VOLUME 58 (2) FALL 1997

CONTENTS:

Indian Lands at Sampson’s Pond, South Carver, Massachusetts, From the Earliest Grants To The Last Transfer of Native American Ownership (1640-1915). John A. Shaw 34
Prehistoric Archaeology of the Great Swamp Basin, South Kingston, Rhode Island David R. George and Brian D. Jones 44
Thermal Alteration of Argillite Artifacts: an Experimental Study Peter Pagoulatos 57
Radiocarbon Ages: How to Report Elizabeth A. Little 64
Archaeology and the First People of Middleborough and Neighboring Towns: A Bibliography Kathleen Shaw Anderson 66

In Memoriam: Terence G. Byrne 1952-1997 Kathryn Fairbanks 73
In Memoriam: John Alfred Mansfield 1917-1997 Paul Gardescu and Tonya Baroody Largy 74

Brief Note on Submissions 72
Contributors 76
Editor’s Note 33

THE MASSACHUSETTS ARCHAEOLOGICAL SOCIETY, Inc.
P.O.Box 700, Middleborough, Massachusetts 02346
MASSACHUSETTS ARCHAEOLOGICAL SOCIETY

Officers:
Eugene Winter, 54 Trull Ln., Lowell, MA 01852 ........................................ President
Dr. David Drucker, 15 Conant St., Salem, MA 01970 ................................. Vice President
Thomas Doyle, P.O. Box 1708, North Eastham, MA 02651 ....................... Clerk
Janice Brocklehurst, 217 Walnut St., Middleboro, MA 02346 .................... Treasurer
Ruth Warfield, 13 Lee St., Worcester, MA 01602 ................................. Museum Coordinator
Dr. Shirley Blancke, 579 Annursnac Hill Rd., Concord, MA 01742 .......... Bulletin Editor
Lesley H. Sage, 33 West Rd., 2B, Orleans, MA 02653 .......................... Corresponding Secretary

Trustees: Term expires 1999 [+]; 1998 [^]; 1997 [*]:
Kathleen Anderson, 22 Winter St., Middleboro, MA 02346+
Jeffrey Bendremer, 41B Storrs Height Rd., Storrs, CT 06268*
Irma Bliderman, 31 Buckley Rd., Worcester, MA 01602+
Terence Byrne, Box 255A-SHS, Duxbury, MA 02331+
Earl Chase, P.O. Box 51091, New Bedford, MA 02745+
Marilyn Crary, P.O. Box 427, Eastham, MA 02642+
Kathryn M. Fairbanks, 145 Aldrich St., Roslindale, MA 02131^
Joseph Freitas, Jr., 95 Vaughan St., Middleboro, MA 02346^
Donald Gammons, 7 Virginia Drv., Lakeville, MA 02347^
Marjorie Judd, 319 Derry Park Drv., Middleboro, MA 02346^
Lorraine Kerrigan, 96 Old Colony Ave. U554, East Taunton, MA 02718+
Jane C. Lopes, P.O. Box 1273, 61 Everett St., Middleboro, MA 02346+
Tom Lux, 38 Somerset Ave., Riverside, RI 02915+
Betsy McGrath, 89 Standish Ave., Plymouth, MA 02360+
Nathaniel Packard, 60 Lowell Ave., Providence, RI 02909+
Jean-Jacques Rivard, 21 Gladys Drv. #97, Middleboro, MA 02346+
Sue Roderick, 105 Beech St., Sharon, MA 02067^
Vicky Rourke, 19 Wave Ave. #1, Revere, MA 02151*
Alan F. Smith, 156 Ararat St., Worcester, MA 01606+
Edward Syrjala, P.O. Box 149, Centerville, MA 02632*
Sally Syrjala, P.O. Box 149, Centerville, MA 02632*
Judith F. Zeitlin, Anthropology Department, UMass, Boston, MA 02125^
Robert N. Zeitlin, Anthropology Department, Brandeis University, Waltham, MA 02254^

Curtiss Hoffman, 58 Hilldale Rd., Ashland, MA 01721 .......................... Past President
Barbara Luedtke, Anthropology Department, UMass, Boston, MA 02125........ MHC Representative

The BULLETIN OF THE MASSACHUSETTS ARCHAEOLOGICAL SOCIETY is published semiannually, with a spring Volume 1 and a fall Volume 2. Institutional subscriptions are $30; individual memberships in the Society are $18 and include the Bulletin. Information on special rates for family members, seniors, students, etc., and requests for back issues of the Bulletin should be addressed to the Museum Office Director, Thomas Lux, Massachusetts Archaeological Society, P.O. Box 700, Middleborough, MA 02346 (508-947-9005). Manuscripts and communications for the Bulletin may be sent to the editor, Shirley Blancke, 579 Annursnac Hill Rd., Concord, MA 01742.
EDITOR'S NOTE

I want in particular to draw attention to Betty Little's important and clear summary of what information needs to be provided in reporting radiocarbon ages, and why it is necessary to state whether certain corrections have been made or not. Only if this information is taken to heart will it be possible in future to reach a standardized reporting procedure that will enable radiocarbon ages to be accurately compared to one another. Past lack of data on what calculations have been made makes such comparisons very uncertain at present.

During this year, M.A.S. lost two devoted members, Terry Byrne and Al Mansfield, whose tributes written by Kathryn Fairbanks, Paul Gardescu, and Tonya Largy, appear here.

John Shaw in Indian Lands at Sampson's Pond ... documents 250 years of Native American land ownership in South Carver with careful references to deeds and other records, documentation not provided in Griffith's history of the town; and his sister Kathleen (Betty) Anderson includes Carver in her map of Indian lands, and listing of Bulletin papers which relate to Native First People in the general area of Middleborough.

David George and Brian Jones make a case for the importance of archaeological survey in wetlands with their study of the Great Swamp Basin, South Kingston, Rhode Island, and Peter Pagoulatos suggests possible archaeological relevance for the differential coloring of heated argillite.

Shirley Blancke
INDIAN LANDS AT SAMPSON’S POND, SOUTH CARVER, MASSACHUSETTS,
FROM THE EARLIEST GRANTS TO THE LAST TRANSFER OF NATIVE AMERICAN
OWNERSHIP (1640 - 1915)

John A. Shaw

Introduction

Having lived along the northwest shore of Sampson’s Pond, South Carver, Plymouth County, Massachusetts, from 1925 to date (1997), my interest about the pond and the prior Indian land in the village of South Carver gradually increased to the present point where I decided to do further research into any of the old records available. As a result I found not only information on Indian land tenure from the 17th century onwards, but valuable data on the economic status of Native Americans in the 18th and 19th centuries.

A 200 acre “Indian Lot” or portions of it were in the ownership of Native Americans for 213 years from Feb. 1, 1702 until March 17, 1915. Prior to these dates the land was controlled by the Plymouth Colony who acquired ownership from “Massassowat” (i.e. Grand Sachem):

... began the first Colony ... at a place called by the natives Apaum (or) Patuxet, but by the English New-Plymouth. All wth lands being void of inhabitants ... we Will Bradford John Carver ... entering into a league of peace wth Massassowat since called Woosamquin Prince or Sachim of those pt, he the said Massassowat freely gave them all the lands adjacent to them ... (Plymouth Colony Records 1855:X1:20)

The first description of the bounds of Plymouth which included the entire area of present day Carver, was rather crude to say the least and is as follows:

Bounds of town not fixed by law until the 2nd day of November 1640 when it was ordered by the Court of Assistants: Where as by the act of the General Court held the 3rd of March in the 16th year of his said Majesties now reign 1639-40 ... authorized to set bounds ... the bounds of Plymouth Township shall extend southward to the bounds of Sandwich ... northward to Duxbury and westward eight miles up into the lands from any part of the bay or sea; always provided that the bounds shall extend so far up into the woodlands as to include the South Meadows toward Agawam lately discovered and the convenient uplands thereabouts (Plymouth Town Records 1889:I:x; Griffith 1913:21).

The History of Carver by Henry S. Griffith (Griffith:1913) covers some of the same subjects that I discuss, but Griffith did not supply dates or references for his information. I was interested therefore to further tie down the actual dates, and document the various grants from public records and by land owners’ deeds, that related to the 200 acre grant of land to a Native American by the name of Samuel Sonett, and subsequent Native American owners and their children. Some of their occupations and vital statistics were also recovered. My search took me to the Plymouth Public Library for the Plymouth Colony Records; the Book of Indian Records and the Plymouth Town records; the County Commissioners office for the Plymouth Proprietors Records; the Plympton Public Library for the Plympton town records; the Carver Public Library for various history books; and the Plymouth County Registry of Deeds for recorded land grants and plans.
Sampson’s Pond and Countrey in 17th and 18th Century Documents

Records of the Plymouth Colony referred to the area in the vicinity of Sampson’s Pond as “Sampson’s (or Samsons) Countrey,” and I have always wondered if that was how the pond acquired its name. (Sampson’s Pond was usually spelled Samson’s or Samson Pond during most of the 1700s and 1800s.) The names Sampson and Samson appear many times in the public records, such as on March 5, 1667-68:

... Joseph Bartlett, for breaking the Kings peace in striking of an Indian called Sampson, is centenced to pay a fine of 00.03.04 and for his abusing the said Indian therein, hee is ordered by the Court to pay to the said Indian a bussell of Indian corn (Plymouth Colony Records 1855:Ⅳ:177, 178).

The earliest mention I found that “Sampson’s Countrey” was situated at Sampson’s Pond was in a grant made on October 27, 1662. In this grant, note2 must have been inserted by a transcriber of the original hand written records who evidently did not know where Sampson’s Countrey or Pond were, and mistakenly placed them in Lakeville:

The names of those that desire meadow in Sampson’s Countrey2 or thereabouts are as followith ... foure acrees of meadow graunted Jonathan Dunham lying att Sampsons Pond ...

2Sampsons Countrey was in the vicinity of Assawompsett Pond in Lakeville (Plymouth Town Records 1889:1:48 Item [57]).

Another grant was made on February 21, 1663:

Att this meeting twenty acrees of meddow is graunted unto Robert Ffinney lying at Sampsons Countrey if it be there to be had ... (Plymouth Town Records 1889:1:61[68])

John Barber states that in 1664 South Meadows were purchased from the natives, and that the south part of the territory was then called “Samson’s Country from the Sachem of it, for whom and his wife a reserve of 200 acres was made” (Barber 1839:497).

The next mention I found of ownership at Sampson’s Pond was in a court case by Gorge Wampey who was almost certainly Native American. Russell Gardner’s recent account of the Massachusetts Sachem Chickataubut and his descendants lists a “George Wampy” as his son which leads me to believe that “Gorge Wampey,” although spelled differently, was also a Native American and possibly the same person (Gardner1996). This entry represents a dispute between Wampey and his wife who both claim ownership to the same piece of land, which claim was supported by three Indian witnesses:

New Plymouth In reference vnto the request made by the Court held att Plymouth the 10th day of June 1671 by Gorge Wampey, concerning a p’sell or tract of land att Sampsons Pond challenged by the wife of the said Gorge Wampey; hee hauing produced three evidences: Viz: three Indians namely Jawannah Captaine John of Assawamsett and Joseph of Assawampset; whoe testified before the Court; that she the wife of the said Wampey is the trew and right propriator ... (Plymouth Colony Records 1855: XII: I: 228)

The first grant of land that I found at Sampson’s Pond in the 18th century, which included most of what is now the village of South Carver, was to an Indian named Samuel Sonett on Feb.1,1702/3:

... at said meeting the town granted unto Samuel Sonett Indian 200 acres of land where he now lives ... (Plymouth Town Records 1892:II:31[113])

This was the first grant of land to a Native American I was able to find in the South Carver area. This grant, “laid out” (surveyed) for the first time in 1705, defined the boundaries of Indian land in South Carver. This 200 acre tract is possibly one of four scattered sites referred to in a publication by
the Massachusetts Historical Commission citing the drastic reduction of native settlement during the 1700’s. After three primary settlements were listed, four others were mentioned: the remaining natives lived in scattered sites in Scituate, Norwell, Hanover, and Carver (Massachusetts Historical Commission 1985:67).

The description in the first part of the grant refers to the whole 200 acres surveyed for Sam Senowet (note the difference in spelling of Senowet versus Sonett above). The accompanying plan (Figure 1) shows the approximate location of the 200 acres and its relationship to Sampson’s Pond and Brook. On this plan I have marked with dashes just enough of the present streets to help locate the outer edges of the tract. The boundaries were described on July 13, 1705, as follows:

... then pursuant to a vote of ye Town ... on the 1st day of Feb. 1702/3 ther was laid out by us the subscribers to Sam Senowet and Dorothy his wife 200 acres of land and meadow at a place called Samson’s Pond in ye Township of Plymouth and bounded ... on ye northest corner with a swamp wood tree marked by the pond marked neere ye ware at ye mouth of the pond and from thence the line to extend southeasterly by ye meadow and where no meadow is by ye brook 160 pole (rods) to a pine tree marked by the brook leaving two pole of upland along against ye meadow for convenience to fence it and from said tree ye line to extend west 191 pole to a pine tree marked and then the line to extend east to a maple tree marked by ye pond and then bounded by ye pond to ye bounds first mentioned leaving a way through said land through gates or bars to the hering ware for the convenience of ye neighbors fetching fish ... (Plymouth Town Records 1892:II:31[113]).

Outside of the 200 acres the boundaries of a much smaller meadow, which was also to be part of the Senowet property, were defined next:

... and the bounds for the meadow then laid out for said Sam and Dorothy is as followeth it being a small piece of meadow or swamp or swampy land at a place called Cooks Horse Swamp it lying near the afor sd land bounded on the northeast corner with a pine tree marked and from sd tree ye line extends southerly about 14 pole to a white oake marked and then the line to extend and bounded by the meadow or swamp westerly about 40 pole to a pine tree marked by the side of a sloppy hill and from said hill the line to extend northeast by east to a maple marked in a swamp and soe on the same cors to a spruce tree marked and then bounded by the swamp or meadow to ye bounds first mentioned ...

(Plymouth Town Records 1892:II:31[113]).

The grant continues, importantly, by describing the economic perquisites of the Senowet family:

... and sd Sam Sonowet and Dorothy his wife to have a privilidg in the pond and brook for fishing and a privilidg in the undivided land of said Town while it lieth undevied for themselves or aney of their sons to mak tarr or to make tirpentine and to hunt or any other uses and in any undevided cedar swamps to cutt poles or to get bark to make them houses from time to time while they lay common (Plymouth Town Records 1892:II:31[113]).

This grant sheds important light on the economic circumstances of an Indian family in South Carver in the early 18th century. The fishing rights given to them in the pond and brook undoubtedly referred to the alewives (herring) that used to migrate upstream each spring from the ocean (via the Weweantic River, Crane Brook, and Sampson’s Brook) into the pond prior to dams being built en route during the mid 1700’s. (The Town of Carver elected a herring committee each year to control the netting of the fish during the late 1700’s and until the mid 1800’s.) The end of the first part of the grant refers to the “hering ware (herring weir)
Figure 1. Indian lands at Sampson's Pond, South Carver, Massachusetts.
(Scale: 1 in = approx. 0.5 km, or 1/3 mile)
for ... fetching fish.” This would be an important source of food during this era as the herring could be salted or smoked for future use. The right given to “cutt poles or to get bark” suggests they were still living in Indian-style houses. Even more important, they were given the right “in any undivided land” to make tar and turpentine from pine sap which was a source of income during the period. The “undivided land” referred to, would be land within the town that had not been granted to others and was considered common land, so they could continue this practice up to the time it was later sold. Similar rights had been previously granted on March 1, 1702: ... liberty is granted to Major John Bradford to milk the pine trees upon the Towns commons ... (Plymouth Town Records 1889:1:309[80]).

The grant for the additional meadow to the 200 acres, “being a smal pece of medow or swomp or swompy land ... and lying neere the afor sd land,” I believe to be what is now called Furnace Pond (Figure 1). There were no dams there at that time, so the area of Furnace Pond may well have been a "medow or swompy land". Furnace Pond was created in 1760 when the “medow” was flooded by reason of a dam being installed for water power at the “Charlotte Furnace,” a blast furnace for smelting the iron ore dug from Sampson’s Pond (Griffith 1913:62). The “medow” is further tied to Furnace Pond by a deed in 1712 describing the seventh share of the first Great Lot as:

... thence west north-west (from the division line of the 1st and 2nd Great Lots) to a stake set in ye Indian field (my emphasis) and the same corse (across the Indian field) to Sampsons Pond one

rod and one half to ye northward of the place where the brook runs out of the pond (Plymouth Proprietors Records 1702-1713:II:3).

I have plotted the above mentioned seventh share of the First Great Lot on the plan showing the intersection with Sampson's Pond and crossing the Indian field (Figure 1). A deed 77 years later on July 15, 1789, conveyed a portion of this same swamp which I quote in part:

... thence to bound first mentioned, reserving a small piece of swampy land
which is expected was laid out within the above mentioned bounds to the Indian Sonets (Plymouth County Registry of Deeds 1789: Book 80:70).

It should be mentioned that at this time this area was a part of the Town of Plympton which incorporated in 1707. The Town of Carver separated from Plympton and became incorporated in 1790, so any grants or deeds between 1707 and 1790 would refer to Plympton. (Any grant prior to 1707 would refer to the Town of Plymouth or the Plymouth Colony.)

The Seppitt and Casey Families at Sampson’s Pond

During the 18th century the 200 acre tract at Sampson’s Pond changed hands from the Sonnetts to the Seppitt (Seepit, Seipet) family. After the 1705 grant, the next deed in which this tract was mentioned referred to the sale in 1782 by a Desire Seppitt of the northerly half of the original Sonnett land. It implies she was Indian because of assistance given by Plymouth “guardians to the Indians”:

Desire Seppitt to Thomas Drew: ... by virtue of a power ... by the great and general Court ... and by ... the assistance of ... the guardians to the Indians for the family of Plymouth ... a certain piece ... of land ... containing 100 acres ... being part of a lot of land granted by the town of Plymouth ... to Samuel Sonnett and Dorothy his wife ... (Plymouth County Registry of Deeds 1782:73:228).

Twenty-six years later a further sale took place for the support of Luana Seepit, described as an Indian:

Carver Selectmen to Jessie Murdock, Esq., Jan. 8, 1814: ... that the selectmen ... are hereby authorized to sell so much of one hundred acres ... belonging to Luana Seepit an Indian woman as in the discretion of ... the Selectmen may be sufficient for her comfortable support ... (Plymouth County Registry of Deeds 1814:121:278).

The question therefore arises whether the Seppitt (Seepit) family was related to the Sonnetts.

Figure 3. Street signs at either end of Seipet Street show different spellings (Figure 1).
It appears likely, and Griffith speculated that they intermarried (Griffith 1913:15). In 1730 a Moses Seipit appeared in town (Griffith 1913:257). Perhaps Desire Seppitt was his wife and also a Sonnett, and Luana Seepit was their daughter. The age periods would fit, but this is entirely speculative because I have not been able to substantiate any relationship through birth and marriage certificates.

The two daughters of a Luana Seepit were Betsey and Hannah Seipet. Betsey married but never had children. Hannah married Augustus Casey, an African American, and reared ten children “on the old farm” later known as “the Casey Place.” They named the children: Frank, Thomas, William, John, Joseph Young, Augustin (Augustus Green), Hannah, Betsey, and Sarah. But only two births were entered in the books of vital statistics: Joseph Young, colored, March 8, 1842; and Augustin, September 8, 1846. Griffith unaccountably lists an “Augustus Green” but no “Augustin” as appears in both sets of vital statistics records, although the name “Augustus” appears in later records as shown below (Griffith 1913:16,267; Carver Vital Records 1911:20; Carver Town Records 1844-1857:C2:16:#11).

Augustus Casey evidently borrowed money from time to time and was late making payments as the following two legal attachments to his property confirm. The first was on March 22, 1839:

To the sheriff ... or the Constable of the Town of Carver ... command you to attach the goods or estate of Augustus Casey of Carver ... to the value of fifty dollars ... promised the plaintiff to pay him that sum on demand yet though requested he has not paid it ... (Carver Town Records 1839:II rear section:268).

And the second on April 24, 1839:

... to the ... Constable of the Town of Carver ... we command you to attach the ... estate of Augustus Casey of Carver ... to the value of seventy dollars ... (Carver Town Records 1839:II rear section:268).

The Constable duly recorded that the attachments had been made:

Return Plymouth ... by virtue of this writ (a legal document filed by the Constable with the court to show what action he had taken to cover the value of any attachments) I attached 2,720 bricks and 3½ M (thousand) shingles and a dwelling house presently ... standing on the Indian land ... the property of the within named Augustus Casey ... (Carver Town Records 1839:II rear section:268).

With the attachment of such a large number of bricks it would appear that Augustus may have had a small brick kiln or more of a probability that he was chipping old mortar from used bricks for their later resale. This practice was common years ago and is still in use today. Another source of income appears to have been from splitting shingles by hand from local cedar trees. Making shingles from trees was practiced prior to this period as shown by the following vote Jan.2, 1682 by the Town of Plymouth:

... voted that noe Indians shall hencforth be sett to worke in any of the townes for the west (waste) in cuting donne of any of the timber of the towne, as making of shingles or bolts ... (Plymouth Town Records 1889:1: 172[142]).

The death records did not reveal the death of Luana Seepit but the following sale on May 24, 1839, of a portion of the Indian land to Jessie Murdock indicates she died prior to that date which would leave the remainder of the land to her daughter Hannah and subsequently to the Casey heirs:

... we Selectmen ... being guardians to a certain tract of Indian land in the south part of town which Luana Sepit an Indian woman died seized of ... make sale of so much of said Indian land as shall be sufficient to defray the charges which have been incurred ... in the support and maintenance of Augustus Casey his wife Hannah and her children heirs of Luana Sepit ... (Plymouth County Registry of Deeds 1839: 195:237)
Subsequent deeds by the Selectmen as authorized by the General Court conveyed all but about 40 acres of the Indian land known as “The Casey Place.”

As with the birth dates of most of Hannah Seipet Casey’s children which it seems were unrecorded, I found only a few of their deaths (Table 1). Recorded Casey deaths included Thomas, William, an unnamed male, and a Joseph who was evidently not Joseph Young as will be seen. A year-old girl, Nora, was the daughter of Augustus (Augustin) and Lucy J. Casey. Only one marriage was recorded, Betsey Casey’s on December 12, 1864, at age 24 to George Phillips, a 25 year-old shoemaker from Haverhill, and both were described as “colored” (Carver Town Records 1855-56:C2:16:#11,112:#2,#4;1855-56:III:4: #11, 14:#8, 15:#7, 43:#6; Carver Vital Records 1911:20).

<table>
<thead>
<tr>
<th>Table 1. Deaths of Casey children in the 19th century.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casey (sic) Thomas 1/3/1855 laborer, bachelor, aged 25, South Carver Cemetery.</td>
</tr>
<tr>
<td>Casey, William (colored) 4/13/1856 male, age 22, laborer, born South Burial Ground.</td>
</tr>
<tr>
<td>Casey, (no first name) 3/28/1866 male, single.</td>
</tr>
<tr>
<td>Casey, Joseph (colored) 10/17/1867 male, single, 24 years, mech-anic, South Carver Cemetery.</td>
</tr>
<tr>
<td>Casey, Nora A. 3/20/1885 female, 1 year, died Plymouth</td>
</tr>
</tbody>
</table>

During the rebellion years of the Civil War records were kept by the Carver Town Clerk from 1861 through 1865 listing men in Carver who were subject to being enrolled in the militia, and those that either were serving or had served during that time (Rebellion Records). The only Casey listed as liable to enrollment in the militia was “Joseph Y. Casey, age 21, grate maker.” The occupation shown as “grate maker” I assume was with the Charlotte Furnace, and probably involved pouring the molten iron into molds to form grates as this furnace was operating during that period. He was listed again in the Rebellion Records as having served in the militia: Casey, Joseph Young (colored) single, parents Augustus and Hannah, born March 8, 1842 in Carver, Mass. grate maker, date entered service July 6, 1864, Rank Landsman. “Rank Landsman” probably indicates he was a seaman which is supported by the Carver Town Records listing him as a laborer, age 24, in the United States Navy. According to the American College Dictionary, “Landsman” can mean one who lives or engages in an occupation on land (as opposed to a seaman); a sailor on his first voyage; or an inexperienced seaman, rated below an ordinary seaman. Augustus (Augustin) Casey was listed in the Carver Town Records as: laborer, age 24, in the U.S. Army; and also listed in the Rebellion Records as in the army: (colored), residence South Carver, Private, grate maker, (parents) Augustus and Hannah. Francis Young Casey was listed in the Rebellion Records as a colored, single man in the navy, but no other information was given as to age or who his parents were. The designation "colored" in all the records is misleading when it comes to tracing Native American descent but evidently was the usual practice during that era (Rebellion Records 1861:44,72,74; Carver Town Records 1864:III:231:#28,258:#59,#60).

The Town of Carver supported an “Alms House” for the poor or homeless which gave them food and shelter. I am assuming that Hannah Seipet Casey may have been in this alms house and then moved to Weymouth, Massachusetts, as Carver received two bills from that town for her aid and
burial. Expenses that the Town of Carver incurred were recorded in this way:

Outside the Alms House: Hannah Casey, Weymouth, 3/31/1884, $9.00.
Outside the Alms House: Hannah Casey, aid & burial, Weymouth, 3/30/1885, $46.00.
(Carver Annual Reports 1884:11;1885:10).

Her death was not listed in Carver so I assume she was buried elsewhere (perhaps Weymouth). The expenses incurred by Carver were recouped by the sale of part of the Casey Place:

Notice of sale of real estate by the overseers of the poor under Chap. 84 Sec.32 of the Public Statutes ... to repay the expenses incurred for aide rendered and burial of Mrs. Hannah Casey ... will be sold by public auction the 17th day of Sept. 1885 ... so much of the Casey place ... as will raise the sum of fifty five dollars (Carver Town Records 1885:IV:60).

A portion of the land was sold and the Town of Carver received fifty-five dollars from the Hannah Casey Estate (Carver Annual Report 1886:4).

Carver must have received a similar bill involving Augustus Casey from the Town of Norwell as the records show: Paid to Town of Norwell, aid to Augustus Casey, $4.00 (in 1889). It appears that Augustus Casey may have been transported to a Plymouth hospital or a doctor's office for care on two occasions as Carver received two bills from the the Town of Plymouth:

Paid to: Town of Plymouth, aid and medical attendance, Augustus Casey $180.00
Paid to: Town of Plymouth, medical attendance & burial Augustus Casey $ 73.00
(Carver Annual Reports 1889:5;1890:11).

It would appear that Hannah Seipet Casey died during 1885 and that Augustus died during1889 or 1890. I found no records of their deaths. The last record of the Casey family that I found was a 1915 deed (sale) of land to Frank H. Cushman and Arthur Emond from the heirs, I assume, of Augustus Casey:

We Lucy J. Wentworth and Cora J. Loatman, both of Acushnet ... and Francis U. Casey of Hanover ... consideration of $1.00 ... forever quitclaim ... a certain wood lot of wood land situated in the Town of Carver ... and known as the “Casey Lot.” Said lot is part of a tract of Indian land formerly owned by Luana Seepit and later owned by her daughter Hannah Casey. This lot is estimated to contain 40 acres, more or less, and is all that remains of the original tract of Indian land, portions of which have been sold from time to time for the support of the heirs of said Luana Seepit (Plymouth County Registry of Deeds 1915:206:529).

Conclusion

I found no further records or mention of the Casey family in the Town of Carver, but there are other reminders that at one time this was Indian land. There is a granite post on the northwest corner of the original 200 acre lot with the words “INDIAN CORNER” chiseled into the stone (Figure 2); the street sign “Indian Street”; the brook named “Indian Brook” (the brook and street both bisect the 200 acre grant); and the street signs on either end of Seipet Street (Figure 3), a portion of which used to cross through the Indian land. As if to keep the varied spellings of “Seipet” an ongoing tradition, the street sign on one end of the street is spelled “Seipet” and inadvertently the other end is spelled “Seipett.” (The various spellings of the name Seipet used throughout the years were Seipit, Seipet, Seipett, Seppitt, Seeppitt, Seepit, Seepet, and Sepit.)

It is of interest that with all the land grants of 50 to 100 acres being granted to Freemen in this area during the 18th century, that such a large grant of 200 acres was given to a Native American at Sampson’s Pond. Undoubtedly it was based on the 17th century land ownership of Native Americans whose records are presented here. It is even more of interest that portions of it remained in Native American ownership for the next 213 years.
REFERENCES CITED

Barber, John Warner
1839 Historical Collections, History and Antiquities of Every Town in Massachusetts. Dorr, Howland & Co., Worcester, MA.

Carver Annual Report
1790-1997 Yearly printing of the Town’s records, articles and actions, Carver, MA.

Carver Town Records
1790-1997 Record books kept by the Town Clerk, Vol.I-XIV. Carver, MA.

Carver Vital Records

Gardner, Russell Herbert

Griffith, Henry S.

Massachusetts Historical Commission

Plymouth Colony Records

Plymouth County Registry of Deeds
1782-1915 Deed books: 73 (1782), 80 (1789), 121 (1814), 195 (1839), 1206 (1915). Plymouth, MA.

Plymouth Proprietors Records
1702-1713 Transcribed records, Vols. I and II. Plymouth County Commissioners Office, Plymouth, MA.

Plymouth Town Records
1892 (1705-1743), Records of the Town of Plymouth, Vol. II, Avery & Doten, Plymouth, MA.

Rebellion Records
1861 Carver Town Clerk’s records of soldiers and officers in the military service and seamen and officers in the naval service during the Rebellion, begun in 1861, Carver, MA.
Abstract

This paper presents the results of an archaeological survey conducted in the Great Swamp Basin of South Kingston, Rhode Island. Since few professional archaeological surveys have been undertaken in the vicinity of the Great Swamp Basin, this paper offers a preliminary assessment of the region’s prehistoric cultural resources. Results of the survey suggest that the Great Swamp Basin was visited by hunter/gatherers for at least the last 9000 years, with the most intensive use of the region during the Late Archaic Period (ca. 6000-3700 B.P.). The results of the survey are used to construct a local culture history for the Great Swamp Basin. The conclusion is that southern New England’s wetlands, often overlooked by archaeologists, contain significant cultural resources necessary to understanding prehistoric culture change.

Introduction

Since early post-glacial times wetlands have been an integral component of southern New England’s landscape. It is precisely these areas ecologists, palynologists, and geologists study to understand the approximately 10,000 to 12,000 year long developmental histories of southern New England plant and animal communities. By investigating living plant and animal communities, fossil pollen grains retrieved from cores taken from swamp floors, and sediment and peat accumulation rates, scientists derive crucial information pertaining to each swamp’s relative age, life cycle, and potential resource base. Yet, only recently has the role of wetlands in southern New England prehistory entered into the realm of archaeological research, where it still remains clearly in the minority of research interests (Nicholas 1990, 1992).

Southern New England archaeologists are now considering the potential that wetlands research has for refining local culture histories, as well as for dealing with issues of prehistoric Native American settlement, subsistence, and land use patterns (Funk 1992; Hasenstab 1991; McBride 1992; Nicholas 1988, 1991, 1992). It is becoming clear that wetlands archaeology is fundamental to reconstructing details of Native American land and resource use in and around swampy areas that have not been systematically examined in traditional archaeological investigations.

In recent years a number of archaeological surveys have been conducted in Rhode Island. Most of the approximately 50 archaeological surveys have been conducted in the coastal portion of the state, particularly the salt pond area. Consequently, little data bearing on prehistoric Native American settlement, subsistence, and land use patterns, especially of wetland environments, has been obtained. Moreover, none of the surveys has made an entire wetland area the focus of research.

As part of a two year study designed to provide the Town of South Kingston, Rhode Island, with an assessment of its cultural resources, we, in conjunction with the University of Connecticut’s 1993 Summer Field School in Archaeology, sur-
veyed several prehistoric sites in the Great Swamp Basin (Figure 1). The investigations revealed significant data concerning prehistoric occupation and use of the Basin (George et al. 1993; Morenon 1992).

The study is important for two reasons. First, it represents a large scale investigation into Native American settlement and land use patterns in a non-coastal area of Rhode Island that has seen limited professional archaeological research. Second, the results aid in the construction of a local culture history for the Great Swamp Basin and assess the prehistoric importance of a major wetland zone in Rhode Island.

**Figure 1.** Map of Southern New England showing location of study area.

**The Great Swamp Basin**

The Great Swamp Basin is an area encompassing nearly sixteen square kilometers in Washington county, Rhode Island. The Basin lies between three and six kilometers north of Block Island Sound in what the Rhode Island Historic Preservation Commission has designated as the "Near-Interior Region." A formal definition of the Near-Interior is the region bordering the Narragansett Bay and salt pond areas of the coast to the south and extending inland to the 300-foot contour interval (RIHPC 1986). The region can be described as an ecotone or transitional landscape lying between coastal and interior areas, providing equal access to both coastal and upland resources.
An important resource area located in close proximity to the Great Swamp is the Charlestown-Roanoke Point Moraine system, a large landscape feature that marks the terminal or most southern point of the advance of the most recent glacier to enter southern New England. The moraine, formed between 17,000 and 19,000 years ago (Lewis and Stone 1991), constitutes the southern border of the Great Swamp Basin and is marked by many freshwater ponds and kettles. This land surface would have provided an excellent hunting locale and was likely an important resource area for prehistoric Native Americans.

Freshwater sources found within the Great Swamp Basin include Worden Pond and the Chicka-sheen, Usquepaug, and Chipuxet Rivers (Figure 2). Worden Pond, which lies in the center of the Great Swamp Basin, was likely formed as a result of landscape subsidence under the weight of a massive ice block that broke free from the glacier and slowly melted in place. In addition to Worden Pond the Great Swamp Basin contains a number of level, well-drained landscape features, including relatively flat esker terraces, drumlins, and ice-contact deltas. When situated in close proximity to wetland resources, these landforms are considered prime locales for prehistoric occupations and

Figure 2. Detail Map of Great Swamp Basin Study Area.
comprised the bulk of the areas tested during the fieldwork portion of this study.

In general, the Great Swamp Basin contains a large number of potentially habitable areas, as well as a wide array of plant and animal resources. While many small wetland systems in southern New England can be described as homogenous, supporting relatively few plant and animal species, the Great Swamp should be characterized as a heterogeneous wetland composed of a diverse resource base (see Nicholas 1990:40-42 for a full list of plants and animals characteristic of heterogeneous wetlands). This heterogeneity is a by-product of the Basin's mosaic or patchy landscape, which is comprised of a variety of intersecting vegetation zones. The Great Swamp Basin can support many species including those adapted to strictly wetland locales, as well as species that prefer edge environments located at the junctures of two or more vegetation communities, particularly the white-tailed deer. The Great Swamp Basin is, therefore, considered a prime locale for prehistoric Native American occupation.

Methods

Since time and funding are always at a premium in archaeological research, a variety of methods were integrated to access as much data as possible concerning prehistoric Native American settlement and land use patterns within the Great Swamp Basin in a limited amount of time. They included the following. Prior to the beginning of fieldwork the archaeological site files of the Rhode Island Historic Preservation Commission were examined to record the location, artifact density, and cultural affiliation of all known sites within the Great Swamp Basin. Next, informant interviews were conducted with town residents who were known to have extensive artifact collections from lands immediately adjacent to the study area. Each collection was carefully examined and photographed. The collections helped us to extend the local archaeological chronology of the Great Swamp Basin back beyond 6000 years ago. With the site file and informant data in hand, a program of subsurface testing was initiated. Field testing involved the use of 50x50 centimeter test pits excavated by arbitrary 10-centimeter levels along linear transects at 10, 15, and 20 meter intervals. One-quarter inch mesh screens were used to retrieve small artifacts and ecofacts such as calcined bone and charred nut remains. A total of 228 test pits were excavated within the study region in the areas of Great Neck, Tobey Neck and lands adjacent to Route 2 in the western portion of the study area (see Figure 2). Finally, and with time running out, the last week of the project was spent systematically surface collecting all plowed fields located within the study area in an effort to locate additional archaeological sites. A plowed area totaling nearly 30 acres was fully searched for signs of prehistoric occupation.

Survey Results and Discussion

While one purpose of this study was to locate and describe a sample of the Great Swamp Basin's cultural resources for the Town of South Kingston, Rhode Island, a second was to begin to define a local culture history of the Great Swamp Basin, as well as to document changes in prehistoric land use and settlement patterns in the area through time. Therefore, a discussion of each of the major time periods from data generated during the course of the study, and associated prehistoric use of the Great Swamp Basin, is presented below. The data and subsequent discussions are presented in a chronological framework representing use of the Great Swamp Basin from most recent prehistoric times to most ancient.
The Woodland Period (ca. 2700-450 B.P.)

Since during the course of this study it was difficult to assign archaeological sites to specific Woodland Periods or cultural phases, the Early, Middle, and Late Woodland Periods will be discussed as a unit. The review of the Rhode Island Historic Preservation Commission site files indicated that only four small sites are known for the Woodland Period. All of the known Woodland Period occupations contain low artifact densities and appear to represent short-term occupations, likely for specialized resource extraction and collection. This is not surprising since a major shift in settlement to coastal and riverine areas is believed to have occurred during the Woodland Periods, with interior portions of the state used for the logistical collection of necessary but distant resources to supply coastal habitations (Morenon 1982).

As with the site files, local artifact collections contained a limited amount of pertinent information regarding the Woodland Period. Woodland Period artifacts were noted in the collection of Mr. Congdon, but comprised only a small portion of the total. These artifacts were represented by small numbers of Madison and Levanna projectile points, as well as a handful of non-diagnostic, grit-tempered, cord-marked ceramic sherds. The relative scarcity of Woodland Period artifacts suggests that only short-term occupations were situated on the Congdon property. It is likely that these occupations, as noted above, were part of a complex settlement pattern, which consisted of large occupations in coastal, near-coastal and riverine locales supported by temporary and task-specific sites in regions such as the Great Swamp Basin.

Southern New England archaeologists have noted that during the Woodland Periods there was a region wide, gradual shift to permanent or semi-permanent villages located in coastal, estuarine and riverine environments (Bendremer 1993; McBride 1984; Snow 1980:320). Moreover, the increased reliance on horticultural products and shellfish resources necessitated larger settlements in these areas. These settlements, however, were not located in areas that produced all of the necessary resources and were therefore supported by large numbers of temporary and task-specific sites located in upland and interior zones. Presumably, temporary and task-specific sites were utilized by specialized task-groups that were sent out in search of distant resources (McBride 1984).

Based on archaeological information recovered in the Great Swamp Basin study, it appears that such a settlement pattern existed in Rhode Island during the Woodland Period. Numerous large sites have been reported in coastal and estuarine zones (Morenon 1982). We suggest that the small, short-term Woodland Period sites located in the Great Swamp Basin were designed to support larger sites in coastal, estuarine and riverine environments. Such a pattern matches that advocated by Binford (1980) where the strategy of the "logistical collection" of resources away from settlements is used in order to support large populations in highly productive ecozones.

The Terminal Archaic Period (ca. 3700-2700 B.P.)

The review of the Rhode Island Historic Preservation Commission site files indicated that three Terminal Archaic occupations are known in the Great Swamp Basin. Each site is characterized by low artifact densities and appears to represent a relatively short-term occupation, strategically located to take advantage of wetland resources. Noticeably infrequent in the site files are large Terminal Archaic seasonal base camps, suggesting that Terminal Archaic use of the Great Swamp Basin may have been similar to that of the Woodland Periods, but as we shall see relying on the site file data alone may be misleading.
While Terminal Archaic sites were not discovered during the fieldwork phase, the review of local artifact collections provided valuable data. The Congdon collection, for example, included large numbers of Snook Kill, and Susquehanna Broad-Like projectile points and knives. The collection also contains the remains of a cache of 30 argillite Snook Kill projectile point preforms. The abundance of Terminal Archaic tools recovered from the property suggests the presence of at least one large, possibly seasonally reoccupied, base camp. The presence of a seasonal base camp stands in contrast to the large number of short-term occupations on Great Neck, a large island in the center of the Great Swamp. It is likely that while the swamp proper was used extensively as a specialized resource extraction area, the higher, well-drained lands around the swamp's perimeter were utilized more as habitation areas. Other local collections contained a similar spectrum of Terminal Archaic artifacts in similar environmental contexts. An abundance of Terminal Archaic artifacts, for example, was noted by Turnbaugh (1984) in his analysis of a local collection housed at the University of Rhode Island. Similarly, an anonymous collector has found Terminal Archaic materials on his property, a large flat knoll overlooking the southwest corner of the Great Swamp. These findings underscore the value of examining local artifact collections.

The data generated during the survey suggests land use and settlement patterns during Terminal Archaic times represents mostly small, temporary or task specific sites, with possibly a few larger sites located on the periphery of the Basin. This pattern, however, is only tentatively known and requires more fieldwork to confirm. It is possible, for example, that the large numbers of Terminal Archaic artifacts in the local artifact collections are representative of several small sites such as those noted in the site files and not a few large sites as we suggest.

In general, the infrequent use of the Great Swamp Basin by Terminal Archaic hunter/gatherers as a specialized resource area is not a surprise given what we know of occupations of this time period throughout southern New England. Leaving aside the debate of in situ development versus migration of Terminal Archaic peoples, southern New England archaeologists have long recognized that large seasonal Terminal Archaic occupations are, for the most part, limited to riverine and coastal areas (Cook 1976; Dincauze 1975; McBride 1984; Snow 1980; Turnbaugh 1975). Pfieffer, in fact, labels the Terminal Archaic of the lower Connecticut River valley the "riverplain" adaptation (Pfieffer 1984). Accordingly, archaeological data generated during the survey indicates that use of the Great Swamp Basin during the Terminal Archaic seems to represent limited occupation with short-term use of the area primarily for resource acquisition.

The Late Archaic Period (ca. 6000-3700 B.P.)

With the continued emergence of mast forest environments during the Late Archaic Period, a well established pattern of seasonal movements developed. It was during this time period that the Great Swamp Basin was most intensively used. The Great Swamp Basin became the location for large seasonal base camps, as well as temporary and task-specific collecting stations. It was undoubtedly a key resource area for Late Archaic populations. Available resources would have included a variety of animal species such as white-tailed deer, beaver, bear, red fox, and muskrat, to name a few. Also important was the diverse plant population, including most importantly the berries and nut mastes produced by the swamp vegetation.
The review of the site files at the Rhode Island Historic Preservation Commission indicated that the majority of sites (18) with temporal designations were occupied during the Late Archaic Period and include artifacts from both the Small-Table 1. Number of Previously Reported Archaeological Sites by Time Period in the Great Swamp Basin.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late Archaic</td>
<td>18</td>
</tr>
<tr>
<td>Terminal Archaic</td>
<td>2</td>
</tr>
<tr>
<td>Woodland</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: The total number of known sites in Table 1 exceeds that reported in the body of the paper because one site, RI-116, contains both a Late Archaic and a Late Woodland component.

Stemmed and Laurentian Traditions (Table 1). Small-Stemmed projectile points recovered from the Great Swamp Basin are typologically similar to Lamoka projectile points described by Ritchie (1971). Late Archaic sites are distributed fairly evenly around the perimeter of the Great Swamp and on Great Neck. Existing information suggests that many represent short-term encampments. However, a few of these sites (e.g. RI-168, RI-247, RI-781 and RI-1021) located along the perimeter of the swamp exhibit high artifact densities and a diversity of tool types, including projectile points, scrapers, cores, atlatl weights, adzes, and utilized flake tools, suggestive of larger seasonal base camps. The existence of Late Archaic seasonal base camps supported by temporary and task-specific sites is well known for other areas of southern New England as well (McBride 1984:262; Snow 1980:230).

In addition to the known sites, two of the sites noted during the field portion of the study yielded diagnostic Late Archaic artifacts. Subsurface testing at Site RI-2064, situated on Great Neck in the center of the study region, yielded a quartz Squibnocket Triangle of the Late Archaic Period. Similarly, Site RI-2076 was noted during the surface walkover and yielded, in addition to 14 quartz flakes, 14 argillite flakes, and one basalt flake, a single side-notched chert projectile point. This projectile point can best be described as an Otter Creek type (Figure 3), indicating that RI-2076 was occupied sometime around 5500 years ago.

Based on the richness of the Great Swamp Basin and its proximity to other resource zones, Late Archaic hunter/gatherers, who moved in search of seasonally abundant resources, likely considered the Great Swamp Basin a key resource area. This is supported by the archaeological record of the study area. The appearance of large seasonal base camps on high, well drained soils surrounding the swamp supported by temporary and task specific camps within the swamp's perimeter suggests complex settlement and land use patterns designed to extract specialized resources from this rich microenvironment.

The Middle Archaic Period (ca. 8000-6000 B.P.)

The Middle Archaic Period corresponds closely with the warm-dry "climatic optimum" as described by Petersen and Putnam (1992:49). This period is associated with a notable increase in archaeological sites in southern New England (McBride 1984). Lithic choice tends to reflect the use of more local sources of quartz, quartzite, rhyolite, and argillite, suggesting population increase and a general "settling in" process in the region as a whole (Dincauze and Mulholland 1977; Snow 1980:176). True seasonal base camps are believed to have been established at such sites as Neville in Manchester, New Hampshire (Dincauze 1976). These camps were occupied for one or more seasons and contain artifact assemblages reflective of a wide variety of activities, including fishing, animal butchering, cooking, and stone tool
manufacture and maintenance. The region's diagnostic projectile point forms include the Neville, Merrimac, and Stark types (Dincauze 1976). These types have parallels along the eastern seaboard and possibly relate to a common adaptation to the developing mast forests. The region's earliest evidence of complex burial ceremonialism in the form of cremation burials laden with grave goods has also been dated to this time period (Robinson 1992).

While Middle Archaic sites were not noted in the Rhode Island historic Preservation Commission site file review or the fieldwork phase of the project, artifacts of the period are well represented in local artifact collections. Turnbaugh (1984), for example, has documented numerous Neville, Stark, and Merrimac projectile points in South Kingston collections. Dozens of these projectile point types were also viewed in a collection of artifacts recovered from the headwaters of the Pawcatuck River area where it drains the swamp basin. This area likely represents a repeatedly occupied strategic fishing location, a seasonal base camp like the Neville Site described by Dincauze (1976). This evidence of a probable seasonal base camp stands in contrast to the Early Archaic or Paleoindian time periods (see below) and is suggestive of an increase in local population density, smaller annual ranges and a more intensive use of the Great Swamp's resources. This pattern has been noted throughout the Northeast (Dincauze and Mulholland 1977; McBride 1984; Petersen and Putnam 1992; Snow 1980).

The Early Archaic Period (ca. 10,000-8,000 B.P.)

Early Archaic Period artifacts are present, although not common, in the Great Swamp Basin. While Early Archaic sites were not noted in the Rhode Island Historic Preservation Commission site file review or the subsurface survey or surface walkover portion of this study, Dalton-Like, Kirk-Like, MacCorkle, and Bifurcate base projectile points dated to between 8000 and 9000 years ago were noted in the local artifact collections examined. In general, these were recovered as isolated finds and were fashioned from non-local lithic materials, particularly cherts.

It has been argued by some (e.g. Fitting 1968; Ritchie 1979) that the Early Holocene pine-birch-oak forests of New England offered a very limited number of resources for human populations. Nicholas (1988, 1991), however, has recently offered a contrary interpretation. He hypothesizes that large, heterogeneous wetlands provided resource-rich habitats that attracted prehistoric Early Holocene hunter-gatherers. Nicholas points out that, in terms of available food items, freshwater wetlands are frequently second only to tropical rain forests in resource potential (1991:32). Further, particularly rich environments are postulated for large heterogeneous wetlands that developed in former glacial lake basins such as that of the Great Swamp Basin. These wetlands, when combined with adjacent upland locales, open water lakes, and coastal and riverine environments, were likely considered important occupation and resource acquisition areas for early prehistoric people.

The presence of Early Archaic Period artifacts indicates that the Great Swamp Basin was at least periodically visited by hunter/gatherers during the Early Holocene Period. We suggest that because these artifacts are not common, Early Archaic camps may have been limited to small, temporary sites associated with larger residences located elsewhere. It is quite possible that given the lower sea levels during this time that Narragansett Bay, which offers riverine and estuarine resources, served the needs of primary occupation sites. Geological cores taken from within Narragansett Bay demonstrate that a much reduced embayment, characterized by mud and
sand flats as well as an estuarine channel environment rich in shellfish, existed during the Early Holocene Period (Peck and McMaster 1991). It is this area that should be investigated for possible Early Archaic habitation sites. On the basis of available evidence, the Great Swamp Basin seems only to have been used on a limited basis by Early Archaic hunter/gatherers, most likely only for short-term hunting or gathering forays.

*The Paleoindian Period (ca. 12,000-10,000 B.P.)*

Unfortunately, no Paleoindian sites are currently recorded within the confines of the Great Swamp Basin. Such sites were not located in the subsurface testing program and Paleoindian artifacts are absent from local collections. Sites belonging to this time period are likely not very common. However, based on current ideas about early post-glacial land use (e.g. Nicholas 1988), it is probable that Paleoindians made at least limited use of plant and animal resources associated with the Great Swamp Basin's glacially formed lake and emerging wetlands that existed before 10,000 years ago. Until thorough geological studies such as those conducted at Cedar Swamp in Ledyard, Connecticut (Thorson and Webb 1991) or Titicut Swamp in Bridgewater, Massachusetts (Simon 1991) are conducted, an accurate assessment of the resource base of the Great Swamp Basin during the Paleoindian Period will not be possible.

In order to locate Paleoindian sites in the Great Swamp Basin very fine grained archaeological survey techniques will be required. Most excavated New England sites dating to this time period consist of multiple artifact clusters measuring between five and ten meters in diameter (Spiess and Wilson 1991). Aggregation sites such as Bull Brook, Vail, and Debert are obviously much more visible archaeologically than the small artifact clusters, but are also rare. At the moment, then, little can be said of Paleoindian use of the Great Swamp Basin. Additional investigations are needed and will hopefully shed some light on this underrepresented time period.

*Archaeological Sites of Unknown Cultural Affiliation*

As with all archaeological surveys, our investigations of the Great Swamp Basin produced evidence of a number of archaeological sites (9) for which little data was recovered. In these cases we do not yet know during which prehistoric time period these sites were used or occupied. The difficulty of temporal control for these sites, however, does not prevent them from contributing at least some information to our understanding of general prehistoric settlement and land use patterns in the Great Swamp Basin.

With the exception of three small sites located on Tobey Neck and lands east of Route 2, six sites of unknown cultural affiliation (RI-2061-RI-2066) were located on Great Neck in the center of the Great Swamp and are characterized by very small size and low density quartz and argillite lithic scatters. As a sheltered landmass, Great Neck probably represented an area from which diverse plant and animal resources were extracted. These factors suggest that these sites were likely used for extractive purposes, not primary habitations.

As mentioned above, three of the prehistoric sites located through subsurface testing were found in areas outside of the swamp's immediate borders. Two of these were located on lands east of Tobey Neck, in the eastern portion of the study area and one on the eastern border of Route 2 in the western part of the study region (see Figure 2). Similar to those found on Great Neck, these sites appear to represent low density, short-term occupations, likely temporary or task-specific camps. It is possible that one of the sites, RI-2084, could prove larger with further testing. Recovered
artifacts from RI-2084 include chert and quartz debitage and a ground and perforated slate gorget fragment (Figure 3). The gorget is broken at the midpoint and available evidence indicates that it was manufactured from a sedimentary rock type and perforated using the bi-conical method. Gorgets were particularly popular during the Early and Middle Woodland Periods of southern New England prehistory, suggesting that RI-2084 may date to one of those time periods.

Despite the limited nature of the data from these sites, they are useful for understanding general prehistoric settlement and land use practices. Continued investigations of these sites may eventually yield diagnostic artifacts necessary to date each site. Such investigations will hopefully be conducted in the future.

**Summary and Conclusion**

The archaeological survey of the Great Swamp Basin was initiated with two objectives in mind. First, the primary objective was to investigate the nature of the archaeological record of the Great Swamp Basin in order that the Town of South Kingston and the Rhode Island Historic Preservation Commission would have a sense of the cultural resources contained within its borders and
could devise a suitable cultural resource management plan for the area. This involved locating and describing a sample of the archaeological sites contained in the Great Swamp Basin. This knowledge will be used in the future to assess possible impacts on the cultural resources of the Great Swamp Basin by proposed economic development plans. The second objective was to begin to define a local culture history for the Great Swamp Basin, including the types of sites used during different times in prehistory, their size, distribution, function, and artifact density. The presentation above is meant to be the outcome of the second objective of the archaeological investigation. It by no means should be considered conclusive as additional excavations will likely provide additional data that might alter our interpretations.

While the results of the field portion of the project are less than spectacular, when combined with data generated from known sites and artifact collections they offer a powerful tool for examining the processes of cultural change that occurred within the confines of the Great Swamp Basin. The results of the archaeological investigations indicate that the Great Swamp Basin contains a long and diverse archaeological record representing approximately 9000 years of Native American prehistory. The resource base within and adjacent to the Great Swamp Basin was utilized in many different ways throughout prehistory, ranging from ephemeral logistical resource exploitation in Early and Late Prehistoric times to intensive occupation during the Late Archaic Period.

Clearly the rich resources available in and around southern New England’s wetlands acted as strong attractors to prehistoric peoples. Nevertheless, with the exception of the Great Swamp Basin survey, few archaeological investigators have made wetlands the focus of their research. The data generated from the Great Swamp Basin survey indicates that further archaeological research in southern New England’s wetlands is warranted and will provide valuable information concerning regional prehistoric cultural adaptations.

Acknowledgments

This research was made possible through the help of many individuals, institutions, and state agencies. In particular, we thank Dr. Paul Robinson of the Historic Preservation Commission for his assistance in obtaining funding for the project. Dr. Kevin McBride of the University of Connecticut provided insights into the field portion of the survey. The employees of the Great Swamp Wildlife Reservation embraced an archaeological survey of their otherwise peaceful landscape. Mr. Carl Congdon and an anonymous citizen provided unequalled access to their personal artifact collections. Lastly, we thank the members of the 1993 University of Connecticut Summer Fieldschool in Archaeology for graciously enduring many steamy, horsefly infested days in the Great Swamp.
References Cited

Bendremer, J.C.M.

Binford, L.

Cook, T.G.

Dincauze, D.F.
1976 *The Neville Site: 8,000 years at Amoskeag*. Peabody Museum Monographs No. 4. Harvard University, Cambridge, MA.

Dincauze, D. and M. Mulholland

Fitting, J.

Funk, R.E.

George, D.R., B.D. Jones and R.K. Harper

Hasenstab, R.

Lewis, R. and J.R. Stone

McBride, K.A.

Morenon, P.
1992 Archaeological Planning: Establishing a Context for the Near-Interior and a Discussion of the Archaeological Record in South Kingstown, Rhode Island. Rhode Island College, Providence, RI.

Nicholas, G.P.
1990 The Archaeology of Early Place: Early Postglacial Land Use and Ecology at Robbins Swamp, Northwestern Connecticut. Ph.D. Dissertation, Department of Anthropology, University of Massachusetts, Amherst, MA.


Peck, J.A. and R.L. McMaster

Petersen, J. and D. Putnam

Pfieffer, J.

Rhode Island Historic Preservation Commission

Ritchie, W.


Robinson, B.S.

Simon, B.

Snow, D.R.

Spiess, A. and D. Wilson

Thorson, R. and R. Webb

Turnbaugh, W.

1984 An Inventory and Preliminary Assessment of the A.B. Congdon Collection of Rhode Island Indian Artifacts at the University of Rhode Island. Submitted to the Rhode Island Historic Preservation Commission, Providence, RI.
THERMAL ALTERATION OF ARGILLITE ARTIFACTS: AN EXPERIMENTAL STUDY

Peter Pagoulatos

Abstract

This paper presents an experimental study concerning the thermal alteration of argillite, specifically casually discarded argillite in and around hearth areas. A series of experiments were conducted to fire argillite in hearths six times for two-hour periods. This argillite assemblage was subsequently analyzed for thermal alteration characteristics such as color change, potlids, cracking, and spalling, for comparative purposes. Quantitative analyses were then applied to the data in order to establish whether differential patterns of thermal alteration existed, dependent upon heating duration and re-heating episodes. These results may complement other archaeological data to distinguish between long-term and short-term occupancy of sites.

Introduction

The purpose of this article is to present the results of a thermal alteration experiment using argillite artifacts. Until recently, the interpretation of thermally altered argillite from prehistoric sites in the region was largely based on ethnographic analogy (Hester 1972; Johnson 1978) or comparative thermal alteration studies of flints and other related materials (Purdy 1971; Mandeville 1973; Flenniken and Garrison 1975; Rick 1978; Lavin 1983; Domanski and Webb 1992). Few studies have been attempted on argillite because it weathers heavily making stone tool analysis difficult (Withoft 1949; Venuto 1967; Strauss 1986; Pagoulatos 1991, 1992; Luedtke 1993).

Studies in ethnoarchaeology and experimental archaeology have contributed significantly to archaeological method and theory (Semenov 1964; Ingersoll, Yellen, and Macdonald 1977; Binford 1978; Hayden 1979; Gould 1980; Keeley 1980). Argillite was a widely used raw material by prehistoric Native American populations in the northeastern United States (Didier 1975; Snow 1980; Custer 1984). However, the resulting characteristics of thermally altered argillite stone when subjected to re-heating is still poorly understood (Cavallio 1984; Louis Berger Associates, Inc., 1987).

The majority of these studies have concentrated on controlled intentional thermal alteration of stone, which is believed to have made flint more workable during manufacture (Crabtree and Butler 1964; Bleed and Meier 1980). Although nearly all studies in the literature concentrate on deliberate and controlled heating of raw material, the vast majority of recovered thermally altered raw material from archaeological contexts was probably created unintentionally by natural fires or casual discard from tool manufacturing surrounding hearth areas for example.

With this in mind, a series of controlled experiments were conducted to assess whether different episodes of re-heating and re-use of hearths containing casually discarded argillite debris would produce differential patterns of thermal alteration on these stones. It was hoped that specific thermal alteration characteristics would be observable on re-heated argillite stones. In turn, the producing of specific thermal alteration
characteristics on casually discarded argillite under experimentally controlled conditions would aid in archaeological interpretation pertaining to site duration and re-use, and allow for the development of hypotheses that can be tested against the archaeological record.

In this study, argillite artifacts (flakes) were placed in a hearth and subjected to a total of six carefully controlled two-hour firing episodes to assess characteristics of thermal alteration (i.e., color change, cracking, spalling, and potlids). Initially, argillite flakes were placed in a granitic cobble and wood platform hearth and heated for two hours. Subsequently, these argillite artifacts were subjected to five additional two-hour re-heating intervals. The thermally altered argillite assemblage was examined under a 10x low-power microscope for comparative purposes, after each re-heating experiment. Testable hypotheses were then developed based on the re-firing experiments, in relation to differential patterns of thermal alteration on artifacts, occupation duration, and re-use.

Methods

The lithic material chosen for this study was a very dark-gray (7.5 YR 3/0), highly metamorphosed, analcime-rich argillite. It was collected from an outcrop in the Gaddis Run Valley, a short distance from the Delaware River in the vicinity of Point Pleasant, Pennsylvania (Charles Bello, personal communication, 1994).

Several argillite sources of the Triassic Lockatong Formation exist in central New Jersey and eastern Pennsylvania, which were intensively quarried by prehistoric Native American populations (Mercer 1894; Volk 1894; Spier 1918; Cross 1941). Argillite was first reduced with a quartz hammerstone (320 grams), using percussion flaking techniques. Then a total of twenty-five unaltered flakes (by-products) were selected for the thermal alteration experiments (Figure 1). These flakes averaged about four grams in weight (3.92g) and were generally less than 30 millimeters in size. Each flake was then examined for any observable anomalies (e.g., mineral impurities, edge alteration).

The twenty-five argillite artifacts (flakes) were initially placed in a prepared granitic cobble (7122g) and wood hearth, and heated for two hours. (A total of 13620g [30 lbs] of oak wood was used for each experiment.) Subsequently, these same argillite artifacts were subjected to five
Additional two-hour interval re-firings: four hours, six hours, eight hours, ten hours, and twelve hours.

After heating, the argillite artifacts were analyzed for thermal alteration characteristics, or attributes, including color change, cracking, potlids, and spalling (Figure 2). Color change, usually results from controlled heating, and is frequently caused by impurities within heat-treated material. Cracks, in the form of thin crack lines within stone, most often result from slow, gradual heating, or from sudden exposure to water. Spalling refers to the fragmenting of stone, either from long-term exposure to heat or the sudden exposure to water. Potlids result from the sudden heating of stone objects under high temperature exposure that leads to crater-like surface depressions.

All argillite artifacts were then examined using a low-power (10-30x) stereoscopic microscope, recording attributes such as color change, potlids, cracking, and spalling. Color change was recorded using a Munsell soil book; color change ranged from weak to dark red (2.5 YR 3/2-3/6, 10 R 3/4-4/8). Cracks and potlids were measured in millimeters, using a metric ruler and calliper. Spalls were noted, counted and reconstructed, whenever possible.

Analysis

Once the experiments were completed, the twenty-five artifacts were photographed and analyzed. Subsequently, the data were compared using simple quantitative measures such as frequencies and percentages, to assess whether patterns existed between different intervals of heating. The experiments were separated into two major groupings, consisting of short duration (2-6 hours) and longer duration (6-12 hours) re-heatings. The results from each experiment are presented in Table 1.

Shorter Duration Heating (2-6 Hours)

Short duration firings resulted in a low degree of thermal alteration. Although the initial two-hour firing did not yield any recognizable evidence of thermal alteration, the subsequent two episodes of re-firing (4-6 hours) did produce limited amounts of thermal alteration, in the form of reddening and cracking. A total of five (20%) argillite specimens had been reddened by the six-hour firing episode (Table 1). Reddening was characterized by weak red (10 R 4/4), dusky red (2.5 YR 3/2), and red (2.5 YR 4/6) Munsell readings, with weak red and dusky red the most common. Perhaps these dull
red color changes represent diagnostic markers, indicative of short duration heating episodes. Only one piece (4%) was cracked. No spalling or potlids were noted. There was no observable weight loss of the argillite assemblage after short duration re-firings.

**Longer Duration Heating (6-12 Hours)**

Longer duration firings produced a higher degree of thermal alteration characteristics. The eight- and ten-hour heating intervals yielded a greater amount of reddening, cracking, and potlids, with accelerated spalling during the final twelve-hour episode of re-firing. A total of seventeen (68%) argillite specimens had been reddened by the twelve-hour firing episode (Table 1). Although a wider variety of reddening was apparent during the longer duration re-firings (dusky red [10 YR 3/4], red [10 R 4/6, 4/8], dark red [2.5 YR 3/6, 10 R 3/6]), red and dark red were most common, perhaps representing diagnostic markers of intensive re-use. Three pieces were cracked (12%) and three items had potlids (12%). Five argillite flakes spalled into a total of eleven flake fragments during the longer duration re-firings. It is noteworthy that spalling did not accelerate until the final twelve-hour firing interval; perhaps additional firing intervals would have produced a far greater quantity of spalled material.

No argillite weight loss was noted until the last episode of heating. The argillite assemblage lost about 1.5g of its total weight during the final twelve-hour interval firing. This may be the result of two factors: First, the final heating interval produced several very small (less than 1/8" [0.32 cm]) spalls; these spalls were screened through a 1/8" mesh screen, perhaps leading to the loss of an unknown number of spalls. The spalled flakes could not be reconstructed, following the last firing episode. Second, it appears that the argillite assemblage became increasingly friable, losing small amounts of mass weight; similar weight loss has been noted among cherts by Mandeville (1973), perhaps due to water loss.

**Conclusion**

A thermal alteration study using argillite stones has been presented. The study was concerned with the identification of thermal alteration characteristics such as color change, potlids, cracking, and spalling on casually discarded argillite artifacts within hearths that were re-heated. The resulting thermal alteration of these re-heated argillite artifacts was assessed to determine whether differential patterns of thermal alteration existed on these stones, dependent upon re-heating episodes. The resulting thermal alteration from these experiments was then analyzed for comparative purposes.

The results from this study have provided valuable information on casually discarded
(thermally altered) argillite stone contained in hearths. The data appear to indicate that there may be a relationship between thermal alteration characteristics found on stones with that of heating duration and re-heating episodes. Longer heating intervals of thermally altered stone generally produced higher incidences of thermal color change, cracking, potlids, and spalling. Conversely, shorter re-uses tended to yield less evidence of thermal alteration.

These data may ultimately complement other forms of information (e.g., stratigraphy, tool types, features, and artifact density) used to interpret prehistoric land-uses. Sites with hearths containing argillite stones that exhibit high incidences of reddening, cracking, potlids, and spalling could reflect long-term occupancy or locations that were re-used periodically. By contrast, sites yielding argillite stones with minimal amounts of thermal alteration could indicate more specialized activity loci of short-term duration.

This experiment specifically dealt with only one possible scenario: accidental firing of casually discarded argillite in and around hearth areas. Deliberate heating of argillite, to make it more workable for manufacturing purposes could produce different thermal alteration attributes. Also, a comparative analysis of argillite from other source areas in the Northeast could produce unlike thermal alteration characteristics due to differential mineral and chemical composition. These research questions will require further investigation.

This particular thermal alteration study should allow for the development of testable hypotheses that will contribute to the interpretation of the archaeological record in the northeastern United States. This methodology, in conjunction with other avenues of scientific inquiry, will enable archaeologists to evaluate prehistoric assemblages of thermally altered stone concentrations in a variety of geographic and temporal settings.

References Cited

Binford, Lewis R.

Bleed, P. and M. Meier

Cavallo, John A.

Crabtree, D.E. and B.R. Butler

Cross, Dorothy
1941 *Archaeology of New Jersey, Volume 1*. The Archaeological Society of New Jersey and the New Jersey State Museum, Trenton.

Custer, Jay F.

Didier, Mary A.
Domanski, M. and J.A. Webb

Flenniken, J.J. and Garrison E.G.

Gould, Richard A.

Hayden, Brian

Hester, T.R.

Ingersoll, Daniel, John E. Yellen, and William Macdonald

Johnson, L.L.

Keeley, Lawrence

Lavin, Lucianne

Luedtke, Barbara E.

Louis Berger Associates, Inc.,

Mandeville, M.D.

Mercer, Henry C.

Pagoulatos, Peter

Purdy, Barbara A.

Rick, J.W.

Semenov, S.A.
Snow, Dean R.  

Spier, Leslie  

Strauss, Alan E.  

Van Houten, Franklyn B.  


Venuto, Paul S.  

Volk, Ernest  

Whitthoft, John  
RADIOCARBON AGES: HOW TO REPORT

Elizabeth A. Little

1. The Material:  
2. The Radiocarbon Age + 1 sigma $^{14}$C years B.P.:  
3. The Radiocarbon Age has been $\delta^{13}$C-corrected for fractionation (i.e., is "adjusted," "normalized," or a "conventional" age): yes _____ or no _____  
4. The measured $\delta^{13}$C value, if available: ________ o/oo. For an estimated $\delta^{13}$C, see Stuiver and Polach (1977): ________ o/oo.

DISCUSSION

Here are some definitions to help in reporting radiocarbon ages (see Stuiver and Polach 1977; Little 1994). B.P. means before 1950. Greek sigma or $\sigma$, is the standard deviation ($\pm \sigma$ is the interval in which the date may fall with a 68% probability). Isotopes are atoms with the same number of protons but different numbers of neutrons; the sum of neutrons and protons is the superscript at the upper left of the symbol for the element. $^{14}$C is the radioactive isotope, $^{13}$C is a stable isotope, and $^{12}$C is by far the most common isotope of carbon. A raw $^{14}$C age is my term for an age without the corrections 1) and 2) to be discussed here.

1) Isotopic fractionation is the selection for or discrimination against the heavier carbon isotopes, $^{14}$C and $^{13}$C, during processes such as photosynthesis or metabolism, etc. Because of fractionation, a plant or tissue can show different ratios of $^{14}$C/$^{12}$C and $^{13}$C/$^{12}$C than those of its carbon source, such as the atmosphere or the ocean. $\delta^{13}$C, where $\delta$ is a lower case Greek delta, is derived from the ratio $^{13}$C/$^{12}$C and reflects fractionation in a sample. It is measured on a mass spectrometer and reported in units of o/oo, or per mil (thousand).

A $\delta^{13}$C correction for fractionation is approximately $16(25 + \delta^{13}$C) $^{14}$C yrs. The conventional $^{14}$C age is the raw age $\delta^{13}$C-corrected. For most Massachusetts plants (C3), $\delta^{13}$C is about $-25$ o/oo, and the $\delta^{13}$C-correction is insignificant. But for certain kinds of plants (maize, eelgrass, spartina are examples), $\delta^{13}$C is $-10$ to $-12$ o/oo and the $\delta^{13}$C-correction would add roughly 225 years to the age. The $\delta^{13}$C-correction is usually approximately $+400$ years for a shell age. Although ages measured in the past were not $\delta^{13}$C-corrected, recently measured ages usually are. If it is not so stated in the lab report, a phone call to the lab, with the lab number, will provide at least a yes or no. If it was not $\delta^{13}$C-corrected, one can estimate $\delta^{13}$C values for many materials from Stuiver and Polach (1977).

2) The Marine reservoir age, $R$, varies with time and location and is older than the atmospheric $^{14}$C age by an average 400 years. This is because $^{14}$C, made in the atmosphere, can spend a thousand years or so mixing with deep ocean water. Thus, marine organisms such as shellfish and fish, and coastal humans, can show apparent ages older than...
their true ages. For Massachusetts, an average marine reservoir age is about 305 $^{14}$C years over time. A reservoir corrected $^{14}$C age for a marine sample can be estimated by subtracting 305 years from the conventional age (Little 1994).

**Calibration** is optional. **Calibrated**, or Cal, years are conventional $^{14}$C years that have been calibrated by reference to tree rings. Since $^{14}$C years do not equal calendar years, subtracting $^{14}$C B.P. years from 1950 will not give calibrated years B.C. or A.D. This practice, much used in the past, needs to be discontinued. If you wish to provide a B.C./A.D. date, it is necessary to calibrate the radiocarbon age to tree-ring calibrated dates. To do this use up-to-date tables or curves such as those in Stuiver et al. (1993). This volume includes a disk with a CALIB DOS program that is still undergoing revision. You may download a current MAC or DOS CALIB program from: <http://weber.u.washington.edu/~qil>.

To calibrate marine shell with marine calibration curves, you need the local correction for the marine reservoir age, $R$. The correction is called $\Delta R$ (where $\Delta$ is an upper case Greek delta), and has the value of $-95 \pm 45$ $^{14}$C yrs for coastal Massachusetts (see Stuiver et al. 1993:155-156; Little 1993,1994). Calibrated ages are given in CALIB in the form: $A +\sigma (A)$ A $-\sigma$ (where $A$ is mean age). Some archaeologists prefer to report $+/-2$ sigma; if you do, make it clear. Always cite your calibration source since calibration curves differ.

For further reading in radiocarbon, see R.E. Taylor’s *Radiocarbon Dating: An Archaeological Perspective.*

**References:**

Little, E. A.


Stuiver, M., A. Long, R. S. Kra, and Devine, editors


Stuiver, M., and H. A. Polach


Taylor, R.E.

Figure 1. Native-owned land in Middleborough and Carver, Massachusetts. (Numbers 1 and 2 [not to scale] superimposed on Map 6, DePaoli et al. 1982.)


2. Sampson's Pond, Carver. A 200 acre grant to "Sonett Indian", 1702 (Shaw 1997).
ARCHAEOLOGY AND THE FIRST PEOPLE OF MIDDLEBOROUGH AND NEIGHBORING TOWNS:
A BIBLIOGRAPHY

Kathleen Shaw Anderson

Middleborough and the adjacent towns of Bridgewater, East and West Bridgewater, Carver and Lakeville have strong historical ties to the First People, to the Massachusetts Archaeological Society, and to the beginnings of serious archaeology in the Commonwealth of Massachusetts.

This bibliography of articles from the Bulletin of the Massachusetts Archaeological Society that reference research and history of the first residents of these towns has been compiled in the hope that it will be useful to archaeologists, historians and to the descendants of "The People of the First Light".

The importance of this area to Native Americans, both past and present generations, long predates the arrival of European colonists. The known period of occupation of this region by Native people was pushed back by several thousand years as a result of the work of Dr. Maurice Robbins and members of the Cohannet Chapter of the Massachusetts Archaeological Society at their excavations on the shores of Lake Assawompsett. Carbon dates obtained from charcoal remnants indicate major villages existed there as long ago as 4300 B.P. (Robbins 1980:328), but humans, whether wandering bands of hunters or living in settlements, were present at least 9000 years before the present.

Even as coastal areas of southeastern Massachusetts were being rapidly settled by the English in the early 17th century, the villages of Nemasket and Titicut (both now part of Middleborough) remained a stronghold of the Wampanoag people (Figure 1; DePaoli et al. 1982: map 6). An Indian Reservation existed in the Titicut area of North Middleborough until about the time of the American Revolution as was described in Weston's History of the Town of Middleboro. (Weston 1906).

In South Carver, descendants of the Sonnett and Seippit families lived on 200 acres "granted" them by the Plimoth Colony in 1702 until the last heirs sold the remaining acres in 1915 (Shaw 1997)(Figure 1:2). Descendants of the Tuspaquin family continued to live at Betty's Neck in Lakeville until the death of Wootonekanuske (Charlotte Mitchell) in 1930. The town of Lakeville seized the last 15 acres from the heirs of Charlotte Mitchell in 1949 (Robbins 1983)(Figure 1:1).

There are many local residents, proud of their Wampanoag heritage, still living in these towns. They, and others who live at a distance, still visit certain places of cultural importance and believe this area has had, from time immemorial, a spiritual significance for Native people.

Distance from Boston and lack of major commercial development maintained both the rural character of these towns and the potential for further archaeological discoveries from colonial times until the present. The town of Middleborough (the U.S. Postal Service calls it Middleboro and this shorter name is widely used) in 1991 commissioned a survey of the source localities of all artifacts from Middleborough in the MAS collection and in known private collections in an attempt to identify significant local sites worthy of preservation or further study. The resulting report is available to the town's Planning Board as it deals
with developmental pressure, but the exact locations are not provided to the general public in an effort to prevent "pot-hunting" and other vandalism.

The imminent availability of commuter rail service and an escalating rate of land development in all these towns now threaten many known sites and doubtless many more yet unknown sites where traces remain of settlements once occupied by the Wampanoag and the peoples who preceded them here.

REFERENCES CITED

DePaoli, Neill, Maxine Farkas, Peter Stott, and Sarah Zimmerman

Robbins, Maurice.

Shaw, John A.

Weston, Thomas.
1906 History of the Town of Middleboro, Massachusetts. Houghton, Mifflin & Co., Boston, MA.

INDEX TO ARTICLES IN THE BULLETIN OF THE MASSACHUSETTS ARCHAEOLOGICAL SOCIETY, VOLUMES 1-57 (1939-1996), WITH REFERENCE TO CARVER, LAKEVILLE, MIDDLEBOROUGH, AND THE BRIDGEWATERS.

MIDDLEBOROUGH:

Clancy, J.J.
1961 Chemical Analysis of Residue from Indian Hill Ceramic Pot. 22(3-4):44.

Dodge, Karl S.

Dunn, Gerald C.
1941 Indians in Bridgewater. 3(3):31-33. (Includes Middleborough data).

Fowler, William S.
1974 Two Indian Burials in North Middleboro. 35(3-4):14.
1975 Magic Stones and Shamans. 36(3-4):10-17.
1982 Discussion of Two Burials from Taylor Farm. 43(2):46-47

Greene, William L.
1942 A Grave in Middleboro. 3(3):35.
1961 Ceramic Pot from the Indian Hill Site. 22(3-4):42-44.

Hoffman, Curtiss

Johnson, Eric S.

Robbins, Maurice

Taylor, William B.
1974 Two Indian Burials in North Middleboro. 35(3-4):14-18.
1976 A Bifurcated Point Concentration. 37(3-4):36-41.
1982 The Taylor Farm Site. 43(2):40-46.

Volmar, Michael A.

THE BRIDGEWATERS (INCLUDING EAST AND WEST BRIDGEWATER):

BRIDGEWATER:

Alvin, Arthur

Dodge, Karl S.
1962 The Seaver Farm Site. 23(3-4):24-29.

Dunn, Gerald C.
1942 Indians in Bridgewater. 3(3):31-33.
Fowler, William S.
1962 Rattlesnake Rock Shelter. 24(1):1-6 (Titicut)
1963 Correlation of Seven Sites in the Narragansett Bay Drainage. 24(3-4):37-44. (Titicut and Nunkatusset)
1964 Contributions to the Advance of New England Archaeology. 25(3-4):50-69. (Seaver Farm, Titicut)

Hartshorn, Joseph H.

Jeppson, Britta D.
1964 A Study of Cordage and Rolled Copper Beads, Burial #6, Titicut Site. 25(2):37-38.

Mason, Estelle

Mello, Joseph

Phelps, Mason M.

Robbins, Maurice
1950 Historical Approach to Titicut. 11(3):48-73.
1967 The Titicut Site. 28(3-4):33-76.

Studley, Irving
1945 Camp Sites in Southeastern Massachusetts. 6(3):36-39. (Titicut and Porter Farm in West Bridgewater)

Taylor, William B.
1972 Seaver Farm Salvage Excavation. 34(1-2):24-29.

Tufts, Florence M.
1949 Warren King Moorehead Chapter. 10-3):53-54. (Titicut)

EAST BRIDGEWATER:

Carty, Frederick M.

Seamans, Raymond J.
1949 Cache Corner at Satucket. 10(4):94-95.

WEST BRIDGEWATER:

Engstrom, Roland E.
Fowler, William S.
1963 Correlation of Seven Sites in the Narragansett Drainage. 24(3-4):37-44. (Nunkatusset) Studley, Irving
1945 Camp Sites in Southeastern Massachusetts. 6(3):36-39. (Porter Farm Site)

CARVER:

Bielski, Edward G.

Fowler, William S.
1952 The Swan Hold Site. 13(2):1-5.
1964 Contributions to the Advance of New England Archaeology. 25(3-4):50-69.
1976 New Discoveries at Swan Hold. 37(3-4):49-54.

Holmes, Russell E.
1963 A Ceramic Pot from the Swan Hold II Site. 24(3-4):51-53.

Roach, Rodney W.

Sautter, Richard C.

Shaw, John A.

LAKEVILLE:

Lord, Arthur C., Sr.

Robbins, Maurice

ARTICLES PERTINENT TO ALL TOWNS,
CARVER, LAKEVILLE, MIDDLEBOROUGH AND THE BRIDGEWATERS:

Fowler, William S.
1948 Triangular Hoes of the Northeast and Their Diffusion. 9(4):83-88.
1964 Contributions to the Advance of New England Archaeology. 25(3-4):50-69. (Swan Hold, Seaver Farm, Titicut, Wapanucket)

Gardner, Russell Herbert
Hallet, Leaman F.  
1956 Indian Trails and Their Importance to the Early Colonists. 17(3):41-46.

Howe, Henry F.  

Studley, Irving  
1945 Camp Sites of Southeastern Massachusetts. 6(3):36-39.

LOCAL AREA REFERENCES FROM MASSACHUSETTS ARCHAEOLOGICAL SOCIETY PUBLICATIONS OTHER THAN THE BULLETIN:

Robbins, Maurice  
1968 An Archaic Ceremonial Complex at Assawompsett. (Published by the Massachusetts Archaeological Society).
1984 The Rescue of Tisquantum Along the Nemasket-Plimoth Path. Pathways of the Past # 1. (Published by the Massachusetts Archaeological Society).
1984 The Path to Pokonoket: Winslow and Hopkins Visit the Great Chief. Pathways of the Past # 2. (Published by the Massachusetts Archaeological Society).
1984 The Monponsett Path: The Capture and Death of Wamsutta. Pathways of the Past # 4. (Published by the Massachusetts Archaeological Society).

A BRIEF NOTE ON SUBMISSIONS

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

Authors with MAC and IBM-PC compatibles are encouraged to mail disks with files in Microsoft Word or WordPerfect 5.1; and another plain text file in ASCII. If you are using other programs, please just send an ASCII file if possible, or if not, a hard copy of your paper (no disk). Additional instructions for authors may be found in the Bulletin of the Massachusetts Archaeological Society, Volume 50, Number 2:76 (1989).

Radiocarbon ages should be reported as radiocarbon years ± sigma B.P. Please state whether δ¹³C-corrected (give δ¹³C) or uncorrected and what material was assayed. If calibrated dates are submitted, please provide information on what calibration method was used. For further directions in how to report radiocarbon ages, see Elizabeth A. Little Bulletin of the Massachusetts Archaeological Society, Volume 58, Number 2:64-65 (1997).
In Memoriam: Terence G. Byrne 1952-1997

by Kathryn Fairbanks

Terence G. Byrne of Duxbury, Massachusetts Archaeological Society Trustee, Co-Chairman and Secretary of Massasoit Chapter, and member of the Robbins Museum construction crew, died March 6, 1997, at New England Medical Center. He was 45 years old.

A teacher in the Duxbury schools, outdoorsman, and amateur archaeologist, Terry joined the Massachusetts Archaeological Society in 1980 and excavated with Massasoit Chapter. In his life-long struggle with hemophilia, he often spent recovery hours reading into local history and the lore and lifeways of Native Americans. It was this background and his sharpness for detail which enabled him recently to correct an error three centuries old concerning a supposed son of Massasoit (Byrne and Fairbanks 1996). Terry hoped next to find clues to the clouded death of Wamsutta in 1662 and to the fate of Metacom’s wife and son. What provoked him most were carelessly-written histories in the popular and juvenile markets. He felt that the public deserved to get the straight facts rather than be entertained by a politically correct mishmash of fact and fiction.

In defiance of his physical limitations, Terry took life straight and never spared himself. At New England Medical he was for years a volunteer testing an experimental artificial blood coagulant. At the Robbins, which his family says became the center of his life, he took on all he could - and sometimes more. What anxieties he expressed were for you and your needs.

Of Terence Byrne may the Lord say as in Scripture, “He gave more than all the rest. It was everything he had.”

REFERENCE

Byrne, Terence G., and Kathryn Fairbanks
In Memoriam: John Alfred Mansfield, 1917-1997

By Paul Gardescu and Tonya Baroody Largy

Born in Cambridge, Massachusetts, Al (as he was called by his friends) Mansfield grew up in Watertown where his interest in archaeology was fostered by surface finds of artifacts along the banks of the Charles River. He was one of the ten founding members of the Charles C. Willoughby Chapter (then known as Group 5 of the Massachusetts Archaeological Society) which held its first meeting in Sudbury on July 11, 1940. At the group's fourteenth meeting on November 13, 1941, it was chartered as the Charles Clark Willoughby Chapter with twenty-five members. On March 11, 1942 "the pressure of the war" caught up to members and all attempts to hold meetings failed (Smith 1949).

Al served in Italy as a Corporal with the U.S. Army, 34th Infantry. After the war, several attempts to reorganize the chapter failed. "Finally, at the insistence of Mr. Mansfield, whose war service had been interspersed with collecting in far-flung fields it was decided to hold a meeting regardless of its size.... The nineteenth meeting, therefore, was held in Concord on September 25, 1948" (Smith 1949:58). The newly elected officers were Chairman, J. Alfred Mansfield, Secretary, Benjamin L. Smith, Treasurer, Harry C. Rice. During this time, Al established life-long friendships with Ben Smith, Hal Movius, and Maurice "Doc" Robbins while surface collecting and participating in local excavation projects.

In the early 1960's, Al attempted to renew the Willoughby Chapter under a second charter. While the meetings occurred over a period of only a few months, this effort demonstrated Al's persistence and the importance of the Massachusetts Archaeological Society to him (Dincauze, personal communication, June 26, 1997).

Al was one of three avocational archaeologists who discovered the Mansion Inn site overlooking Dudley Pond in Wayland in 1951 after earth-moving activities exposed the burial features (Dincauze 1968:12). He described this ten years later in the Bulletin (Mansfield 1961). Dena F. Dincauze based a large part of her Ph.D. dissertation research on Al's collection from Mansion Inn, which was later published by the Peabody Museum (Dincauze 1968). Dincauze also acknowledged Al's contribution to her study on the prehistoric occupation of the Charles River Estuary (Dincauze 1973:25).

Over the years, Al developed a strong sense of the stewardship involved in avocational archaeology. At a time when artifacts commonly were retained by the finders, Al recognized the responsibility of careful documentation and subsequent curation of such collections. He also encouraged others to recognize the importance of curation of materials and field records. Al invited Les Longworth to join him in donating their collections from the Mansion Inn site in Wayland, Massachusetts, to the Massachusetts Archaeological Society's Bronson Museum formerly located in Attleborough. The Society presented to each a "Certificate of Appreciation" at the Annual Meeting on October 14, 1978 (Richard J. Riley, personal communication, July 2, 1997). Both collections presently are housed at the Society's new location, the Robbins Museum in
Middleborough, Massachusetts. In following years, he donated another part of his collection to the University of Massachusetts at Boston.

Al was generous with his time, mentoring many who were beginning an interest in New England archaeology, including these authors who remember his support with affection and gratitude.

Around 1987, Al became acquainted with Charles (Dick) Bartels who also was beginning to develop an interest in regional archaeology. A strong friendship developed between the two leading to Charles' subsequent involvement with the Robbins Museum. Al included Charles in his own volunteer work in the Collections Department of the Peabody Museum at Harvard University, Cambridge, Massachusetts, where he was active after his retirement from Raytheon in 1980. When Al's health no longer permitted travel to Cambridge, he hosted weekly gatherings attended by Charles, Bob Carlson of Framingham, and Paul Gardescu, to discuss archaeology.

From 1960 to 1980, Al was an accountant with the Raytheon Company in its Burlington and Waltham offices. He moved to Wayland in 1965, which became home base for his active interest in local archaeology. His son Jack, of Brookfield, shared and continues that interest.

ACKNOWLEDGEMENTS

The authors thank Richard J. Riley of Quincy, Massachusetts, who interrupted a busy schedule to go through personal notes from his tenure (1976-1978) as Second Vice-President of the Massachusetts Archaeological Society to help pinpoint details about Al's certificate of appreciation. Dena F. Dincauze provided early background information and shared with us her reminiscences about Al.

REFERENCES CITED

Smith, Benjamin L.

Dincauze, Dena F.
1968 *Cremation Cemeteries in Eastern Massachusetts*. Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University 59(1).

MANSFIELD PUBLICATIONS LIST

Mansfield, John Alfred
CONTRIBUTORS

KATHLEEN SHAW ANDERSON is a retired ornithologist, a conservationist, and an active member of M.A.S. with a long-time interest in Native American history.

KATHRYN FAIRBANKS is a retired teacher, and life member and trustee of the M.A.S. She has studied archaeology, and is a volunteer in the Robbins Museum, Middleborough, MA.

PAUL GARDESCU is the Coordinator of the Wayland Archaeological Group of the Wayland Historical Commission. He is a retired landscape architect, a member of M.A.S., and an active avocational archaeologist since 1984.

DAVID R. GEORGE is presently a Ph.D. candidate at the University of Connecticut. His research interests include all aspects of archaeology, with a particular emphasis on archaeobotany and the transition to agriculture in the Connecticut River valley.

BRIAN D. JONES is currently a Ph.D. candidate at the University of Connecticut. His archaeological research focuses on the Paleoindian Period in southern New England prehistory.

TONYA BAROODY LARGY is a consultant in archaeobotany, a research assistant to Dr. Richard H. Meadow, Zooarchaeology Laboratory, Peabody Museum, Harvard University, a graduate student in Anthropology at UMass Amherst, and a long-time member of the W. Elmer Ekblaw Chapter of M.A.S.

ELIZABETH A. LITTLE, a past president of the M.A.S., and a past editor of the Bulletin of the M.A.S., has four grandchildren. She is a research associate of the R.S. Peabody Museum, Andover, and a research fellow at the Nantucket Historical Association.

PETER PAGOULATOS earned his doctorate from the University of Connecticut. He is currently Historic Preservation Officer at Fort Dix, NJ, and a faculty member in anthropology at Brookdale Community College, Lincroft, NJ.

JOHN A. SHAH has lived in South Carver, MA, for 71 years, and as a hobby has undertaken extensive research into the ownership of lands around Sampson's Pond, South Carver, Massachusetts.