased land to adjacent farmers. A sample of this transaction follows:

Nicolas Holt 3rd yeoman to Henry Holt 3rd yeoman both of Andover for 10£ [pounds] lawful money, a certain parcel in the South Parish and lying near Sutton’s Bridge. This meadow is on the the Scugg River and contains 1½ acres more or less and is bounded at the northeast corner with a maple tree thence running westerly to a s/s and bounded around with upland from thence round with upland to Henry Gray’s land and so on to ye first bound mentioned.

Written:  
Nicolas Holt 3rd and wife Dorcas  
Recorded September 12, 1732

Obviously the name of the river was still in use in 1732. Since the Holt family occupied the same landscape for over twelve generations (Zink 1956:22), the local landscape names were preserved.

The settlement pattern of the two adjacent towns and the dates of occupation by colonists could have resulted in different landscape names. Special notice should be mentioned of the fact that from the river’s source at Holt’s Hill in Andover to the southern border of the town, the stream is called Skug River. The water is ponded in North Reading in Martin’s Pond and flows south in a stream called Martin’s Brook to the Ipswich River. This is the only instance I know of where a small and shallow stream is called a river, and in the lower reaches, where canoes could be used, the stream is termed a brook!

**Mythology**

Native American pow-wows in southern New England were doctors, prophets and healers with powerful spirit-helpers able to control unseen powers in the world. Pow-wows, or shamans, were closely associated with water and beings of the underwater world (Speck 1928:281; Bragdon 1996:206-207). Water, serpents and their connection to the underworld were closely related to
Abbomocho or Chepi, sources of the great power. Bragdon (1996:207) states that the connection between shamanism, serpents, and shell was so compelling as to survive in southern New England folklore well into the 19th century.

**Recorders of The Word Form**

Edward Winslow, a Pilgrim of Plymouth Plantation, very early became a leader in colony projects including serving as a diplomat to the Native Americans. He wrote extensively of his experience with local people. Simmons reports that Winslow was informed:

> Hobbamock appears in sundry forms unto them, as in the shape of a man, a deer, a fawn, an eagle, etc., but most ordinarily a snake.

Winslow reported the word snake as ASKOKE.

Thomas Morton, the noted Elizabethan settler at Marymount in the Neponset River area, wrote a book on his American experiences (1999). He states that:

> There are of snakes diverse, and of several kinds . . . the general Salvage name of them is Ascowke.

He also added:

> Yet he not be ranked with any but the beasts, not withstanding he frequents the water as well as the land.

Roger Williams, the minister who was banished from Salem, Massachusetts Bay Colony in 1636, went south to live in the Narragansett country where he befriended the Native people there. In 1643 his *Key Into the Language of America* was published in London and serves to this day as a vocabulary and phrase book of the Native language of southeastern New England. In it we find:

> Askug – a snake
> Moaskug – a black snake.

When the Reverend John Eliot, missionary to the Indians of eastern Massachusetts, translated the Bible into the Massachuset language, he had the help of bilingual Native speakers. In the 1663 and the 1685 editions of the Bible, he required the Native equivalent of the word serpent, as in Genesis 3:1 and Deuteronomy 8:15 (2001). The word provided was ASKOOK. However, in his *Massachuset Psalter*, in John 3:14, he changed the spelling to ASHKOOK.

Josiah Cotton of Plymouth worked as a missionary in Plymouth Colony and on Cape Cod during the years 1710 to 1774. He wrote a dictionary of the Indian language based on his own work but also on material his father began. This manuscript was written in 1707-8, but published in 1829. Cotton spelled the word for snake as ASKOOK, as did Eliot (Cotton 1829:147-257).

An American clergyman from Connecticut, Ezra Stiles, was president of Yale College from 1778 – 1795. He was also a professor of ecclesiastical history and instructor in Hebrew, theology, and various sciences. Due to an interest in languages, he compiled a vocabulary of the Pequot living in the vicinity of Groton, Connecticut prior to 1764. He provides us with the word spelled as SKOOGS (Stiles 1762, cited in Dexter 1916).

John G.E. Heckewelder (1876) was a missionary to the Indians of Pennsylvania and Ohio. Probably most of his work was among the Delaware (Leni Lenape) Indians. He was a student of Native language. In his memoir of 1876 we find a letter to a friend dated the 15th August, 1816 where he states that:

> The names of reptiles generally end in GOOK or GOOKSES [meaning little, not plural]. ACHGOOK, a snake.
> SUCKACHGOOK, a black snake (from SUCH or SUCKEU, black.)

Frank Speck, ethnohistorian, was lucky to find a Mohegan-Pequot woman who could speak her Native language. Her name was Fidelia A.H. Fielding. He discovered that she used the English alphabet to express her thoughts in her Native language. She kept a diary in Mohegan and was able
to translate it into English. Speck wrote it down in English as she dictated. Both versions were published together by the Smithsonian. Her written Native copy originated in 1904 as Speck’s written copy of both versions was issued in 1928. She wrote that one day she walked down to the water’s edge and saw a snake with a fish in its mouth. Three times in a single paragraph she wrote the word, SKUG [snake] to express her anger that the snake had the fish and she did not!

George F. Aubin produced a dictionary of Proto-Algonquian vocabulary which implies a greater time depth. He recorded SKOK as meaning snake for the Penobscot, Abenaki, Natick and Delaware.

Gordon M. Day produced a two-volume dictionary of modern Western Abenaki language as it is spoken in the last half of the 20th century (1994, 1995). He worked with 38 speakers of the language who were living at Odanak, New England and New York. In his list of selected root words, he provides us with SKOG – snake.

Geary Walkor, a tall and slim young man, heard a presentation I gave on this subject at the Annual Meeting of the MAS in October 1999 in Middleboro, Massachusetts. After my slide-talk he came forward with the information that when he was a younger man, in 1975, he drove a delivery truck for the Coca Cola Company. His route included Indian Island, the Penobscot Reservation in Maine. Upon his arrival there each week, he was met by a gathering of teen-age girls hoping to get free samples. A few of the elders of the reservation, sitting on a bench outside the store, observed this weekly excitement and decided to give Geary an Indian name. Later upon request, they wrote the name down for him and told him what it meant. Henceforth his name among them was SKOUGH WALKOR.

Conclusions

There were Indians in Andover and surrounding towns throughout the 17th century but they are seldom reported.

Indian cosmology recognizes the underwater world and snakes as spirit beings.

Interviews with residents recognize a snake population in the marshy areas of the Skug River.

Local spelling of Skug has been in use from 1665 to the present day, never changed on maps from the earliest recorded until the present, including local, state and national maps.

Some early maps do not show small water courses, but later when they become economically useful by building earthen dams resulting in pooled water for mill sites they begin to appear on local, state and federal maps.

It should be obvious that in this study the Skug River of Andover has been proven to mean Snake in the local Indian language.

I would argue that it is highly desirable that we restore the Indian name and its meaning in the various institutions and conservation organizations.

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Figure 1: Map of the Skug River in Andover, MA.
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Figure 2: Historic Persons Who Have Recorded the Word for Snake in the Algonquian Languages.
Titicott Brook Sites

William B. Taylor

Introduction

Brook sites played an important part in the lives of the Titicott Indians. Most brooks flow through woods and marshes. These swampland areas were rich with game birds and fur-bearing mammals, as well as native brook trout. Hunters and gatherers also had available rich resources: plants, grasses, ferns, berries and nuts, items that were important for food, medicine and equipment. One of the most important brooks within the Titicott area was Snow’s Brook. Snow’s Brook begins in a swamp north of Forest Street in Bridgewater and meanders 4½ miles (7.2 km) through woods and swamps, until it meets the Taunton River just north of Titicott Street Bridge on Plymouth Street (see Figure 1).

Since the middle 1700’s, farmers have cleared some fields on high ground along this stream. Several of these pastures and hay fields were once used by local Indians as overnight campsites. Most are small sites and have produced between six and twelve surface-found points each through the years. These fields are only plowed occasionally. Ground stone implements are seldom found on these small sites.

During World War II (the 1940’s), many local people had small victory gardens, patches of ground that were only plowed during this period. This opened up areas that were normally pastures, hay fields or lawns. A surprising number of gardens yielded a few nice points. The following is a short description of ten sites along Snow’s Brook in Bridgewater. In some cases, the only information available about recoveries from these sites is word of mouth; in others, there are extant collections. Site locations are shown by number in Figure 1.

Snow’s Brook Sites

Site 1. The Forest Street Site was a farm pasture along the west side of Snow’s Brook. This field was once plowed by Victor Auglis, a local farmer, who reported finding several points while working this field.

Site 2. The Cross Street Site was a two-acre field along the east side of the brook. This pasture produced at least twelve whole Late Archaic points: three Vosburgs, a Wayland Notched, a Merrimack, and a perforator (see Figure 2, nos. 3, 4, 12, 35, 37, 39, and 40).

Site 3. Olde Scotland Links Golf Course was built in 1997. During construction of the course, a small spring was exposed. Victor Auglis reported finding a few points around this spring, which flows into a small feeder stream that crosses Vernon Street and runs into Snow’s Brook to the east.

Site 4. William Auglis had a small garden plot along the above stream. I found six Late Archaic points in this one-acre patch of ground.

Site 5. Kravitz Field was a medium-sized site, located between Vernon Street and the west side of Snow’s Brook. This two-acre field yielded over eighty points through the years 1940 – 2002. Included were two Bifurcates (Figure 3, nos. 66 and 67), two Dalton-like points (Figure 3, nos. 64 and 65), several Susquehanna Broad points (Figure 2, nos. 1, 14, 15, 17-20, 26, 28, 34, 43, and 44), two Brewerton Eared-Notched drills (Figure 3, nos. 48 and 49) and several Neville and Neville Variant points (Figure 3, nos. 68, 69, 70, 72-74). Also included were two U.S. cents (1834 and 1837) and one half penny token (1832) labeled “Province of Nova Scotia” (Figure 3, no. 9). This was a multicompontent site used from 8500-150 B.P., from the Early Archaic through the Contact period. No ground stone implements were found, although one small hone was collected.

Site 6. Pat Heinz’s Garden on the west side of the brook produced seventeen Late Archaic through Early Woodland points, including one Mansion
Figure 1: Map of the Titicut Area Showing Site Locations. Map Drawn by William B. Taylor.
Inn blade (Figure 2, no. 23) and one Genesee point (Figure 2, no. 21). This small site is probably part of the Trite’s Farm Site, directly across Vernon Street.

**Site 7.** William Austin’s Garden on the east side of the brook yielded approximately ten Late Archaic points, which he found while gardening.

Site 8. Brooks Field north of Green Street was a two-acre small site. Through the years, approximately two dozen artifacts were found here, including a nice gouge (Figure 2, no. 18), a Bifurcate point, and a Neville point (Figure 2, no. 29). It was occupied from the Early Archaic through the Middle Woodland Period, and two broken winged type atlatl weights were found there.

Site 9. The White-Rodgers Garden was a mediumsized site located on the north side of Snow’s Brook. A small spring-fed brook flows into Snow’s Brook. Here, over fifty points were found by the owners, including a ¾ grooved axe and a small 2½” (6.35 cm) long polished celts. In the early 1950’s I plowed the north pasture to make a baseball field. Here, I found ten points, including one Dalton-like point, a Cape Stemmed point (Figure 2, no. 2), a Vosburg point (Figure 2, no. 36), and a small grooved hammerstone.

Site 10. Bromley Garden was located on the east side of South Street, bordering Snow’s Brook and the Taunton River. Around 1740, a dam was built here and a foundry erected to manufacture small arms, tools and cannons. A sawmill was later set up in the late 1780’s. Artifacts from this site included a Fox Creek Stemmed point (Figure 2, no. 7), a gunflint (Figure 2, no. 11), an Atlantic point (Figure 2, no. 22), and a Brewerton Corner-Notched point (Figure 2, no. 31).

**Other Local Sites**

Moving upstream about 1 mile (1.6 km) along the Taunton River, Sawmill Brook enters the river flowing from a large swamp east of Route 18 and 28. Few sites have appeared along this brook, as swamps and woods border the whole stream. However, a small feeder stream called Poor Farm Brook had some exposed hayfields. This brook starts in a swamp at the corner of Cross Street and South Street, some two miles (3.2 km) distant from the Titicut Site.

Site 11. Bryant Pasture produced twelve broken bases from this two-acre field, including an untyped stemmed point (Figure 2, no. 15). It is probably from the Late Archaic period.

Site 12. The Poor Farm Site is located across South Street to the east and yielded twelve points, including one fine Dalton-like point (Figure 2, no. 28) and one Susquehanna Broad point (Figure 2, no. 20). It was occupied from the Early Archaic through the Middle Woodland period. Several large springs are located on the west side of the swamp, which is home to several deer.

Site 13. Keith Farm produced at least ten Late Archaic points, found by Cora Keith during her lifetime of farming.

Poquoy Brook is another large brook that was important to the Titicut Indians. This brook runs west through swamps and woods for 3½ miles (5.6 km) before entering the Taunton River. It provides the boundary between Middleborough, Lakeville and East Taunton. Poquoy Brook has brook and brown trout, herring, bass and sunfish, but there are few open fields along the banks. It is also home for several deer, which use this swamp as a refuge. In 1962, while the Poquoy Brook Country Club was being built off Leonard Street in Lakeville, several points were found.

Site 14. Along the west side of Vernon Street, four quartz stemmed points were found along Poquoy Brook.

Site 15. In Raynham, 1½ miles (2.4 km) downstream along the Taunton River, Furnace Brook enters the river. Here, a one-acre field at the corner of River and Church Streets held a small site. The late William Greene from Middleborough reported finding a gouge and several points here. This stream has brook and brown trout of good size.

Site 16. The Bassett Brook site along Pine Street in Raynham produced at least twelve Archaic points, including an Atlantic (Figure 2, no. 1), a Vosburg
(Figure 2, no. 6), a Jack’s Reef Corner-Notched point (Figure 2, no. 8), and two Small Stemmed points (Figure 2, nos. 14, 17). William R. Begley and Ann K. Davin of P.A.L. obtained two Early Archaic dates of 8480 ± 140 B.P. and 8430 ± 170 B.P. from charcoal samples taken at the Bassett Knoll Site (Begley and Davin 1996). This site is one mile (1.6 km) south of the Titicutt Site.

Site 17. On the north side of Center Street in North Middleboro, the Tripp Garden yielded at least twelve Late Archaic points. Mr. Tripp found these points across the street from the start of Pudding-shear Brook. This brook is a tributary that joins Poquoy Brook 1½ miles (2.4 km) downstream, before it flows west to the Taunton River.

Site 18. The Taylor Brook Site is west of Vernon Street along an unnamed small brook that starts in a swamp east of the Fort Hill Field Site and flows west to the Taunton River. At least twelve Late Paleo through Early Woodland Period points were found here, including one Parallel Stemmed point (not illustrated).

Site 19. McCue’s Field lies on the south side of this same brook. At least twelve Late Archaic points were found on this field, including an untyped stemmed point (Figure 2, no. 5), a Jack’s Reef Corner-Notched point (Figure 2, no. 9), an Atlantic blade (Figure 2, no. 16), a Small Stemmed point (Figure 2, no. 26), and a knife preform (Figure 2, no. 30).

Site 20. In Raynham, Dam Lot Brook starts east of Route 24 and flows west across Routes 24 and 44, while making its way to the Taunton River. In 1954 a house was under construction on Orchard Street, along this brook. In the bulldozed lot I found two broken stemmed quartz points and a fine copper cut-out point. This site is about 4 miles (6.5 km) from the Titicutt Site.

In East Bridgewater, Beaver Brook is another big brook that had many small campsites located along its banks. One of the larger sites was the Leland Farm along North Central Street. This location is near the confluence of Beaver Brook and the Matfield River. Approximately ten Archaic points were found here in 1975, including a fine Bifurcate point with side notches. Although somewhat removed (8 miles, or 12.9 km) from Titicutt, this brook was an important hunting area for local Indians.

Discussion

The six large base camps within the Titicutt area all have small seasonal brooks running through them. These brooks dry up in early June for four months during a normal year, before fall rains fill them again. A wet summer keeps water flowing all summer. However, the two Fort Hill Sites, Seaver Farm, Titicutt Site and Taylor Farm all have small nearby springs available for a summer water supply. Tite’s Farm is within 75 yards (68.5 m) of Snow’s Brook, which is a year-round source of water. The Taunton River was a never-ending source of water, although it is tea-colored from the leaching of vegetation, called tannin. This is the natural color of our slow-moving rivers in Massachusetts. Early colonists reported drinking this water source when necessary. Within four miles (6.4 km) of Titicutt, nine good trout brooks are located. There are also some small local rivers that had small campsites too, namely the Forge River in Raynham and the Hockomock River in West Bridgewater.

Conclusions

After studying the many small campsites along local brooks, their importance becomes quite evident. Brook sites were continuously used for hunting-gathering trips from the Early Archaic through the Contact period. Kravitz Field and Brooks Field yielded Bifurcate points. Kravitz Field, Poor Farm and White-Rodgers sites all had Dalton-like projectiles found on them. Taylor Farm Brook held a Parallel Stem point, while Dam Lot Brook held a copper cut-out point.

Local brook sites were continuously used from 9000 B.P. to 150 B.P. A good grade of points was found on these small brook sites. The larger Titicutt area sites have an average of 30% whole artifacts found on them. These brook sites produce a higher percentage of whole points – about 50%; why this difference is a mystery. Perhaps Indians
being within one day of returning to base camp, waited before discarding their broken points and attaching a new replacement. Another possibility is that these overnight campsites were rarely plowed, thus less breakage occurred. While I can’t say this phenomenon applies to all brook sites, it seems true for the small overnight campsites within the Titicut Area.

Acknowledgements

I would like to thank Jeff Boudreau for his expertise in photographing these artifacts. Also I offer my gratitude to Laurie Stundis for her help in typing this report.

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Figure 2: Brook Sites: 1,16, 22, 24 Atlantic; 2 Cape Stemmed; 3, 34-36, 39 Vosburg; 4, Wayland Notched, Coburn Variety; 5 untyped; 6 reworked Neville Variant base; 7 Fox Creek Stemmed; 8-9 Jack’s Reef Corner-Notched; 10-11 gunflints; 12 perforator; 13 brass trade point; 14, 38, 40 Bare Island; 15 untyped; 17, 37 Merrimack; 18 gouge; 19 flake knife; 20 Susquehanna Broad; 21 Genesee; 23 Mansion Inn Blade, Watertown Variety; 25, 27 Squibnocket Triangle; 26 Wayland Notched, Watertown Variety; 28 Hardaway-Dalton; 29 Neville; 30 preform; 31 Brewerton Corner-Notched; 32 Brewerton Eared Notched; 33 Brewerton Eared Triangle. Photograph by Jeffrey Boudreau.
Figure 3: Kravitz Farm: 1,14-15,17-20, 26, 28, 34, 43-44 Susquehanna Broad; 2-3, 61 Rossville; 4-5 Levanna Triangle; 6-8, 45-46, 52-53 Squibnocket Triangle; 9 coins; 10-11,13, 21, 24, 36, 40 untyped; 12 Vosburg; 16, 50 Atlantic; 22 Normanskill; 23 Orient Fishtail; 25 core; 27 Cape Stemmed; 29, 31-33 Wayland Notched, Watertown Variety; 35 Bare Island/Poplar Island intergrade; 30, 37-39, 41, 63 scrapers; 42, 47, 62 knives; 48 Brewerton Eared-Notched; 49 drill; 51 perforator; 54-60 Wading River; 64-65 Hardaway-Dalton; 66-67 bifurcate base; 68-69, 73 Neville; 70-72, 74 Neville Variant. Photo by Jeffrey Boudreau.
CONTRIBUTORS

Alan Leveillee is the Director of Educational Programs, a Senior Archaeologist, and a Principal Investigator at the Public Archaeology Laboratory, Inc. (PAL). He is a long-time member of the Massachusetts Archaeological Society, has served as an advisor to the Robbins Museum, and is a frequent contributor to the Bulletin.

Bernard Otto is the long-time chairman of the Massasoit Chapter of the Massachusetts Archaeological Society, and a frequent contributor to the Bulletin. He has made a life-long study of prehistoric archaeology in coastal Southeastern Massachusetts.

William B. Taylor is a long-time member of the Massachusetts Archaeological Society, and is a member of its Board of Trustees. He has been an ardent collector of Indian artifacts in the Titi-cut area for more than sixty years, and is a frequent contributor to the Bulletin.

Joseph (Jay) N. Waller, Jr. has been conducting archaeological research in Massachusetts and Rhode Island for more than 15 years. Presently, he serves as a Senior Archaeologist and Principal Investigator for the Public Archaeology Laboratory, Inc. of Pawtucket, Rhode Island.

Eugene Winter is an active member of the Northeast Chapter of the Massachusetts Archaeological Society and serves as Museum Coordinator of the Robbins Museum. He is a past president of the Massachusetts Archaeological Society.
NOTES TO CONTRIBUTORS

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Bibliographic references should be listed alphabetically by author’s last name and presented as follows:

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Several references by the same author should be listed chronologically by year. Reference citations in the text should include the author’s name, date of publication, and the page or figure number, all enclosed in parentheses, as follows: (Bowman and Zeoli 1973:27) or (Ritchie 1965: Fig. 12). All information derived from published sources must be cited, whether it is directly quoted or paraphrased. Please check to make sure that citations in the text match bibliographical entries, especially dates of publication.

All illustrations and tables, called figures, should be submitted as electronic originals. Tables should be submitted as separate Excel (.xls or .xlsx) spreadsheets and not incorporated into the text. Figures should be submitted as either .tif or .jpg files, high contrast, in greyscale. Each figure should fit within the space available on a Bulletin page, which is 17 cm by 23 cm (6½ x 9 inches), allowing for margins. Full, half or quarter page figures should be planned carefully. Space must be allowed for captions. Captions should be in title case and should accompany the text in a separate section, in order and numbered to correspond to the figures.

Figures must be referred to in the text and are to be numbered in their order of reference, with their number indicated in the file name. Every item in each figure and each person should be identified. All lettering must be clear and legible. Scales with dimensions, preferably in metric measurements, should be included with all figures for which they are appropriate.

Dimensions and distances should be given in metric units or in metric units and English units, to the same standard of accuracy (e.g., 10 cm or 2.5 inches, not 2.54 inches).

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