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BULLETIN OF THE MASSACHUSETTS ARCHAEOLOGICAL SOCIETY



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Editor's Note

This issue of the *MAS Bulletin* commemorates the passing of two key personnel at the Robbins Museum: Jean-Jacques Rivard, our resident artist and general factotum; and Jeffrey Boudreau, our resident photographer. Memorial pieces for each of them, written by those who knew them best, are included in this issue. They will be sorely missed; already the Museum feels emptier by their absence.

In addition, this issue includes four very disparate articles: a site report by Ed Bell of the Massachusetts Historical Commission on the Den Rock site in Andover; a report by frequent contributor Bill Taylor on historical shipbuilding in the Titicut area; a discussion of the distribution of stone pile sites in Middlesex County by Peter Waksman; and a report on the finding of several points of the Eastern Agate Basin type from Martha's Vineyard by Bill Moody. I hope that readers will appreciate the diversity of subject matter and perspective that these articles provide.

In last Fall's issue of the *Bulletin*, I reported on the finding of a grooved gouge at the Middleborough Little League site, and provided information about the context of this unusual find. When we returned to the site in July of 2012, I was shocked to discover that the backfilled units from which the gouge was retrieved had been dug up in the interim by someone using a round-bladed shovel, and the soils were left piled around the open hole. We have been working at this site off and on



Figure 1: Vandalized Unit at the Little League Site (photo: C. Hoffman)

since 1996, and never before has there been any evidence of pot-hunting, even though our work on the upper terrace of the site is quite exposed, since it is a regular thoroughfare between the schools and the playing fields. The lower terrace where the gouge was found is much more isolated, and during the field seasons there from 2009 – 2012 we have rarely had casual visitors. No other evidence of pot-hunting was found at any of the other excavated units at the site. I conclude that whoever committed this act of vandalism must have been a reader of this *Bulletin*, since the excavation was so specifically targeted to that one unit, whose location was given in my article.

I wish to observe that not only was this vandalism poorly conceived (what would one expect to find in an already-backfilled square?), but it was also illegal. The Little League site is located on town-owned land and has been registered (as 19-PL-520) in the Inventory of Prehistoric Places at the Massachusetts Historical Commission. The Antiquities Act (MGL Chapter 9, Section 27(C) states that, "Any person . . . who shall conduct field investigations on any land owned or controlled by the commonwealth, its agencies, or any political subdivisions thereof . . . without first obtaining a permit therefor as provided in this section, or any person . . . who shall appropriate, deface, destroy or otherwise alter any site . . . except in the course of activities authorized under said permit, shall be guilty of a misdemeanor and shall be punished by a fine of not more than five hundred dollars or by imprisonment for not more than six months, or both. All specimens, objects and materials collected or excavated in violation of this section shall be forfeited to the commonwealth." In addition, Article I of the MAS Articles of Incorporation specifically states that among the objects of the Society are "to seek through education to substitute intelligent work for careless and misdirected archaeological activity; to seek to prevent the collection of archaeological specimens for commercial purposes." I would appeal to readers to take these statements seriously and to refrain from further unauthorized activities at this and all other archaeological sites.

Curtiss Hoffman September 2012

In Memoriam: Jeffrey Boudreau

William Moody

One of the shining lights in New England archaeology will be sorely missed by all those who knew and admired him. Our good friend and mentor to many, Jeff Boudreau, passed away unexpectedly on August 10, 2012.

Below is a listing of just some of Jeff Boudreau's many activities; however, these simple words do not begin to describe the impact of his work.

- Artist / graphic illustrator
- Photographer
- Flintknapper
- Published author
- Longtime associate of the Massachusetts Archaeological Society (MAS)

As an artist, illustrator and photographer he was much sought after by other authors to enhance their articles. He began to work with digital photography in 2005. He photographed the artifacts that interested him: from the extensive collection of the MAS to chance discoveries brought in by Museum visitors.

Jeff excelled as a flintknapper. He was videotaped at the Robbins Museum by a crew from the Public Broadcasting Service (PBS) for a segment of NOVA on making Clovis points: see <http://www.pbs.org/wgbh/nova/stoneage/maki-i.html>. His skills were constantly in demand, and he was frequently asked to demonstrate the art of knapping at historical societies and other gatherings. Jeff approached artifacts with a keen knapper's eye. Projectile points were not just stone objects to him; they were the product of an intelligent and artistic mind.

For many years Jeff was an integral part of the MAS. He was named the official MAS Photographer in 2006 after years of fulfilling that position in an unofficial capacity. He was a member of the Robbins Museum's Wednesday crew. He not only informed museum visitors who brought in found artifacts as to the identity of their finds, but he also pointed out the uniqueness of each item and ex-



Jeffrey Boudreau, 1947 - 2012

plained the steps involved in its creation. He devoted a lot of his time in working with the MAS's collections. Jeff had recently initiated work on the William Whiting collection, sorting and cataloging one of the most significant gifts to the MAS in recent times.

One of Jeff's major accomplishments occurred as he distilled his vast repository of digital images into his book *A New England Typology of Native American Projectile Points*, which is available through the Robbins Museum. This publication was immediately recognized as the number one source for information on points from the Northeast and today, six years after its initial release, it remains in great demand by those interested in archaeology. This book was updated in 2008. He also authored or coauthored seven articles for the MAS Bulletin and for other publications.

Jeff was almost finished with a new and greatly expanded typology book for our region with hundreds of his high quality photographs and lucid observations of the many and often confusing projectile point types in our area. I had the great pleasure and honor of helping Jeff in the past with editing, and he was just about to send along a review copy of his new book. Over the past few years, I spent many hours in stimulating discussion with Jeff, bouncing ideas back and forth about artifact

typology, cultural influences between point styles, and lithic preferences over time among the prehistoric toolmakers. I never failed to learn something valuable and to gain new and enlightening perspectives from Jeff. I have heard many others echo these same sentiments. It is hoped that there will be a way to get the new book published in the future as a fitting tribute to Jeff and to all that he has accomplished. His contribution to regional

archaeology has been large and invaluable. Jeff is survived by his beloved wife Elaine Courtney and by his children, Matthew Boudreau and Lauren Courtney, as well as his brothers Gary and David Boudreau. Jeff is also survived by his cherished granddaughter Emma Boudreau.

The family has made their wishes known that donations in Jeff's memory to the Robbins Museum would be welcome.

In Memoriam: Jean-Jacques Rivard

Kathryn Fairbanks

On March 28 of this year, MAS lost its oldest and most constant friend. Jean-Jacques Rivard was ninety-three, a member since the early seventies when he met MAS member Arthur Lord and began excavating with MAS at the great Wapanucket site complex in Lakeville, MA. Shortly later he retired from his work at MIT, an accomplished commercial artist and illustrator for engineers working on the Apollo Project at Draper Labs. He then devoted his energies to MAS. He was factotum at its Bronson Museum, Attleboro, MA and later at the Robbins Museum of Archaeology, Middleborough. He was a volunteer to the last few days of his life.

Born in Quebec, Canada, Jean-Jacques spoke French and some Algonkian at home. His father was a Canadian wilderness guide. His mother's partly Algonkian heritage gave him an awareness of Native lifeways. In 1938 he was graduated from Brockton High School. Art was Jean-Jacques' career from his twenties. He studied at Boston University, at Harvard, at the Boston Museum of Fine Arts, and at the Scott Carbee School of Portraiture.

Over the course of his life he taught himself to read and write some six languages that we know of. Recently, his idea of "a light summer task" was comparing the Spanish version of the New Jerusalem Bible with its Hebrew, Greek and Aramaic original texts. When I asked him more recently to look over a translation I'd done, he meticulously

proofed and corrected the text over many months like the most thorough French professor one could have.

Jean-Jacques' fascination for the Maya code language-symbols prompted him to spend his vacations in Central America. There he lived among the local Maya people, talking with them, learning about their culture. He completed a dictionary of the Maya Code, and several related papers. He was the first to report observations of the solar phenomenon at the Mayan pyramid (El Castillo) in Chichen Itza. He saw that at the equinox, sunlight strikes the temple's step edges, creating the illusion of a descending serpent of light, joining with the stone serpent head at the base of the pyramid (*Katunob* 1969 vol.7 #3; see also *Archaeology*: Slayman, Andrew "Seeing With Maya Eyes" 1996 July-August, p. 58.) . Dr. John Carlson of the University of Maryland credits Rivard's observations as inspiration for his founding of the Archaeoastronomy Society.

Rivard was instrumental in the development of the Robbins Museum. He designed and painted exhibits, served as an in-house graphics designer, and did illustrations and diagrams for its publications. In spite of his erudition, past President Tonya Largy notes, there was nothing asked of him, high or humble, that he wouldn't willingly take on. For years it was he who, each work-Wednesday morning, opened, heated or cooled

our building, tidied it up and had coffee on before we arrived.

Jean-Jacques Rivard was a highly individualistic and private person. He seldom spoke of his personal life. It seemed, however, to be that of a scholarly hermit living in the world in a small, neat dwelling. In Summer he was up daily at four a.m., five in Winter. He served as lector at the local six a.m. mass. He spent the days reading from works in several languages -- history, Native American and language studies, several versions

of the Bible, spiritual writers of the Middle Ages and later. At one point he taught informal classes on the interpretation of Byzantine icons. He loved bicycling and walking in the woods. He'd bring back wild plants to his vegetarian table -- berries, mushrooms, and wild greens.

Two MAS Presidents have called him a brilliant man, our lovable curmudgeon. Dan Lorraine sums it up: "He was an unassuming but incredibly fascinating man." We miss him.



Jean-Jacques Rivard, 1919 - 2012
(1963 drawing by Pat Purington)

Discerning Placemaking: Archaeology and Native Histories of the Den Rock Area, Lawrence and Andover, MA

Edward L. Bell

Introduction

The Den Rock area of Lawrence and Andover, Massachusetts (Figure 1), consists of 120 acres of protected open space of forested upland and wetlands adjoining the Shawsheen River. This protected area is owned by the City of Lawrence, the Town of Andover, and the Merrimack River Watershed Council, with cooperative management by Groundwork Lawrence, the Lawrence and Andover Trails Committees, and the Friends of Den Rock Park.

While public educational materials and a technical study (Patterson 2006) are readily available that describe the ecology, natural resources, recent natural history, and the conservation and recreational values of the locale, there has been no publicly available, factual summary of the Native American history of the Den Rock area. Available information sources consisted of inventory records, technical reports and scholarly papers on file at the Massachusetts Historical Commission (MHC) (Barber 1978; Carovillano 2002, 2003; Chartier 2004; Décima 1997; Décima and Dudek 2000; Dudek 2002; Luedtke 1985; MHC Inventory, 1980); records and artifacts curated by the Robert S. Peabody Museum of Archaeology (RSPM) and a consulting archaeology firm; and diffuse notes and observations in local historical records and secondary historical sources. Most of this information is not accessible or comprehensible to the non-specialist.

When the opportunity arose to review and consider the archaeology and history of Native American occupation at the Den Rock area, I prepared a short, factual, non-technical synthesis understandable by the general reader (see Acknowledgements). Subsequently, my continued research gathered additional information about the Den Rock area, and the kernel of the non-technical narrative expanded as did my bibliography of productive sources consulted. The area-specific information

was considered in light of regional culture history and ethnography, and current interpretive trends in the archaeology and history of Native places in New England. Contemporary ethnographically informed histories and archaeologies about Native Americans in New England help to consider meanings of the archaeological and historical evidence from this area of Northeastern Massachusetts (Baron et al. 1996; Bragdon 1996, 2009; Bruchac 2005, 2007; Bullen 1949; Calloway 1997; Carlson 1987; Clements 2002, 2011; Coombs 2004; Den Ouden 2005; Dincauze 1984; Doughton 1997; Gould 2010; Handsman 2008a, 2008b; Lavin 2002; Mandell 2008; Mrozowski et al. 2005; Mulholland 1988; O'Brien 1997, 2010; Patterson and Sassaman 1988; Ritchie 2002; Robinson 2008; Sassaman 2010, 2011; Silliman 2009; Simmons 1981; Stewart-Smith 1999; Vitelli 2009).

These writings about the Den Rock area are intended as "public service scholarship" (Quay and Veninga 1990) that synthesize and present factual archaeological and historical information evocatively to engage citizens to appreciate and protect their local historical places. My intentions are to encourage an appreciation for:

- the antiquity and duration of cultural presence in the area;
- the continuities of inventive and creative cultural practices;
- ancient and contemporary social connections both immediate and broadly geographic;
- the interpretive potential and limits of archaeological and historical data;
- the rarity and fragility of Native American archaeological sites that are easily damaged by casual digging and artifact collecting without respect to sound research design, competent method, and regulation in the interest of conserving the public heritage;
- the need of public appreciation for protection and preservation of historic places;

- consciousness about themes and concerns commonly embedded in histories and archaeologies of local places throughout New England, to encourage us be more astute readers, writers, and storytellers; and,
- the recursive effects of history-making for maintaining social memory about local landmarks.

Long before it was fashionably called “microhistory”—“a search for meaning in the microcosm, the large lessons discovered in small worlds” (Walton et al. 2008: 5)—contextual archaeologies and histories considered local places in view of broader cultural patterns. Creative individual agency; group decision-making and power dynamics; oppression and resistance; dissent, discord, maladaptation and irrationality; integration and syncretism; cooperation and peaceableness for sustainability, etc., are all in play with us complex animals. History-making and story-telling about human places are actively used and reinvented. History-making may serve to legitimate, perpetuate or reinforce social structures and processes, or serve to repudiate and resist those same structures and processes. Coherent and persuasive, factual scientific and historical narratives about conserved and managed areas, that convey human dimensions in local and regional view, that purposefully apply synthesized scientific and historical theory, method and data can meaningfully (re)connect people and their local historical places. Evocative and impelling factual stories deepen understanding and can transform hearts and minds. Informed and responsible people comport behavior for sustainable and salubrious use of conservation areas (Beaudry 1995; Bell 2009; Cipolla 2008; Clements 2002, 2011; De Cunzo and Ernstein 2006; Holtorf and Williams 2006; Kelly and Kaplan 1990; Luedtke 1996; Mills and Walker 2008; Paynter 2002; Robinson 2000; Rodman 1992; Rubertone 2008; Simmons 1988; Yamin and Metheny 1996; Yentsch 1996).

The Den Rock Area as a Native Place

Ancient Native Americans were present in the Shawsheen River drainage at least ca. 12,600 years

ago. Ancient Native groups maintained and fostered contacts and connections throughout Eastern North America. Inventive technologies and creative lifeways were part of Native traditions that lasted for millennia. Some traditions such as diet, cooking methods, storage technologies, tool forms and burial practices were similar on a sub-continental scale. Native traditions, even everyday activities, were imbued with ceremonies of thanksgiving, an ethic of sharing and receiving, and expectations of sustainability and continuance. These were a people cognizant of their own deep history, and socially connected to their familiar, established places recurrently occupied for thousands upon thousands of years. They transformed environments and landscapes. Through language, manners, ritual, art, dance, music, storytelling, dress, foodways and technology these ancient people expressed their individualities, their belonging and obligations with relatives, acquaintances, and ancestors, and their relationships to other groups in other places near and far (Bradley 1996, 2007; Bragdon 1996, 2009; Bruchac 2005, 2007; Bullen 1949; Coombs 2004; Lavin 2002; Luedtke 1985, 1986, 1996, 2000; Mills and Walker 2008; Patterson and Sassaman 1988; Peters 1997; Ritchie 2002; Robinson 2008; Rodman 1992; Sassaman 2010, 2011; Spiess and Bradley 1996; Spiess et al. 1998; Stewart-Smith 1999; Vitelli 2009; Willoughby 1935; Winter 2007).

Preserved and intact Native American archaeological sites are rare because many were located in some of the first areas to be occupied by the colonists, long since developed as cities and suburbs. The few remaining, intact archaeological sites in Massachusetts are predominately located on conserved and undeveloped land. Archaeological studies of ancient Native American cultures focus on a limited range of objects and places that preserve rare evidence of their activities and creative traditions. New England’s acidic soils do not preserve the whole sphere of ancient objects created from plant and animal parts. Typically, only stone, pottery, metal, burned bone and plant parts, and firewood charcoal survive.

The first archaeological discoveries in Den Rock Park were casual finds, but there is no record of the exact discovery locations within the park. Before 1901 Mr. and Mrs. F.E. Hibbard possessed

two stone tools from Den Rock, one described as an "axe" and the other confusingly called an "adz-gouge." The latter object is in the RSPM (Figure 2). A pecked groove around the stone is where it was hafted in a wooden handle; its rounded ends show it was not an adze or a gouge, but was a pounding stone that could be used to drive stakes, to flatten wood, bark, and reeds for baskets and mats, to crush rock in pottery-making, and for other handy purposes (Hoffman 2007; RSPM Accession Ledger).

Sometime in the early to mid-20th century, James Wallace Smith, a local avocational archaeologist, excavated two areas of Den Rock Park. Because Smith did not produce a report of his investigation, and very few artifacts and only sketchy, undated records from his explorations are preserved, only partial information can be gleaned. Smith's dig located evidence of established Native occupation in the Den Rock area. Fragments of a steatite (soapstone) cooking pot, dating from around 4,000 to 2,430 years ago and probably in the later part of the range because of its smoothed rather than only chiseled exterior (Sassaman 1999 and pers. comm. August 26, 2012); a woman's pestle or hand-held pounding stone for processing food and medicine; and, a very small and broken chipped tool that resembles the tip of an awl, a drill or a projectile point are the only artifacts preserved from the dig (Figures 3 – 5). Smith's notes say that he also found projectile points, knives, drills and hundreds of chips of rock from stone tool-making. Food preparation for feasts, stone tool production and possibly basketry or building structures are among the activities that demonstrate creativity and proficiency learned and practiced through generations (Hoffman 2007; Mills and Walker 2008; RSPM James Wallace Smith Accession).

Modern archaeological practices now require exacting field methods, record-keeping and reporting, and permanent preservation of complete archaeological collections. The area around Den Rock Park is now protected land. Archaeological sites are fragile and extremely vulnerable to irreparable damage from casual digging and artifact collecting. State and federal laws prohibit digging or artifact collecting to protect these ancient and historical places.

Development of land for new construction also endangers ancient and historic sites. Proposed projects that involve federal, state and some local government agencies undergo review and professional study to ascertain if important historic and archaeological resources will be affected. Before a housing complex was constructed near Den Rock Park in the late 1990s, professional archaeologists systematically tested the areas planned for development. Careful excavation, precise record-keeping, laboratory work, research and writing went into the discovery and understanding of the archaeological sites. Archaeologists identified seven areas that had evidence of ancient and historical period Native American activities.

Six of the archaeological sites found during the survey in the 1990s were short-term campsites and working areas used by few individuals in passing, or overnight to a few weeks. Activities around these established sites included hunting animals for food; gathering plants for food and medicine, and possibly for weaving mats and baskets; manufacturing and sharpening stone tools; and cooking and eating. Although archaeologists found nothing to precisely date these six sites, comparative information suggests that they likely date from about 5,000 to 500 years ago. The Shawsheen River nearby was a watercraft route, and wetlands in this area supported many animals and plants. Discerning Native people were attracted to this location for its favorable resources and sheltering landscape. Den Rock, with its dramatic exposed cliffs, sheared slabs and boulders of Andover Granite with sparkling muscovite and biotite mica and quartz, was an ancient landmark (Bruchac 2005; Castle et al. 2005; Patterson 2006; Patton 2012; Sears 1905).

The most important archaeological site discovered was sequentially occupied by Native Americans, at least between the 1st and 3rd centuries A.D., between the 6th to 9th centuries, between the 13th to 15th centuries, and in the 17th century. (Accurate and precise data to date the site occupations are limited. The occupational history is undoubtedly more complex and prolonged.) The location was used for creating ceramic cooking and storage/transport vessels and clay tobacco pipes, for fashioning stone tools, as a base for gathering and hunting forays, for food preparation and cooking

and for many other everyday activities (Carovillano 2002, 2003; Chartier 2004; Décima and Dudek 2000; Dudek 2002; Haynie, n.d.; MHC Inventory; Mills and Walker 2008; Rodman 1992).

Artifacts included thousands of pieces of finished and unfinished Native American pottery vessels and a few fragments of tobacco pipes; burned animal bone and charcoal; several kinds of flint tools including possible gunflints, fire-starter “strike-a-lights,” and other tools made using English flint; and stone tool manufacturing waste of several kinds of rock. Some of the local stone for tool-making was found in the immediate vicinity. Volcanic rock types came from places within a day’s travel. The English flint was from the coast where English ships had offloaded ballast rock. Good tool-making rock could be obtained through relatives and acquaintances (Brady and Coleman 2000; Harper 2010; Ritchie 2002).

The raw clay for the pottery made at the site was obtained immediately nearby, to which was added pulverized minerals and rock for temper. Quartz, mica and other minerals as components of temper are commonly seen in ceramics throughout New England. Petrographic analysis was conducted by Michael DePangher of the temper components of five pottery sherds, from five of the 11 separate Den Rock vessel lots sorted by Michael Katherine Haynie (n.d.; DePangher 2000). The temper “recipes” differed for the five vessel lots (which may be from different time periods) but they had in common quartz, K-feldspar, and plagioclase in differing relative quantities, and four of the five samples included muscovite or biotite mica. The analysis further suggests that these minerals and the “sparse polycrystalline lithic fragments” observed in each sample “probably derived from the same source” described as “metamorphic granitoid gneiss.” The approximate composition of the gneiss varies by sample: “quartz monzonite,” “monzonite,” and “granodiorite to quartz monzonite” (DePangher 2000). While the composition of the gneiss identified in the five samples is not inconsistent with the composition of Andover Granite (Castle 1964; Castle et al. 2005)—and Haynie (n.d.: 1) reported that the quartz in the temper was confirmed to be from Den Rock—neutron activation analysis (e.g., Boulanger and Glascock 2008) of a larger representative sample of the Den Rock

sherds would be needed to confirm if all the pulverized minerals and rocks used in all the temper recipes derive from Den Rock.

The act of adding sparkling minerals to the raw clay from this locale, minerals that may have been considered to have even magical and medicinal properties (cf. Luedtke 1996; Murphy 2002; Peters 1997, 2005), was the result of technological experimentation and regional tradition (e.g., Boulanger and Glascock 2008; Bunker Kenyon 1986; Lavin 2002; Luedtke 1986, and references cited therein). Moreover, Kathleen Bragdon (1996: 131-136, 196; 2009: 50-52) considered metaphorical language in Massachusetts (Wampanoag) texts that revealed an interwoven cultural conception of food, eating, and the occupation and use of particular locales. The act of creating vessels for cooking and storage/transport to sustain themselves and others, literally created from the land and minerals of Den Rock, could be understood as a way that a potter expressed belonging to that place, and through art and technology simultaneously conveyed her connections to other people and places. Emblematic styles and technologies of the pottery vessels from the Den Rock site convey intellectual and social connections throughout New England, while the sources of at least some if not all the temper and clay for the Den Rock vessels are local (Boulanger and Glascock 2008; Chilton 1998; Haynie, n.d.; Johnson 2000; Lavin 2002; Luedtke 1986, 1996). One vessel lot found at Den Rock was made in a style similar to St. Lawrence Iroquoian pottery, “very thin” with “fine incising” and “circular punctates on what appears to be a collar fragment” more common in Western Massachusetts and Vermont (Haynie, n.d.: 6 citing personal communication with Elizabeth S. Chilton). Petrographic analysis of a sherd from that vessel lot indicates that the temper contains minor amounts of hornblende, apatite and epidote (minerals not present in the temper from the four other vessel lot sherds analyzed) and did not contain mica (unlike the four other samples) (DePangher 2000). The difference in the temper composition does not imply that the vessel was not made at Den Rock, only that the temper recipe was different than four other analyzed sherds. The vessel may have been made later than the other samples, the recipe by then having changed; or, it may have been created with a different recipe because the vessel was intended for a different purpose.

Pottery-making is a strong indicator of women's artistic and technological creativity. The "temper-processing workshop...[containing] battered stones and anvils as well as temper material" (Carovillano 2003: 29) at Den Rock may have been, but not necessarily exclusively have been a locus of women's activity. Perhaps children or otherwise unengaged men were asked to pulverize minerals for the artist-potter. Perhaps a woman apprentice to the artist was assigned that task, or perhaps temper-preparation was too important or integral that the potter herself did all of that too. Many dimensions of women's creative accomplishments such as fiber technologies (baskets and mats), leatherwork and clothing are not preserved. The twisted cord impressions on the pottery and some tools used in pottery-making, textile production, leatherwork and tailoring are indirect evidence of those productive skills (Lavin 2002; Spencer-Wood 2005).

Vital tasks by group members were probably more fluidly organized than bright-line gender-based divisions of labor. While not everyone had the interest or proficiency to make stone tools—and at times specialized blade forms were crafted exclusively by expert knappers—it makes no sense to suppose only men as stone tool-makers. Nevertheless, anyone could *use* and learn how to maintain stone tools. Most if not all of the stone tools in the James Wallace Smith collection at the RSPM appear to me to be women's tools. The heaviest ones were safe-kept in plain sight at Den Rock, as their owners expected them to be there upon their return, conceivably secure in like-minded etiquette not to remove things belonging to others. The activity area complexes of feature technologies and artifact deposits at Den Rock should be considered as evidence of everyday activities and as a history of traditions, emplacements, belongings, and connections among families, acquaintances, ancestors, spirit helpers, and the land and water in consciously historical terms.

Daily practices could be imbued with "richly elaborated social meaning" (Bragdon 1996: 196), an ethic of reciprocity and expectations of sustainability by what was offered by the land and waters through the labors of their fellows and the gifts of "supernatural helpers" for health and well-being (*ibid.*; Bragdon 2009; Vitelli 2009). The role

of adults generally, and the leading role of Native women particularly, as teachers, makers and keepers of history and cultural traditions is recognized in vital repetitive tasks and oral traditions. These "genealogies of practices" created "archives of knowledge" learned, remembered and taught generationally. When tasks as duties are consciously ritualized, taught and practiced generationally, ritualized actions as traditional practices in familiar places ("taskscape") are a form of history-making for cultural preservation (Cipolla 2008; Handsman 2008c; Kelly and Kaplan 1990; Mills and Walker 2008; Vitelli 2009). The tenacity of learned and creative practices, occupation and history-production evolved through creativity, experimentation and inventiveness as circumstances availed. "I have since come to believe that the cultural vitality of contemporary Native American groups derives in large part from women in these communities who resisted colonial assimilation and survived to pass on their traditions" (Clements 2002: 46).

Clues in 16th and 17th-century documents indicate genealogical ties of Merrimack Valley individuals extended throughout what is now Essex and northern Suffolk Counties in Massachusetts, south to Rhode Island and Connecticut, west to Natick, and north into New Hampshire. Social mechanisms of kinship and friendship, or a benign tolerance at least, appear to be the long-standing and predominant pattern among Algonquin-speaking groups in the Northeast, discernable among many dimensions of ethnographic and archaeological data (Brady and Coleman 2000; Bragdon 1996, 2009; Bruchac 2005, 2007; Bunker Kenyon 1986; Coombs 2004; Doughton 1997; Lavin 2002; Leavenworth 1999; Luedtke 1986, 2000; Mulholland 1988; O'Brien 2010; Perley 1912; Peters 1997; Ritchie 2002; Robinson 2008; Sassaman 2010, 2011; Stewart-Smith 1999; Vitelli 2009).

Interestingly, Native tool-makers used English flint to fashion traditional Native stone tools such as a drill, an engraving tool, scrapers for working leather, bone, wood, bark or reedy plants, and an arrowhead. The gunflints and strike-a-lights were made in Native ways (Figure 6). Other artifacts included a fragment of sheet copper (probably an unfinished tool being made from a European cooking pot), several pieces of a 17th-century glass bottle, and a metal gun part from a 17th-century snaphaunce-type firearm (Carovillano 2002, 2003).

Even in the mid- to late 17th century, decades after English colonists were living in their homelands, Native people maintained their traditions of stone tool and pottery-making, incorporated some new and interesting European materials in traditionally inventive and adaptive Native ways, and continued to occupy a Native place familiar to them and to hundreds of generations of their ancestors. The Den Rock area was eventually a refuge for Native people from the disruptive and dislocating presence of the English colonists in their homelands.

Native Presence and Persistence

The Native residents of the Essex County area who first observed English explorers and colonists in their homelands were part of the Pennacook-Pawtucket and Massachusetts groups, and one local group was sometimes called Naumkeag. The history of the 16th and 17th-century Native residents is incompletely known. The written information that survives from the early historical period was inaccurately and incompletely recorded by Europeans who did not fully understand and appreciate the diversity, complexity and relationships of Native people and their cultures. Sweeping epidemics from European pathogens decimated about 90% of the New England Native population by the 1620s, leaving about 10,000 survivors, while the population of the English in New England grew from about 3,000 in 1630 to 33,000 in 1660. Raids and warfare among Native nations followed the epidemics, as power, authority and alliances were realigned (Bragdon 1996, 2009; Carovillano 2002, 2003; Coombs 2004; Dincauze 1984; MHC 1985, 1986; Mulholland 1988).

The Den Rock area was part of Cochichawick (renamed Andover in 1646 from which Lawrence was established much later; see Bailey [1880: 2 n3] for variants of the Native toponym). A few English squatters may have arrived as early as 1634, when the Native population was speculated to be about 50 individuals. English settlement began in earnest about 1643. Negotiated agreements between Native leaders and English in 1644 and 1646 attempted to form alliances and to ensure that Native residents could continue to occupy and use the area for fishing and planting. Unceasing encroachment into Native homelands and dispossession of Na-

tive families from their properties and resources ineludibly led to social and economic duress, resistance, and conflict. After the war of 1675-1676, and raids by other Native nations that continued to 1698 in Andover, Indian residency and connections of Native people back to this region endured and persisted (Andover Vital Records 1912; Bailey 1880; Bragdon 2009; Calloway 1997; Dorgan 1918; Leavenworth 1999; Luedtke 1985; MHC 1985, 1986; O'Brien 2010; Perley 1912; Stewart-Smith 1999).

Eighteenth and 19th-century records document Native people in the area, but a detailed history is yet to be assembled by modern researchers to overcome what historian Thomas Doughton (1997) and others call "discourses of disappearance" in popular and scholarly histories and public consciousness. Oral and genealogical research assists to discern identity and heritage that may be only expressed as elliptical and ambiguous notations in primary records. During my research, I noted several references to Native people ("Indians") and other people of color present in Andover and Lawrence in the 18th and 19th centuries—including Pompey and Mary Green; Nancy Parker (or Poor), Salem Poor, and their son Jonas; Lewis Elisha, Hannah Richardson Elisha, and their children; a baby, described as "A Pappoose," born to "a Basket Maker from Old Town, Maine"; and the well-considered Lucy Foster (for documentary information about these individuals, see Andover Death Records 1879; Andover Overseers of the Poor; Andover v. Canton 1816; Andover Vital Records 1912: 389; Bailey 1880; Battle-Baptiste 2011; Boston Records 1903; Dorgan 1918; Lambert 2007; Luedtke 1985; Mandell 2008; Massachusetts Office of the Secretary of the Commonwealth 1904; Minardi 2010; National Park Service, n.d.; O'Brien 2010; Petrakis 1994; Reef 2007; Sege 2007; Smith 2011; Sutton, n.d.; United States Census 1800, 1810).

Historical, political, sociological and personal reasons can account for the apparently few and infrequent notations in the local histories to Native people and other people of color. Native and other people of color were a minority of the overall local population of Andover and Lawrence in the 18th and 19th centuries. Native people may have chosen not to publicly identify themselves as Indians, particularly to government officials, to neighbors

and even to their children out of reasonable fear of discrimination. Native people could be “unseen” by outsider observers, yet be conscious of their Indian heritage, maintaining and conveying traditions among kith and kin.

Modern historians of Native peoples in New England such as Russell Handsman (2008b: 1) recognize how “race became a pervasive and pernicious idea” in denying Native presence, persistence, and identities. In official records, people with Native ancestry were historically subsumed under vague “racial” categories imposed upon them, as they might adopt “race”-conscious language in reference to themselves and others, such as Pompey “an Indian” and Mary Green “a mulatto” married in Andover in 1738. Multiple and mercurial “racial” categorizations adopted by or imposed on individuals in official records was common for New England Indians, which carried social, economic, and legal consequences. Civil and criminal laws based on “racial” categories were devised by government, disparately and indifferently enforced, and defied. Marriages of persons of color (“Negroes,” “Indians” or “mulattoes”) with “white” persons were legally void *ab initio* in Massachusetts between 1705 and 1843 (Andover Vital Records 1912: 356; Bailey 1880; Baron et al. 1996; Boston Records 1903; Bragdon 2009; Bruchac 2007; Calloway 1997; Dorgan 1918; Doughton 1997; Handsman 2008a, 2008b; Mandell 2008; Massachusetts Acts and Resolves 1845, 1869; O’Brien 1997, 2010).

The continuities of craft production, particularly basketry, and long distance travel of this region’s Native peoples are reflected in local historical sources. Local residents in the 19th century remembered “wandering” Native people making “pilgrimages” to Native cemeteries in Lawrence (Dorgan 1918: 8), indicating that Native people returned to familiar places in the area to affirm their connections and duties to their ancestors (Andover Vital Records 1912: 389; Luedtke 1985; McBride 1999; McMullen and Handsman 1987; Vitelli 2009; Wolverton 2003).

In 1876 and again in the early to mid-20th century, little hillocks were seen in Den Rock Park and thought to be the remnants of a Native woman’s garden (Dorgan 1918: 8; RSPM James Wallace Smith Accession). The park was visited in 1935

by work crews employed through the New Deal Emergency Relief Administration (ERA, later known as the WPA). Two newspaper articles in the *Boston Globe* (1935a) and the *Hartford Courant* (1935) about the ERA project said that Den Rock was “better known” as “Indian Rock.” The articles relate a local oral tradition that accurately associated Den Rock with Native Americans historically, and one perhaps refers to James Wallace Smith’s digs. The *Boston Globe* (1935a) reported that, “Old residents can recall stories of the last tribe of Indians as they broke camp and retreated to the north. Arrow-heads, pottery and other implements... have been dug up around and in the rock, bearing out the tales of the camping ground for the tribes.” The story may express an accurate account of an evacuation of a local Native group to Native places to the north during the significant conflicts that occurred in this area through 1698. Among Native people of Northern New England groups, and among Native people residing to the west and to the south, connections to the Merrimack River region in Massachusetts are known historically and persist (Boston Globe 1935a; Brady and Coleman 2000; Bragdon 2009; Bruchac 2005; Carlson 1987; Carovillano 2002, 2003; Décima and Dudek 2000; Dorgan 1918; Hartford Courant 1935; Lavin 2002; Leavenworth 1999; Luedtke 1985; McBride 1990; McMullan and Handsman 1987; Mulholland 1988; Ritchie 2002; Stewart-Smith 1999; Wolverton 2003).

Reading About Native People and Places

Newspaper articles in the *Boston Globe* (1935a, 1935b) and the *Hartford Courant* (1935) convey Romantic and simplistic notions about “*council fires*” of “*nomadic* tribes of Indians [who] *rested* as they *traveled* to new hunting grounds” (*Hartford Courant* 1935, emphasis mine). As with the *Hartford Courant*, a *Boston Globe* article invoked Romantic Indian lore when it reported that “[p]opular tradition has it that *smoke signals* [from caves in Salem, New Hampshire] could be seen from Den Rock in Lawrence” (Boston Globe 1935b, emphasis mine). Similarly, Dorgan’s (1918: 8, emphasis mine) characterization of “wandering Indians”—whose ancestral cemeteries he disparaged as “*crude sepulchre[s] of savages*”—decoupled actual tenancy of Natives from Native places: in Margaret Bruchac’s (2005: 65) words as if they

“were interlopers in their own homelands.” The cant of conquest is obvious in the archly jocular article title from the *Hartford Courant* (“Picnickers to Take Over Indians’ Rock”). Romantic lore, nostalgia and pathos, poetic eloquence, and arch humor employed in historical writings about Indians cunningly conceal tensions about the process and effects of dispossession of Native people from their places of habitation, even from their cemeteries.

Consider the implications of asserting that these Native people were merely “wandering” aimless “nomads” with no geographic knowledge and no tenancy. That discourse is ignorant of a truly ancient cultural practice of navigated seasonal rounds within established homelands as a sustainable strategy of land use. Ethnographer Kathleen Bragdon (2009: 210) wrote that, “After the war [of 1675-1676], many Natives were displaced and, as Indian communities coalesced in the region, some must have been required to travel... to maintain ties with relatives and friends.” Historian Jean O’Brien (1997) drew parallels to concerns of local magistrates about traveling Indians, with the transient “strolling poor” and vagrants who could become charges to their towns. Recent considerations of complex and dynamic processes of impoverishment, its socioeconomic, ideological, and political aspects, overlain with problematic “racial” identifiers and gender-based conceptions, open up issues of economic disadvantages that disproportionately affect health and well-being (Spencer-Wood and Matthews 2011). Doughton (1997: 213), Mandell (2008: 190 noting several scholars), and O’Brien (1997: 150-151) contrast those who did and did not fare in the market economy. “[T]hose with few relatives or friends, Indian or non-Indian, and little in the way of economic resources, suffered the most” (O’Brien 1997: 151). The sort of wandering dispossessed, impoverished Indians of the 18th and 19th-century New England social landscape were not the Native pilgrims who traveled to their ancestral cemetery in Lawrence that Dorgan (1918: 8) noted. Other New England local histories recount Native people travelling to and gathering at cemeteries (e.g., O’Brien 2010: 103, 115-116). Long-distance travel and social connections throughout the Northeast and beyond is an ancient pattern that employed generosity through exchange and reciprocity for

community building. Native people were, and continue to be connected through what O’Brien (1997: 146) called “kinship and visiting networks.” Destinations to familiar, recurrently visited, meaningful Native places, including their cemeteries, affirmed Native identities with their relatives, friends, and ancestors through connections to specific historical locales (e.g., O’Brien 2010: 174, 176).

Attributing an inherent “*savage*” violence to a people who are opponents during wartime is an old strategy, but here and elsewhere it proposes to justify the tragic consequences of a recurrently genocidal colonialist program that was met with tactical responses of resistance for survival. Consensus negotiation through Native leaders, maintenance of kinship and obligation networks, and the occasional skirmish that had functioned for millennia in Native New England to reduce social tensions were not successful with the English settlement colonists. Ancient Native people in this region developed and employed integrative and cathartic social practices that allowed different groups to coexist and to co-occupy territories. In addition to archaeological findings of shared territories, access to resources, and information and gift exchange across social and geographic boundaries (e.g., Brady and Coleman 2000; Bradley 1996; Lavin 2002; Luedtke 1986, 2000; Ritchie 2002; Robinson 2008; Winter 2007), linguistic evidence about Native place names considered by Kathleen Bragdon (2009: 203) also demonstrates “that some resource locations were shared between members of different language groups.”

Local histories remembered Nancy Parker—a woman of Native and possibly other ancestry who lived in Andover from at least 1756 to 1825—as “the last Indian,” despite her having had a son (Bailey 1880: 27; Dorgan 1918: 9; O’Brien 2010: 113; Petrakis 1994). Romantic nostalgia about “the last Indian” is a false trope ubiquitous in New England histories of the period (Bruchac 2007; Doughton 1997; Mandell 2008; O’Brien 2010). Recall that the cliché was also used in the *Boston Globe* (1935a) article about “the last tribe of Indians” at Den Rock. Parker was described as “*wild-looking*” and characterized as coarse because she lobbed profanities when she was harassed by boys throwing rocks at her house at night (Dorgan 1918: 9; Petrakis 1994). Writers in many parts of New England have deni-

grated and dismissed the appearance, demeanor, speech, technologies, and ancestral places of Native residents. Bragdon (2009: 13, 221 noting several scholars) incisively observed that broad-brush mischaracterizations of Indian peoples could be projections of “flaws that English-American settlers saw or feared to see in themselves.” Indeed, local folklore about Den Rock invoked “the Devil” to account for the formation of a natural rock fissure called “Devil’s Slide” (Carey 1968: 28; Dorgan 1918: 186), and claimed that “moonshiners,” “thieves,” “counterfeiters” (Dorgan 1918: 186), “pirates, brigands and robbers” (Boston Globe 1935a) frequented Den Rock, which at one time was called “Devil’s Den” (Bailey 1880: 38). Those stories attached danger and otherness to the place generally, as did stories told at the same time about the Indians at Den Rock. Attributing demonry to Native places by legend and toponym is a common shibboleth in writings and speech about Indians (Lovejoy 1994; Simmons 1981). By emphasizing the implications of stereotypical word choices employed by some historical writers, as I do above, modern readers can detect attitudes embedded in writings and stories about New England Indians, which contrast with the archaeological, historical, ethnographic, cultural and personal realities of Native experiences to the present day. Native American people continue to reside in this area and have a deep interest in the history and preservation of their ancestral, historical, and cultural places for affirmation, remembrance, learning and connection.

History to Memory to Care to Conserve

The casual discovery of artifacts and rudimentary digs at Den Rock Park, published histories and oral traditions in the late 19th and the early 20th century, the systematic archaeological excavations of the late 1990s, and writings and studies in the late 20th and early 21st century all remind local residents of the Native history of the Den Rock

area. Recounting the archaeologies and histories of Native places renews memories and enduring connections of local people about shared familiar places. Fostering a better understanding of historic places encourages protective interests in our common heritage. Cooperative efforts to maintain the Den Rock area as conservation land protects the significant historic, cultural, ecological and recreational qualities of this special place.

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Figure 1. The Den Rock Area. Enlarged from US Geological Survey Lawrence, MA, quadrangle 1987. Prepared by Jonathan K. Patton and Jennifer Poulsen.



Figure 2. Hafted Pounding Stone. Robert S. Peabody Museum of Archaeology Accession No. 59244.
Photo by Edward L. Bell.

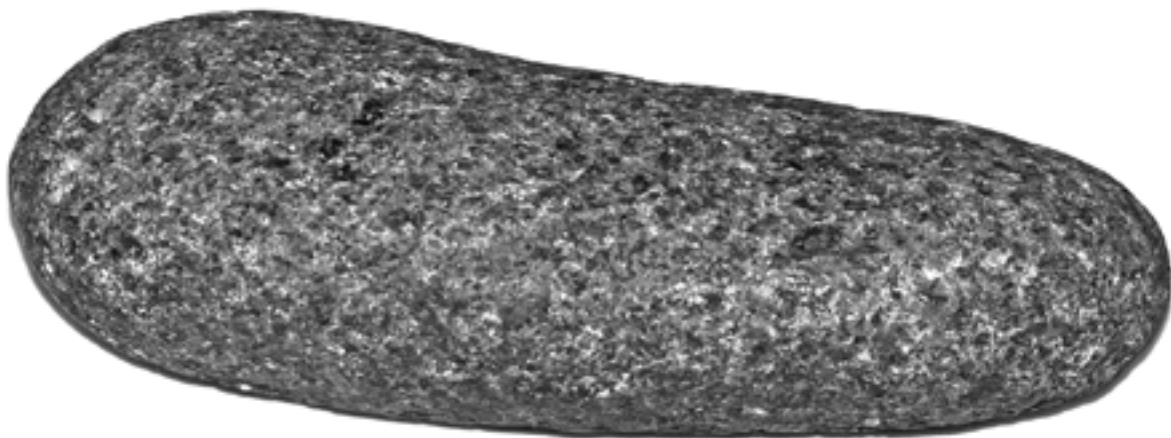


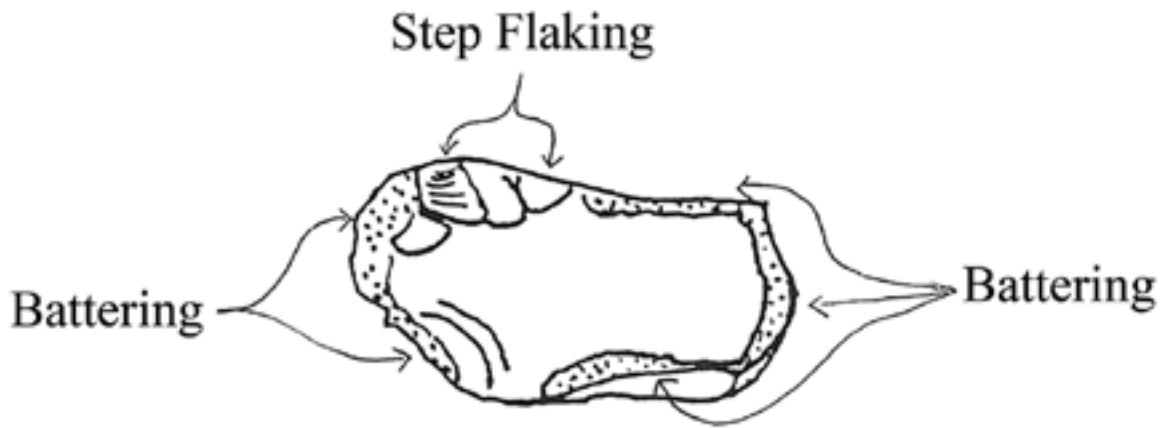
Figure 3. Pestle or Pounding Stone, Length ca. 17.5 cm. Robert S. Peabody Museum of Archaeology
Accession No. 90.72. Photo by Susan Hegarty.



Figure 4. Steatite Cooking Pot Fragments, Interior View. Robert S. Peabody Museum of Archaeology Accession No. 90.72. Photo by Edward L. Bell.



Figure 5. Black Rhyolite Biface Fragment, Perhaps an Awl, Drill, or Projectile Point. Robert S. Peabody Museum of Archaeology Accession No. 90.72. Photo by Edward L. Bell.



cat.#13 bifacial gunflint, possibly reused as strike-a-light



cat.#211 unfinished or unused bifacial gunflint



cat.#1156 modified ballast flint nodule, evidence of use as strike-a-light

Figure 6. Gunflints and Strike-a-Lights Made of English Flint, Length of Top Specimen ca. 3.75 cm.
Drawing by Jeffrey Robert Carovillano, Adapted by Jennifer Poulsen.

Shipbuilding on the Upper Taunton River

William B. Taylor

Introduction

Early shipbuilding on the upper Taunton River covered the years 1745 to 1820. The information gathered in this article came from Weston's *History of Middleboro*, *The Genealogy of the Pratt Family*, and *The Bridgewater Independent*. Roland M. Keith, a local historian, spent 15 years gathering information concerning early shipbuilding on the Taunton River. His findings were published by *The Bridgewater Independent* some decades ago and are being updated with additional research gathered from *The Pratt Genealogy*.

Early Shipbuilding

Benjamin Pratt V was born in 1719 and died about 1765. He married Lydia Harlow of Middleboro in 1741 and had six sons and four daughters.

"He lived in South Bridgewater, on Titicut River near Woodward's Bridge where he built a number of vessels from 40 to 50 tons burthen, he being the captain of one of them and his son Benjamin of another. With these vessels, he carried on a trading business between North Carolina and the West Indies in cedar lumber, having bought a cedar swamp for that purpose. This they continued to do for several years, until he died in North Carolina, with three of his sons, of yellow fever (as is supposed). He was a man of good character and great enterprise." (Pratt Genealogy 1890:163)

William Pratt VI, son of Benjamin V, was born April 6, 1746 and died on June 4, 1808. He married Mary King of Raynham and had seven sons and one daughter.

"It is recorded of him that, at the age of twenty, hearing of the death of his father and brothers in North Carolina, he went there and sold the vessels and cedar swamp

which they had owned and, after settling all their business, he bought a horse, armed himself with a brace of pistols for protection against robbers and rode home bringing with him a considerable sum of money resulting from the settlement of the property in North Carolina.

He lived in Titicut Parish, called North Middleboro, where he bought a farm of one Boyce, who bought of Chicataubut, an Indian Sachem; he built a large house about 1782 and added to his farm from time to time until he owned nearly 400 acres. He built a number of vessels and was the captain of one of them for a few years. His shipyard was built during the early 1790's. By permit of the General Court, with Captain Edson, he erected a dam across the Taunton Great River, where he built, on the south side, a Grist Mill, a Saw Mill, a Linseed Oil Mill and a Fulling Mill. (Captain Edson built several mills on the opposite side of the dam) He kept a store, had a blacksmith shop, also a shoe shop near his house. Besides these various occupations, he carried on farming extensively."

His land was the farm now owned by the Taylor Family. Early farmers were self-sufficient. Some of the local land he owned included 32 acres and 50 1/2 rods of the Seaver Farm, 85 acres and 17 rods of the Taylor Farm and 6 acres of the Titicut Site, up to the shipway. These holdings added up to a total of 123 acres and 67 1/2 rods.

"For many years he was Captain of the Militia Company of North Middleboro and, on receipt of the news that the English had landed at New Bedford and set fire to the town, he immediately marched his company to that place for its defense. He was a true patriot and a warm supporter of his country's rights and the Declaration of Independence. He was active in defense of his

country during the entire war of the Revolution. His estate was valued at \$18,410.99. at the time of his death in 1808." (Pratt Family Genealogy 1890:164)

The site of the main shipyard is approximately ¼ mile (0.5 km) downstream from Pratt's Bridge, now called the World War 1 Veteran's Memorial Bridge, on Vernon Street. It is located at the river bend on the Titicut Site campground. In early 1800 a ship called the 'Two Brothers' was built there by Deacon Holmes of Kingston. (Weston 1906) (Figure 1).

Roland M. Keith's Research

In a letter dated July 1, 1859, written by Joseph Holmes of Kingston, is the following:

"My connection in building vessels in Bridgewater commenced in 1801. On May 27 I went to Bridgewater and engaged plank of Zephaniah Shaw and timber of Jonathan Leonard, 10 tons at \$4.00 per ton. At this time I commenced collecting material for building and laid the keel for a vessel in a yard which I hired near the line between Bridgewater and Raynham, which I called my Bridgewater Ship Yard. This is where I built all my vessels in Bridgewater, - five in number,-Brig 'Two Pollies', Brig 'Algol', Brig 'Lucy' (noted for having carried the first cargo of ice), Schooner 'Alexander', and Brig 'Trident' (which vessel took spare material to Kingston on Jones River, my native place). I began building in 1806 at Jones River Landing, so called, where I have kept a vessel on the stocks nearly the whole time, sometimes two vessels. Once I built three in a year and bought one besides. All but two I have fitted for sea on my own account and risk. I am now about to place another keel on the blocks of about two hundred tons. I am 87 years and 7 months old." (signed) Joseph Holmes. (Bridgewater Independent n.d.)

List of Bridgewater Ships Built at Titicut

Following is a list of the Bridgewater vessels and their ownership, with comments taken from let-

ters that have been preserved.

The Brig 'Two Pollies' (250 tons)

Owned by Joseph Holmes. There is no record in the Plymouth Custom House of the 'Two Pollies', the 'Algol', and the 'Lucy'; therefore, as they came down the river they must have registered from Dighton, as this was the port where they received their masts and rigging. The schooner 'Alexander' and the brig 'Trident' were the last vessels built on the Taunton River at Mr. Holmes' Bridgewater yard. These vessels sailed for Kingston, where some final work was done to them, and both were registered at the Plymouth Custom House.

Items taken from the *Boston Saturday Evening Transcript* of August 3, 1812 show that the first voyage of the brig 'Two Pollies' was to England. From the records taken from the records of the family Bible of Abraham Marland it appears that he came from England on the brig 'Two Pollies', Captain Seth Johnson, and arrived here in August 1801, making the voyage in thirty nine days.

The Brig 'Algol', built at Bridgewater (250 tons register)

This vessel was afterwards rigged as a ship and was commanded by Captain Barker, and the records show that she arrived from England on May 1, 1807 with a cargo of salt, coal and nails. Owners: Joseph Holmes, three eighths; Apolos Hooper, one-quarter; Seth Johnson, one-quarter; Nathan Barker, one-eighth. The Apolos Hooper above mentioned lived in Titicut where Mr. George W. Johnson now resides.

The brig 'Lucy', afterwards rigged as a ship, was named for Mr. Holmes' wife, and the records show that her first voyage was to Charleston, South Carolina, where she loaded with cotton for Liverpool. She arrived there in September 1806 where she took on cargo, consisting of salt and crated goods, and passengers, for Boston, arriving in Boston in October, 1806 after a stormy passage. She then secured a cargo from New York to London under command of Captain Inglee.

On arriving in London she took a cargo consisting of sugar, from that port to Hamburg, and was seized by the French Customs officials for having violated the neutrality laws. As England and France were then at war, it was presumed that the vessel was condemned and sold, and her owners suffered great loss. Claims were filed with the French Spoliation Commission at Washington, but no award has ever been made on her account.

The owners of the schooner 'Alexander' were as follows: Joseph Holmes of Kingston, a Mr. Bartlett of Kingston, Solomn Keith of Bridgewater, and Seth Johnson of Boston. The vessel was commanded by Captain Consider Bradford of Kingston and was later partly owned by Isaac Pratt of Middleboro. She made several voyages to Portugal and the Portuguese Islands, loading back with lemons, oranges, and other goods of that country.

The Brig 'Trident' (130 tons)

The first voyage of this brig was to Fubes, Portugal, Captain Perix Sampson, Master. She arrived back in Boston in May, 1806, with a cargo of lemons, oranges, and salt. The 'Trident' was in Boston from Havana May 18, 1806, at which time she was sold for \$3,600.00.

It is presumed that Mr. Holmes located his shipyard here because of the abundance of good white oak timber in this vicinity. After he ceased work in Bridgewater a large amount of white oak timber was obtained here and carted across to his yard in Kingston. The quality of the white oak in this section was rated very high for strength and durability, and the owners of woodland destroyed, and pulled out the less desirable kinds of timber to give the oak a chance.

Ships of this size must have launched in early spring when the water level was at its highest. There is a ledge across the Taunton River, about 100 feet south of the shipway. In the summer, the water is only knee deep here. Large vessels had a clear run to Dighton, with only two bridges to

interfere. Center planks were removed to allow space way to pass through. In Dighton the 'Two Pollies', the 'Algol', and the 'Lucy' received their masts and rigging. The schooner 'Alexander' and the brig 'Trident' sailed for Kingston where finish work was completed. (Keith n.d.)

Other Small Shipyards Located on the Upper Taunton River

It will be noted that a sixth vessel the brig 'Hancock and Adams' was also built in Bridgewater, as the bills on her account, dated 1802, are in existence. Mr. Holmes had no other yard at that time on the Taunton River. (Holmes, Joseph 1859 letter.) It is quite possible that a smaller shipyard upriver may have built this vessel. There is also a notation from Mitchell's History of Bridgewater (Doherty 1976:256), that credits a ship named 'Bridgewater', that was built at a location near Childs Bridge on Cherry Street.

Capt. Edwin W. Barstow was a shipmaster for over 30 years and a resident of Bridgewater, residing on Pleasant Street. He commanded the ship 'Bridgewater' for several years, which was in the largest class of vessels involved in foreign trade (Doherty-1976).

About a mile south of the Titicut campground there are two small ravines scooped out of the east riverbank along the Taunton River for the making of small vessels. These are located in North Middleboro, one on each side of the modern Route 495. A dam was finally built near King's Bridge at the Taunton-Raynham line in ca 1823, which stopped large shipbuilding upstream (Taylor 2003).

The Titicut Site report written by Maurice Robbins (1967) lists the Contact Period artifacts of colonial origin in table 9 (fig. 9) on page 58. Not noted are the ca. 1800 adze blades used to build ships made by Joseph Holmes. I found the one shown in Figure 2. As I remember, there were at least two others found during our M.A.S. dig from 1946-1950. This one is on display at the Robbins Museum, shown with the Historic Period (1675-1800's) artifacts.

Conclusion

After 1812 proposed dams in East Taunton brought an end to shipbuilding on the upper Taunton River. Shipyards downstream in Taunton and Dighton were then used for shipbuilding. Acts of 1813 and 1823 authorized the building of a dam at Kings Bridge on South Street at the East Taunton-Raynham line.

After receiving approval to erect either structure by the General Court, it often took up to ten years

to gather money for this project. This was often accomplished by running lotteries held for this purpose. 10% of monies gathered were offered as a prize for winning tickets sold (Weston 1906:409).

Acknowledgements

I would like to credit Jeff Boudreau for taking the photos. Also my thanks to Laurie Stundis for her help typing this report.

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Figure 1. View of the early 1800 Shipyard, taken at the bend of the Taunton River, looking upstream from the Titicut Reservation. Photo by William Taylor



Figure 2. ca. 1800 iron adze blade used to build ships made by Joseph Holmes from 1801 to 1806 at his Bridgewater Shipyard. This adze is 8 3/4" (22.2cm) long by 3 1/8" (7.9 cm) wide, with a 2 1/4" (5.7 cm) hammer, 1" (2.5 cm) wide. Photo by David DeMello

A Context for Studying Rock Piles in Massachusetts

Peter Waksman

Introduction

Man-made rock piles are ubiquitous in the Massachusetts woods, but are little studied, even though they are a diverse and complex phenomenon. The conventional idea that rock piles are always a by-product of farming (TRC 2008, MHC n.d.) is challenged by simple facts I have observed around my hometown of Concord MA: rock pile sites become more numerous and contain more rock piles the further one gets from the river, as the terrain becomes higher, rockier, wetter, and less suitable for agriculture. This is easy to see by using a topographic map to plot a distribution of sites and observing how sites cluster around hills, swamps, and near the headwaters of the region's brooks – in non-agricultural topographies (Waksman 2006). But the negative correlation of rock piles with agriculture can also be understood by comparing the

agricultural histories of the towns to the number of rock pile sites found there. For example, here is a count of the 1x1 kilometer squares on the USGS topographic maps that contain at least one rock pile site (multiple sites within a square were not counted separately):

Sudbury	4
Lincoln	4
Concord	7
Boxborough	11
Stow	16
Acton	21
Carlisle	24

Concord, in a fertile floodplain, is perhaps the most agricultural of these towns and Carlisle, a rocky upland, is the least. For example, Concord has sixteen major farms (Town of Concord n.d.) today and Carlisle has at most four, with only one

(Great Brook Farm) comparable in size to the larger Concord farms (anonymous Carlisle Resident, 2012). By this measure, the ratio of rock pile sites to farms in Carlisle is $24:4 = 6.00$. In Concord it is $7:16 = 0.43$. This shows a negative correlation between agriculture and site count. (See Figure 1).

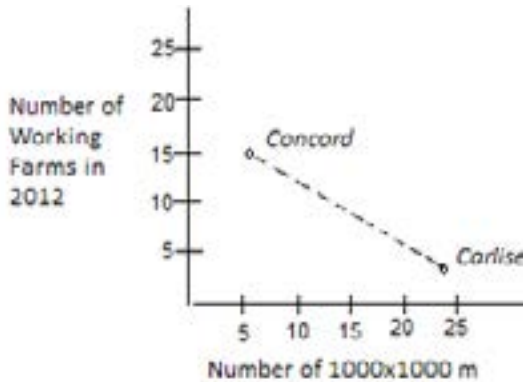


Figure 1. The negative correlation between farming and rock pile sites

Characteristics of Rock Pile Sites

Rocks and stone walls are numerous throughout Concord, but rock piles are almost exclusively found to the north of the Assabet and Concord Rivers. The sites are located on hillsides and adjacent to swamps; and in greater number in the rocky uplands along borders with Acton and Carlisle.

I have located more than 500 rock pile sites in Middlesex County MA, and I have had a chance to observe that there are common characteristics to many of them. Though they are widely scattered over the landscape, one sees the same things over and over. Specifically:

- (1) sites where the rock piles are evenly spaced and lie in lines, forming a grid-like array;
- (2) sites with large rectangular mounds and numerous smaller rock piles surrounding them – where the large mounds invariably have a collapsed central cavity; and
- (3) sites with small rock piles concentrated at the edges of a spring, where water comes out of the ground.

Waksman - Stone Piles

That these types of sites are common across the landscape implies a cultural preference for these specifics. But there is no evidence that Anglo-European culture has any such cultural preferences. Many years of searching online for information about European rock piles has yielded very little. Specifically:

- No examples of stone pile “grids” occur (such as illustrated in Figures 2 and 3, below). There are megalithic grids (“Carnac Stones”, n.d.) but these are not made from rock piles.
- Prehistoric burial mounds occur in Europe, particularly northern Europe. I have seen no examples in the shape of truncated rectangular pyramids with a collapsed hollow at the center. Rectangular “dolmens” occur (“Rectangular Dolmens”, n.d.); but of course these structures were built by prehistoric Europeans, not the cultures that colonized America.
- Springs in Europe - described online as “sacred” or “ceremonial” - do not include any description of small rock piles. Nor has any description been found of rocks being taken from a field, carried into the swamp, and built into small rock piles.

Yet these types of rock pile sites are very common here. One concludes the sites in Massachusetts must be the legacy of another culture or cultures, purely American, which occupied this landscape.

The context that has been missing is that Native Americans have continued to live here and have continued to practice their ancestral religions and have continued to use the woods which, today, are absorbed into modern suburbia. (see for example Doughton 1997). Most suburbanites tend to think that the Indians became extinct shortly after the arrival of the Pilgrims (cf. Bell, this issue). But it is clear that Indians have continued to use the Massachusetts woods into the present. In 2003 and 2007, the official coalition of the United South and Eastern Tribes (USET, Inc.) issued resolutions stating that Indians are responsible for rock piles and that the tribes are willing to work with local towns to preserve this heritage (USET 2003, 2007). At the

same time, in unpublished comments, the Indians have said that their ceremonial activities were always kept secret because practicing their religion was illegal (Narragansett and Wampanoag Tribal Historic Preservation Officers, 2009). The context that has been missing is that there may be modern ceremonial rock piles. Hence to find that a structure or site is historic does not disqualify it from discussion. It can be both modern and ceremonial. That being said, it is my opinion that many of the sites are pre-European and that some may pre-date current Native cultures as well.

Let me first assume that the object of study is the whole rock pile site, not the single rock pile. A site is regarded as a single data point with attributes that include: the mixture of different types of piles and walls present; the number of piles and their layout at the site; the overall state of damage to the site (or differential damage to different types of piles); the topographic setting of the site; and the presence of nearby roads, etc. This empirical approach is different from methodologies that rely on oral and written histories.

Estimating the number of sites in Massachusetts

In some places, like Carlisle or Harvard, MA, rock pile sites are so numerous as to be essentially continuous in the undisturbed woods. There, the density is as high as six large sites per square kilometer and, in terms of the topographic map counts reported above, most squares on the topographic map contain several sites. In contrast, some other towns have a site density of less than two small sites per square kilometer. In yet other places, like the sandy valley of the Nashua River in Lancaster and Lunenburg, there are few rocks and virtually no rock piles. In total, if all the 14 counties of Massachusetts have the same number of sites as I have recorded in Middlesex County (more than 540) then one may estimate that there are more than seven thousand rock pile sites in Massachusetts.

Another means of estimating site count comes from driving along a cross section from Concord to Andover. A morning commute of perhaps 30 miles, this passes four sites that are visible from the car and perhaps twice that number within 100 yards of the road. This fact might be scaled up by

the total length of roads in the state. By whatever estimate, this is a lot of rock pile sites.

Common types of rock pile sites

Here are some of the more common types of rock pile sites. There are many examples of each.

Type I: Rock pile arrays (“marker piles”; “piles in a row”)

These are sites with

- between 5 and 30 rock piles,
- evenly spaced, and
- arranged in lines or curves.

This is a very common site type. I estimate that grids with this sort of rock pile array are the most common type of rock pile site in Middlesex County. In southern Middlesex County the piles at these sites tend to be large (8-10 feet across), vertical sided, and well preserved. Further north, the piles that occur in arrays are smaller, vertical sided, or so damaged as to appear smudged against the ground. Sometimes these piles are quite noticeably triangular (when seen from above) with two vertical sides; sometimes they are rectangular with just one vertical side. Excellent examples can be seen at Spring Hill in Acton and at the end of Gates Lane in Stow.

Figure 2 shows a sketch of the “Acton Grid” at the Spring Hill Conservation Land in Acton, which was re-surveyed carefully in 2007 by Fred Martin, with similar results:

This site is now a featured side trail of the Acton’s Spring Hill Conservation Land Trail system. It is easy to find, starting a few yards from the Spring Hill Rd entrance.

Figure 3 is another sketch derived from a visual survey of a site at the end of Gates Lane in Stow (I redrew the pile locations for better visualization of the arrangement):

There is something systematic and specific going on at these places. Possibly, this structure relates to astronomy. An indication of this is that one of the principal directions of the lines, in Fred Mar-

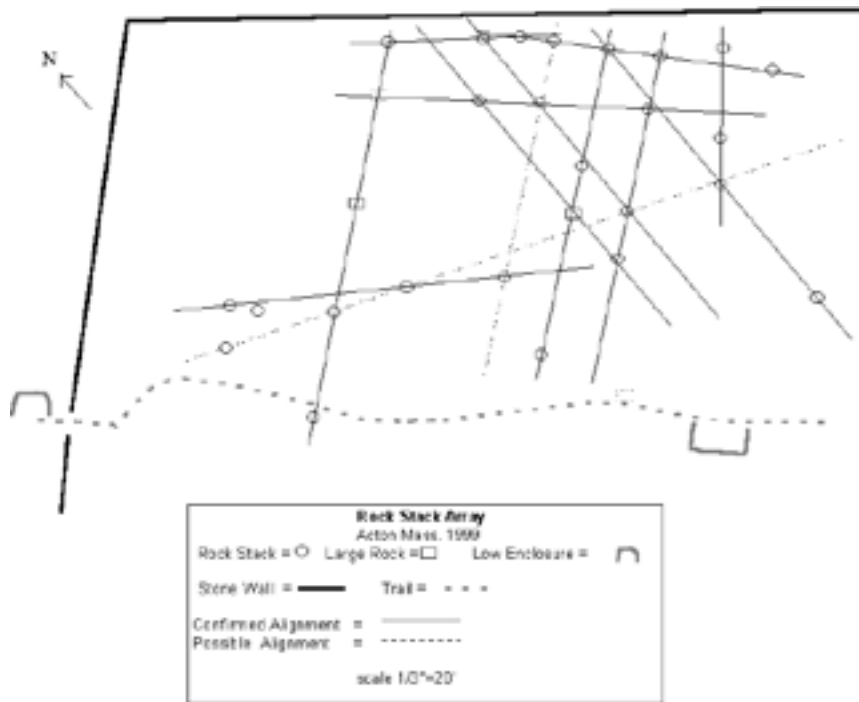


Figure 2. The Acton Grid

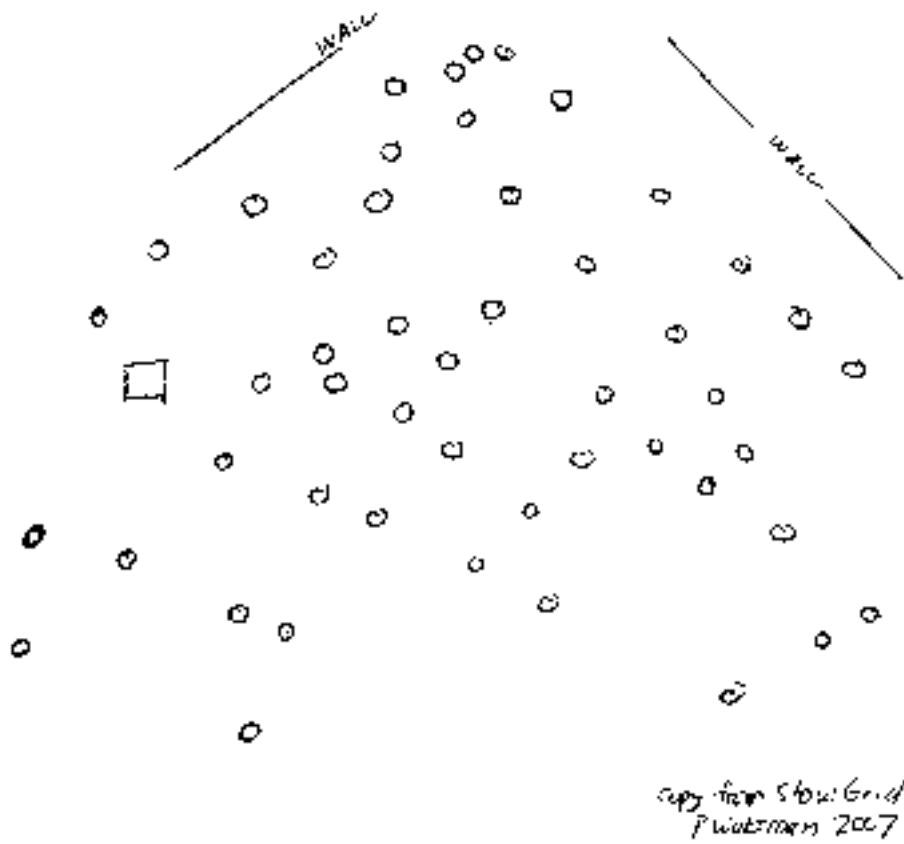


Figure 3. The Stow Grid

tin's survey, coincides with the direction of winter solstice sunrise.

I believe the style of the individual piles in a particular array varies systematically with the age and location of the site: whether the piles are larger or smaller, triangular or rectangular; whether fresh or so old as to be nearly invisible smears on the ground. Some of the piles seen in southern Middlesex and beyond in Rhode Island and Connecticut are so well-preserved and fresh looking that it is tempting to believe they were built recently or at least carefully restored within the last 50 years. Possibly, knowledge of these sites and the practice of their use, if lost, was only lost recently.

In the Fall of 2011, the town of Acton cleared a small rock pile array along the yellow trail at the Nashoba Brook Conservation Land. The town has already taken a lead in highlighting rock pile sites, by adding a short side loop to the trail at the Spring Hill Conservation Land. Now they have a second such trail. A trip to Gates Lane, in Stow, or to Spring Hill and Nashoba Brook, in Acton, will give the reader a clearer idea of these types of site.

Sites of this type often occur near or in conjunction with sites of the following type:

Type II: Rectangular Chambered Mounds

One of the most interesting discoveries in 10 years of exploring Middlesex County is of a standardized form of rectangular mound. The mounds are

- from 10 to 40 feet across and up to 8 feet tall.
- rectangular, in the shape of flat-topped pyramids, with
- a collapsed hollow in the center – suggesting an inner chamber that has collapsed.

Excellent examples can be seen on the hills of Leominster facing Mt. Wachusett. Examples where the inner chamber is very carefully built as a square hole can be seen behind Woodbridge Road in Carlisle. This same style of pile can also be seen near the Gumpas Conservation Land in Pelham NH, and there are many of them in hard-to-find places at the headwaters of Falulah Brook in Fitchburg. Most of the hills north of Fitchburg

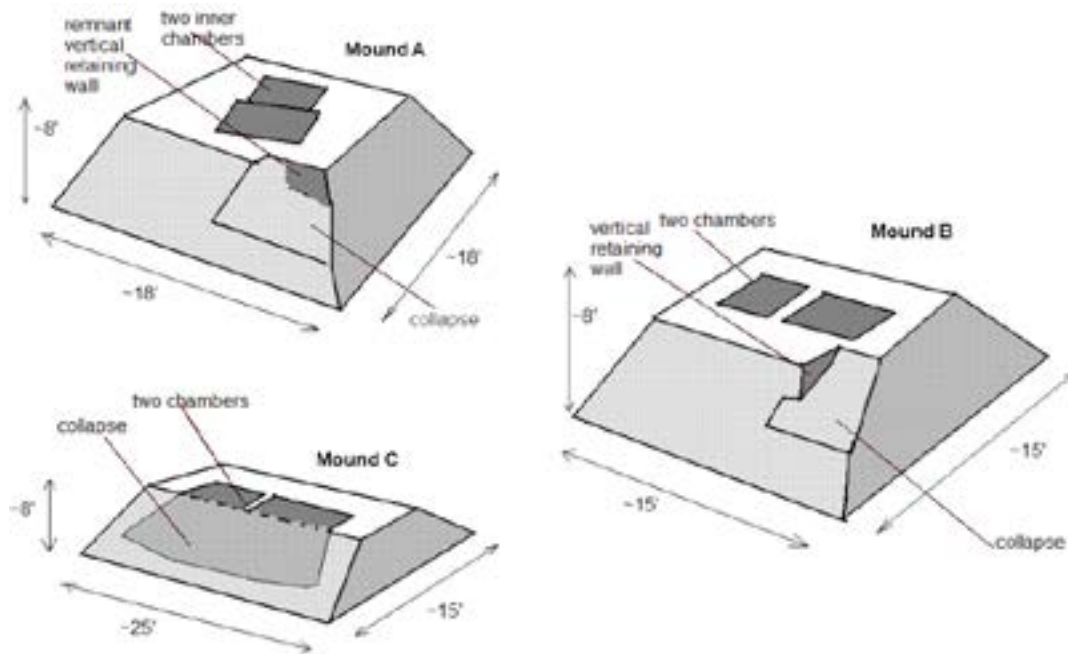


Figure 4. Idealized rectangular mounds with hollows

have such mounds – at least up to the border with Ashby. Also, there are concentrations of these mounds in the hills of northeastern Groton, and in Dunstable. Further south, they can be found in Berlin, Boylston and, for example, at Peppercorn Hill in Upton. A few isolated examples occur in Concord, Boxborough, Lincoln, Framingham, and other lower elevation towns of Middlesex county.

These rectangular mounds are usually very badly damaged and completely covered with forest debris. They are easy to miss. However, after seeing many examples it is possible to get a sense of the basic design. Figure 4 shows three idealized but specific examples from Fitchburg:

Some of these rectangular mounds are well preserved - notably ones higher on the hills. But there are also mounds that appear to be in the last stage of disappearing into the ground. These usually occur in lower topographies, next to water. Such piles often appear as a rectangular outline of rocks with a hint of a wall dividing the rectangle in two. Sometimes this is very faint and only an “S” of rocks appears slightly above the ground level. Sometimes these appear as rock piles with a little curved “tail” attached to one end. These older-looking double-chambered rock piles appear next to water in flat swampy areas of Carlisle, Acton, and Fitchburg - slightly more to the north and fewer to the south of Middlesex County. Trying to find a topographic difference between the fresher looking mounds and the older ones with tails, it seems that the older ones are looking out over the water from the side of the water. The presumed newer, taller versions seem to be looking out over water from above. The impression is that the older piles are found more to the north, and the fresher ones are found more to the south, but this is not clear.

Rectangular mound sites are more numerous in higher elevation towns. At low elevations, in towns like Concord, Lincoln, and Acton, there are at most a small handful of rectangular mounds. In higher elevation towns like Leominster, Fitchburg, and Ashby, there are an order of magnitude more. Here is a positive correlation: every hill in the first

two ranges directly north of Fitchburg and at least into Ashby has such sites. All the named brooks that add their water to the Nashua River in Fitchburg have these mounds at their headwaters: Manosnuc Brook, Falulah Brook, and Philips Brook. That is where they are concentrated. In places like the headwaters of Falulah Brook, the site density approaches a continuum. This makes it all the more surprising that these sites are unseen by the residents and unknown to the historians of the region.

Type III: Sites at Springs

Rock piles often occur at the highest point of a brook where water comes out of the ground. These sites are:

- at springs
- contain randomly placed small piles built on rocks, sometime including just a single rock on a rock.
- Occasionally include strange shaped piles, like effigies, or piles that incorporate a central stone of unusual geology, or large rocks that have been split and wedged open; occasionally also piles that are made in two parts, with a space between them.

Good examples of this type of site can be seen on Nagog Hill in Acton, and on the Carlisle Conservation Fund land in Carlisle.

Conclusion

The large number of rock pile sites and their common structures must be the result of widely shared traditions of the Native Americans of this region – both ancient and modern. It is likely some of these traditions have been lost. The rectangular piles with “hollows at the center” are common and easy to identify across the landscape at least from Fitchburg east to Pelham NH and south to Hopkinton and Upton MA. These sites are compelling evidence of a stone mound-building culture living in the upland valleys of Middlesex County.

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An Eastern Agate Basin Component on Martha's Vineyard

William Moody

Introduction

Among the scattered finds of Late Paleo and very Early Archaic transitional point types found in New England is a style generally classified as Eastern Agate Basin (Bradley et al., 2008; Fogelman, 2009). The original type name for the western equivalent of this point was first formally identified at the Agate Basin site excavated in eastern Wyoming (Frison et al., 1982). The Eastern Agate Basin type is known from a few excavated sites, particularly the Mazza and Reagan sites in Vermont and the Thorne site in New Hampshire, as well as from individual surface finds at various locations in southeastern Massachusetts (Bradley et al., 2008). In this last category may now be added an additional site discovered on the island of Martha's Vineyard. Here, in the town of Oak Bluffs, the author, along with his wife, Whitney Moody, and his longtime archaeological associate, Bob Trotta, have been surveying one particular location for the past eight years. The site came to light in a small agricultural field situated on a prominent knoll, today overlooking the source of a never-failing freshwater spring to the southeast as well as a large saltwater embayment with access to the Atlantic Ocean directly to the north. Through careful surface collecting and recording of the finds at this multi-component site, it has become apparent that one specific section of the field harbors an Eastern Agate Basin component.

With the exception of example (E) from a site in Rhode Island, the artifacts pictured in Figure 1 have all been discovered by the author and Mr. Trotta in an area measuring approximately 5 meters by 10 meters. As is typical for the great majority of Eastern Agate Basin points recovered in New England, all of the specimens except one were broken anciently. It has been reported in one study that "nearly 70% of the points analyzed [from New England] are bases snapped at mid-section and many also show evidence of basal damage" (Bradley et al., 2008). The one complete point (D) is a remarkable example of a tool that has been re-

sharpened to its final stage of practical usefulness, which provides a strong indicator, at least in this instance, of a prehistoric toolmaker curating lithic resources and tool forms as long as possible. Each of the Agate Basin artifacts was manufactured from locally obtained volcanics, readily available in the glacial drift on Martha's Vineyard. This choice of lithic materials coincides with the conclusions of Bradley et al. (2008): "Generally these points are made from regional, even locally available, lithics. For example, Normanskill cherts dominate in the mid-Hudson Valley, Gaspe chert in the lower St. Lawrence valley and local felsites in Southeast Massachusetts". The felsites and rhyolites employed at the Martha's Vineyard site exhibit deep patination, as would be expected of an artifact lying in the acidic New England soils for nine or ten thousand years. Although no certain dates have been recorded in New England for the Agate Basin type, Bradley et al. (2008) suggest that a "large biface from Weirs Beach may relate to this tradition", and an associated C14 date puts the biface at ca. 10,908 years before present in calendar years

Paleo-Environmental Reconstruction

At that period, between ten and eleven thousand years ago, due to the considerably lower sea level in New England, Martha's Vineyard would have still been connected to the mainland, and travel to this particular site could have been readily accomplished by an overland route. Also, by the time the Eastern Agate Basin artifacts were deposited at this favorable location, the sparse sedge and spruce that had earlier followed the last period of the Wisconsin glaciation would have given way in succession to a more mixed forest of spruce, alder, birch, and pine. Then, as warmer temperatures gradually developed following the Younger Dryas, forests of pine and oak would have been predominant in the southern New England region (Bradley, 1998), making the immediate area certainly more hospitable, with a richer faunal diversity, including deer, moose, black bear, a host

of smaller mammals, waterfowl, and numerous species of fish and shellfish to support the people's needs for survival. At the period of the Agate Basin people's arrival, the present saltwater embayment to the north may, in fact, have been a very large freshwater pond—a basin “dug by glacial action in the preglacial clays and sands” (Ritchie, 1969).

Observations

A particularly noteworthy occurrence in the Martha's Vineyard lithic assemblage at this site is illustrated by the striking similarity between example (F) in Figure 1 and example (E). The latter artifact is an Agate Basin point currently housed in the collections of the Massachusetts Archaeological Society's Robbins Museum. It was recovered as a surface find many years ago by Jack Richardson in the area of upper Narragansett Bay, probably near Diamond Hill, Rhode Island. In a series of personal communications with Jeff Boudreau, who was an accomplished flintknapper and student of lithic technology, he commented on how remarkably similar the Richardson example is to the larger specimen found at the Martha's Vineyard site. Boudreau observed, “This degree of agreement is difficult to assign to coincidence. The most simple explanation of their agreement is that they each could have been fitted to the same haft” (personal communication May, 2012).

Boudreau continued his observations:

“The small reworked basal fragment (D) from Martha's Vineyard is a revealing find. Out of context, it seems unlikely it would be recognized as an exhausted Agate Basin point. The length of the two larger basal fragments (E) and (F) hints at the extent of protection provided by the hafting method. A question here is why these two basal fragments were not reworked? The answer may be related to need, or stated another way, the wealth or poverty of the tool kit at the time.”

It should be noted, too, that the extreme reworking, or re-pointing, of example (D) may be an indicator of a relative poverty of the tool kit if all

of these artifacts were deposited during the same habitation event. In addition, Trotta reports his observation that the broken base (C), was likely too short to re-point. But it does appear that several flakes were taken off the top of one face of the blade where it snapped (see right hand view), and the left corner was also slightly rounded (personal communication, May, 2012). This would have given the blade a secondary use as a scraping and/or cutting implement, again suggesting perhaps a relative poverty of the tool kit. Boudreau offered this further observation: “The two smaller basal fragments from Martha's Vineyard, (B) and (C), appear to have snapped in more than one place. They likely snapped outside the haft, as seen in the larger fragments, and suffered another impact snap inside the haft.” (personal communication May, 2012) Example (A) in Figure 1 is an apparent preform, indicating that tool manufacturing as well as tool repair was likely occurring at the site.

Conclusion

The discovery of this small Eastern Agate Basin site on Martha's Vineyard adds one more thread in following the movement and lithic procurement preferences of these early people in New England. As further investigation is done at this site, it is expected that an update will be published when warranted.

Acknowledgements

Much appreciation is offered to Jeff Boudreau for his encouragement, his keen observations relating to Eastern Agate Basin points, and for his contribution of the fine graphic illustration accompanying this article. Also, many thanks to Bob Trotta for his insightful observations over the years and for the countless hours spent “walking the fields” together. And finally, enough cannot be said for my wife's contributions, unflagging interest, numerous artifacts added to the collections, and especially her patience over the years as the basement artifact repository has continued to expand.

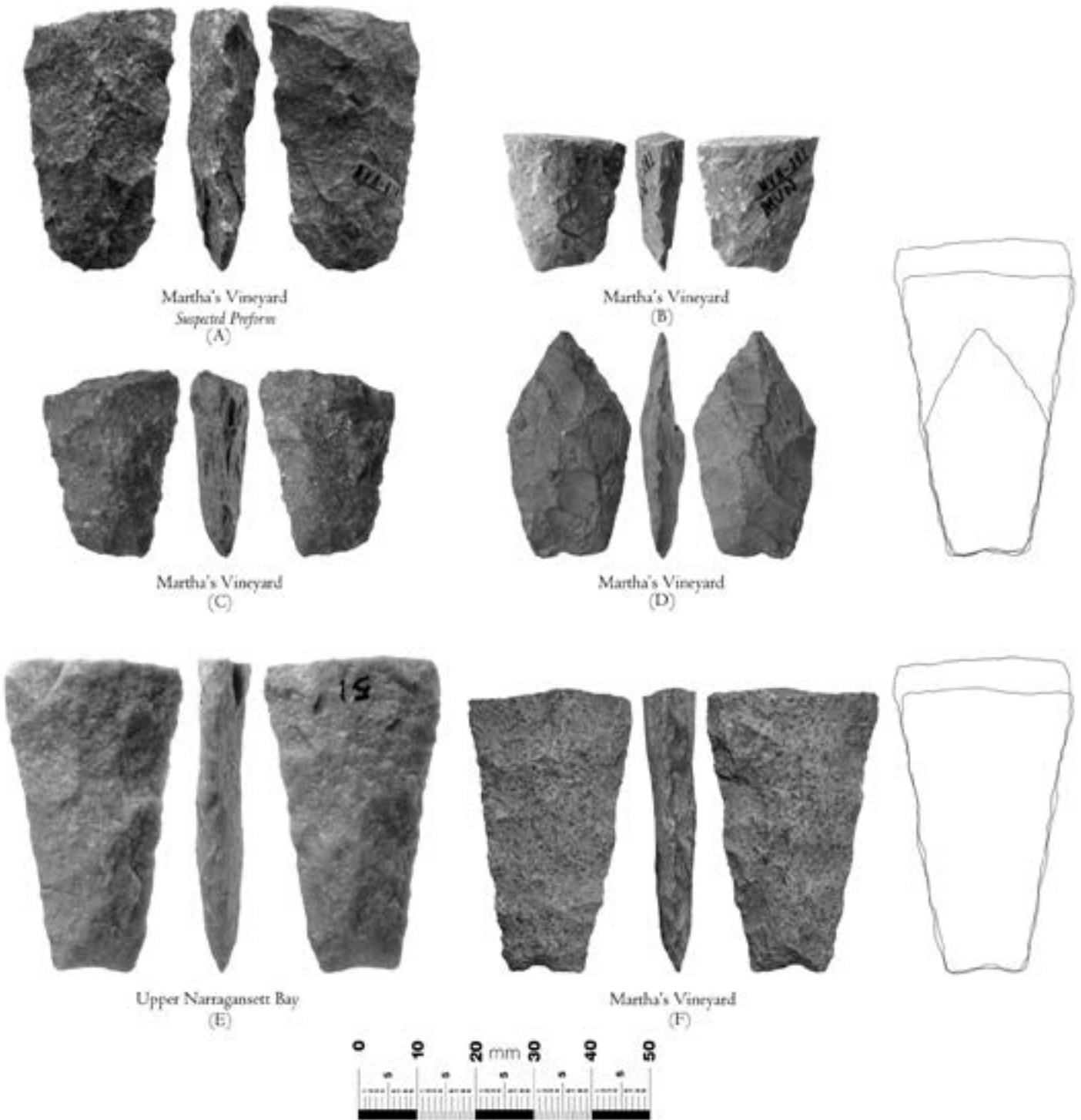


Figure 1. Eastern Agate Basin Points from Southern New England (photo: Jeff Boudreau)

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