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BULLETIN OF THE
MASSACHUSETTS ARCHAEOLOGICAL
SOCIETY



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Editor's Note

First of all, I want to thank all those who took the time to respond to the *Bulletin* questionnaire which was included in the Spring 2016 issue of this *Bulletin* and also on-line on the MAS website. In all, we received a total of 42 responses to the questionnaire, thirty on-line and twelve by mail. This represents a 12% sample of our membership, which is rather good for an unsolicited questionnaire. Of the on-line respondents, twenty identified themselves as MAS members, six as non-members, and four did not indicate whether or not they were members. All of the print responders were members.

The results were, perhaps not surprisingly, very disparate. The majority (58.5%) indicated that they were either satisfied or very satisfied with the *Bulletin*, with only 19.5% reporting that they were either dissatisfied or very dissatisfied. The strongest positive responses were to the questions about type size and spacing, with 87.8% reporting that they agree or strongly agree with the present configuration, format and layout, with 68.3% in favor of the present format. The strongest negative responses were to the quality of the figures and tables, with 41.4% reporting that they disagreed or strongly disagreed that the quality was satisfactory. However, a slightly larger percentage (48.8%) indicated that they agreed or strongly agreed that it was satisfactory. There was fairly strong support for making the *Bulletin* longer, with 58.5% in favor or strongly in favor. There was some opposition to issuing the *Bulletin* only once a year (43.9%), with 39.0% (all on-line responses) in favor of this change. A plurality (48.8%) favored keeping the table of contents on the front cover, while a slightly smaller percentage (46.3%) favored having art on the front cover. Of the members responding to the question of increased dues to cover improvement costs, eight (25.8%) were in favor of this, while four (9.8%) were opposed. This question was not included in the on-line survey, but one on-line respondent answered it anyway.

As a result, the Board of Trustees has agreed not to make any major changes to the format of the *Bulletin* at this time. The Board has already insisted on higher standards for images, and these are now

incorporated in the "Instructions to Contributors" page at the back of each *Bulletin* issue. We also have engaged a professional compositor to improve the images.

In terms of *Bulletin* content, the following five items received the highest percentage of support:

- Articles by professionals, amateurs, and students: 85.4%
- Articles about sites and artifacts: 78.0%
- Articles on Northeast archaeology: 75.6%
- Themed issues: 63.4%
- Historical reconstruction: 43.9%

No other categories received more than 31% of the responses.

A number of respondents to both the on-line and print categories of the questionnaire took the opportunity to include written comments about the quality of *Bulletin* content. As *Bulletin* Editor, I take these comments very seriously, and I encourage readers to send them in, because reasonable suggestions are always welcome.

Since so many of our readers have requested themed *Bulletin* issues, I have included in this issue of the *Bulletin* an extended article written by Rolf Cachat-Schilling, a member of the indigenous Nipmuc and Mohawk communities, who provides readers with what we anthropologists consider an "emic" perspective on stone structures, based in part upon his family traditions and intimate personal knowledge of the landscape, but also backed up by robust historical documentation. What I think is most significant about this case study is that Cachat-Schilling actually provides us with the names of the structure types in the indigenous languages. I am happy to publish his important work. I wish to add that the *Bulletin* always welcomes well-written articles by indigenous people. I have also included two short articles in this issue by Kostiw and Moody which speculate about a particular aspect of indigenous practices, namely, caching, and an article of my own which bridges between the latter two articles and more traditional archaeological methods, by

exploring the distribution of apparently cached "sacred items".

In closing, I want to thank the members of the Bulletin Editorial Committee -- Kathy Fairbanks,

Mary Ellen Lepionka, and Bill Moody – for their hard work in assisting with the editing of this issue of the *Bulletin*.

Ashland, Massachusetts
October, 2016

A Quantitative Assessment of Stone Relics in a Western Massachusetts Town

Rolf Cachat-Schilling

Introduction

The nature of stone works that appear with great frequency on the Massachusetts landscape has been debated for some time. A sacred site, near the former village of Peskeompscut in the Mid-Connecticut River Valley, found its way through state (Massachusetts Historical Commission) and federal processes of evaluation. A federal decision (Dec. 11, 2008, National Register of Historic Places, "NRHP") concluded that the same site is indeed Algonquian in origin and conforms to established cultural/religious practices of regional indigenous peoples, while further recognizing a 16-mile radius centered on Sacred Hill Ceremonial Site ("SHCS") as a special Traditional Cultural Property ("TCP") region of priority value. Said region encompasses the study area (NRHP 2008; Graveline 2016b:5-7; Washington 2016:2).

To elucidate origins and purposes of numerous stone relic groups in Shutesbury, Massachusetts, a quantitative and objective assessment of 60 ostensible Ceremonial Stone Landscapes ("CSLs") was performed, based on site surveys and inventories (2013-2016). A CSL is legally defined according to Tribal Historic Preservation Offices (National Historic Preservation Act, Section 106; Harris 2016, Washington 2016 personal communications, 'pc' hereafter), being characterized by sets of ritual stone surface features, both natural and manmade, consistent in both unique design and choice of stone (Harris and Robinson 2015:141; Prentice 1976-78, Grierson 1975:pc). CSLs exist within TCPs on macro- and micro-scale (Prentice 1976-78: pc). In this report, original Native names

have been restored (in italics) where possible, with post-Colonial labels in parenthesis.

The entire landscape of the Mid-Connecticut Valley forms a cross of the four cardinal directions (North, South, East, West) at the convergence of *Puckomegon* (Deerfield), *Papacontuckquash* (Millers) and *Quinneticut* Rivers (Connecticut, all three: Indian Land Deeds for Hampshire County, "ILDHC," folios 33-48, see Figure 1).

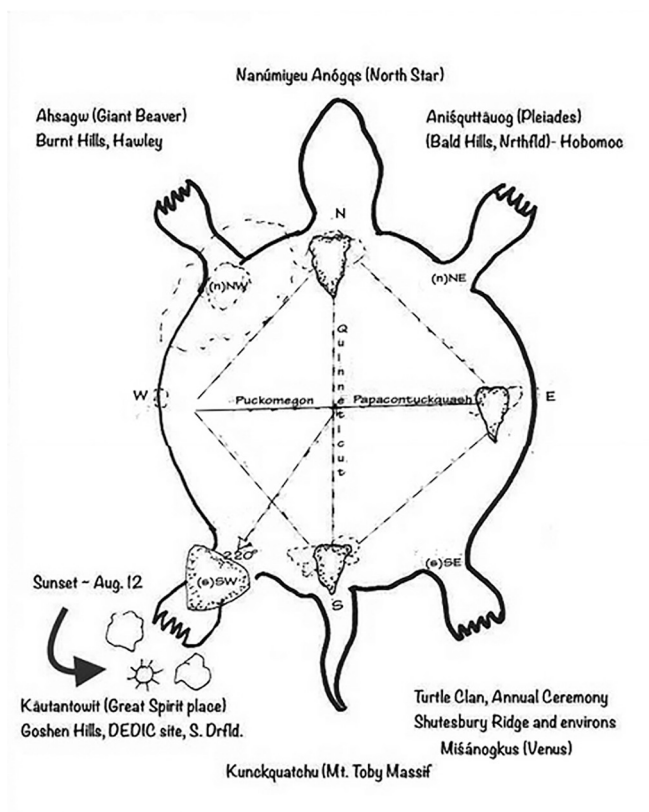


Figure 1 - Stone configuration (Site 7, ~ 3m each side) against ritual, celestial and landscape map of Central Quinneticut Valley.

This quartered circle is a ubiquitous symbol across Native North America and serves commonly as a Pan-American cultural symbol (e.g., logos for "Tribe Called Red," the American Indian Movement and its chapters, Native American Student Movement, NACCO, NAFSA, etc.). Sacred Hill Ceremonial Site (SHCS) rests centrally within four sacred mountain groups marking the sacred quarter points in Northfield, Leverett-Shutesbury, Goshen and Hawley (Prentice 1978, Graveline 2015a), forming a sacred ritual landscape, at the heart of which the many nations of the Valley gathered for their great Annual Ceremony that figures centrally across Eastern Algonquian nations (Harrington 2012:81-122; Ruttenber 1992b:317; Prentice 1976, Shoumatoff 1978, Figure 1).

Abenaki oral tradition speaks of their cousins, the Pocumtuck, in this sacred place and of the Giant Beaver, calling the people of the *Ahsakw* (North and South Sugarloaf), or *Wequomps* area, *Amisk-wôlowôkoiak*, people of the beaver-tail-hill (Bruchac 2005:1). In the shadow of these legendary twin monoliths rests one of the earliest habitation sites in the Northeast. Across the river is a sacred mountain, holding many populations of medicinal plants that are otherwise very rare or absent in the rest of the valley (Prentice 1978, pc, New England Wild Flower Society, "NEWFS," author's surveys 1998, 2008, 2010). *Kunckquatchu* (Mt. Toby Massif, 'Greatest of the Mountains,' *qunnukqui* - 'high,' Nipmuc, Trumbull 1905:274; ILDHC 1638:folio 39) is also traditionally home to the great Manitou *Wittum* (Prentice 1978: pc), and remains one of two most biodiverse places in Massachusetts (NEWFS, Brumback 2007:pc), the site of sacred natural rock formations and sweetwater springs (Nepesoeneg, ILDHC 1638:folio 39).

The entire sacred precinct as a whole and the stone works within it are one TCP and one CSL (NRHP declaration in re: SHCS 2008, Graveline 2015a:5-7), composed of many progressively smaller CSLs within the sacred precinct (TCP), which CSLs are themselves composed of stone clusters (*kâhtôqu-wuk*, Narragansett, Harris and Robinson, 2015:140; Prentice 1978: pc) made of individuals, each representing the world in balance from micro to macro over again in a Moebius-strip sort of connection. Aside from small concentric stone works, *qusukqa-*

niyutôk ('stone row, enclosure' Harris and Robinson, 2015:140, 'fence that crosses back?' viz. *qus-suk*, 'stone,' Nipmuc or *quski*, *quskaca*, 'returning, crosses over,' *qaqi*, 'runs,' *pumiyotôk*, 'fence, wall,' Mohegan, Mohegan Nation 2004:145, 95, 129) define spaces, while *šwihwâkuwi* (viz. *šwik+wâgawi*, 'it grows around,' Unami Lenapeuw, Zeisberger 1995:151, 173, or *šwi*, 'three' for 3-sided - Mohegan Nation 2004:98) form open ellipses that the author considers roughly equivalent to the "nave" of a Christian church, and *sunś nipâmu* ('marker stone' Narragansett, Harris and Robinson 2015:140, viz. *sunś*, 'stone,' *nipawu* 'stand up,' Mohegan Nation 2004:100, 83) serve as indicators. Individual deaths and memorial services for those persons are marked with *wâûnonaqussuk* (Natick Nipmuc *wâûnonukhauónat* - 'to flatter,' Trumbull 1903:202, verb stem *wâûnon-* 'honor' + *qussuk* 'stone' = *wâûnonaqussuk* - 'honoring stone' + *quanash* pl., also Narragansett *wunnaumwâuonck* - 'faithfulness, truthfulness,' *wunna*, 'good,' *wâunen*, 'honor,' + *onk*, abstract suffix, O'Brien 2005:37, *Wawanaquas-sik*, 'place of many honoring stones,' - Nochpeem Mahikkaneuw/Wappinger, Ruttenber 1992b:373).

Historical Context

Denialism is deeply rooted in the history of Euroamerican literature on Native America, long supported by academia and governmental agencies, and still very popular in some venues. In this century, mtDNA tests from Ohio mound skeletons yielded 4 of 5 documented Native haplotypes, while recovery rate was 69% (34 of 49 individuals), which level indicates excellent quality of DNA preservation (Mills 2003: passim). Genetic comparison of results with living *Šawanoki Lenaweeek* (Shawnee - Algonquians) confirmed their direct descent from these builders, yet revisionist "documentaries" remain popular on this subject.

Although Ives (2013:37-79), like others, focuses on the densely populated and archaeologically mitigated coastal Northeast, the case of Shutesbury CSLs presents a rebuttal by context. Furthermore, Ives relies almost entirely on anecdotal, second- and third-hand European sources that are also conjectural. Direct observation of CSLs and methodical comparisons appear entirely lacking in both Ives and his sources. Native sources appear

to be absent as well. Even Ives admits that the documented record of Euroamerican cairn works is lacking.

In contrast to Ives' cases, Shutesbury is only recently compromised by European occupancy (c. 1735), while farm lots historically cover a minority space, where large tracts remained as woodlots under low harvest, and population remained persistently low (Shutesbury Town Master Plan, Historic Maps, Land Use Type Maps, Town History, 2004: passim). As well, the immigrant population present elsewhere is lacking in this case, as Shutesbury was a relatively isolated community near highly preferred farmlands (Hadley, etc.) during farm re-occupancy periods, where immigrant farmers did settle and where CSLs are largely absent. Moreover, CSLs in Shutesbury are almost completely absent from the historic farm lots, while frequent on historic woodlots. From the 1860's until the 1960's, the population was in overall slow decline, with even lower early occupancy (Shutesbury Historical Commission 2004: passim). The author has obtained specific tract history from longtime residents and records for each of the nine tertiary assessment sites (see section below).

As seen in the 1871 Beers Atlas Map (Beers 1871, Figure 2), Shutesbury was thinly populated and concentrated near town center, with large tracts at distance from farmsteads. Though sites must be redacted for security reasons, the studied sites predominate in those areas farthest from homes and farmsteads, mostly on commercially unattractive land. This does not mean CSLs were not once where Euroamericans built, just that CSLs are not now in evidence there. Moreover, the most intact and intensively studied sites are all in locations at maximal distance from recorded Colonial buildings.

The Town of Shutesbury Master Plan provides an ostensible record of the post-Contact historical context of subject sites (2004:Natural and Historical Resources section). Notably, Dr. Dena Dincauze (University of Massachusetts), hired by the town to assess Native sites, reports that scores of registered Native sites in the Quabbin watershed represent only a fraction of the true total, which she describes as best-known to "local avocational archaeologists" (Shutesbury Master Plan, Scenic

and Historic Resources 2004:6-8). John Winthrop describes the smallpox epidemic of 1633 and its devastation of the Massachusetts area nations (2006:passim), which was preceded by a coastal plague in 1617, and was followed by massacres of entire Native towns, women and children included, during King Philip's War (1675-76) and Queen Anne's War (1702-16). Seventy years after the genocide of some 20,000+ Algonquians (Driver 1969:Map 6) "Extirpated this Execrable Race," as Jeffrey Amherst advocated in an exchange of letters with Col. Henry Bouquet (July of 1763, Randall, 2002:1), "Roadtown" was incorporated on the now-emptied sacred district, which town became Shutesbury. Only one contact-period cemetery (dating back several millennia in use) has been identified by Massachusetts in the Valley (Wisatinnewag, a Pocumtuck cemetery in Greenfield, MA, Nolumbeka Project 2010). About 2 km away rests the first federally recognized CSL in a TCP east of the Mississippi (NRHP 2008 in re: SHCS), which includes a 32-mile-diameter Special TCP District, extending to the previously named hills bounding the precinct.

Cultural Context

Northwest is where the Great Beaver's tail brushes the sky (Harris 2016: pc, Ursa Minor), while southwest is the home of *Kichtan* (*Kâuntantowit*, Grierson 1975: pc; Prentice 1976:pc; Harris 2015:140, others), while the southeast is where the Turtle clan rattle should be kept in the Annual Ceremony house of the Lenape (Harrington 2012:120) and is the home of *Mishánogkus* (Venus, Trumbull 1903:11, *Kchi alakws*, Abenaki, Lolo:14), and the northeast is home to *Aniśquttauog* (Trumbull 1903:6), known also as Pleiades (Figure 1). The cardinal points are significant around the world.

Native Algonquian religious practices are not as poorly documented as it may at first appear. Early Colonists recount some generalities about ritual practices, but also some telling details. Rutenber's work, *The Native Inhabitants of Manhattan and its Indian Antiquities*, is subsumed and quoted in *The Memorial History of the City of New York* (1892, James G. Wilson, editor Vol. 1, Chapter II, p. 50) in reference to *Wawanaquassik* as "honoring

SHUTESBURY IN 1871

Map from Beers Atlas of Franklin County

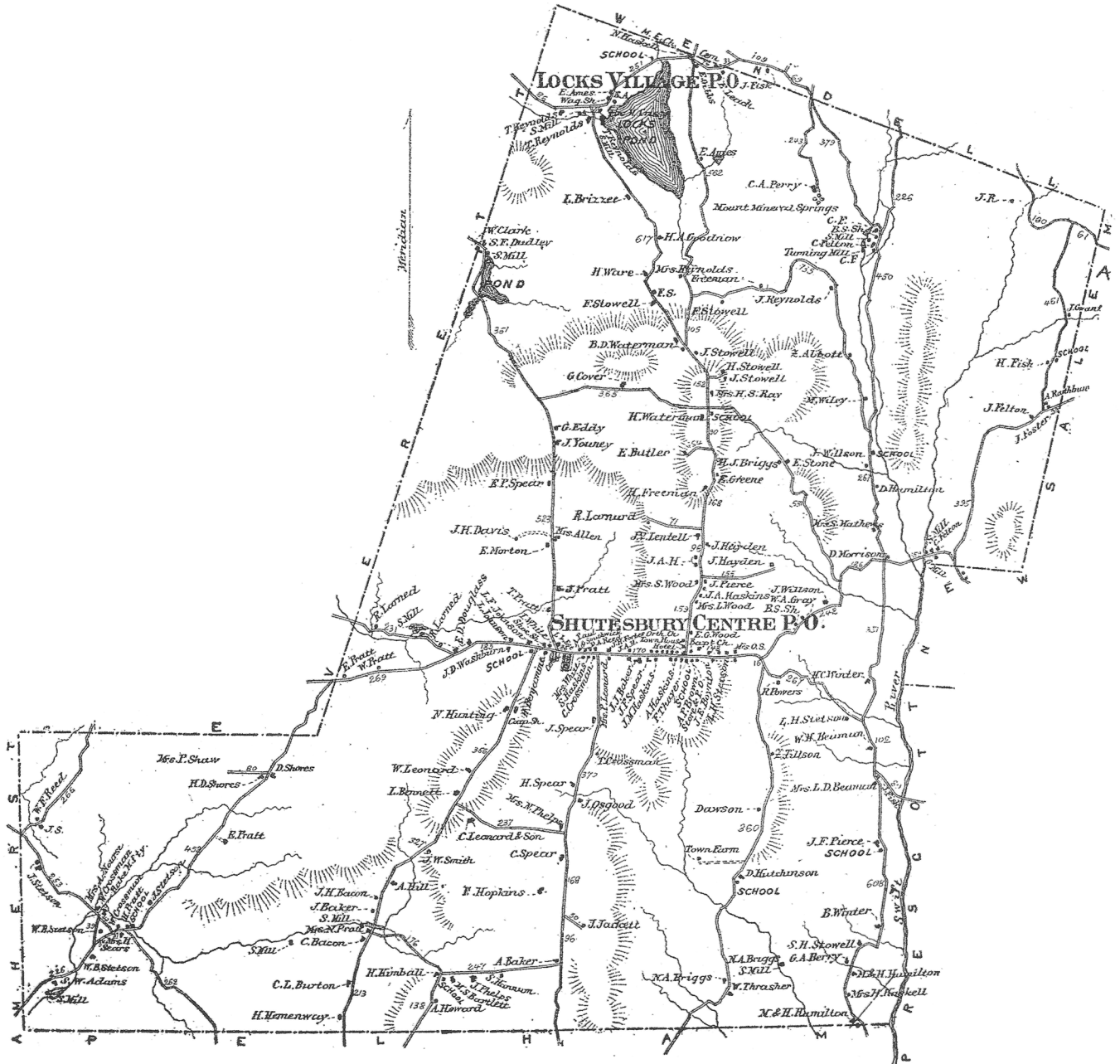


Figure 2 - 1871 Beers Map of Shutesbury, showing thinly populated, large tracts as woodlots.

stone" (detailed in Ruttenber 1992b:372-73, Figure 3). The Wappinger (Abenaki, Ruttenber 1992b:377) term describes an important ceremonial landscape feature mentioned in several 17th- and 18th-century accounts from the Massachusetts Bay area. This particular sort of ceremonial stone object appears abundantly in records, while other types appear not at all or only vaguely. Obscurity of other relic types may be due to the fact that *wâunonaquussuk* ritual relates to a public figure's demise, while other rituals were and are more private and more given to world well-being. Another cause may be that *wâunonaquussukquanash* are large, showy and interacted with in front of Colonial witnesses, who may have quite easily overlooked the many nearby small, subtle rock groupings. Ezra Stiles, minister, Yale President and researcher on Native religion, who exchanged letters with Webster on this subject, noted a "carved or wrought" rock near West Haven, CT, as an "Indian God" with whom he was familiar, and that he counted 20 such effigies on his own travels between Boston and the Hudson (1794:47).

Before venturing into ritual types, the record of Algonquian stone works requires a few examples. Washington Irving chronicled honoring ceremonies at stone groups and mounds, as did Thomas Jefferson, Benjamin Franklin and Daniel Webster, to name just a few (Gage and Gage 2007:100-608). In *The Sketchbook of Geoffrey Crayon* (1819:48), Irving states that Native peoples, even though robbed of their lands and removed for generations, still located their holy places with ease and made solemn pilgrimage to them.

Dr. James Trumbull notes another location of honoring a past sachem in *Indian Names of Places, etc.*, in and on the borders of Connecticut (1881:53). A site in Norwich, CT records a tradition of *wâunonaquussuk*, where a bronze plaque erected by the state tells the story of Miantonomo, a Narragansett sachem who sought to form a confederacy against the Colonists in the wake of the depraved massacre of Pequots in 1637 near present Mystic (Harris and Robinson 2105: 136-138), and who was murdered in 1643. The cairn was stolen for construction material. The memorial place is not identical to the burial in practice. For instance, in Unami Lenapeuw, a burial ground is *ehenda tauwundîn* 'conserved land' ('place for' + 'uninhabitable' +

diminutive, derived from words for 'wilderness/un-allotted').

Also destroyed is the famous *wâunonaquussuk* to the Scaticook Sachem killed in a revenge act by the brother of a slain foe. Monument Mountain, in West Stockbridge, is subject of more modern myths, but is well documented as the honoring place of the ill-fated Sachem. The immediate area of West Stockbridge and Stockbridge contains several CSLs known to the author.

Noah Webster wrote in a 1788 letter to Rev. Ezra Stiles about secondary burial practices of regional Native nations, and detailed the erection of mounds covered with stones. This practice is witnessed again by John Heckwelder in his *Vocabulary of Nanticoke*, the Nanticoke being an Algonquian people of the Delmarva Peninsula, Southern New Jersey and parts of Eastern Pennsylvania. (Heckwelder (1821) 2004:15). Harrington details the Skeleton Dance of the Lenni Lenape, associated with the above ritual (Harrington 1921:18). Colonists were unlikely to witness, however, the quiet rituals at nearby stone groupings that involved no bones. There is no use in looking for bones at stone ceremonial sites; there are none. The nature of sacred stone relics is ethereal, echoic, and symbolic, not material and personal. The actual ossuaries are concealed and coded within a well-secreted context.

Among ceremonial landscapes, *wâunonaquussukquanash* are rare. As will be seen from the data, two rock structure types dominate, both of which are part of what Narragansett traditionally refer to as *kâhtôquwuk* (stone groupings, Harris and Robinson 2015:140). Both types of *kâhtôquwuk* follow strictly formal design and choice of stone, as well as dimensions. To comprehend the basis of their purpose, the basis of ritual must be explained to some extent. Aside from honoring traditions, there are a host of rituals, a few of which give plentiful insight. Regular quotidian prayers include the Morning Prayer, which continues to this day in Nipmuc to thank God for good health and all good things, to pray for all the people, to the Sun. Notably, water features repeatedly. As well, the name Nipmuc/Nipnet refers to "people of the fresh water," a theme that dominates place names, prayers and life of the people in this area, repre-

sented by the tree of life and flowing water in the Nipmuc tribal emblem. Nipmuc places of worship associate with water.

Aside from daily worship, there are several important holidays in the Algonquian year (Harris and Robinson 2015:140, Harrington 2012:*passim*; Prentice 1976-78:pc). At these times, celestial bodies play a central role in community worship greeting the sun and spirits back to earth in spring and bidding farewell to the dearly departed in mid-August for several days (Ruttenber 1992a:19; Harrington 1921:196-200; Prentice 1976, Shoumatoff 1978), which event inaugurates a sacred season ending in the fall Annual Ceremony (Harrington 1921:196-200). Many myths relate to these matters across Algonquian and Haudenosaunee cultural lines, too many to relate here. Roger Williams again noted that the people of this area “reckoned the stars” with great skill (confirmed by Ruttenber, 1992a:29). A better account comes through Narragansett Tribal Oral History in the joint report on the Nipsachuck sacred site:

“It was through Ceremonial Stone Landscapes and the various features within them that the Ancients acknowledged the Mother Earth and her celestial relatives (sun, moon, stars, constellations, meteors, comets, etc.), which we contemporarily refer to as astrological alignments, can be perceived through the Ancients’ placement of stone features to join and enhance various natural features within these landscapes” (Harris and Robinson 2015:140).

A third form of ritual is that of the *Pau Wau* or the *Pniese* (Medeu, Unami Lenapeuw, Zeisberger 1995:90, *Mtewis*, Southern Anishnabe, www.eastcree.org/cree 2014), the priesthood of the Algonquians. Aside from periodic community rituals, priests also interceded in emergency matters and unforeseen needs. For these rituals, the priest’s power to call elemental forces and to alter forms was a central employment of skill, some remarkable examples of which are recorded by surprisingly objective witnesses.

Wassenaar goes into some detail about a place perceived as and called by the Dutch, Dans Kammer (the dancing room – on account of its rock enclosure), just north of Newburgh, NY (Ruttenber 1992a:27-30), which is described as being a mass

of rocks with two “dancing rings” of large grassy ellipses set apart from one another (Ruttenber 1192b:383-85). Note the epithet *kammer* and not *veld*, the concurrent Dutch term applied to open grassy spaces. Dans Kammer was twin spaces then, of very large *šwihwakuwi* (one was later built upon), with associated *káhtôquwuk* that have been mostly dismantled by campers. Numerous other CSLs dot the Hudson Highlands landscape (Shoumatoff 1978, Prentice 1976). Ruttenber’s Dutch reports also state that the Mahikkaneuk women were most expert in astronomy and could name every star in the sky, as well as times of ascent, setting and other events (Ruttenber 1992a:29).

The sacredness of Dans Kammer is attested in the account of Hans Hansen, 1684, a Dutch settler who decided to visit with his bride and an elder Munsie matron, Leshee. Leshee forbade them to land at the “rocky peninsula” named above, warning them that trespassers suffer death. The Dutch noted with bias the rituals held at Dans Kammer, and that 400-500 or more persons gathered at a time there on certain days. Hansen et al. insisted on landing there, found a Munsie hiding in the bushes nearby, whom they took captive over Leshee’s protests, and were set upon by avengers when their captive called out, who took the party hostage and burned the Hansens alive. The remaining party, who had not entered of their own will, were allowed to live once ransomed (all: Ruttenber 1992b:383-85). Another such “dance chamber” (*šwihwakuwi*) was recorded by the Dutch near *Sankpenak* (Roeliff Jansen Kill, near Claverack, NY), part of the *Wawanaquassik* tract, the boundary between Wappinger and Mahikkaneuk, which the author and others have long known to also contain *káhtôquwuk*.

We re-encounter shamanistic transformations of tents, monsters and people into stone, and back again, in “*Châhkâpâs kiyâ Michi-îyuch*” (Jagabesh and the Bad People), as told by John Peastitute, an elder Storykeeper from the Far North Kâwawâ-chikâmach Nâskâpî community, and again in *Âchân Tipâchimunâ* (Peastitute 2015:*passim*). The East Canadian landscape is marked all over with cairns, both directional and ritual, on record and in personal experience. Comparison of religion, language and culture all show marked cohesion among Algonquians across Northeastern United

States and Canada (Goddard 1978, 1996; Driver 1969; www.spokencree.org 2012; www.eastcree.org/cree 2014; Mohegan Nation 2004; Parker 2008; Lolo (Laurent) 2009; O'Brien 2005; Trowbridge 2011, Trumbull 1903; Zeisberger 2014; Horsford 2002; Heckwelder 2002, 2004; Harrington 2012; Cummings 1857; Barton 2007; Grierson 1976, Prentice 1976).

Intercessional emergency conjuring with medicine objects appears again in the Western St. James Bay community (Âtahlôkana), along with turning living beings into stone. That effigies of stone are featured thus as protective is not surprising. Harris recounts of the rituals conducted at Nip-sachuck that they centered on praying into the stone objects and investing them with power to balance a world very much out of norm (Harris and Robinson 2015:141). Personal conveyance from my Great Aunt Jenny Prentice, who trained in medicine ways of the Oklahoma Lenni Lenape, taught me that rock groupings mirror heavenly constellations as configurations of powerful spirits (serpent, turtle, beaver, bear, eagle), and *káhtôquwuk* are individually invested with powerful prayers, as well as being places for calendric holidays (*šwihwakuwi*), special healing and direct intercession. As well, Harrington's compendium of early accounts regarding Lenni Lenape religion and ceremonies abound with details confirming calendric, healing, conjuring, transformative and thanksgiving rituals, noting here also that *Manit-oivuk* ('minor spirits/gods,' Unami; Zeisberger et al. 1763:162, Harrington 1921:1) were invoked as intermediary agents in various minor ceremonies (Harrington 1921:196-200). Rutenber details ritual practices amid the stone groupings at the twin *šwihwakuwi* of Dans Kammer (1992a:27-29).

CSLs as *pauwaus* are attested to in the Town of Bedford, NY historical archives at Katonah Library (a hamlet named for a Siwanoy Sachem), as well as in the Village of Mount Kisco Library (*cis-qua*, Siwanoy Munsie, *sassaqua*, Unami Lenapeuw, 'swampy,' viz. Saskatoon, Saskatchewan), which briefly recount Pappenohar's Rebellion, also known as Pacham, and shamanistic acts among the "Carens and rockes so deare to them" (Bedford Archives 1967-69:87).

That extreme numbers of new stone works seem

to appear late in the history of these sites may indicate intensification of ritual efforts to rebalance the world during the extreme plight of the Algonquian holocaust. Within TCPs, CSLs are multi-purpose holy places that have a locational, but separated, relationship with burial grounds. These sacred places were used for intensive healing ceremonies and to care for the world of living beings by maintaining a harmony between the earth, water and sky worlds - places for prayer and contemplation, purification and restoration. These sites also appear as layered over earlier works.

Native American CSLs can be found from the northern limits of human Nearctic habitation as inuksuq and other forms to the tip of Tierra del Fuego as small and beautifully smooth spheres. CSLs, as they are found in the town studied, can be found from the Western shores of the Great Lakes to the Eastern shores on the Atlantic. Many photographic examples can be found online, taken by concerned residents, and in the many books and articles presently published on this subject.

Many subtypes of relics and subtle stone arrangements are not assessed or discussed in this report. For instance, *qusuqaniyutók* and *sunís nipámu* come in many forms, some subtle, and the spaces between CSLs contain subtle markers in many places that form a networked map on the land of an extended sacred realm (Kohler 2016).

Methods

All access-permitted private and public lands were assessed at a basic level in Shutesbury, which has large tracts in conservation status. Of the 60 tallied CSL sites, as defined by criteria in the Preliminary Results section, 25 were further assessed for characteristics and content, from which nine representative sites were selected for deeper analysis. For a total of 754 stone structures in the nine final sites, 33 points of data were collected per item. Basic analysis of data reveals that characteristics of these studied sites correlate closely to three historically documented ceremonial stone landscapes for comparison, belonging to the linguistically and culturally close Algonquian nations of the Munsie Delaware and Mohegan-cluster divisions, specifically, the Tankiteke of Southeast New York, the

Pocumtuck of the West Central Connecticut Valley (and environs) and the Narragansett of Rhode Island (and environs).

The first step was to locate and catalogue the TCPs within the town, yielding 60 sites on public lands and private lands with access permission. An immediate question concerns the possibility of undiscovered sites on private lands or inaccessible points, which initial assessment of the 60 found sites addresses. Early data indicated a very low likelihood of excluded sites, except in two possible areas of concern, for which a reasonable projection can be made from their context. Information on the locations of all 60 sites was collected as well as their context. These data points yield an interesting picture. With only a few exceptions, the 60 sites relate to terrain and water similarly within two terrain categories:

- rocky slopes averaging less than 66 m from water
- upland near swamps and streams.

Also apparent early on was that many sites are strikingly similar in content and distribution of stone structures. On that basis, the work of evaluation was reduced to manageable size by selecting 25 sites that best represent the entire 60, with the added interest of ruling out several sites that are too damaged and too mixed with later-period additions to reasonably be assessed. Once those 25 sites were defined, a further layer of information was extracted regarding just over 500 relics to characterize them more deeply: an inventory of surface features and basic categorization of them by physical characteristics, as well as data points on their position, basic condition, relation to terrain and water, relation to other relic types, relation to cardinal directions and known Algonquian calendric points of interest, and relation to other sites. Basic notes on exposure, aspect, soil types and notable features of various kinds were also collected. This collected information was analyzed, yielding a second level of insight into the sites as a whole and as individuals. Highly regular location and orientation of sites was also apparent at this point. Sites were equally locatable by use of traditional knowledge, marker stones (*sunś nipámu*, Narragansett, Harris and Robinson 2015:140, example in Figure 5), or dominant loca-

tional data from preliminary results (see below).

Nine sites represent the breadth of site types to be found within the 60, as well as including the set of most complete, intact and informative sites, and representing the various areas of site clustering, plus their various characteristics of placement. This set of nine includes representative minor and major sites (in terms of total area and total number of relics), intact and compromised sites, sites with features appearing to evidence cultural mixing and sites without such evidential features (as defined in Secondary Results).

With the above in mind, a set of characteristics was selected to determine the origins, basic relationships, manufacture method and distribution of all above-ground structures. Notes were taken regarding objects whose features do not fit criteria for that study level or otherwise appear to be anomalies within the CSL categories listed above, as well as objects almost completely subsumed by soil. On this level, complete surveys of each site were performed using one-meter squares in groups of four, made of string knotted on bamboo rods and drawing all objects within each unit. Grid maps of 30 m x 17 m were collated from the meter units, and those grid maps were collated into site maps. The grid size was chosen for convenient fit to the graphing format and workable scale with generous visual detail. My gratitude goes to James Cachat-Schilling and Miles Tardie for their tireless and patient assistance in surveying these sites. Collected data were collated and sorted to extract the characteristic collective properties of the sites and their various relic types.

Preliminary Analysis

Initial qualification of above-ground stone features included 60 sites, from which 500 objects were recorded as samples representative of categorized site contents by sorting and averaging field data against known categories of CSL objects given above. Binary quantization was assigned to the following qualitative criteria:

1. Structures are positioned in an area where their presence is impractical for known post-Contact Euroamerican eco-

conomic uses and their construction is difficult.

2. Structures consist of stone types and shapes not evidenced in nearby Euroamerican structures, or in historic-period overseas examples of European stone works (esp. Scotland, Ireland, Brittany, Italy, Portugal).

3. Structures show labor intensity and extent of labor that is impractical and would be inefficient/wasteful under pragmatic terms.

4. Number and elaboration of features are obstructive of co-use for grazing, watering stock, etc.

5. Frequency of structures and similar sites defies practical explanation.

6. Orientation and nature/types of features do not translate to Euroamerican uses.

7. Orientation and nature/types of features translate to known Algonquian ritual uses (direction of ritual significance, primary resource orientations, unique land feature orientation).

8. Features fit known ritual practices of the Middle-Late Woodland-to-Contact Period.

9. Terrain on which features sit lacks evidence of Euroamerican use, documented or by visible artifact (including vegetation types, tracks, debris, relics).

10. Neighboring terrain is unsuited to Euroamerican uses.

11. Site lacks evidence of Euroamerican structures.

12. Site is consistent with recorded Algonquian CSL sites in terms of location and content.

13. Structure lacks evidence of recent tampering.

14. Structure is consistent with other structures on site.

15. Structure is consistent with structures in other sites in town.

16. Structure is consistent with known structures outside of town, but in the Eastern Algonquian region.

17. Structure is consistent with a documented written description, drawing, painting, or photo of an Eastern Algonquian structure.

18. Structure is consistent with a known structure that has received Federal or State recognition as a Native American historic feature.

19. Structure is consistent with tribally recognized features.

Over 68% of sample objects meet all 19 criteria. 96% meet 16 or more criteria, and 88% meet 18 or more criteria. No chambers are included. No atypical features ('hearthstones,' etc.) are included. Features that could not be comparatively dated as older than recorded (in Town records or other post-1735 sources) features nearby are excluded in this preliminary analysis. Comparative dating was accomplished by comparison of diversity among moss and lichen communities on the surfaces of stones that compose objects close together (< 3 m), experiencing similar sunlight and exposure, and comparing surface sections at the same height from the present ground surface. The last parameter addresses the vertical stratification of microbial habitats, which is pronounced in moss and lichens (Lincoln, 2008:pc).

Neighboring objects were considered part of separate periods only when their total number of floral species differed by more than 50%. Using this measure, three distinct periods of construction were identified, not including post-Colonial periods or periods earlier than the Woodland period. Stone features only partly visible and sometimes appearing to pass under later features were noted frequently. These features may represent works from earlier periods; indeed, relics from more than one period are expected (Dincauze 2004:6-9). Data collected regarding each of the 60 sites as a whole yield the following:

- ~97% (58) rest within approx. 66 m of a water body.

- 80% (48) are located on terrain having the same features in terms of knolls, slopes, low areas, etc.

- 85% (51) are located along the North-South flow of spring waters, with a small included group that are near waters having experienced historic and reported changes.

- 75% (45) have a matched, atypically close pair (< 2 m, see tables in tertiary assessment) or quartet of cairns on boulders, positioned similarly relative to other features, with a similar uphill feature.

- 20% (12) have a long, low boulder with many small, round stones on top, located near on the east of a certain feature or near the eastern boundary of the object distribution area for the site.

- 80% have a large boulder, split boulder or pair of boulders near water.

- 80% distribute low, concentric ground cairns primarily on the east side, usually across water from boulder-based cairns.

- 85% distribute higher, boulder-based cairns to the west of water.

- ~94% (56) distribute cairns in clusters within 66 m of a streambed.

- 75% have large, thin, flat, triangular *sunś nipámu* and/or a large, flat, thin stone with "shoulders" and a "head."

- 60% have multiple *sunś nipámu* and/or *Manitou* stones (Mavor and Dix 1989).

Secondary Assessment

Of 25 sites in the secondary study of just over 500 sample relics, 96% have low ground cairns in concentric arcs that are consistently made of small,

round stones, though sometimes quite oblong, and are consistently 2 m in diameter, seldom varying by more than 0.5 meter. Of the same sites:

- 60% have one to a few long boulder cairns, sizes averaging 4-5 m.

- 90% have cairns on boulder bases that are essentially round and rise between 0.8 m and 1.8 m from current ground level.

- 60% have a large, long, low boulder cairns with many stones on top. It must be noted that sites lacking this feature often have candidates for this feature where it cannot be known if rocks were removed.

- 60% are associated with one to a few mounds at some distance, but with consistent directional correlation, some with small hand stones showing and others completely covered with leaves and loam, which mounds are of two types: a type larger than 5.3 x 5.3 m, often oblong, and another almost always ~1 m x 2 m or ~3.8 m x 1.3 m.

- 40% are associated with nearby historic (Euroamerican) stone features, usually foundations. Of those sites, 100% show evidence of re-use of cairn stones in later walls or structures. This claim is made on the basis that the borrowed stones are of different type, shape, and treatment than other stones in the same structure, and furthermore, stones that show great differences in lichen communities, suggesting that they are widely different in time spent on the surface (lichen does not grow underground).

- 80% of sites show moderate to severe damage. Of these, about 30% are extremely damaged. All but one of extremely damaged sites are located on one landholder's properties.

- 94% of intact concentric circle *káhtôquwuk* are formed from four to six rings, the center most often being a stone of unusual type (jasper with contrasting line, pegmatite, quartz crystal or quartz inclusion, leucic granite, or similar mineral). Center stone is usually quite round or else pyramidal.

-88% of intact boulder-based cairn *káhtôqu-wuk* consist of 38-50 flattish stones, usually all of the same type in a given feature, where basal stones are somewhat larger than the succeeding courses of stone, which are quite uniform in size. Courses of stone number five to seven in intact specimens of this type.

Tertiary Assessment

Nine final sites were assessed for deeper data, a total of 33 data points for each feature, which data points subsume the criteria of the preliminary assessment. Qualitative data were quantized as binary values (present/absent; yes/no), while the remaining are all as-measured values from the field (structure dimensions to within 0.3 m, between structures to < 0.5 m, perimeters within 5% error). The nine sites include two small sites (< 60 features), 4 medium sites (60 -100 features) and 3 large sites (> 100 features). Due to space limitations, only three sites can be presented in any detail here. Sites numbered 3, 7 and 18 provide excellent windows into the entire collection of sites.

Site 3

This site perches on a gentle slope, high above a swampy valley and pond system laced by a brook with a northern aspect, while a spring arises in roughly the lower middle of the site, just below a large boulder topped with about 35 small, round stones (Figure 3) with evidence of recent tampering (exposed top stones are devoid of flora). The site drains through a series of small knolls before plunging steeply toward the swamp. Tree cover is mostly hardwoods with few shrubs or herbs and bounded by mixed hemlock. In this case, the water flows south to north, while cairn types are also reversed in distribution relative to many other sites - concentric ground cairns on the west and boulder cairns on the east of the water. On the south limit of cairns, a low, undulating and sinuous stone wall passes for about 7 m along a south-by-southwest to north-by-northeast axis, which ends with a gap of about 5 m before a higher wall with a slightly curved, mounded shape that lies south-north. At the lower edge of cairn distribution is a slightly oblong, rounded cluster of ground cairns. The south limit is bounded by an early post-Contact wall, judged so by the anoma-



Figure 3 - Wâunonaquassuk (Site 3, ~4m L x 1.2 m H x 2 m W) with fallen 'Manitou' stone to rear left and supporting base rocks.

lous method of building, strikingly different from the described low walls, being by comparison narrow, high, differently stacked, considerably more cleanly linear and of single-stone thickness. When plotted on a graph as if viewed from above, the cairns of Site 3, anomalous wall and lower cluster take on the rough appearance of a turtle, which is also true of Sites 6, 18C and 19. As well, the four just-named sites have similar total numbers of features (within ~10), which features are noticeably smaller than at large sites (e.g. Site 7). Feature/structure size and site size appear to be in proportion. Three size categories emerge: <60 (range of about 5), 60 -100 (range ~10), 100 -120+ (range ~20). Three sites are redacted from this report at the request of Traditional Historical Preservation Officers, with roughly double the total numbers of relics (250+), making a fourth category. Site 3 is the densest (average N1 = 1.3 m, in Figure 4) of the three detailed sites, with a maximum nearest neighbors total equal to Site 18 (max N < 10 m = 14, in Figure 4) and the smallest area of the final study group. Uphill, to the southwest, is a large *šwihwakuwi* that opens to the southwest and lies across a forest road from two somewhat isolated boulder cairns in excellent condition less than 2 m apart and rising to 1.3 m.

Site No.	Avg. N1 (m)	Avg. N2 (m)	Max. N1 (m)	Min. N1 (m)	Min. N2 (m)	Avg./Max. N within 10 m
7	2.7	4.9	7	0.7	1	4.7/12
18	2	3	7	0.1	2	6.0/14
3	1.3	2.5	5	0.1	0.5	7.8/14
average	2.0	3.5	6.3	0.3	1.2	6.2/13.3

Figure 4 - Clustering values for detailed sites (# 3, 7, 18) showing first- and second-nearest neighbors (N1, nearest neighbor, N2, second-nearest, N, total neighbors), outliers filtered (*sunś nipámu*).

Site 7

This site lies among three low knolls that embrace three small ephemeral springs and one perennial spring within the larger embrace of three high, rocky ridges. The three knolls lie side-by-side and present a north-south axis with east-west slopes, rocky and consistent with topographically dominant local glacial patterns (University of New Hampshire, online USGS Quadrant maps, Shutesbury, MA 1939). Surrounding vegetation is diverse and shrubs are similarly diverse. In the lower section is a group of trees numbered for what appears to be a forest study.

On these slopes and in the lower area where the spring rivulets braid together are found 126 stone structures of three major (*káhtôquwuk*, *wâunonaqusuk*, *sunís nipámu*) and four additional minor types (*káhtôquwuk*, *sunís nipámu*) with five anomalous objects and less than ten “questionable” objects. Of the structures, 110 of 126 show no serious damage, and 112 show no sign of material reuse by later periods. The upper and lower concentrations are separated by an approximately 30 m gap, which is transected by one and possibly more partially sunken stone rows (on swampy terrain.) At the north end of the site is the main spring erupting at the base of a very large split boulder (> 5 m), whose immediate area is swampy. Other than the two mentioned areas, the site is thin-soiled, extremely rocky, and principally on steep slopes or knoll tops, with narrow, flat hollows between. Just to the southwest is a high ridge offering vistas southeast and southwest across a river valley. Almost all datable objects fall into successive phases of construction, which do not appear to be widely separated, according to floral tallies (see Preliminary Analysis) and weathering. Other objects are either mostly subsumed by soil and ancient in appearance, or almost devoid of flora detectable with a hand-held magnifying lens and sharp-edged.

In an area of twelve 30 m x 17 m grids, over 70% of total structures concentrate in six grids, while 50% concentrate in four grids, which are distributed in two parts: the central and lower (south) areas. Average distances from first and second neighbors, as well as minimum and maximum separations and total neighboring structures within 10 m appear in Figure 4. Of the 126 structures, 50 are 2 m or less from the nearest neighbor. Structures as a

whole have an average of 4.7 neighboring structures within 10 m, with an average first neighbor at 2.7 m (avg. N1 = 2.7, Figure 4). Of concentric ground cairns, 94% are within 0.5 m of a 2 m diameter. Of boulder-based cairns, 82% are within 0.5 m of a 2 m diameter. Structures in the densest four grids have a range of 7-12 neighbors within 10 m, averaging 8.6 neighbors within 10 m. Distribution shows another interesting behavior; any three nearest neighbors have a higher than 80% chance of being placed such that two are evenly spaced from a third and 0.25 x further away from each other, forming a triangle. For concentric ground cairns, a distancing ratio of approximately 2 x 2 x 2.5 is typical.

The central two grids lie atop a knoll, near the center of which is a group of at least 5 *sunís nipámu* that associate with smaller, triangular stones that may have stood upright. *Sunís nipámu* are consistently shaped like an elongated arrowhead, beveled at the base, with an acute-angled top (Figure 5). Another stone type is rare, called “Manitou” stone (Mavor and Dix 1989), which are rather rectangular, elongated, topped with shoulder-like indentations and a “head.” The *sunís nipámu* group aligns with true north, south, east, west, and northeast (40°, Figure 5). At about 220° southwest of the group’s center is a pair of intact boulder cairns and two similar cairns that have partly collapsed (across the water). Through a large, triangular boulder’s point, the sunset can be viewed beginning late July between the same two cairns lying at the base of a knoll, reaching the apparent mid-



Figure 5 - Standing stones (*sunís nipámu*): largest = ~1m x .5m, smallest = ~.5m x .3m. located in the central upper portion of Site 7.

point between them August 12-14 (as viewed by eye in 2016). Several sunken stone rows intersect the swampy area around the rivulet, one of which appears to course along a 120° axis.

To the east of the springhead and boulder, on the edge of the wetland, is a boulder in excess of 7 m length with more than three dozen small stones gathered on top, identifiable as a *wâunonaquussuk*. Nearby the road edge is an identifiably modern cellar, judged thus by the cut stone and lack of flora on the stones, as well as by what appears to be a collapsed chimney alongside. In addition, the type of stone used in this structure is not consistent with any stone relic, except two anomalous stones on the nearest concentric ground cairn that lack the flora of associated stones and are angular and thin, whereas the rest of the stones in that neighboring cairn are round or oblong, smooth and thick. The cellar is atypically deep, however, for a modern or 19th century cellar. Measurement reached 3.3 m, finding jumbled rocks rather than a floor of any kind. Notably, parts of the lower south and east walls appear to consist of different rock than the rest in the same wall. When plotted on a graph, the relics compose a figure that resembles a human standing with arms raised akimbo at shoulder height, whose head would be at the cellar or perhaps standing stones and rock rows just beyond (Figure 6).

Together, the cairns represent *káhtôquwuk*, stone groups and effigies (ex. Figure 7), with intersecting and embracing *qusukquaniyutôk* (stone rows), while certain stones near the springhead, the center, as well as at the perimeter of the lower and western areas are *sunís nipámu* (markers) according to the Narragansett tradition (Harris and Robinson 2015:140).

Site 18

A natural hollow embraces this site on a steep slope with an eastern aspect, perched high above a river valley abutting an old road that is also a pre-existing Native trace, and bordered by a creek that is now guttered along this portion of the road. The terrain is extremely rocky and steep, as well as bound on the south and west by a shoulder crossing the slope at an angle toward the western ridge top, which is flat and looks southwest and east. A spring is marked on 1939 USGS topographical

quadrangles (UNH archives online) as perched and arising just to the north of the site, but which does not now appear to flow more than occasion

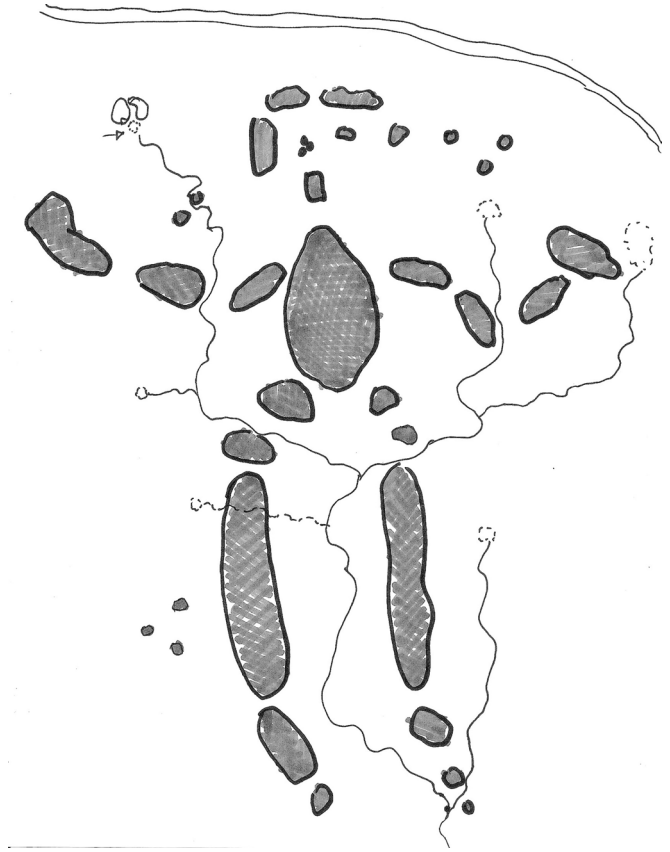


Figure 6 - Configuration of *káhtôquwuk* and boulders, Site 7. Perennial spring is marked by an arrow; other springs are marked by dotted lines. Filled areas represent groups of stone structures.



Figure 7. *Káhtôquwuk* (Site 18, ~ 2 m diam. x ~1.3 m H), edge of neighboring structure visible at lower right.

ally. To the south-by-southwest, just beyond the perimeter of the outermost *káhtôquwuk*, a series of seven small stone marker stacks (each made of five to seven acutely triangular stones) forms an intermittent and evenly spaced, lazy arc along the ridge just below the crest to within meters of the top-most *suns nipámu* that delimits the upper boundary of the site and direct due west. If viewed from the center cairns of the site, the stone stacks would seem to trace rise and set of the sun and celestial objects central to Algonquian religion. To the east across the road is a deep, U-shaped row of boulders, *šwihwakuwi* (Harris and Robinson 2015:140). The tree cover is mixed deciduous and coniferous, with an abundance of hemlock. The area across the road is, by contrast, formed by unusual low, long parallel ridges, from which arise a series of parallel spring rivulets and on the south of which is a large area of alluvial deposit. The ridges are dominated by hemlock, while the alluvial area is largely white birch and interrupted fern (*Osmunda claytoniana*). Associated with the far side are four groups of CSLs in a concentrated area, with three more CSLs groups in close proximity to one another across the next road. Together, they form a complex of more than 300 objects covering a 0.4 km area.

Site 18 is slightly denser (avg. N1 = 2 m, Figure 4) with structures than Site 7, and covers a slightly smaller area. Maximum number of neighbors within 10 m (14) is also slightly higher than Site 7 (Figure 4). Overall, the figures are very close and appear to correlate even more closely when relative site size is taken into account. This site rests on the most extreme slope of all but 2 of the original 60 sites. There are no signs of any Euroamerican structures on this site, whose position combines dramatic views from the top with a somewhat enclosed and womb-like central area. The configuration of structures, when distribution is plotted as if viewed from above, resembles a bird in flight (Figure 8).

Conclusions

Many of those who have delved into the subject of CSLs and TCPs have heard the negation that these structures are the result of agricultural activity. More specifically, wall building, field clear-

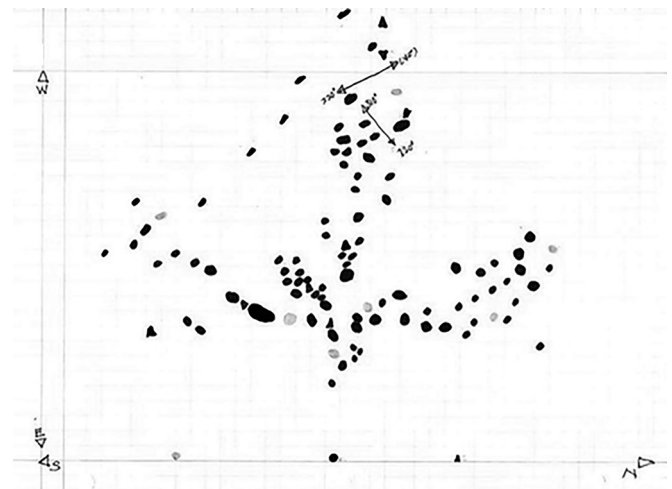


Figure 8. Scale Distribution Plot of Site 18 (~90 m N-S x ~95 m E-W).

ing and boundary marking are named as sources (Ives 2013:*passim*), which argument fails on several bases that have been tested herein. By contrast, Ives and others fail to test their conjectures at all, presenting no direct study, only inferences from earlier conjecture. First, CSLs in Shutesbury concentrate primarily on non-agricultural land; many are on land impossible to till and useless for grazing. There is no historic lack of available suitable farmland in this area. As well, *káhtôquwuk* are mostly so dense that little ground is left for grazing within, while neighboring ground is often even less appealing. Several sites are essentially rocks on rocks, where only a century of afforestation has provided sufficient matter for plants to grow. Other sites sit along mucky swamps, where CSLs are positioned such that they would obstruct livestock from on-site grazing or access to water. Town records do not support evidence of flocks sufficient to require the area covering CSLs in the subject town. Moreover, a comparative increase in identifiably Euroamerican construction on a given site and nearby sites correlates neatly with decrease in number of intact CSL objects. In the subject town, CSLs are almost completely absent from open, flat or farmed lands, and those that lack a body of water, an aspect previously reported for other locations (Mavor and Dix 1989).

CSLs do positively correlate with water sources and major orientations in relation to celestial events central to traditional Algonquian religious practices. Most telling is the density of objects. Though boundaries are sometimes marked with

cairns, over 100 cairns concentrate within areas of less than a sporting field, away from documented historic property boundaries, evenly distributed in a pattern that correlates to culturally-important calendric azimuths, and very densely distributed. Ceremonial Stone Landscapes predominate the Eastern Woodland world since before European contact and persisting into the present, yet they are poorly studied and poorly understood by all but a few. The persistence of CSLs in TCPs through time is remarkable, as is their insistent design, regardless of challenges provided by terrain.

Objective data contradict casual claims that natural or European agricultural activities produced these finely balanced stone works, while examina-

tion of their physical and correlational characteristics clarifies their elaborate, exacting, inspired and complex nature and function. These beautiful sacred places beg further investigation with LIDAR to obtain massive data on correlations, azimuths and large-scale distribution of sites. From massive correlational data, detailed insights can be extracted using statistical models, such as the fuzzy c-means (FCM) algorithm and by kernel-based FCM clustering with genetic algorithm (Beydek et al. 1984:191-203; Ding and Fu 2016: 233-38), which means are anticipated to further confirm the sophisticated, strictly prescribed design and ritual use of TCPs and their CSLs. Only then will a greater public become aware of the full beauty of Northeastern Native sacred places.

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The Braintree Cache

Scott F. Kostiw

Abstract

A cache of fourteen blades were unearthed from a single pit along Hayward's Creek in Braintree, Massachusetts (fig. 1). Each blade was prehistorically broken in two pieces. The metric data and a description of each blade is provided. Comparisons with other caches, particularly the Glazier cache in Granby, Connecticut (Feder 2004) are discussed.

Introduction

In the 1960s a remarkable series of artifacts along Hayward's Creek in Braintree, Massachusetts was unearthed. The artifacts were excavated by the late Rodney I. Davis. He designated each site along the creek with a letter. Site E produced a cache of blades found together in a single pit. Unfortunately, details of the size of the pit or the depth at which the blades were found were not recorded.

All the blades are made of a very fine grained argillite or siltstone. It is a local material common in eastern Massachusetts. The pieces of each blade have been reattached with an adherent. The blades are generally pastel green in color. Some are pastel green on one of the broken pieces and a lighter shade of green or brown on the corresponding piece. One blade is brown, with one of the pieces being slightly lighter brown in color than the matching piece. The changes in color are most likely due to oxidation of the iron present in the lithic material. The color of all the blades was likely green upon deposition. Two blades are banded but made of this same finely grained argillite or siltstone material. All the blades are bifaces, having been flaked on both sides. They are biconvex in cross-section (see Figure 1).

Cache blade descriptions

There is a general uniformity to the blade shapes and I have designated two main categories. The first group is the flat-based category. These blades have relatively flat bases with the sides tapering upwards to the tip. Blades one through six are in this category. The second group is the round-base category. Some in the round-base category have a distinct teardrop shape. Blades seven through fourteen are in this category. The metric data has been summarized in Figure 2.

Blades one through three are notable for the top part of the blade being lighter in color than the bottom.

Blades four and twelve are banded but made of the same greenish material as the other blades.

Blade five has an angular break. It is broken approximately 4.0 cm from the base. The break angles upward to a maximum of 4.7 cm from the base.

Blade six has an angular break. It is broken 5.3 cm from the base. The break angles up sharply to a maximum of 6.7 cm from the base. There is an approximately 0.4 cm by 1.8 cm area missing along the blade edge which likely was fractured away when the blade was broken. The base of this blade has been snapped off. This might have been intentional or it might have been broken and is missing. All of the other blades show flaking at the basal area. I would estimate that less than 0.5 cm is missing from the basal area.

Blade seven has an angular break. It is broken 4.3 cm from the base. The break angles upward to a maximum of 5.2 cm from the base. This blade is teardrop in shape. The top of the blade is darker than the bottom.

Blade eight is notable for the top of the blade being darker than the bottom.

Blade nine is the shortest blade. It is also notable for the top piece being darker than the bottom. The tip of this blade is broken.

Blade ten is notable for the top part of the blade being brown and the bottom being green in color.

Blade eleven has an approximately 2.0 cm by 3.0 cm area missing along the blade edge which likely was fractured away when the blade was broken.

Blade twelve has an angular break and is broken 1.8cm from the base. The break angles up sharply to a maximum of 5.5 cm from the base. One side of the base is rounded and the other is somewhat square. This blade is banded but made of the same greenish material as the other blades. The bands run vertically from the base to the tip.

Blade fourteen is the longest blade. This blade has the distinction of being the most different in shape from the others. It is an oblong oval. The top of the blade has been worked into a tip, possibly for drilling or piercing.

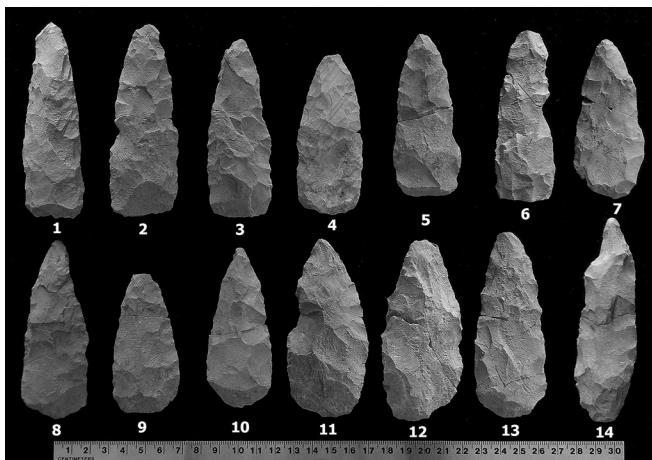


Figure 1. The Braintree Cache

Metric Data Summary

The average blade length is 9.38 cm with 11.1cm being the longest and 7.4 cm being the shortest. There is a 3.7cm difference in range between longest and shortest. The average width is 3.66 cm

Blade number	Blade length	Blade width	Blade thickness	Distance of break from base
1	10.7	3.2	1	5.5
2	10.4	3.6	1.2	5
3	9.4	3.5	1	5.2
4	8.5	3.6	0.7	4
5	8.7	3.6	1	Angular break
6	9.2	3.2	1	Angular break
7	8.4	3.6	0.9	Angular break
8	9.6	3.4	0.9	4.8
9	7.4	3.6	1	5
10	8.5	3.6	0.9	4
11	9.7	4.3	1.4	5.5
12	9.7	4.6	1.3	Angular break
13	9.8	3.8	1	5.2
14	11.1	3.4	1.1	5.5
Average	9.38	3.66	1	4.97

Figure 2. Metric data. All measurements in cm.

with 4.6 cm being the widest and 3.2 cm being the narrowest. There is a 1.4cm difference in range between the widest blade and the narrowest. The average thickness is 1.0 cm with 1.4 cm being the thickest and 0.7 cm being the thinnest. There is a 0.7 cm difference in range between the thickest and the thinnest blade.

The average length from the base to the break is 4.97 cm. The closest break in relation to the base is 4.0 cm and the farthest is 5.5 cm. There is a 1.5 cm difference between the closest and the farthest break in relation to the base. Note that blades 5, 6, 7, and 12 have angular breaks and were not included in the calculation of length of the break in relation to the base.

Discussion

The Braintree blades show remarkable similarity in form. They fall into the flat-based or the round-based categories. The lithic material is also uniform, which is a local green, fine-grained argillite or siltstone. Blade 14 is the only example that shows usage. The tip was sharpened to a point and used in drill-like fashion.

Other blade caches in northeastern North America have been recovered. On Shelter Island, New York, a cache of 20 blades were excavated (Witek 1988). At the Smith site (Funk, et al 1988), in Schenectady

County, New York, 86 blades were unearthed in a cache. The blades in the Shelter Island cache resemble knives with tapering bases or preforms for tapering stemmed points. The blades at the Smith site resemble Mansion Inn blades, Watertown variety (Dincauze 1968: 16-17). The blades in both of these sites are not similar to those recovered at Braintree.

A cache of 30 blades was uncovered at the Glazier site, in Granby Connecticut (Feder 2004). These blades compare remarkably well with those at the Braintree site. The Glazier blades fall mainly into the flat-based category. The Glazier blades are larger, averaging 13.62 cm in length, 4.65 cm in width, and 1.17 cm in thickness. The blades appear to be made of siltstone. Feder describes the material as non-local to the Granby, Connecticut area (Feder 2004: 112). The Glazier cache has been radiocarbon dated 1630±80 BP (Beta-94953) and 1590±60 BP (Beta-94954). These dates are calibrated to AD 425 and AD 450 respectively (Feder 2004: 101, 112). Based on typological similarities, a comparable date range is suggested for the Braintree cache.

Feder (2004: 104) suggests that the Granby cache was created by a single manufacturer due to the consistency of the style and size of the blades. I believe the Braintree blades were also manufactured by a single maker based on the same criteria. Although I designated two main categories, the blades have an overall similarity to and appear to have only slightly more deviation than the Glazier cache.

The most remarkable feature of the Braintree cache is that each blade was intentionally broken in two pieces. Care was taken in breaking the blades so that they would not shatter. It is likely that a single person broke these blades. The manufacturer of the blades may have been the person that broke them.

Intentional breakage of items has been recorded at the Jamesport site on eastern Long Island, New York (Ritchie 1969: 173-177), which was a burial site. This, of course, leads to the possibility that the Braintree blades were part of a burial cache.

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Two Previously Unreported Biface Caches from Southeastern Massachusetts

William Moody

Introduction

A *cache* may be defined as a particular grouping of artifacts intentionally deposited or hidden at a specific point on the landscape, often for the purpose of later retrieval and utilization. The two caches considered in this discussion were recovered a number of years ago in southeastern Massachusetts by avocational archaeologists. In both instances, it is not possible to know whether all the artifacts recovered in each cache represent the full inventory. And at least in the second cache to be discussed, it is apparent that some of the artifacts are indeed missing from the assemblage.

The Berkeley Cache

The first cache was discovered in 1964 at some point along Friend Street in Berkeley, Massachusetts, by Elmer and Wilbur Wood, who were early members of the Massachusetts Archaeological Society. The cache consists of nineteen artifacts (Figure 1), the majority of which have been bifacially knapped. All of the artifacts were manufactured from the same variety of a light green argillite, which, solely from a visual identification, may have had its source in lithic outcrops along the coast south of Boston. Such argillite is locally known as Nantasket argillite. It tends to be more finely grained than the Barrington argillite from the Narragansett Basin in Rhode Island and also lacks the pale cream to orange seams typical of the Barrington variety (Boudreau 2012). The argillite in the cache may also, of course, have had an unknown origin and may have even been derived from a large boulder or other rock source transported into the area by glacial action.

The largest complete biface in the group measures 12.8 cm in length, with a maximum width of 3.3 cm. Among the tool forms represented, some appear to be designed potentially as knives or scrap-

ing implements. It is also suggested by the form and outline of several of the bifaces that they may have served as preforms for projectile points of the Middle Archaic Stark variety (Dincauze 1976:29-37). For comparison, Figure 2 illustrates two bifaces from the cache alongside two complete Stark points manufactured from the same argillite but which were found at other southeastern Massachusetts locations.

Jeff Boudreau has observed, “The Stark point was the ‘Big Idea’ of the Middle Archaic.... It was the simple, narrow, diamond design of the Stark point that was important. Here was a form that made possible the widespread use of a formerly untapped lithic resource—inferior lithics. Perhaps foremost among them, the ‘argillites’ are softer than rhyolite with a tendency to have poor conchoidal to platy fractures. The Stark design neutralized those deficiencies. The design provided four directions from which thinning, or more accurately, shaping could occur and the stem could be finished by grinding.” Boudreau continues, “Not only was the lithic resource base suddenly increased but the number of procurement sites also increased. Implicit advantages are an increased flexibility in mobility and a reassignment of that portion of the rhyolite inventory formerly reserved for projectile points. It seems Stark indicates an adaptation to the increasing complexity of pursuing the seasonal round” (Boudreau 2012). Such increasing complexity in the pursuit of the seasonal round may further indicate why this particular cache was deposited at the specific location in which it was discovered. It would, however, also be logical to conclude that if Stark technology had enabled people to make greater use of the resources in their immediate environments, which at the same time enabled them to better settle into the local landscape, that any sources of argillite much closer at hand would certainly be readily utilized (Hoffman personal communication August, 2016).

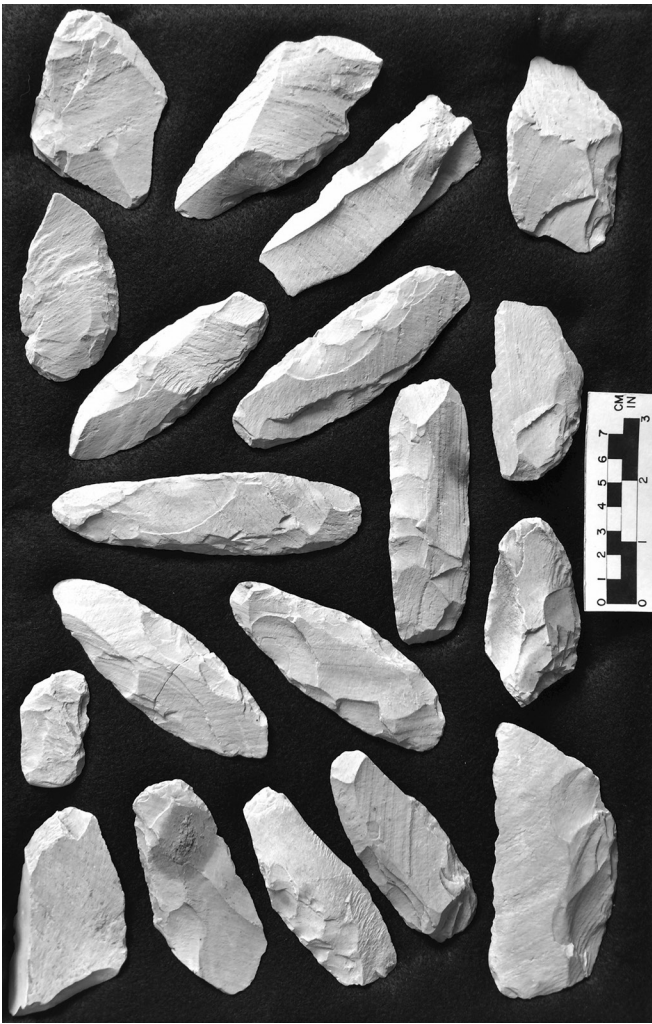


Figure 1. Cache from Berkeley, MA site.

The Marshfield Cache

The second cache was discovered at an uncertain date many years ago in Marshfield, Massachusetts, along the south bank of the North River at a site near what was once the Rogers Shipyard. This site is currently occupied by Mary's Landing and is situated just a short distance upstream from where the river now enters into the Atlantic Ocean. This cache was discovered by the Damon family, most likely by Freeman Damon. It consists of fourteen biface tip and basal portions (Figure 3), of which three complete bifaces have been conjoined. The missing sections of the remaining bifaces would imply that the entire cache was not recovered. The longest of the conjoined bifaces measures 12.5 cm long and 4 cm wide. All of the bifaces except one appear to have been manufactured from the same

variety of felsite, which has patinated to a gray



Figure 2. Cache bifaces (middle) with Stark projectile points for comparison.

color, exhibiting light-colored phenocrysts and widely spaced darker gray bands. The one biface that appears to be from a different lithic source is a much darker felsite but which is also a banded variety with light-colored phenocrysts. It is of course possible that this particular biface was indeed from the same lithic source but from a different part of the quarry or perhaps a glacially deposited boulder from which the material was extracted. It should be noted, however, that no outer cortex is visible on any of the specimens that would definitively tie the source to a glacial boulder or cobble.

Nearby the cache was also recovered a complete specimen of a Greene variety projectile point from the Middle Woodland period. It is proposed that this cache of bifaces may have been preforms for later production into this particular type of projectile. Figure 4 illustrates the Greene point along with two of the bifaces for comparison. It is undetermined why or how this series of bifaces had been broken in the manner exhibited. None of the breaks appear to be fresh and are as equally patinated as the other surfaces of the bifaces. It is not possible to know whether the bifaces were broken at the time they were cached or whether the breakage occurred at some later date. If they were intentionally broken by the original maker, however,



Figure 3. Cache from North River, Marshfield, MA site.



Figure 4. Cache bifaces with Greene projectile point (middle) for comparison.

the reason for caching such valuable toolstone seems obscure, unless they were purposefully “killed” and deposited as some type of offering.

Conclusion

It has been noted, “Tools and raw materials have been cached throughout time for various reasons.” (Waters and Jennings, 2015:1) One possible reason

is that tools or lithic supplies were cached by early hunters and foragers at specific “locations that they intended to revisit in the course of hunting or other seasonal rounds” (Waters and Jennings, 2015:141). Whenever a cache of some archaeological significance is discovered, it opens another window on the subsistence strategies, lithic procurement practices, and stone tool technology of the early inhabitants of a given region.

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Caches or Offerings? Ceremonial Objects from the First Terrace of the Middleborough Little League Site (19-PL-520)

Curtiss Hoffman

Introduction

The Middleborough Little League site (19-PL-520) is located on three glacial terraces representing successive draw-downs of Glacial Lake Narragansett (Hartshorn 1960), overlooking the Nemasket River to the southwest (see Figure 1). The site was discovered by MAS members Brady Fitts and Phil Brady, who conducted a walkover during the construction of a soccer field in 1985. Since the site is on land belonging to the Town of Middleborough, they contacted the Massachusetts Historical Commission (MHC), which sent out a survey team. This team collected surface artifacts, confirmed the presence of the site, and gave it an inventory number (Kerber 1985), but they concluded that the middle, Second Terrace had been subjected to such thorough disturbance by the soccer field construction that no intact archaeological deposits remained there. They did recommend to the Town that should further work be done which might impact the upper, Third Terrace, archaeological work should be done in advance of this.

The Middleborough Little League submitted plans to the Town to construct a roadway and concession stand at the margin of the Second and Third Terraces in 1995, and this triggered a Locational Survey in that restricted area (Hoffman 1996), which confirmed the presence of intact subsurface cultural deposits (including pit features). In addition, it was learned that the Little League planned to construct practice fields on the Third Terrace, which would have seriously impacted cultural deposits there. Accordingly, from 1998-2001, and again from 2006 – 2008, the author directed archaeological field schools on the Third Terrace, exploring the area to at least the Site Examination level, and in a limited area to the Data Recovery level (Hoffman 2000, 2004b, 2007). Large quantities of cultural material were recovered from these operations, and in particular there was a strong emphasis on what are generally regarded as ceremonial materials (e.g., Ritchie 1980:113-124; Snow

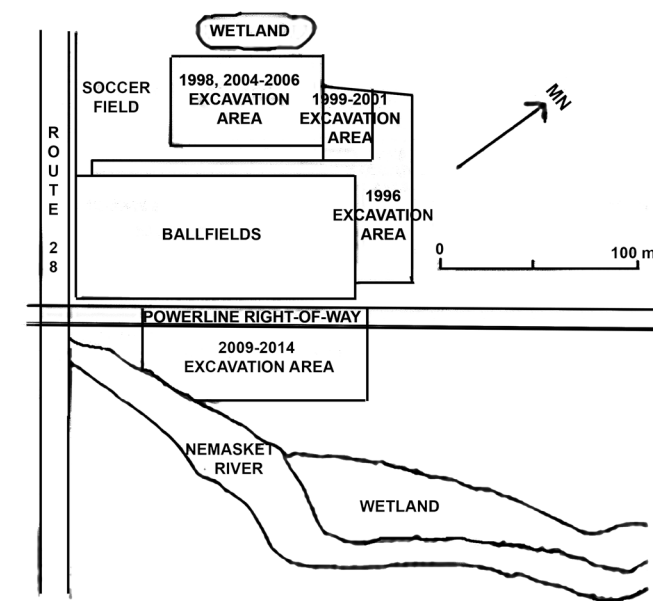


Figure 1. Terraces and Excavation Areas at the Little League Site

1980:193; Robbins 1981:162; Robinson 1992:91-95; Hoffman 2006:97-99): paintstones of red hematite, black graphite, and yellow limonite, quartz crystals (both uniterminated crystals and biterminated “Herkimer diamonds”), highly polished pebbles, pecked pebbles, stone rods, one-hole pendants, and other ceremonial items (Hoffman 2004a).

Field Methodology on the First Terrace

Starting in 2009, after an agreement from the Little League to avoid further construction on the Third Terrace, field school operations moved to the lowest, First Terrace, adjacent to the Nemasket River. This area had not been investigated previously, and it is characterized by a powerline right-of-way running parallel to the river, separated from it by a wooded area. The justification for this operation was that the Town at some point might wish to replace the overhead powerline with buried fiber optic cable, which would certainly adversely im-

pect any archaeological deposits present in this portion of the site.

Excavation proceeded at the Locational Survey level from 2009-2011 and at the Site Examination level from 2012-2014. The sampling strategy for the Locational Survey was to excavate 50 cm x 50 cm test units at 10 meter intervals along transects set 5 m apart, parallel to the powerline orientation (40° east of magnetic north), staggered by 5 m so as to decrease the maximum interval between units (Krakker, Shott, and Welch 1983) (see Figure 2). The field crew consisted mostly of students from Bridgewater State University and MAS volunteers, all working under the author's direct supervision. Excavation during the Locational Survey was done using hand tools to dig in 5 cm levels within natural soil horizons. All soils were sifted through ¼" mesh screens for the topsoil, and through 1/8" mesh screens for the underlying subsoil levels. Careful provenience records were kept of all recoveries. Pre-Contact cultural materials were found in nearly all of the test units, and pit features – identified by oxidized subsoils – were encountered in 76 of these units, in 62.3% of the total of 122 units. Features were numbered sequentially and were given a preliminary classification by depth: shallow (< 15 cm), medium (15 -25 cm), and deep (> 25 cm).

While the Locational Survey covered the entire first terrace, the Site Examination was restricted to the powerline right-of-way. Excavation consisted of expansions of fourteen of the thirty-four Locational Survey units in that area which had yielded features below the plow zone, randomly selected so as to include samples of each of the three feature classes mentioned above. Excavation units were either 1 m x 1 m squares or 1 m x 50 cm trenches, excavated using the same procedures as described above. The purpose of this operation was to explore in greater detail the structure and contents of the features. A total of 61.5 sq m were excavated on the First Terrace: 30.5 in the Locational Survey, and 31.0 in the Site Examination. Four radiocarbon dates, plus typological indicators, show that the terrace was occupied from the Late Archaic through Late Woodland periods (Hoffman 2016:133, 139).

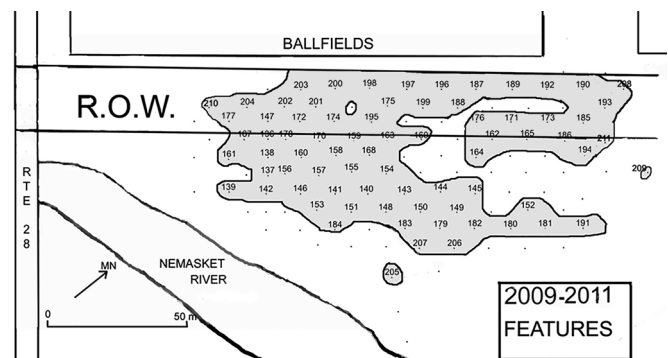


Figure 2. Sampling Grid and Feature Distribution, Terrace One

Local residents informed the survey team that the First Terrace had all been a plowed field within the past 50 years, and indeed all units excavated showed signs of plow zones. Beneath this, excavators encountered sandy subsoils, some of which had been oxidized to strong brown (typically Munsell 7.5YR5/6 or 5/8) and were identified by this color as features, while others were yellowish-brown in color (typically Munsell 10YR5/6) and were identified as non-features. It should be noted that on the First Terrace, many of the features, including most of those explored during the Site Examination, were underlain by zones of the yellowish brown "non-feature" soil. This soil was in turn underlain by the lighter glaciofluvialacustrine deposits (typically Munsell 2.5Y5/6) usually termed "C" zone soil. It appears likely that this does not actually represent any stratigraphic association, but rather that some of the iron salts in the lower levels of these units had leached downwards within the highly permeable Gloucester stony sandy loam (USDA 1969) which characterized most of the soils at the site. Thus, the cultural materials recovered from the "non-feature" subsoils (and even possibly those from the C zones), when these were overlain by oxidized "feature" soils, might be considered associated with the features. In the discussion which follows, recoveries from the "non-feature" and "glacial" soils will therefore be included with those from the "features".

Results of Excavation

As on the Third Terrace, the assemblage on the First Terrace was dominated by ceremonial goods: hematite, graphite, and limonite paintstones (5,437),

quartz crystals (46) and crystal matrices (24), polished pebbles (2,716), pecked pebbles (60), stone rods (15), and one-hole or tie-on pendants (4) (see Figure 3). Collectively, these constitute 90.5% of the 8,634 stone artifacts found during all operations, a considerably higher percentage than that found on the Third Terrace. Figure 4 shows the vertical distribution of these items by apparent natural soil horizon.

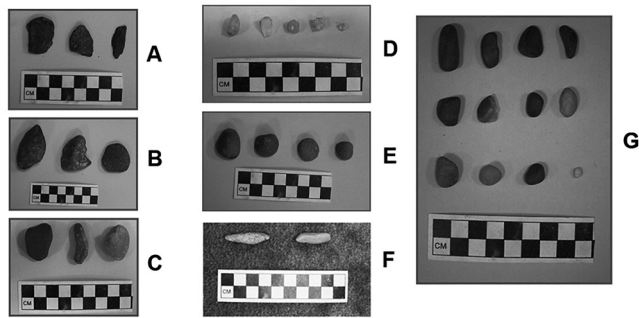


Figure 3. Ceremonial Artifacts from Terrace One. A = Graphite Paintstones; B = Hematite Paintstones; C = Limonite Paintstones; D = Quartz Crystals; E = Pecked Pebbles; F = Stone Rods; G = Polished Pebbles

One observation made in the field was that the ceremonial materials seemed to be more concentrated in the lower levels (> 15 cm below junction) of some of the deeper pit features, while chipped stone tools tended to be found more in the upper levels. This was first noticed in the largest of the horizontal exposures, designated Feature #188 (see Figures 5 and 6). In the analysis that follows, one of the fourteen features selected for the Site Examination, Feature #186, was a shallow pit with only 14 cm of deposit below junction, and has been excluded from further consideration. There were, however, four features within the right-of-way from the Locational Survey (#s 176, 193, 204, and 208) that had deep deposits of ceremonial items in sufficient quantities (N > 25) to be included in the analysis (see Figure 7). In many cases, the concentrations of paintstones, polished pebbles, and other ceremonial items continued below the oxidized soil horizon into less oxidized subsoil and even into the underlying C zone. It is possible that smaller paintstones and polished pebbles could simply have percolated downwards due to gravity and frost action (Strauss 1985). However, excavators also found several large rough stone tools near the bottoms of features, which are inter-

Level	Graphite Paintstones	Hematite Paintstones	Limonite Paintstones	Quartz Crystals	Crystal Matrices	Polished Pebbles	Pecked Pebbles	Rods	Pendants
Plow Zone	227	397	78	14	8	275	14	4	2
Feature	434	925	295	19	9	1032	25	6	2
Non-Feature	457	631	262	8	3	676	14	0	0
C	132	664	300	7	1	640	3	4	0
Other	30	89	16	1	0	93	4	1	0
Total	1280	2706	951	49	21	2716	60	15	4

Figure 4. Distribution of Ceremonial Artifacts by Soil Horizon



Figure 5. East Profile of Feature #188

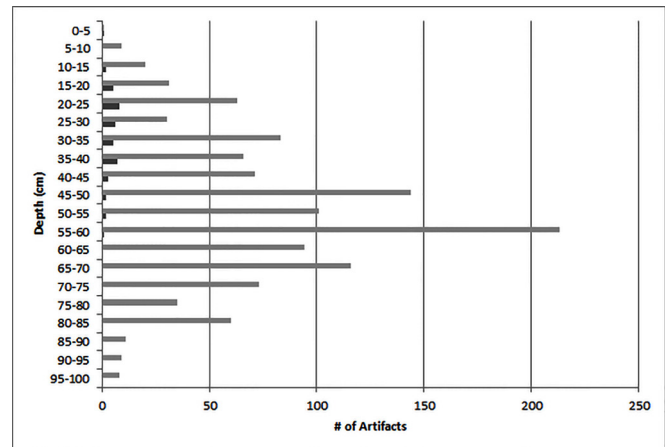


Figure 6. Distribution of Artifacts by 5 cm Level in Feature #188 (black = chipped stone; grey = sacred items)

preted as anvils used for crushing paintstones into powder. This pattern suggests that the deep pit features may have been created for the intentional deposit of these ceremonial items, rather than for their casual disposal.

This raises an additional question, which might also be applied to the two articles on caches in this volume of the *Bulletin of the Massachusetts Archaeo-*

logical Society (Kostiw 2016:55-57; Moody 2016:58-60): are these deposits actual *caches* – that is, placed for eventual retrieval of the items by members of the same culture, which in these cases simply did not take place; or are they *offerings*, placed for the benefit of non-human beings thought to be resident in the landscape and not intended for retrieval, at least not by humans?

Analysis

Hematite and quartz were found in all seventeen features. Only one feature (#176) contained only these two materials, while all other features had at least five types of material, and Feature #188 had thirteen different types (see Figure 8). A Spearman Rank-Order correlation between the total number of artifacts and the total number of types gave a value of 0.854, with 17 degrees of freedom, a very strong positive correlation ($p = 0.000$) (Hays, 1963:516), meaning that there is no chance that they are not correlated. Thus, the variability of material appears simply to be a function of the quantity of artifacts.

In addition, there was a wide diversity of ceremonial artifact types in the lower levels of these features (see Figure 9). Paintstones and polished pebbles were found in all features, while pecked pebbles were found in nine of the seventeen features, quartz crystals and crystal matrices in four of them, and stone rods also in four of them. A chi-square correlation of the distribution of types provided a value of 441.38 with 64 degrees of freedom; the probability that this is due to chance is, again, 0.000 (Hays 1963:515). The variability of types, therefore, appears to be intentional rather than random. The size ranges of these materials were also highly variable, as shown in Figure 9.

One way to examine this variability further is to consider the importance of colors to the indigenous peoples of the Northeast region. This subject has been explored, especially with reference to the Iroquois, by George Hammell (1992). He argues that the colors white, red, and black represented the social, antisocial, and asocial realms of indigenous society, respectively, and that this triad was rounded out by a more variable fourth color, which might be either sky-blue or yellow. For the

Feature	Paintstones	Quartz Crystals	Polished Pebbles	Pecked Pebbles	Rods	Totals
136	63	0	107	0	0	170
147	7	0	17	2	0	26
159	28	0	34	1	0	63
162	340	3	159	0	0	502
171	124	0	40	0	1	165
175	137	0	116	1	0	254
176	31	1	13	0	0	45
185	39	0	5	1	0	45
187	77	0	63	0	0	140
188	550	9	421	3	2	985
193	35	0	19	0	0	54
195	73	0	9	0	1	83
196	187	0	56	1	0	244
197	447	1	173	3	2	626
204	25	0	11	1	0	37
208	76	0	47	0	0	123
210	58	0	195	1	0	254
Totals	2297	14	1485	14	6	3816

Figure 7. Types of Ceremonial Artifacts by Feature

Assonet band of the Wampanoag, who live close to the Middleborough area, the colors white, red, black, and yellow represent the four directions, as displayed on their tribal emblem at the entrance to their reservation in Freetown. An Honors Thesis by Rachel Mulroy (2016) explored the presence of these four colors, or variants thereof, in the polished pebbles from the Little League site. Mulroy examined both shape and color for the pebbles, and concluded that the colors could be collapsed into only five categories: white, red/purple, black/grey, tan/brown (substituting for yellow), and clear. Extending this typology to all of the ceremonial artifacts from Terrace One provides the distribution shown in Figure 10.

With the exception of the “clear” category, the deeper levels of all seventeen features contained ceremonial objects of all of these colors. Clear quartz polished pebbles and crystals were absent from Features #147, #185, and #195, but were present in the other fourteen features. Clear quartz might conceivably be collapsed into the white category, since the field determination was somewhat arbitrary and was based upon whether or not any part of the artifact was transparent. For paintstones, the color determination was based upon streak: excavators used a quartz cobble against which to streak the stones and identified their color on this basis rather than on surface inspection.

Feature	Agate	Andalusite	Argillite	Basalt	Chalcedony	Chert	Felsite	Gneiss	Granite	Grandidiorite	Graphite	Hematite	Hornfels	Limonite	Quartz	Quartzite	Totals	#types	
136	0	0	0	0	0	1	2	0	0	0	1	5	30	0	37	106	0	182	7
147	0	0	0	0	0	1	4	0	1	0	0	2	4	0	1	13	0	26	7
159	0	0	0	0	0	0	0	1	0	1	0	6	15	0	12	39	0	74	6
162	0	0	0	2	0	2	12	1	0	0	46	160	1	69	125	16	434	10	
171	0	0	1	4	0	0	5	0	0	0	19	96	0	24	27	3	179	8	
175	2	1	0	2	0	5	6	0	0	0	10	59	0	14	18	12	129	10	
176	0	0	0	0	0	0	0	0	0	0	0	0	31	0	0	14	0	45	2
185	0	0	0	1	0	0	0	0	0	0	13	30	0	1	8	0	53	5	
187	0	0	0	1	0	1	1	0	0	1	0	57	0	24	43	1	129	8	
188	0	0	2	1	4	28	26	0	1	3	109	378	1	66	316	34	969	13	
193	0	0	0	0	0	0	0	0	0	0	2	24	0	9	18	1	54	5	
195	1	0	0	0	0	1	0	0	0	0	28	40	0	10	11	0	92	7	
196	0	0	0	0	0	0	2	0	0	0	25	106	0	54	41	3	231	8	
197	0	0	2	1	1	7	11	1	4	0	62	190	0	99	132	19	529	12	
204	0	0	0	2	0	0	0	0	0	0	11	6	0	8	10	0	37	5	
208	0	0	0	1	0	0	0	0	0	0	3	62	0	11	45	1	123	6	
210	0	0	0	2	0	6	16	0	0	1	21	36	0	10	152	16	260	9	
Totals	3	2	5	17	5	52	86	2	7	6	362	1324	2	449	1118	106	3546		

Figure 8. Materials of Ceremonial Artifacts

Typically, graphite streaks black or grey; hematite red or purple; and limonite tan or brown. Graphite and limonite were found in all features except for #176, while hematite was found in all seventeen features. A chi-square correlation between

Measurements:	Graphite Paintstones	Hematite Paintstones	Limonite Paintstones	Quartz Crystals	Crystal Matrices	Polished Pebbles	Pecked Pebbles	Rods	Pen-dants
Length (mm):									
low	1.0	1.1	3.1	3.1	19.6	0.8	8.0	15.2	15.5
high	75.4	86.3	56.2	31.9	127.1	66.9	54.5	44.0	41.2
average	13.8	12.3	11.5	12.2	43.8	9.8	24.7	32.0	31.0
Width (mm):									
low	1.4	0.3	0.1	3.0	14.4	0.6	6.9	4.4	13.7
high	53.0	67.3	39.0	17.9	115.1	56.9	35.1	13.1	23.6
average	8.8	8.6	7.9	8.0	33.6	7.4	20.6	9.9	18.6
Thickness (mm):									
low	0.3	0.5	0.4	2.1	6.4	0.2	6.2	3.0	3.9
high	26.8	41.0	22.1	45.4	73.1	44.8	28.2	10.8	45.0
average	3.1	4.9	4.3	6.9	41.4	5.0	17.7	7.1	16.1
Weight (g):									
low	0.1	0.1	0.1	2.1	2.4	0.1	0.4	0.6	1.4
high	132.1	196.7	35.0	12.0	1390.0	209.5	71.6	12.9	31.0
average	0.9	2.0	1.1	1.4	111.2	1.1	14.6	4.1	10.7

Figure 9. Size Ranges of Ceremonial Artifacts

the features on the basis of color produced a value of 441.38, with 64 degrees of freedom (see Figure 10). Once again, this result has a 0.000 probability of being random (Hays 1963:515). It therefore appears that there was intentionality behind the placement of artifacts of the four colors in these pit features.

Conclusions

In cases where all of the artifacts in a deposit are of a uniform lithic material, or where the items are

Feature	Red/ Purple	Black/ Grey	White	Tan/ Brown	Clear	Total
136	42	11	36	87	6	182
147	6	3	6	11	0	26
159	17	8	21	24	4	74
162	179	73	58	103	14	427
171	99	27	13	35	5	179
175	71	25	5	26	2	129
176	31	1	5	7	1	45
185	30	14	7	2	0	53
187	61	4	12	45	8	130
188	419	159	186	177	20	961
193	25	3	11	14	1	54
195	42	30	4	15	0	91
196	112	31	25	66	7	241
197	306	84	63	150	15	618
204	8	13	1	13	2	37
208	62	6	22	18	15	123
210	37	58	53	87	14	249
Totals	1547	550	528	880	114	3619

Figure 10. Distribution of the Four Colors by Feature

uniformly of similar form and in an unfinished stage of production, as is the case with the three deposits described in the Moody and Kostiw articles (q.v.), it might be reasonable to argue that these are indeed caches, that is, items which were stored for future use. However, in the case of the Little League site, the contents of the lower levels of the features represent a mix of ceremonial items which does not show any consistent use, or avoidance, of any particular lithic material, but rather suggests an intention to deposit a variety of types, sizes, and colors.

There is evidence in the historic and ethnographic literature of the region (e.g. Simmons 1986) to the effect that, at least during the Contact period, indigenous peoples made offerings to earth spirits, commonly referred to as *pukwudji*. These beings were (and still are) considered protectors of the land, and could become tricksterish if not propitiated with offerings. Typically, these consisted of “baskets of food and drink.” (Simmons 1986:241) More specific references from Gladys Tantaquidgeon’s notes indicate that the offerings should be “in basket and place[d] in woods. Cover with leaves,” and that one should not “leave [an] offer-

ing exposed, always cover.” (Simmons 1986:242-243). Simmons (1986:235) notes that while these ideas appear to contain an overlay of EuroAmerican faerie folklore, there may have been local pre-existing indigenous versions of them. Weston (1906:425), in his *History of Middleborough*, provides a story which links the *pukwudji* to an island in Assawompsett Pond, possibly Blueberry Island, which contains a known site only 5.3 km south of the Little League site. There is no question but that the occupants of the Little League site exchanged ceremonial goods with residents of the Wapanucket site on the northern shores of the pond (Hoffman 2004a). Ceremonial burials at Wapanucket-8 included graphite and hematite paintstones, polished pebbles, quartz crystals (Robbins 1981:164, 233, 238-239), and slabs of arkose (Robbins 1981:243), the only outcrop of which in the Nemasket drainage lies only 0.5 km from the Little League site (Hartshorn 1960). At the Little League site, this material was frequently used for anvils; as noted above, several large arkose anvils were found at the bases of some of the pit features there.

While it is admittedly never possible to determine the precise reasons for past behaviors based upon the archaeological record, the richness and variability of the ceremonial deposits from the First Terrace of the Little League site are at least suggestive of the possibility that these were made as offerings, rather than as caches for future retrieval. Radiocarbon dates are only available for three of these features: #187 at 3520±80 B.P., cal (3693 3897) bp (GX-33739), #195 at 3400±110 B.P., cal (3647) bp (GX-33768), and #159 at 790±70 B.P., cal (961 785) bp (GX-33565). It is impossible to determine whether all of the deposits in the undated features were made at the same time or over an extended period. The first two dated features appear to be roughly contemporary, as they overlap at 1σ, and fall within the Transitional Archaic period, while the last is Late Woodland in age.

Whether or not they are offerings, they may be classified among the “sacred objects” category covered under the Native American Graves Protection and Repatriation Act, defined as “objects that are ceremonial in nature, and needed by traditional Native American religious leaders for the present day practice of traditional Native American religions” (Trope 2013:31-32), and may there-

fore be subject to a repatriation request by local indigenous groups. Since the site is on public land and has been excavated under permit from the State Archaeologist, the ownership of the objects, which are currently stored at Bridgewater State University, resides with the Commonwealth of Massachusetts, and any repatriation request

would need to be made through MHC. In anticipation of this possibility, the excavators have been instructed to refrain from writing catalogue numbers on any of these artifacts, such as we do with ordinary chipped stone tools. In this way, they may be returned to the indigenous communities which may reclaim them unblemished.

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