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SPACES OF TIME: AN ARCHAEOLOGICAL PERSPECTIVE ON THE DEBORAH
NEWMAN HOMESITE

A Thesis Presented

By

Gary L. Ellis

Submitted to the Office of Graduate Studies,
University of Massachusetts Boston,
in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

August 2021

Historical Archaeology Program

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SPACES OF TIME: AN ARCHAEOLOGICAL PERSPECTIVE ON THE DEBORAH
NEWMAN HOMESITE

A Thesis Presented
by
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ABSTRACT

SPACES OF TIME: AN ARCHAEOLOGICAL PERSPECTIVE ON THE DEBORAH NEWMAN HOMESITE

August 2021

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This thesis serves as an archaeological perspective of a Nipmuc family and their land at Hassanamisco, combining documentary and archival research with archaeological, environmental, and conservational methods. Hassanamisco was the third Indigenous community in New England to accept the teachings of John Eliot during the mid-17th century. In 1727, seven Nipmuc families sold portions of their land in what is today Grafton, MA to 40 English families. Deborah Newman was the granddaughter of one of the original Nipmuc proprietors from this sale of ancestral Hassanamisco land, and through her grandfather's claim she held rights to land and monetary compensation from the Trustees put in place by the colony. By focusing on her family and land, this perspective illuminates how Nipmuc proprietors navigated the Guardianship-system on a daily basis, while also providing a case study for Nipmuc land loss and historical erasure within the broader framework of

colonial encroachment on Native New England lands. The documentary evidence presented within places Deborah Newman and her family at this particular space at Hassanamisco, which is further corroborated by the ceramic analysis of its assemblage. The material culture analyses also reveal specific Nipmuc practices that are connected to a deeper past occurring at the site during this family's occupation; practices that were not introduced by colonists, and remained a part of life afterward. Part of this thesis focuses on the remains of a structure at the Newman site. Evidence suggests it could be more similar to *wetu* or other vernacular Indigenous structure than a framed home with a stone foundation. The Newman site is part of land owned and passed down from mother to daughter, and their space in the overplus lot was the last piece of this lot owned by Nipmuc families before being consolidated by English proprietors.

ACKNOWLEDGEMENTS

This thesis would not have been possible without the help and support from my committee: Steve, Heather, and Christa. Thank you, Steve, for always being chill and someone I could bounce ideas off of. Thank you, Heather, for always being there to chat and to advise me in areas of which I do not know much about. Thank you, Christa, for letting me annoy you since day one; I could always trust the guidance you have given me. A big thanks goes out to the rest of the Fiske Center faculty and staff, everyone is amazing. All of the friends I have made during my time here as well as all of my non-UMass friends have been sources of motivation. Finally, my family deserves a big shout out. Their unending support and love got me to where I am today. This is for my biggest source of inspiration, my sister Niki.

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CHAPTER 1

INTRODUCTION

Utilizing archaeological fieldwork in tandem with rigorous documentary research, this thesis attempts to build on the history of Hassanamisco Nipmuc families connected to a 1727 sale of ancestral Nipmuc land to 40 English proprietors. It also aims to expand our understanding of how a certain section of land in this agreement, the overplus lot, was utilized by this community. Hassanamisco is located in what is today Grafton, MA within an area of upland in central Massachusetts connected to a significant feature of the broader landscape (see Figure 1 below). The Blackstone River Valley provided a reliable mechanism to build valuable economic and social relationships, linking routes from Hassanamisco to the Rhode Island Colony and Narragansett Bay (Gould et al. 2020:42, 129-130).

Beginning in the mid-17th century, the English missionary John Eliot from Roxbury, Massachusetts began a process to extend Christianity and English values to Indigenous communities in the Massachusetts Bay and Connecticut colonies. During King Philip's War (1675-1676) and years following, Hassanamisco faced several hardships leaving the community lessened, but not wholly abandoned. During the 1680s or 1690s, a group of Nipmuc families under the guidance of James Printer returned to their land (see Gould et al.

2020 and Law 2008). This group could trace their family back to significant individuals within the Nipmuc community.

In the time following King Philip's War, the Massachusetts Bay government put in place laws and restrictions to assert control over Indigenous sovereignty, including control of land sales (see Gould et al. 2020; Mrozowski 2019; and Mrozowski and Gould 2019). Beginning with an agreement made in 1725, the seven Hassanamisco Nipmuc families residing there agreed to sell portions of their landscape to 40 English families, while having parcels allotted to themselves as well (TR:ii-3). This transaction placed Guardians [also Trustees] to oversee the account of interest monies due to the Nipmuc proprietors that were made from this transaction. These Guardians managed and controlled money and land assets belonging to the Nipmuc proprietors. This thesis focuses on one of the original seven Nipmuc families from the 1725 agreement, and the later 1727 sale. It also discusses how this family operated within their Guardian oversight, spanning four generations and just over a century in time.

Part of the land agreement included the overplus lot, a 100+-acre tract of land meant to be communal land for the Nipmuc families (TR:ii). This “overplus” lot, as it is labeled on the 1727 map accompanying the land sale agreement (Figure 2), was shortly thereafter divided among the Nipmuc proprietors, eventually being sold piecemeal for needed capital for one reason or another. The first section of this thesis draws details from *The Records of the Proceedings of the Trustees of the Indians at Hassanamisco*. These records are original annual accounts of interest money disbursements from the principal fund of the 1727 land sale, but also includes other bookkeeping notes and descriptions; it is available as a digitized original version on the American Antiquarian Society’s website. These pages combined with other documentary evidence indicate that the reduction and sale of additional Nipmuc-owned lands was often done out of necessity stemming in part from the Guardians abusing their role as state-appointed overseers. These parcels of land became a significant source of capital for many of the Nipmuc families because of circumstances resulting from Guardian oversight that often led to the dire need to sell land.

Elizabeth Abraham, often going by Betty Sampson, was the daughter of Andrew Abraham Sr., one of the original Nipmuc proprietors. She and her daughter, Deborah Newman, resided on the Newman parcel within the overplus lot. In 1728 when the proprietors were planning the plot bounds, Andrew Abraham Sr. was granted a double parcel. A few weeks later he further negotiated another ten acres (TR:3), and since the rest of the plots were laid out the English proprietors agreed to place these ten acres within the overplus lot. It is within these ten acres that Betty Sampson and later Deborah Newman resided, and the location of the Newman homesite.

The first chapter focuses on an historical account of these families that is revealed from the previously mentioned Trustee Records, deeds of land sales, petitions to the Massachusetts General Court, church records, along with birth and marriage records. With these documents I was able to track land ownership and monies owed to the family from the 1727 sale up until 1821 when the Newman parcel was auctioned off. A narrative also emerges from court petitions made by many of the Nipmuc proprietors to make sure they got what they were owed from the Guardians, and is consistent with notes in the Trustee Records. Betty Sampson was one of the most vocal proprietors from Hassanamisco within petitions to the court during this time. Her presence in these records indicate that actions had to be taken to ensure her interest payments were rightfully distributed.

The subsequent two chapters focus on the archaeological excavations completed at the site and surrounding area, and the analysis of its material culture. Excavations at this site are part of a larger collaborative effort between the Nipmuc Tribal Nation, archaeologist Dr. D. Rae Gould, the Andrew Fiske Memorial Center for Archaeological Research, and the town of Grafton, MA. The Hassanamesit Woods Project spans more than 15 years in part working to counter false narratives about Hassanamisco families within the historical and archival arenas, as well as examining daily Nipmuc life during a time permeated by significant change (see also Gould 2010; Gould et al. 2020:45, 109; Law 2008; Mrozowski and Gould 2019; Mrozowski et al. 2009; Pezzarossi 2008; Waski 2018). The material culture analysis begins with a focus on the ceramic assemblage, including a look at the minimum number of vessels (MNV), to understand the forms of the ceramics wares present. This is followed by an overview of the rest of the material culture excavated from the Newman lot.

Following this section, I compare the data generated from this project with other Indigenous sites in southern New England to show the similarities that reveal this site as a living space for a well-known Nipmuc family during the 18th and early 19th centuries. The analyses within this thesis help to illustrate the continuation of Nipmuc families and lifeways within a cultural landscape of dispossession, and attempt to reveal the lived experience of Hassanamisco Nipmuc families during this time.

The mentioned notion of continuation could in this case be better thought of as instances of Indigenous survivance. Using concepts such as survivance (see Handsman 2018; Pezzarossi 2008, 2014; Vizenor 2008 (all chapters)) , persistence (see Law Pezzarossi 2018; Panich 2013; Rymer 2017; Silliman 2009), hybridity (see Beaudoin 2013; Liebmann 2015; Silliman 2015), and other postcolonial views, archaeologists illuminate histories of Indigenous peoples that have been numbed, simplified, altered, or erased through the process of colonization and the history it creates (see also Bagley 2013, 2014; Bragdon 2017; Cipolla 2005, 2013, 2017; Cipolla, Quinn, and Levy 2018; Den Ouden 2005; Gould 2010, 2013a&b; Gould et al. 2020; Law 2008; Law Pezzarossi 2014a&b; Lightfoot 1995; Lightfoot and Gonzalez 2018; Mrozowski 2012, 2013, 2014, 2019b; Mrozowski and Gould 2019; O'Brien 2010; Panich 2017; Panich and Schneider 2019; Silliman 2005, 2008; Silliman and Witt 2010). Whether active or passive, this thesis gives examples of one family's means of continuing their stories, community, and lifeways within a cultural landscape that over time was punctuated by significant changes. Survivance is one theoretical tool or perspective Indigenous and collaborative archaeologists use in an effort to decolonize the discipline of archaeology. As Vizenor (2008:1) states "Native survivance is an active sense of presence...

survivance is the continuance of stories, not a mere reaction, however pertinent.” These perspectives and methods give archaeologists and historians a means to portray and correct histories untold by colonized historical accounts of Indigenous people in North America.

This data combined will suggest two important things. The first is that the Newman parcel was one of the last, if not the last, pieces of the overplus lot to remain in Nipmuc ownership by the time of its sale at auction in 1821. Sometime during the mid-18th century, Betty Sampson claimed her father’s ten acres in the overplus lot and did not move or sell it while the rest of the lot around her was being consolidated into the ownership of English families. Second, the dating of the ceramic assemblage lines up with Betty Sampson and Deborah Newman’s appearance in the documentary record as owners and residents of the parcel.

This thesis provides an archaeological perspective about a well-known Hassanamisco Nipmuc family that is based on multiple field seasons, material culture analyses, and robust documentary research. Utilizing all of these sources in conjunction with one another, I attempt to expand our understanding of the Nipmuc families connected to the 1727 land sale, and the further development of the overplus lot granted within this agreement. While there has been a great amount of work completed at the nearby Sarah Burnee/Boston Farmstead, this thesis further adds an account of Deborah Newman and her family to the body of work about Hassanamisco.

CHAPTER 2

HISTORICAL BACKGROUND

Today the parcel of land that once was the Newman Home lot sits within the Parker Preserve owned by the Grafton Land Trust. This preserve abuts Hassanamesit Woods, another Land Trust property in Grafton, Massachusetts. Both parcels serve as conserved tracts of land for hiking trails, nature preservation, and outdoor education. Sitting within a prime location in central Massachusetts, Hassanamisco's association with the Blackstone River Valley provided access for economic and social ties (Gould et al. 2020). This location granted the means to build relationships with surrounding coastal Indigenous groups, including those from Rhode Island, Narragansett Bay, and eastern Massachusetts.

When Andrew Abraham and his descendants lived there, it was the Nipmuc community of Hassanamisco, translating to “place of small stones” (Gould 2010:41; Law 2008:29). Originally Hassanamisco was some 10,000 acres, and in the 17th century the Nipmuc community around what is today Grafton, MA became the third Indigenous community to accept the teachings of Puritan John Eliot (Gould 2010; Gould et al. 2020; Law 2008; Mrozowski and Gould 2019; Pierce 1879:20; Waski 2018). The history of ancestral Nipmuc land goes back at least 4000 years (Law 2008:1; Mrozowski and Law

Pezzarossi 2015; see also Bagley 2013) and although a complete historical geography is beyond the scope of this thesis, tracing the history of the Newman parcel in particular gives nuance to the broader notion of colonial encroachment on Native New England lands. What is unique about the 1727 land sale to English families is that it marked one of the last major sales of Nipmuc lands, and in 1821 the Newman lot in particular was finally auctioned off and separated from Nipmuc ownership (Worcester County Reg. of Deeds, hereafter WCRD, book 280 pg. 258). The Newman parcel represents one of the last pieces of Nipmuc-owned lands within the overplus lot before the surrounding area was consolidated by 1814.

During the mid-17th century Puritan missionary from Roxbury, Massachusetts, John Eliot began his undertaking to bring the teachings of Christianity to the Indigenous peoples of New England (Gould 2010; Gould et al. 2020; Law 2008; Mrozowski et al. 2009; Pezzarossi 2008; Waski 2018). Meeting houses were built in these communities to provide a place to instruct the Native inhabitants in Christianity and English values, imposing European practices and material goods in an effort to form them into ‘proper’ citizens (Law 2008; Gould et al. 2020; Mrozowski et al. 2009:436-438; Waski 2018:3-5, 10, 114). This effort was funded by a group created by an act of Parliament in England in 1649, originally called The Society for the Propagation of the Gospel in New England (the SPG). Their purpose was to ratify and fund the Christian missionary movements in the colonies. In 1660 this group rechartered into the Company for the Propagation of the Gospel, colloquially referred to as the New England Company. The goal of their funding was to remove financial burden of the missionary program from the colonies themselves (Gould et al. 2020:46, Note 24). Sometime between 1652-1654, the Hassanamisco community became the third

Indigenous community in New England to accept Eliot's teachings and was also one of the first praying towns in Nipmuc territory (Gould 2010:41; Law 2008:29).

The era of King Philip's War, or Metacomet's Rebellion (1675-1676), placed the Hassanamisco community, along with the other Indigenous communities recognized as "Christian towns," into a period of conflict (see Gould et al. 2020:130; Lepore 1998). While a significant portion of Indigenous people supported King Philip's rebellion, many of the Nipmuc families residing within one of these communities were attracted to the teachings of Eliot (Mrozowski 2019b:498), and therefore did not want to get involved in the war. This often put these communities at the center of aggression coming from both King Philip's forces as well English colonists.

In 1675 the Massachusetts Bay Colony authorities ordered all Christianized Indigenous residents to consolidate within one of the "praying" villages: Natick, Punkapoag, Nashobah, Wamesit, and Hassanamesit (Gould et al. 2020:37, 84, 133). Later that year, most of those living in the Christian Indian communities were interred on Deer Island, in the Boston Harbor, where many died facing harsh weather conditions and lack of shelter as well as other necessities (Law 2008:11; Gould et al. 2020:130; Mrozowski 2019b:498; Pezzarossi 2008:31). This is another instance in which the missionary program proselytized by Eliot exerted further control of a welcoming Native population. In addition to the management of daily life that occurred within the meetinghouses, the Christianized Indigenous towns and communities were restricted by geographic bounds that at times would change. In the case of

their internment on Deer Island, for example, Indigenous people perceived as a threat ended up dying in significant numbers (see also Gould et al. 2020:129-133).

Due to effects of the war, the population at Hassanamisco was lessened but never fully diminished (see Law 2008:1, 32). During the 1680s or 1690s, a group of Nipmuc families under the leadership of James Printer returned to take up residence at Hassanamisco (Gould et al. 2020:101, 133); the members of this group were known as the Hassanamesit or Hassanamisco band of Nipmuc (Law 2008:33). It was reported that in 1725, seven Nipmuc families were residing at Hassanamisco (Earle 1861:89).

Colonial records for Hassanamisco are sparse. Most dates given from this point forward come from primary sources, mainly the *Records of the Proceedings of the Trustees for the Indians of Hassanamisco* (further referred to as the Trustee Records, or TR)¹, but also birth and marriage records, church records, petitions to the Massachusetts General Court (hereafter MGC), as well as deeds of title for land transactions attained online from the Worcester County, MA Registry of Deeds (WCRD). Utilizing all of these sources I am able to not only detail Andrew Abraham's family's continual presence at Hassanamisco, but also track the flow of money and shares of the original interest funds owed to them. My research has also allowed me to understand much of the same for each of the original Nipmuc

¹ A note about referencing the Trustee Records. For the most part the pages are numbered; some pages are missing, and others are slightly inconsistent. Overall, they are consistent enough to use as a reliable reference tool. Page numbering began with the official account-taking, but there are a few details on pages prior to that. I will use roman numerals to reference these pages; there are only five pages total this would apply to.

proprietors; as an appendix (Appendix A) to this thesis I created a family tree for the original Hassanamisco Nipmuc proprietors based on these different documents combined with Gould (2010:201) and Mrozowski and Law Pezzarossi (2015:15; see also Gould et al. 2020:103, 157).

After King Philip's War, the Massachusetts Colony put in place measures to assert as much control over the Indigenous populations as possible. This largely resulted in the systematic loss of Native land to the hands of Anglo-English colonists, and two pieces of legislation in particular contributed to this erasure of Native ownership: the 1694 act for the "Better Rule and Government of the Indians," along with an act passed in 1702 limiting how Native land can be sold. The 1694 act for the "Better Rule and Government of the Indians" assigned three English settlers to act as guardians over Native plantations to "inspect and care for" the Native people (Law 2008:32-33; see also Gould et al. 2020 and Waski 2018). The level of control commanded by the Colony over the Indigenous populations was reinforced further in 1702, with an act that restricted sale of Native lands to be conducted only through colonial officials (Gould et al. 2020; Law et al. 2008:11; Pezzarossi 2008:32). These Guardians had the right to sell, lease, and manage the land owned by Hassanamisco Nipmuc families, who themselves had no direct access to the monies managed (Gould et al. 2020:40, 102-104). This, in turn, is an obvious denial of Indigenous sovereignty over their own lands, and it put control of land and asset acquisition into the hands of the Trustees.

On June 9, 1725 the House of Representatives granted a petition for the sale of land belonging to the Hassanamisco Nipmuc for the settlement of forty English families (M.A.

Vol. 113:675-676; TR:ii). A specific acreage and compensation were not voted on at this time, but a few conditions were made for the English families to abide by. Each of the English families were to “build a good habitable house and break up stones in at least four acres of land within three years.” They were also to build a meeting house that would accommodate both the Nipmuc and English families; separate twenty acres of land for a schoolhouse for both Nipmuc and English children; set up a tract of land for an ordained minister; set aside some amount of monetary compensation for the Nipmuc proprietors; and finally to set aside 100 acres “to the said Indian Proprietors, their heirs and assigns for ever.” (TR:ii).

At a General Court assembly on May 31, 1727 a petition was granted at the behest of Samuel Chandler and John Sherman for a committee to be appointed to appraise the land granted in the sale during the June 9, 1725 meeting. This committee made their report back to the General Court on September 21, 1727, which was voted on and agreed to by the House of Representatives on December 8, 1727 (Pierce 1879:36-42; TR:ii). The total land involved was 7500 acres, valued at 2500 pounds. The transaction could go through upon payment, and ultimately on the conditions stated during the June 9, 1725 meeting (TR:ii).

The 1694 legislation forced upon the Hassanamisco Nipmuc three men to act as trustees of the account of that held the principal funds, as well as the interest money earned as payment to the Nipmuc proprietors from the sale. These Guardians [also Trustees] had a significant role in how the Hassanamisco Nipmuc experienced and engaged with their colonial regime, and as will be shown, they many times mishandled the interest money and

principal fund due to Nipmuc families from the original land sale. The Guardians acted as a means to control and manage the prosperity of Indigenous populations in Massachusetts (see Gould et al. 2020). The first three men to act as the trustees for Hassanamisco were Capt. Edward Goddard, Capt. Ephraim Curtis, and Spencer Phipps, Esq. (TR:iii). They were to pay interest money from the sale to the Nipmuc proprietors “as the Court from time to time shall order,” (TR:iii). A final stipulation was that the trustees were to give an annual account of their proceedings to the General Court during the May sessions.

In March of 1728, the Trustees met at Hassanamisco to attend the signing and sealing of the official deeds to the land (Pierce 1879:43; TR:1). Some of the Nipmuc proprietors’ lots were laid out at this meeting, including Andrew Abraham’s (See Figure 2 below). He received 60 acres for himself and negotiated another 20 acres to go to his sister and her husband, Patience and David Abimelock— on the condition they provide and care for their mother during her lifetime. Andrew Abraham also consented to one-quarter part of his original share of interest money going to this couple (TR:2, 52-53). Very shortly after this meeting Andrew Abraham negotiated once more for an extra ten acres, which was approved by the English proprietors, and whose “allowance” was agreed to be placed within the “100 acres” overplus lot (TR:3). The first interest payments were paid out to the Nipmuc proprietors on May 12, 1729. Six of the proprietors received 12 pounds apiece. By this time Moses Printer had passed away, and his share of the interest was divided among his heirs (TR:4). Few details were uncovered pertaining to the age of Andrew Abraham, his wife Deborah Abraham, and their daughter Elizabeth Abraham (later Betty Sampson) except dates of their baptism. According to church records Andrew Abraham was baptized on April 9,

1732; Deborah and Elizabeth Abraham were both baptized on February 4, 1732/3 (Mass. Evangelical Congregational Church records 1731-1774:13, 16; Rice 1906:9). Figure 1 below shows the land parcel divisions from the 1727 sale. Andrew Abraham's parcel is slightly left of center below the intersection of two rivers, and unfortunately due to damage the extent of his land cannot be seen here. The 100+-acre overplus lot is labelled to the left of the parcels, also shown incomplete due to damage.

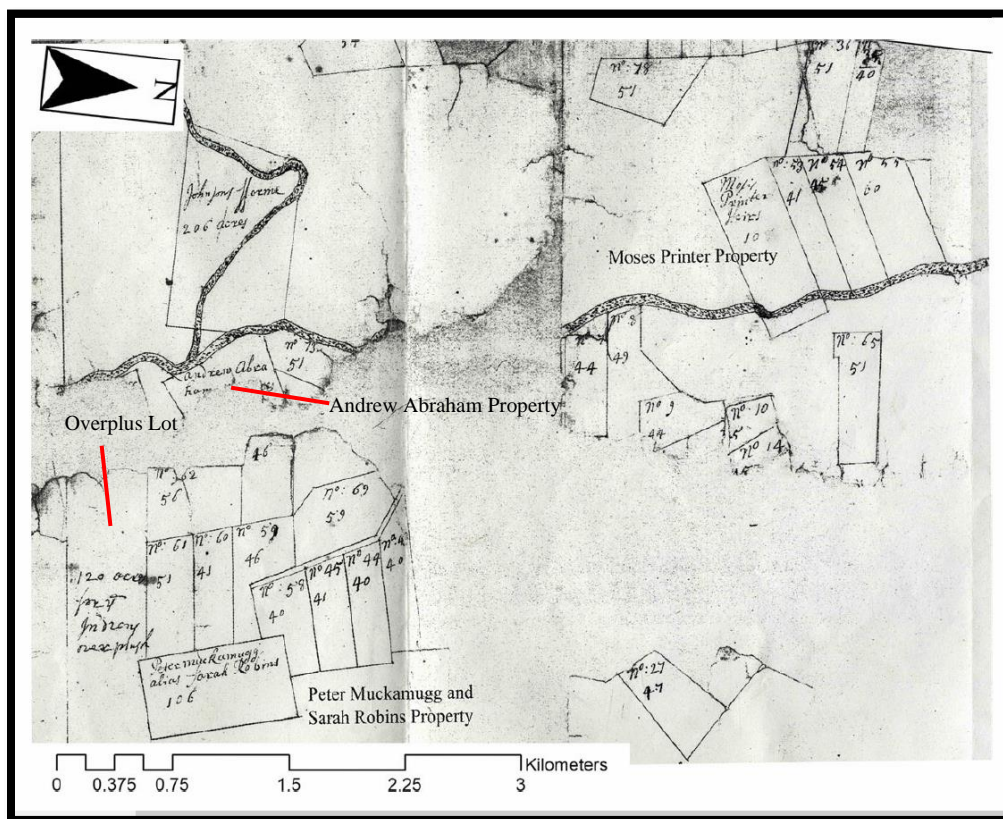


Fig. 2 The 1728 Hassanamisco land allotments, showing Andrew Abraham's lot, the overplus lot, the Peter Muckamaugg and Sarah Robins lot and the Moses Printer lot—today's Nipmuc Reservation. (Map by Jared Muehlbauer, 2015; adapted from the anonymous map that accompanied the 1727 sale of Hassanamisco lands to 40 English families [American Antiquarian Society 1727]).

Until 1739 the Trustees seemed to have been properly carrying out their duties to the proprietors. Each year, up to and including 1738, payments from the interest money earned

from the original land sale were made to each proprietor as due. Normally, the accounts would show each proprietors' name with a line indicating how much they were paid. But from the years 1739-1742 no such lists were made. The only line expressing payment within these pages read either "Made a payment to the Indians," or "Settled the Indians Acct." (TR:27-28). This is the first instance where the Trustees appear to be mishandling the interest money that was due to the Hassanamisco Nipmuc families; they were not paying out the interest from the land sale during these years. During February 1743 Andrew Abraham and the other Nipmuc proprietors petitioned the court for the removal and replacement of the first three Trustees (M.A. Vol. 31:476-477; TR:30). This petition to the court describes multiple complaints including the first arguments to replace the initial Trustees, the inaccessibility to the Trustees due to distance from Hassanamisco, as well as not being paid for nearly two years (M.A. Vol. 31:476). The petition was granted, and the three Trustees were replaced with Maj. John Jones, Capt. Edward Baker, and John Chandler. In March of the same year the court ordered the former Trustees to meet with those newly appointed to hand over the book (the Trustee Records), bonds and other papers, and any outstanding money due to the Hassanamisco Nipmuc families. It was not until June 22, 1744, more than a year later, that this meeting took place (TR:30-32). It could be assumed that the proprietors eventually got their interest payments, because during the 1745 session each was paid out a sum of money much greater than their single yearly earnings from previous years (TR:36-37).

In December of 1747, Andrew Abraham Sr. sold his home parcel to his daughter Elizabeth (WCRD Book 24, page 291)—this was his original lot which lies outside of the

overplus lot granted in 1728 (see Figure 2; also TR:1-2). Prior to this sale, in 1740 Andrew Abraham Sr. passed this land to two of his sons, John and Jonas (WCRD Book 14, Page 223-225). These two brothers of Elizabeth Abraham had presumably passed away shortly after, Jonas later in the year 1740 (Rice 1906:317).

The account in the Trustee Records for May 2, 1748 is the last record indicating Andrew Abraham was alive (TR:46-49). On page 46 of the records there is a list recounting the original shares being paid out to those still alive. At the bottom of the page is a separate list that appears to be the heirs to the original Nipmuc proprietors. This list is the first instance of Andrew Abraham's share going to his daughter Elizabeth and the first time she appears as Betty Sampson. Although, since it is written in a different style and she appears later in the official record-taking first as Elizabeth Abraham, I am assuming that the list at the bottom of page 46 was added after-the-fact, likely as an act of book-keeping. The account entry for May 2, 1748 reads "Andrew Abram [Abraham] & wife," (TR:48). The account for May 1749 reads "Andrew Abrams heirs viz. his widdow [sic], daughter, and grandchildren," (TR:50). Records indicate that Deborah Newman was born later, so the mentioned grandchildren on page 50 are likely her siblings; the daughter mentioned being Deborah's mother Elizabeth Abraham. There is evidence that Andrew Abraham passed away in 1747, and the payment made in 1748 was incorrectly made to Andrew Abraham Jr. (M.A. Vol. 208, Doc. 458).

These records show that Andrew Abraham Sr. passed away shortly after selling his home parcel lying outside of the overplus lot to his daughter— at this point Betty Sampson

was presumably residing on the ten acres in the overplus lot. Three years later in 1750, Elizabeth Abraham sold her father's land, not including the 10 acres in the overplus, to Ephraim Sherman (TR:60; WCRD Book 29, Page 250-251). The two land records describe the same piece of land in almost the same terms. In the 1750 deed Elizabeth Abraham even states after detailing the bounds of the property "... or however otherwise bounded or repeated to be bounded being the Land my Late Father Andrew Abram's," (WCRD Book 29, page 250). It may also be said that Elizabeth Abraham negotiated a profit from this sale. She purchased her father's land for "400 pounds Old Tenor," which becomes roughly 53 pounds 6 shillings and 8 pence Lawful money (see Library of Congress 1750). The price she sold the land to Ephraim Sherman three years later was for 81 pounds Lawful money (WCRD Book 29, page 250), an increase of over 26 pounds, or roughly 32%.

This sale of land coincides with another 1750 land deal. Sarah Muckamaug and her husband Fortune Burnee petitioned the MGC to sell a portion of her land that lay too far removed from their farmstead. She and her husband wanted to get 200 pounds as the value for the piece of land, with which they wanted to build a house and possibly buy some cattle (M.A. Vol. 31:694; Mrozowski and Law Pezzarossi 2015:23). The petition was granted by the Court, allowing the plot to be split into two segments and sold the next year. What the results from this exchange exemplify are just how much advantage the Trustees had over Nipmuc families. The 1694 and 1702 legislations basically put the power to consolidate money and lands into the hands of Trustees and Guardians of the Hassanamisco Nipmuc or other English households; and proceeds from these transactions often made their way into the same hands.

When Sarah Muckamaug and Fortune Burnee were trying to get 200 pounds to build a home and livelihood, the outcome came nowhere near this. The parcel was sold in 1751 to Hezekiah Ward who received 46 acres and Abraham Temple who bought 30 acres. The amount that these men paid was only 30 pounds and 4 pounds, respectively (M.A. Vol. 32:247). A total of 34 pounds comes nowhere close the asked-for price of 200. Additionally, much of the proceeds that went to Sarah Muckamaug and her husband were further tapped by the English proprietors. More money went directly to Hezekiah Ward for work he did constructing a home for Sarah and her family, various small amounts of outgoing funds for clothing, and again even more money into the hands of the Trustees for time and expenses working on this account, which was part of their position anyway. In the end Sarah Muckamaug and Fortune Burnee were left with just over 12 pounds (M.A. Vol. 32:247; Mrozowski and Law Pezzarossi 2015:23). It is very common within the Trustee Records to see the Trustees charging Nipmuc families for tasks that seem to be part of their job; many times, they even charged the Nipmuc proprietors for travel and lodging expenses getting to Hassanamisco.

There is a large gap between the amount Elizabeth Sampson was paid compared to Sarah Muckamaug and Fortune Burnee. I would argue that the land sold to Ephraim Sherman was seen as more valuable, with the Burnee parcel being a “full three miles” away (M.A. Vol. 31:694; Mrozowski and Law Pezzarossi 2015:23), while the land Elizabeth Abraham sold held a prime location along the nearby river. This gives an example of how much leverage the Trustees had over the Nipmuc families in some respects. They were able to pay

Sarah and her husband an amount nowhere near the asking price, receiving roughly 2.24 acres per pound, where Elizabeth Abraham was able to sell for 0.62 acres per pound.

Beginning in 1750, Elizabeth Abraham is listed by name in the trustee records (TR:56). There are different iterations of her name that appear in these pages; Elizabeth Abraham, Elizabeth Abram(s), Elizabeth Sampson, and finally Betty Sampson are all aliases for the same person. On May 30, 1756 Elizabeth Abraham married a man who is typically referred to in records as just Sampson (Rice 1906:157, 275). His surname is Tommac, as a birth record shows Deborah Tommac (later Deborah Newman) being born on September 26 of the same year to parents “Sampson and Elisabeth;” each line in these records has an indicator that they are Indigenous (Rice 1906:130).

Sometime between the 1762 and 1763 sessions, a vote was taken and the second round of three Trustees were replaced by Artemas Ward, Timothy Paine, and Ezra Taylor, Esq. (TR:88). The records do not indicate a reason for replacing the Trustees, and a petition or resolution stating such could not be found. The account record for 1763 indicates that John Chandler passed away (TR:90), but no reason given for the replacement of the other two Trustees.

Elizabeth Abraham first appears in the official account as Betty Sampson in 1763, listed alongside her mother Deborah Abraham (TR:90). Page 92 of the Trustee Records includes accounts for both years 1764 and 1765. Betty Sampson appears under both names, with two separate lines near the bottom with specific details pertaining to this family’s account. One is for “sundry” items needed for the care of Deborah Abraham while she was

sick; she passed away in 1766 (TR:93, 108). The other line reads “Surveying and Selling Sampsons land,” for which they received six shillings and six pence (M.A. Vol. 33:333; TR:92). I could not find to whom the land was sold either within the Trustee Records nor the Worcester County Registry of Deeds (see Gould et al. 2020:157-158), but we know it is not the small piece of land within the overplus lot where the Newman site is. It is possible the land in this transaction was a sibling’s or land from her husband Sampson Tommac. Or given the small price, it could have even been a tiny portion of her claimed piece of land within the overplus lot.

The record for 1766 also lists several extra details particular to Betty Sampson and her family. Upon dividing Andrew Abraham’s shares after Deborah Abraham’s death, it refers to Elizabeth Abraham as “His daughter Betty,” (TR:93). It lists at the top of page 94 interest for one year due to her, which she did not receive when it was originally owed (M.A. Vol. 33:415; TR:94). Next it lists Abner Stow buying Betty Sampson sundry supplies “per order,” along with Ephraim Sherman purchasing a house for her, at a cost of two pounds thirteen shillings and four pence “per order of the former Trustees,” (M.A. Vol. 33:415; TR:94). The following line reads “paid Dr. Darling for Betty Sampson and her children.” This is the first instance where it is made known that Betty Sampson had children, according to the Trustee records. The next line accounts for two spelling books and a primer for Betty Sampson, purchased by Benjamin [illegible]. At this point Deborah Tommac (Newman) was almost ten years old, and she very likely could have used these books in her studies. The last two details are “a pair of [cards?] for the use of Betty Sampson,” as well as repairs made to her house (M.A. Vol. 33:415; TR:94).

The record for this year is unique in that it accounts for money and services given to Betty Sampson from some of the English proprietors at Hassanamisco aside from the yearly interest share conceded to in the original agreement. These English proprietors are also some of her property's adjoining neighbors. Elizabeth Abraham was one of the more vocal Hassanamisco proprietors when it came to exercising her rights within the colonial legislative system. This could very well have been a way she made sure that she got what was rightfully due to her. Once again, the 1768 record starts off by paying Betty Sampson interest for one year previously owed to her, along with her regular payment (TR:98). This is but one of a few times where she was not given her rightful due in a timely manner, and she took it upon herself to make sure that she got the money she was owed. This also occurred in 1770 (TR:102), and again in 1772 when she was owed interest for two previous years (TR:104).

After 1772 there is a large gap in the Trustee's Records until 1796. This absence of account-taking is also mentioned in John Milton Earle's 1859 report to the governor (Earle 1861:91). It appears that this is a result of the Trustees again abusing their role over the Hassanamisco Nipmuc families (see also Gould et al. 2020:157-158). Page 105 of the Trustee Records indicates that no records exist between the last record of 1772 until 1796, during which time the "principal sum seems to have been reduced from \$1939.33 to \$1043.85, a loss of \$895.48." There is no reason given for the drastic decrease in the funds except reference to "a desperate debt due from Capt. Stephen Maynard," who was one of the Trustees at the time (TR:105; see also Earle 1861). The reduction of funds during this gap results in a loss of about 46%, and unfortunately this is not the first instance of something like this happening. During a meeting that occurred in 1745, mentioned in Earle's report

(Earle 1861:90-91, 96), there was an exchange of bonds from the Nipmuc account (TR:35-36). What Earle describes is that this conversion of money results in a 41% reduction of the principle sum belonging to Nipmuc families. The Trustees, acting in accordance with the Massachusetts Bay government, during this exchange were able to manipulate currencies in order to give back a depreciated tender. The principal sum left in the Nipmuc account from this exchange is \$1939.33, which is the starting amount listed for the reduction mentioned above during this gap in the records.

During this gap in the records, between November 1775 and March 1776, Elizabeth Sampson submitted two petitions to the General Court of Massachusetts. The first petition on November 11, 1775, was from her along with other Nipmuc proprietors at which point they were trying to get interest money due to them from the Trustees (M.A. Vol. 144:338-339). Thirty years after Andrew Abraham, Sarah Robbins, and other Nipmuc proprietors had to petition the government with significant complaints about their Trustees, another generation of Hassanamisco Nipmuc had to do the same thing. Elizabeth Sampson, Sarah Burnee (Sarah Muckamaug and Fortune Burnee's daughter), and two other Nipmuc women petitioned the MGC on behalf of themselves and "of the other Indian proprietors" during very dire times of need (M.A. Vol. 144:339). This petition dated in November describes a great amount of distress in the community due to sick family members.

The petitioners make sure to note that the levels of distress and their inability to care for the sick was largely due to the fact that the Trustees have not paid out interest money to Nipmuc families that May (M.A. Vol. 144:339). This indicates that in this six-month period

the Hassanamisco community went without their interest payments and had to try to care for very ill individuals in the meantime. This 1775 petition is signed by all Nipmuc women. And though this is a common occurrence throughout petitions to the MGC and other official documents, this particular case could be due to the fact that some Nipmuc men were serving military duty; Deborah Newman's husband Isaac served in the Continental Army from 1774-1777 (Mrozowski and Law Pezzarossi 2015; Mrozowski and Gould 2019:415; see also Gould et al. 2020:112). The fact that Nipmuc men were serving in the military means they were not at Hassanamisco, and that the Nipmuc families' need for their financial dues from the Trustees at this time was even greater because of this. Nonetheless, it is still likely to be a factor of female leadership within Nipmuc communities. Women in families acted as agents of family inheritance and land; a notion that ran counter to the paternalistic attitude held by colonial and state entities (Gould et al. 2020:101-104, 111-112). Misuse of the funds by the Trustees could very well be a reason no records exist during the years 1772 through 1796, as well as the lack of payments. The resolve for this petition on January 17, 1776 stated that the Trustees were once again to be replaced (M.A. Vol. 114:338-339).

The second petition during this time, made on March 11, 1776 was solely from Elizabeth Sampson. This record is unique in that her engagement with the colonial Massachusetts Bay legislative system resulted in amending how the guardians were supposed to conduct themselves procedurally. The circumstances regarding her petition are also unique and are further evidence for the mishandling of money by the Trustees during this gap in the Records. She petitioned the General Court for two reasons, both of which include not being paid money she is again owed.

In 1765 Ebenezer Wheeler trespassed on her property, and he was actually charged by the Trustees and ordered to pay a fine of five pounds (M.A. Vol. 208:458). As the records show, he promptly paid the fine on August 21 of the same year to the Trustees. This petition from Elizabeth Sampson is a full 10-11 years after the trespass was committed, and she had yet to receive payment or even an outcome to the decision. The other reason for her petition is that her father's share of interest payments was not being paid out correctly, being distributed by the Trustees to all of Andrew Abraham's children "at their own Discretion" (M.A. Vol. 208:458). It seems that it was her father's desire that Elizabeth Sampson be paid his share because she was taking care of her mother, Deborah Abraham. Included in this petition is a testament made by her brother, Andrew Abraham Jr., stating that in 1747 before Andrew Abraham Sr.'s passing said Andrew Abraham Sr. ordered the Trustees at the time to pay out his share to his daughter Elizabeth. This statement by Andrew Abraham Jr. is him forfeiting the rights to shares he had through his father (M.A. Vol. 208:458). The resolve made on April 19, 1776 ordered that her rightful dues be correctly distributed to her, and the MGC also ordered the Trustees to improve their methods "as the Law directs" for the recovery of debts (M.A. Vol. 208:457).

Through the second petition mentioned here, Elizabeth Sampson was able to force changes to the way the Trustees conducted themselves pertaining to the recovery of debts due to the Nipmuc proprietors. The first petition during this time led to another appointment of new Trustees. Though the resolve to this petition does not mention the names of the newly appointed Trustees at the time, there is note that in 1787 the Trustees were Edward Rawson, Willis Hall, and Stephen Maynard, Esq. (TR:105). This would indicate that the trustees

appointed through the resolve made on January 17, 1776 may have had only a partial role in the missing records from 1772 and 1796, and that Stephen Maynard (who was newly appointed) potentially accrued a large debt by embezzling funds from the Nipmuc account.

When the Trustee Records pick up in 1796, the Trustees break down how shares have been divided through the years as people reached adulthood and others passed away (TR:107-110). This may well be an attempt to have some sort of record for the missing years. Within these pages Deborah Newman is listed as a proprietor. A few details emerge at this point. One is that Deborah Newman's mother, Elizabeth Sampson, passed away. A year for her death is not listed within these records, but a 1787 deed gives more detail about this. It is a deed recording the transaction from Benjamin Wiser to Abner Stow for a parcel of land that was adjacent on the west side of the Newman family parcel, and it specifically mentions bounding "to the lands of the heirs Elizabeth Sampson Indian late dec." indicating that prior to this land sale Elizabeth "Betty" Sampson passed away (WCRD book 119, page 437). Given the date of her petition to the General Court along with this land sale, Betty Sampson likely passed away sometime not long before 1787. Additionally, another land transaction dating to 1794 between Abner Stow and Peter Pratt for roughly the same parcel of land bounds lands of "the heirs of Elizabeth Sampson Indian deceased," (WCRD Book 124, page 198-199). It is not uncommon within the Trustee Records and land deeds for them to refer to an individual Nipmuc proprietor followed by "dec." long after they have passed away, especially in cases such as this where the individual had a continual presence within them. The second detail emerging from these pages indicate that Deborah Tommac got married. A marriage record is not available, but the following pages of the Trustee Records show that

she was married to Isaac Newman (see TR:111-128). A third and final detail is that she took over her mother's parcel of land in the overplus lot, as well as part of her shares of the original interest money (see TR:107-110; WCRD Book 135, page 586-587 and WCRD Book 144, page 339-340).

The first account after the large break in records is for September 6, 1796 and lists Deborah Newman, but not her husband Isaac (TR:110). She is listed with her husband beginning the next year. For the majority of the entries regarding them, Isaac is either listed first or Deborah is being signified as his wife specifically. This at least makes it seem that Isaac Newman is being treated as the head-of-household and is a notion that runs counter to Nipmuc matrilineal structure (see Gould et al. 2020:83, 103, 111). It is not obvious whether this was purposeful or not. If indeed the trustees were ignoring the matrilineal system of the Hassanamisco Nipmuc on purpose, then would be an instance of colonial erasure and the systematic restructuring of Indigenous lifeways via administrative recognition. This level of erasure can also be seen within land records for transactions surrounding the Newman parcel, specifically how the small Nipmuc-owned portion of land left in the overplus lot was referred to within these documents (see Gould et al. 2020:83).

Throughout the late 18th-to very early 19th centuries, the same families began to acquire most of the land within the overplus lot. By 1800 most of the overplus lot was owned in large parcels by these few English families. During the next ten years small bits of land to the east of the Newman site are juggled between the same few people, namely Ebenezer Leland and Ebenezer Leland Jr. While the land to the west of the Newman site seems to have

been kept largely intact by other English families until acquired by Ebenezer Leland Jr. in 1801, the parts to the east are transferred around or mortgaged until 1812 when the land consolidates back into the hands of Ebenezer Leland Jr.

It is known from multiple documentary sources that Deborah and Isaac Newman resided on and also improved the parcel. Her home and land are listed on two maps as “Debby Newman” (Anon. Nd. and Anon. 1886; see Figures 3a., 3b., and 4 on following pages). A land transaction between Peter Pratt and Silas Fay for an adjacent property in 1799 states upon bounding the Newman lot, “to land improved by Newman,” (WCRD Book 135, page 586-587). Another deed in 1801, between Silas Fay and Ebenezer Leland Jr., bounds “land in possession of Isaac Newman,” (WCRD Book 144, page 339-340). These two transactions again are for roughly the same piece of land cited in the 1787 and 1794 transactions mentioning Betty Sampson.

In 1803 the trustees changed once again. On February 9, 1803 Johnathan Woodbury and Eli Whitney were elected to take the places of Isaac Harington and Edward Rawson (TR:117-118). Edward Rawson is mentioned previously as a trustee earlier in the records, but no account is given of when Isaac Harington assumed the role and may be inferred that it occurred during the gap in the records. In the 1808 account Benjamin Heywood is listed as one of the trustees but no mention of him is made earlier, or as to who he replaced, if anybody (TR:123).

Until 1813 the records would appear to make it seem that things were going smoothly. Yearly accounts were made, and each proprietor was paid accordingly. After the record for September 6, 1813 there is a note in the extra space on the page, written in

graphite instead of ink, stating that once again there are no records (see also Gould et al. 2020:157-158). Beginning with “From this time, Sept. 6, 1813, till 1828 there appears to be no record of the [charges/changes] of the trustees,” (TR:129); it seems to be focusing on fluctuations of the trustees rather than a lack of financial record-keeping in the interest of the Nipmuc proprietors. It says that “papers on file” tell that Benjamin Heywood left the trust of his own accord on February 8, 1814 and was replaced by A. Goodall (TR:129).

Unfortunately, Deborah Newman and her husband are no longer listed in the few remaining accounts of the Trustee Records. Further archival evidence for them pertaining to residence and age is unavailable, and the few death records I found for Deborah Newman remain inconclusive as I cannot say for sure if one of the records I have is the correct Deborah Newman. Deborah and Isaac Newman’s children, Otis and Lucy, are named in the few relevant pages and discussed below, though their presence in them is not as detailed as that of their relatives’.



Fig. 3a Property map from the 1727 land sale of Hassanamisco showing bounds and deed transaction records of the overplus lot. (Anon. Nd.)

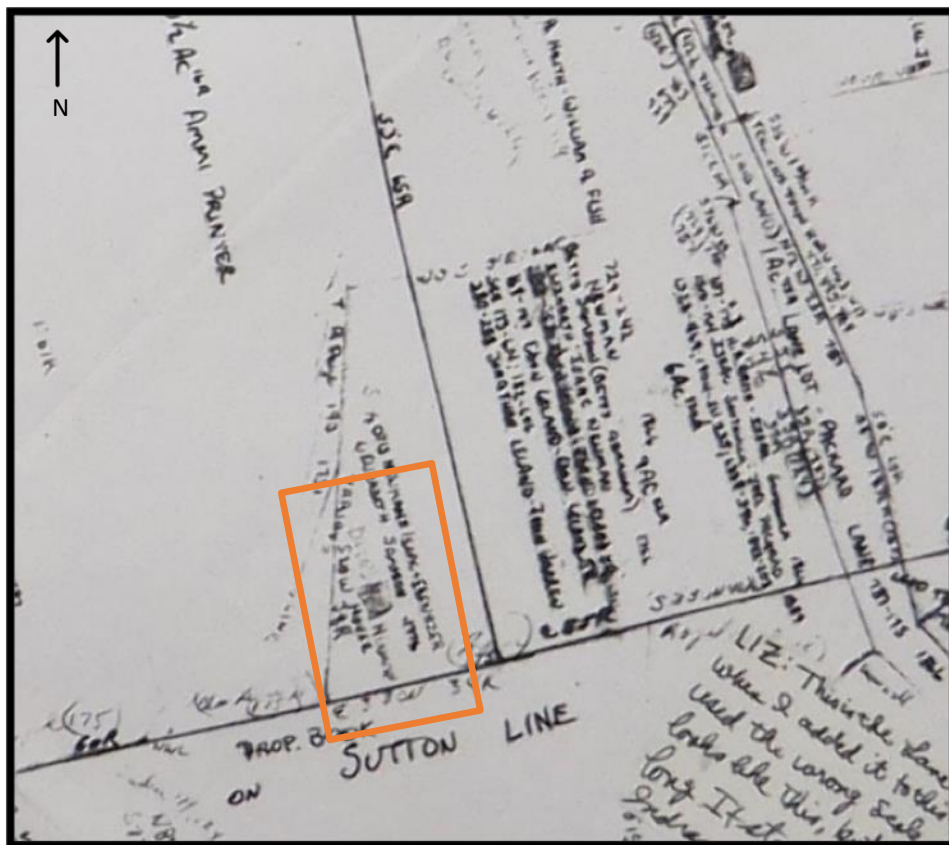


Figure 3b Detailed section of Figure 2a, outlined by white square, depicting the Newman home site with “Debby Newman” labelled at location of excavations (outlined by orange). Not to Scale (Anon. Nd.).

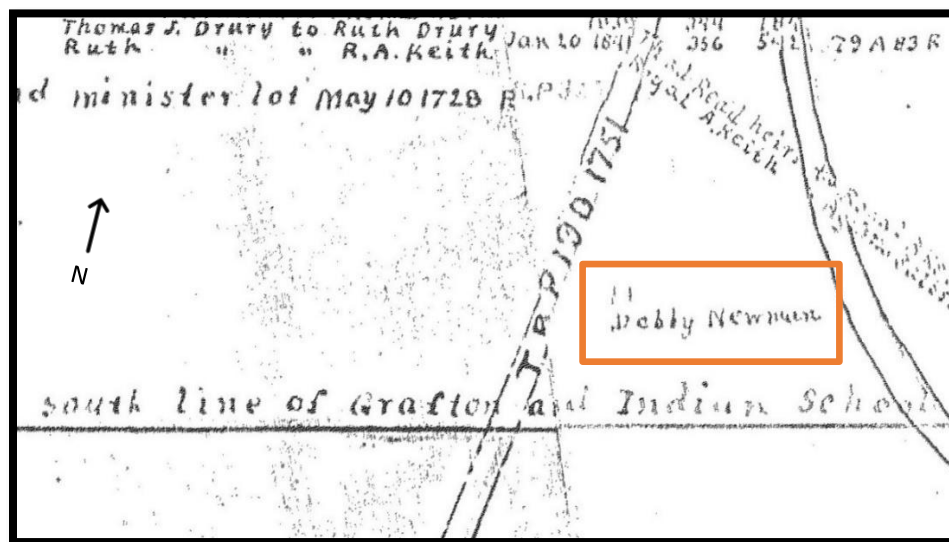


Fig. 4 Portion of the 1886 Royal Keith Deed map. Enlarged to show designation of “Debby Newman.” (Anon. 1886).

After the surrounding land was consolidated under Ebenezer Leland Jr. in 1812, he sold the entire area to John Warren in 1814 (WCRD Book 190, page 449-450). The total land stated in this record is 67 acres and 91 rods, and depicts the land around the Newman parcel. The Newman lot is mentioned within this transaction where part of the bounds comes to “a corner at Otis and John Sherman’s land,” (WCRD Book 190, Page 449-450). Starting around the 1800s when Ebenezer Leland Jr. was buying, mortgaging, and eventually selling his property the mentions of the Newman family owning their parcel become more and more vague as more surrounding land was under ownership the same person. Many of the transactions between the years 1801-1814 that are depicting the overplus lot or Newman parcel in particular eventually just use the south border of the Hassanamisco overplus lot, heaps of stone, and land markers of property already owned by English families as descriptions for bounds. It is as if Ebenezer Leland Jr. knew at some point he would own the surrounding land, and eventually stopped describing the Newman parcel using terms that referred to the Newman family.

Between pages 129 and 130 of the Trustee Records, a piece of paper is inserted dating August 20, 1828 that accounts for five “original funds” of families or individuals. For citation purposes this section of paper is labelled as page 129-130, because that is as it appears on the paper and nothing is written on actual page 130 of the Trustee Records. These are names of the current heirs to the original fund (this list is also recounted in Earle 1861:94). Under two of the accounts reads “Half of Otis (or O.) Newman’s original fund, due from him,” going to the Phillips family and Lucy Gimbee (TR:129-130). The names in this list are Phillips family, Brown family, Lucy Gimbee, Moses Gimbee, and “Polly John’s

family,” (Earle 1861:94; TR:129-130). Originally, since I did not see the names of Otis or Lucy Newman on this page, I assumed that it could be incomplete. But two significant details could explain this. Lucy Newman is listed in January of 1829 as the heir to Polly John (TR:134), and earlier unnamed as “the heirs of Polly Johns,” (TR:131). It is likely that Lucy Newman was included under the 1828 account for “Polly John’s family” on page 129-130 of the Trustee Records.

Regarding Otis Newman, he is deceased by the time the account is taken in 1828. In 1821 there was an auction to sell off the Newman parcel, specifically referred to as “the late residence of the Newman family” within the document (WCRD Book 280, page 258-259). Drafted in 1821 between Jonathan Leland to John Warren, the record states that Otis Newman is since deceased (WCRD Book 280, page 258). This would explain his absence in the 1828 account of the Trustee Records (TR:129-130), and subsequently. What his mention on page 130 accounts for is the division of his shares being owed to the Phillips family and Lucy Gimbee in two equal portions, rather than going directly to his sister.

Why his share did not go to his sister is unclear, because Lucy Newman is listed a few times within the last few pages of the records indicating she was alive and in the community. But this division of funds is only one of the final examples within the Trustee Records where parts of shares or pieces of land belonging to Nipmuc families were transferred around to pay credits, bills, or other debts (see also Gould et al. 2020:103-104). The final year where anything is paid to a Nipmuc family member is 1831 (TR:138). Pages 131-138 roughly account for only one to two years, and the details become sparser. The dates

between payments become closer together; sometimes they are a full listing of heirs, other times a single person. The last line detailing anything being paid out to a Hassanamisco Nipmuc heir is on May 18, 1831, where Sarah Phillips is being paid with a hoe— it cost \$0.37 at the time. She did receive \$2.00 cash a few weeks prior, but this just further illustrates examples showing how fluid the exchange and value of the original interest from the 1727 land sale became in just over 100 years.

The 1821 auction of the Newman family land transferred over to John Wheeler that small, nine acres and 52 rods worth of land in the overplus lot that was missing from his landscape. This particular piece of land is very likely the extra ten acres Andrew Abraham was granted within the said 100+ acres (see TR:3). Betty Sampson took up residency here, presumably after 1750 and before 1765 when Ebenezer Wheeler was charged with trespassing. Given that Andrew Abraham negotiated these ten acres in 1728, it is also possible that Betty Sampson was living on the Newman parcel prior to 1750.

Records indicate that other heirs to Andrew Abraham also resided nearby within the overplus lot. Submit W. is Betty Sampson's niece, and cousin to Deborah Newman. She first appears in the Trustee Records with her mother Deborah W. in 1753, and first solo in 1757. Deborah W. is presumably a sister to Betty Sampson. In 1780 Thomas Nichols sold a parcel of land within the overplus lot to Nath. Batcehellor (WCRD Book 82, page 349). This parcel is east of the Newman parcel, and bounds "a heap of stones joining Hezekiah Taylor's wall and Submit W[...]s upper division of said hundred acres now the property of Thomas Nichols," (WCRD Book 82, page 349). This not only shows that other heirs to Andrew

Abraham Sr. and relatives of Betty Sampson were also living within the overplus lot, but that these heirs may have received their own divisions within it. Betty Sampson and Deborah Newman lived on their property without selling it even as land was bought and consolidated around them; and even after land records show a process of their names being erased from the land transaction records (see Gould et al. 2020:83).

The original records and early pages of the Trustee Records indicate an agreement whereby the Nipmuc proprietors could live and prosper on the agreed-upon terms; receiving both personal land, as well as 100+ acres of common land “to the said Indian Proprietors, their heirs and assigns for ever,” (TR:ii). Indigenous lands were seen as being wasted through the capital-based lens of European and Anglo-American colonists, and the system within which the 1727 land sale was proposed had been designed to whittle away at Indigenous rights over their land. This historical account is an example of how the intersection of settler colonialism and capitalism has resulted in loss of Indigenous lands, and the erasure of Native histories. The New England Company funded the effort to spread Christianity and English values into the Massachusetts Bay and Connecticut colonies. This movement acted to both replace the lifeways of Indigenous populations with that of English colonists, as well as to find a means of capitalizing on the land and resources in New England. The examples within this chapter where Hassanamisco Nipmuc individuals or groups used the colonial legislative system against itself are only a few of the occurrences where this happened— showing that some of the Nipmuc families at Hassanamisco were not as willing to part with their land as the records may indicate.

The Trustee Records along with land transactions, birth and marriage records, and petitions to the Massachusetts government allowed me to detail the presence of this family at Hassanamisco, and eventually at their parcel of land within the overplus lot, as well as their shares of interest money from the original principal fund. What is shown through the records is the piecemeal reduction of Nipmuc owned lands, which reflected the larger-scale colonial encroachment on Native homelands in southern New England. Land and deed transactions indicate that the overplus lot became divided among the Nipmuc proprietors and eventually sold off to English families for funds to support themselves and their community.

This historical account attempts to expand our understanding of how the overplus lot was utilized and changed over time, as illuminated through the documentary record. The following chapter details the Hassanamesit Woods Project, a collaborative project that seeks to further understand the Hassanamesit cultural landscape surrounding the 1727 land sale. I describe excavations completed across the greater area, and further detail the excavations completed at the Newman parcel within the overplus lot. Following this is my analysis of the site's material culture.

CHAPTER 3

PROJECT HISTORY AND EXCAVATIONS

Excavations at the Newman home site are part of a larger collaborative effort between the Nipmuc Tribal Nation, the Andrew Fiske Memorial Center for Archaeological Research, archaeologist Dr. D. Rae Gould, and the Town of Grafton—a project that spans more than fifteen years. The Hassanamesit Woods Project, along with work conducted by Dr. Gould at the nearby Nipmuc Reservation, more specifically the Printer/Cisco Home Lot (see Gould 2010 and Gould et al. 2020), seeks to explore the history of Hassanamisco and the Nipmuc families who lived there through archival and documentary research coupled with archaeological, environmental, and conservational methods. Since its inception in 2003 Dr. Mrozowski at the Fiske Center has worked closely with Dr. Gould and the Nipmuc Tribal Nation, not only to establish a reliable and steady flow of communication, but also to address any concerns that the Nipmuc Council members may have about the archaeological process. In the early days of the Hassanamesit Woods Project the Nipmuc Council were concerned, and rightfully so, that conducting archaeology on their lands would disturb the peace of their ancestors and would not result in anything worthwhile. Unfortunately, the first part is true; archaeology is a destructive process. But seeing results of the project over a few seasons

convinced the Nipmuc Council members that archaeology can be beneficial if conducted within a respectful, collaborative framework (see Mrozowski and Gould 2019, Mrozowski 2017, 2019 and Gould et al. 2020; also Cipolla et al. 2018 and Silliman 2008, 2018).

Over the years field work conducted by the Fiske Center, usually in the form of summer field schools, has not only recovered voluminous amounts of artifacts and material remains, but also led to the production of many project reports (see Gary 2005; Law, Mrozowski and Pezzarossi 2008; Mrozowski and Law Pezzarossi 2015), several Master's theses (Allard 2010; Bagley 2013; Law 2008; Pezzarossi 2008; Rymer 2017; see also Waski 2018); scholarly articles (Allard 2015; Bagley et al. 2014; Gould 2013a&b; Law Pezzarossi 2014a&b, 2019; Mrozowski 2009, 2012, 2014, 2017, 2019a&b; Mrozowski and Gould 2019; Mrozowski, Gould and Law Pezzarossi 2015; Mrozowski et al 2009; Pezzarossi 2014; Pezzarossi, Kennedy and Law 2010) and one award-winning book (Gould et al. 2020). Together this collective work reawakens the history of Hassanamisco and some of the Nipmuc families that resided there during the 18th and 19th centuries. Alongside the work conducted by Dr. Gould on the Printer parcel, see Figure 5 (Gould 2010; see also Gould et al. 2020 and Mrozowski and Gould 2019), a broad yet detailed history of Nipmuc families connected to the 1727 land sale has emerged. The work conducted at the Newman homesite is some of the most recent work for the Hassanamesit Woods Project to date. Larger scale fieldwork conducted between 2006-2013 has focused on the parcel of the Sarah Burnee/Boston household, but broader archaeological surveys have uncovered evidence of Indigenous presence across the landscape that spans thousands of years (Gary 2005; Gould

2010; Mrozowski and Law Pezzarossi 2015; see also Bagley 2013; Bagley et al. 2014; and Gould et al. 2020).

Excavations at the Burnee/Boston site have recovered over 120,000 artifacts (Mrozowski and Gould 2019:411; Mrozowski and Law Pezzarossi 2015; see also Law 2008; Law, Mrozowski and Pezzarossi 2008; Pezzarossi 2008). The Burnee/Boston farmstead, which acted as a gathering place for Nipmuc families (see Allard 2010; Law 2008; Pezzarossi 2008, and Rymer 2017), the Salisbury site, and the Newman site all sit on the southeastern slope of Keith Hill (see Gary 2005:2). The Newman site is near the southern border of Grafton, MA on this slope of Keith Hill, with the Salisbury site adjacent to the northeast. The Sarah Burnee/Boston Farmstead is a short walk northeast of that, see Figure 5. It is not surprising that names from these families are seen together in the Trustee Records and other sources. Notice the proximity these sites share with today's Nipmuc Reservation—which includes the Printer parcel, another Nipmuc family whose home is still standing and never left Nipmuc ownership (see Gould 2010 and Gould et al. 2020). The larger area of Hassanamisco that includes the Newman site is still lined with stone walls. Some demarcate original land bounds, while others indicate change over time (see also Gary 2005:54-55).

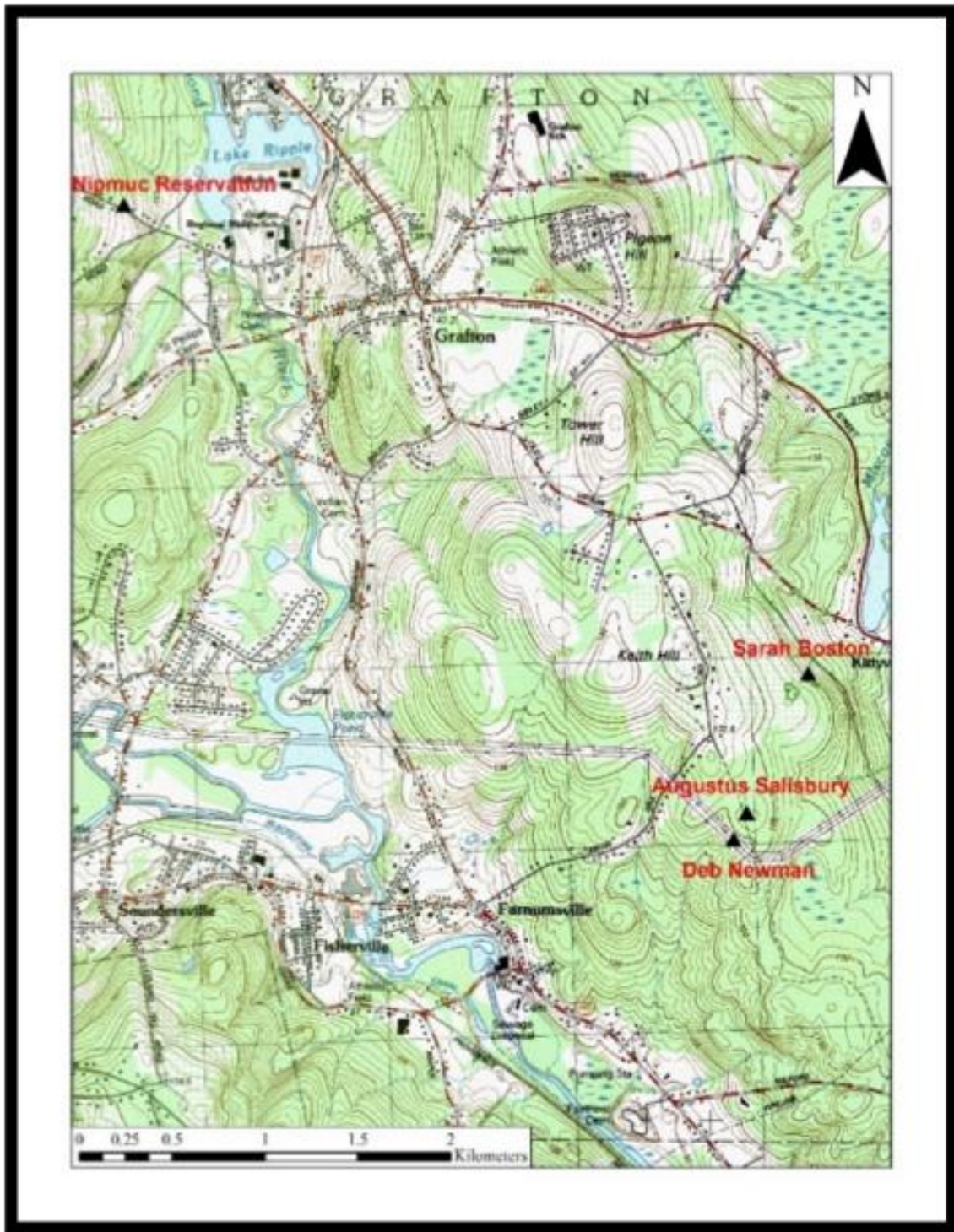


Fig. 5 USGS quadrangle map of Keith Hill showing the Printer/Cisco property at the Nipmuc Reservation, the Burnee/Boston farmstead, Augustus Salisbury property, and the Newman homesite.

The Newman site sits within rock walls on all four sides, and while most are visible above ground the rest can be seen in the LiDAR map (see Figure 8). Sitting within the southern portion of the land granted to Hassanamisco proprietors in the 1727 land sale, the Newman site is within the 100+ acres arranged by the proprietors in the deed for the use of the whole Nipmuc community (TR:ii). This section of the land deal is often referred to as the “overplus” lot, but also “the hundred acres,” and “Indians hundred acres” (Pierce 1879; see also Mrozowski 2019b; Mrozowski and Gould 2019; Trustee Records 1725-1857; WCRD 1787: Book119:437; WCRD 1795: Book124:198-199). These references are regularly from the perspective from non-Native proprietors and officials. It is worth noting that while this thesis focuses on the material culture recovered from the Newman site, evidence suggests the

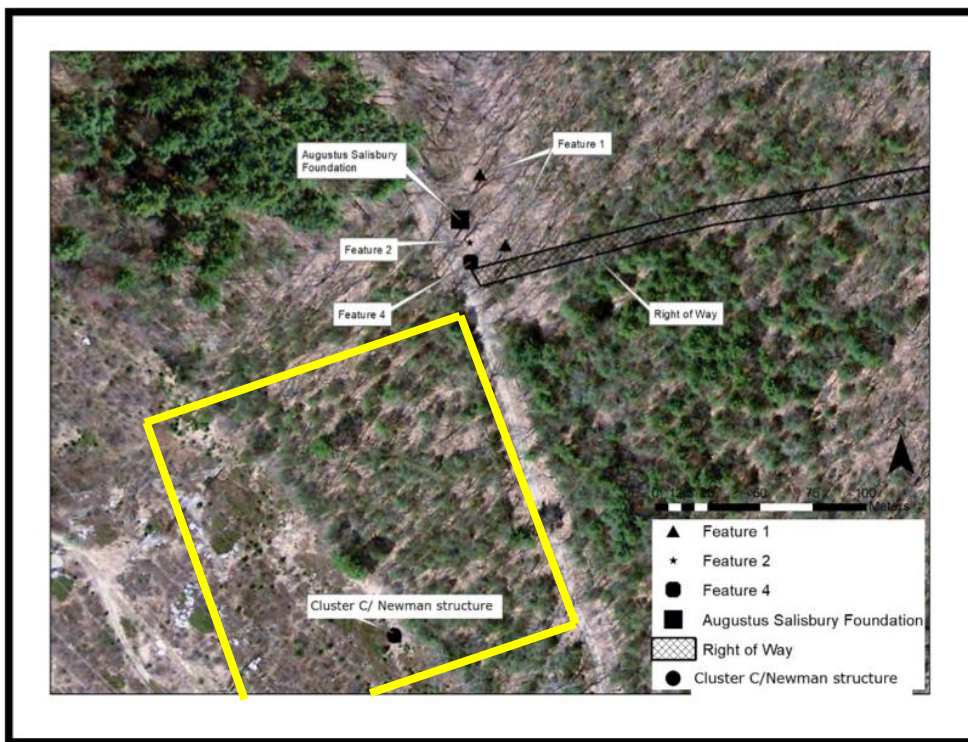


Fig. 6 Aerial view of the Salisbury site, Feature 4, and the Newman lot. Cluster C on this map includes the Newman Structure. Yellow outline is area in Figure 6. (Mrozowski and Gould 2019:410, Fig. 4)

assemblage may be associated with a cellar hole, Feature 4, on the adjacent Salisbury property (see Figure 6).

The Augustus Salisbury site was the home of an Anglo-American farmer and has also been the focus of Fiske Center excavations in an effort to compare Nipmuc households and daily life to that of Anglo-English contemporaries. Adjacent to the foundation of the Salisbury house is another foundation-like cellar hole, dubbed Feature 4, from which a ceramic assemblage that dates similarly to that of the Newman site was recovered. Also recovered from the Salisbury property are other interesting artifacts such as pieces of writing slates with the names of the days on them and slate pencils (Mrozowski 2019b).

A comparison of the minimum number of vessels between Feature 4 on the Salisbury site and the assemblage from the Newman site (the Newman assemblage is discussed in next section) revealed that not only are the assemblages similar in ware types and forms with contemporaneous mean ceramic dates, but they also share a matching black transfer print design on pearlware plates or saucers (Figure 7 below shows the matching sherds; see Appendix B for Salisbury site, Feature 4 vessel list). Although these sherds do not directly mend, and therefore cannot be guaranteed to be from the exact same set of ceramics, this connection between sites is bolstered by the fact that local histories tell that Deborah Newman and Augustus Salisbury were neighbors (see Mrozowski 2019b:504-505).

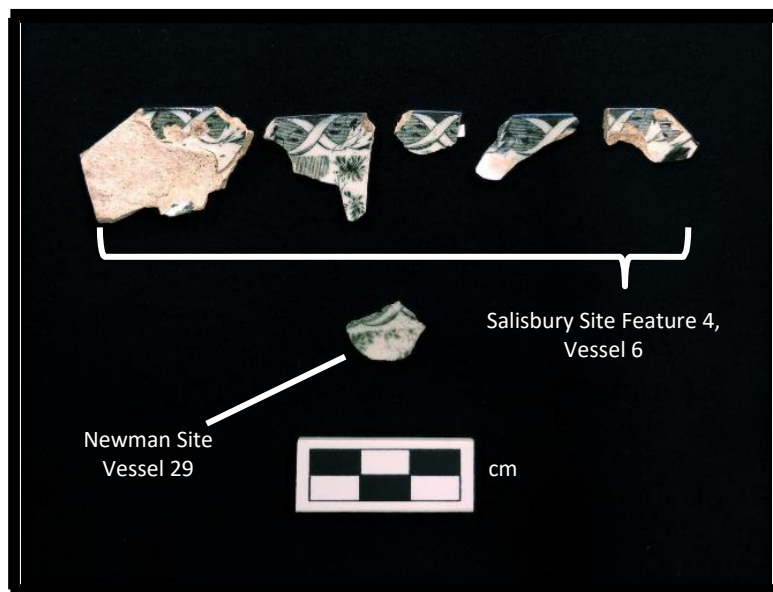


Fig. 7 Matching black transfer print design on pearlware sherds from the Salisbury and Newman sites. Top row is from the Augustus Salisbury site, and the bottom sherd is from the Newman site. Photo by Melody Henkel, University of Massachusetts-Boston.

****See Appendix B for minimum vessel list from Feature 4 at the Salisbury site.**

The Andrew Fiske Memorial Center for Archaeological Research conducted excavations on the Newman home site during 2010, 2011, 2014-2015, 2018, and 2019. The 2010 and 2011 excavations involved preliminary testing using shovel pit tests across the property to identify possible areas of concentration. The 2014 excavations included extensive testing along Salisbury Street both in the area of the Augustus Salisbury foundation as well as further shovel testing south of the foundation. In addition, a series of 2x2 meter excavation units were completed in the south-western portion of the Newman Lot (cluster B, see Figure 8). It was during this 2015 field season that several important archaeological features were uncovered directly south of the Salisbury Foundation (see Figures 6 and 8). The excavations carried out in 2017 focused primarily on the Augustus Salisbury lot.

The 2018 field work at the Newman site began with an experimental survey method. Where previous archaeological surveys had not recovered evidence of the Newman structure on this property, fellow UMass Boston graduate student Brian Schools employed a method that is used to locate domestic areas associated with battle sites in Virginia using systematic metal detecting. The results of this survey led to the placement of the 2018 excavation units, and ultimately resulted in locating the Newman structure. Although the analysis of some of the artifacts recovered during this survey will be discussed later in this thesis, it is worth noting that the metals recovered during Schools' survey leading to our focus on this location included iron kettle fragments, wrought and cut nails, copper-alloy buttons and coin, along with altered or modified iron and copper-alloy objects. The shovel test pit surveys across the Newman property, as well as the systematic metal detecting, has led to the identification of three densities of artifacts on the Newman property; these areas became the focus for the 2014, 2018, and 2019 excavations which are shown in Figure 8.

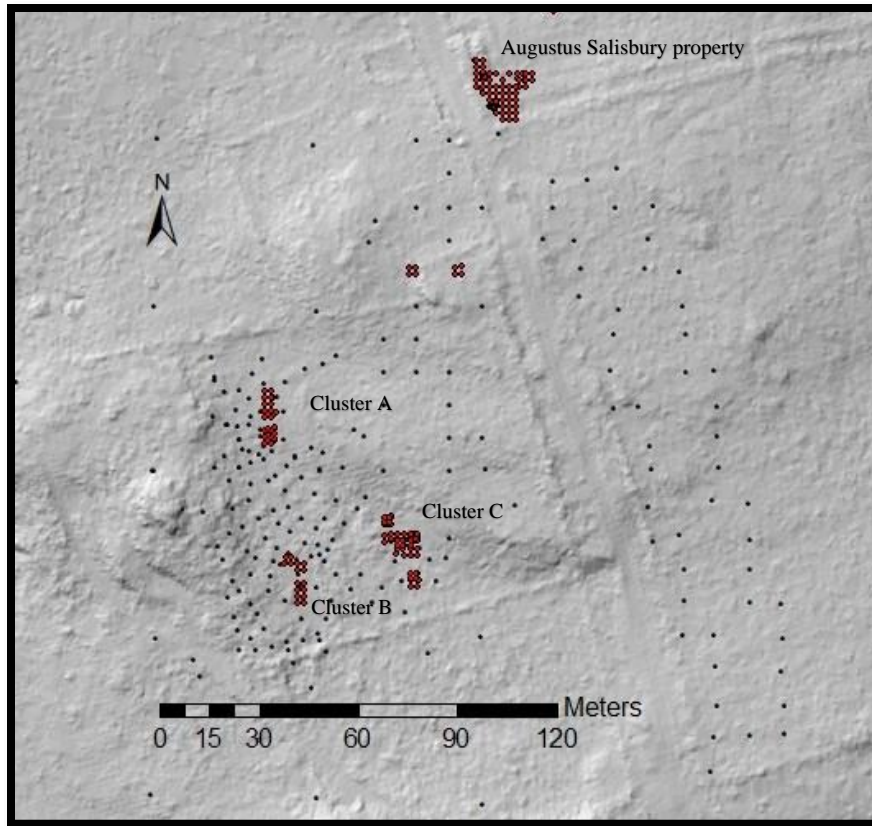


Fig. 8 LiDAR image of the Newman lot showing rock walls and cluster densities (yellow outline in Figure 6) and the Salisbury site. Red dots are locations of excavation units, and black dots represent locations of shovel test pits. Map credit: Richard Butler and Gary Ellis.

The three clusters shown in Figure 8 (labelled A, B, and C) are significant areas on the Newman property. The red dots in the above image represent excavation units, and the black dots are shovel test pits. The comprehensive shovel pit survey across the lot coupled with the excavation units encompassing these clusters have allowed for a better understanding of the use of space and utilization of the overplus lot. The following chapter analyzes the material culture found across the entire lot, with a particular focus on the ceramics including a minimum number of vessel analysis. This allows not only the dating of

the ceramic assemblage, but also an understanding of ceramic vessel forms and possible function. This becomes useful in determining what activities may have taken place on site.

Site Area	Number of STPs	Number of EUs
In b/w	80	0
A	27	5
B	21	4
C	11	14

Table 1 Table showing the number of shovel test pits and excavation units for each area of the site. The “in b/w” area is every part of the Newman lot not within a cluster.

The focus later in this thesis narrows to cluster C. This is because cluster C is the area with the most features, ceramic vessels, and other artifacts. This area on the Newman site is also interpreted to have included a domestic structure, possibly an Indigenous vernacular structure. Further excavations could reveal more of this structure’s footprint, but at this time evidence suggests that it could be a *wetu* or similar Indigenous construction. Another possibility is a foundation-less post-in-ground structure. This vernacular structure likely utilized the large rocks, shown in in Figure 9, for supports and possibly working surfaces.

Figure 9 below depicts an aerial view of the concentration within cluster C. The landscape is generally flat but the east/northeast part of the area slopes towards the middle of the figure. Just enough where the large rock in the top right corner was exposed and slightly higher than the rest—it gradually flattens out past the large rock, but there is a significant

slope on the further northeastern half of the property. This steeper slope to the northeast would have blocked winds coming from that direction. I will quickly introduce features 30, 33, and 46 here, but Appendix C includes a detailed description and analysis of the site's combustion features. They are the remains of deliberately created combustion features, i.e. a hearth, and as shown above there is a larger concentration in the center of the figure (features 33 and 46) and a smaller one towards the west of it (feature 30). Appendix C details the evidence for these features as being a product of human actions, rather than naturally occurring combustion events.

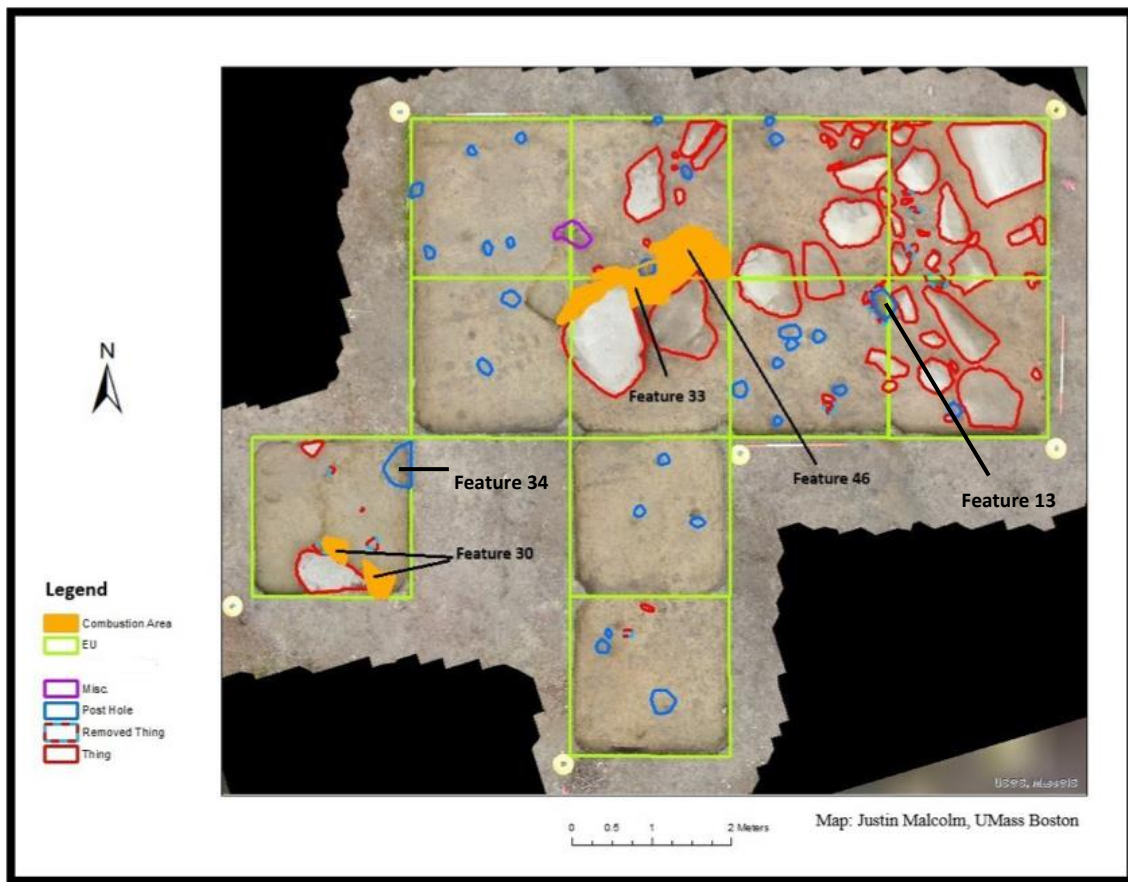


Fig. 9 Aerial view of cluster C showing location of features. Features 30, 33, and 46 are the remains of combustion features. Features 13 and 34 are large post holes. Map by Justin Malcolm.

The blue outlines in Figure 7 are the remains of post holes. They ranged in size, but most were about 15-20 cm in diameter. The remains of these features may have been partially truncated by postdepositional processes, but each had charcoal remains in them and continued for more than just a couple centimeters as excavations progressed. Features 13 and 34 show two of the larger post holes uncovered thus far. These were large enough to hold substantially sized wooden posts. Feature 13 even had vertical rocks that were jammed between the post and ground to keep it secure. The smaller holes may have supported objects such as benches or sleeping platforms. Below is a sketch of a family's *wetu* made by Ezra Stiles in 1761 during a visit to the Western Niantic Indian community in Connecticut. Its dimensions are 17'4" x 12' x 10'5" and housed a family of twelve people.

Vernacular structures such as *wetu* were built according to the landscape and materials available, whose designs and methods are not so much encoded in architectural styles but rather carried on through memory. Therefore, there is not a large base of documentary material describing them. One source is historical accounts made by travelers, but these need to be carefully scrutinized because they contain biases held by people of the time. One such example of this is contained in letters written by John Dunton during his trip to New England in 1686. In his many pages of letters are a few short descriptions of *wetu* households. He states that these buildings first start with large poles fastened into the ground, then mats tied to the exterior of these poles make up the walls (Dunton 1686:217). The number of large poles depends on the size planned for the *wetu*, but he says an ordinary house contained between 30-40 of them (Dunton 1686:164). There is a central hearth with an

A hand-drawn floor plan of a circular room, identified as being at High Wycombe. The plan shows several concentric circles representing different levels or sections of the walls. In the center is a rectangular area containing a tea table (A), a shelf with plates (B), two chests (C and D), pots hanging (E and F), a table (G), a dresser (H), a chair where Hook views (I), and a nest for Bed (K). A fireplace with a chimney is located at the top. Various letters (M, N) are placed around the perimeter. To the left, vertical text reads "High & Low Mohege Wigwagum alibi". To the right, handwritten notes include "High W.", "12 Hrs", "vz", and "at". At the bottom, it says "L. Fire. M. Don.". A legend at the bottom left lists items A through K corresponding to the labels in the drawing.

In his description of two *wetu* households, one in Charlestown, MA and one in Winnissimet outside of Boston, he states that women would decorate the interior with embroidered mats of their own making, and the

Due to the nature of vernacular structures, these descriptions should be used only as a general guide, and may not be applicable to all *wetu*. For example, both Stiles (1761) and Dunton (1686) describe most *wetu* as having two doors opposite to one another. But in the sketch made by Stiles (Figure 10) there is only one door (M), with a designation of where a second

door may have been (N). Nonetheless, similar components and building methods aid in interpreting such structures. If what has been excavated thus far at Cluster C is within the middle of the *wetu*, then the larger combustion feature/s in the central area could be the building's interior hearth. This and the existence of different-sized postholes encompassing the area follow the examples portrayed by Ezra Stiles (1761) and John Dunton (1686). This is further exemplified later in my comparison of the Newman parcel with sites from the Mashantucket Pequot Reservation in Connecticut. Handsman (2018) details two sites that have evidence for different sized *wetu* structures, one being described as a "less substantial" *wetu* (Handsman 2018:60). These *wetu* have aspects that are similar to that at the Newman site and the one sketched by Ezra Stiles, but they are not a matching blueprint of one another.

Dating the Assemblage

The documentary evidence outlined in the previous chapter link this property with Deborah Newman and her family, and before her Elizabeth Sampson, until it was auctioned off in 1821. The rest of this thesis details the material evidence that remained on the Newman site. What I will describe is a domestic assemblage associated with the structure at Cluster C. Data suggests this to be a vernacular structure utilizing the large stones and wood post construction, but the degree to which it was the main residence for this family, or a special-use area, is less understood. Discussed in a later chapter, the ceramic assemblage consists of mainly refined vessels used for consuming food, suggesting food preparation was done elsewhere. But window glass was also recovered from cluster C, and the use of a window in a building suggests more permanent construction. As stated earlier, local histories and

references describe the Newman family and Augustus Salisbury as neighbors. But we also know that Elizabeth Sampson had a living space within the overplus lot around the middle of the 18th century. Deborah Newman's recognition on two separate maps, one in 1886 which is at least a full 66-72 years after any Newman family member resided on the property, is likely due to the fact that her mother resided there until the surrounding area was bought up, and that the Newman parcel was the last Nipmuc-owned piece of the overplus lot.

The Trustee Records show that Betty Sampson had a house built for her by Ephraim Sherman, noted in 1766 (M.A. Vol. 33:415; TR:94). It is unknown if the house described therein is the structure from the Newman site discussed within this thesis. We do know that English-style architectural elements were recovered around the structure examined in this thesis. This includes wrought nails, a fragment of casement window glass with the ghost marks of lead coming on two original edges, other flat aqua glass, along with brick fragments.

Another unique aspect of this property is that we know the same family resided on this lot beginning around 1750-1765 at the latest, but likely earlier due to the fact that Andrew Abraham Sr. negotiated this space in 1728 (TR:3). A small part of the ceramic assemblage is indicative of one that would be acquired during this time, but most items were produced slightly later. The material culture is discussed in the next chapter, and the ceramics and other artifacts mentioned mostly fit a window within the fourth quarter of the 18th-through the first quarter of the 19th-centuries, but there are also earlier ceramics present. The later items in the assemblage could represent purchases made by later family members, i.e. Deborah Newman rather than Betty Sampson. One notion I had to contend with was that of

ceramic time lag (see Adams 2003). But what I have interpreted this assemblage to be is that of the Sampson/Newman family line, who have been extant on the site continuously from around the mid-18th century, which gradually gets additions of later material culture as other family member acquired these goods.

This means that they would have been acquiring these ceramics not too long after they would have been available either in Boston, or with a nearby vendor (see Pezzarossi 2008, 2014; also Gould et al. 2020). This makes sense for two reasons. One is that we know that Nipmuc family members had access to and influence within the local markets (Gould et al. 2020; Law 2008; Law Pezzarossi 2014a&b; Pezzarossi 2008, 2014). It would not have been hard to personally access any of these ceramic objects as they became available locally. Second is that we also know that the Nipmuc proprietors had to rely on assistance from the English family proprietors at times. These sundry items that are given to Nipmuc families, and Betty Sampson in particular, that are listed within the many pages of the Trustee Records very well could have included ceramic items for use in daily life.

In regard to ceramic time lag, we know the Abraham/Sampson/Newman family has been living at Hassanamisco from at least since 1725, when the account is mentioned in Earle's report (1861). Betty Sampson took care of her mother before her passing, likely living with her most of her adult life. If she was also residing with her father until his death she likely inherited what goods the family had. Adams (2003) has recommended that 15-20 years be added to mean ceramic dates for rural areas, but they also note that this consideration be made within a framework that takes in to account socioeconomic status, households, time and space. It is likely that Betty Sampson inherited her parents' goods after

their passing, while at the same time acquiring newer items throughout her life— and the same for Deborah Newman.

In the 1886 Royal Keith deed map one can see many references of “Indian” or “Hassanamisco.” Two demarcations of note are the south line of the overplus lot given to the Nipmuc proprietors, labelled as the “Original South line of the Grafton and Indian School,” as well as a specific notation of “Debby Newman” in the area of the excavations described in this thesis (Anon. 1886).

Betty Sampson and Deborah Newman held onto their parcel in the overplus lot as the land around them was bought up. Deborah Newman’s representation on a deed map at least 66-72 years after a Newman family member lived there could be a result of their land being the last piece of the overplus lot in Nipmuc hands. Before it was auctioned off in 1821 to John Warren, he owned the surrounding roughly 65 acres; until that point the Newman parcel remained a missing piece to his landscape. The following chapter is my analysis of the material culture from the Newman parcel, with a focus on ceramics and minimum number of vessels. What this will show is that the dating of the assemblage lines up with the site’s occupation by Betty Sampson (ca. 1765-1780s) and Deborah Newman (ca. 1780s-1813), as indicated by the documentary research. As will be shown below, there is a notable lack of material culture that would place the date of this assemblage in the later 19th-20th centuries, and that the distribution of artifacts across the site reflect a pattern of use by the site’s occupants, rather than trash disposal or dumping after their residency.

CHAPTER 4

MATERIAL CULTURE ANALYSIS

This chapter discusses the artifacts recovered from excavations at the Neman site, with a focus on ceramic and minimum number of vessel analyses. What I will show in this section is the evidence for the significance of clusters A, B, and C as areas of activity (see Figure 8). Likely one of the more significant lines of evidence is the distribution of ceramics across the site. While comprehensive shovel test pits and sampling were conducted across the whole lot, the clusters include just over 97% of the total ceramic assemblage. In addition, the ceramic sherds that were used for the minimum number of vessel analysis all came from within one of the clusters; the few ceramic sherds not within one of the clusters were not diagnostic or did not mend to a diagnostic sherd.

Minimum Number of Vessels (MNV)- Method

My reason for analyzing the minimum number of vessels instead of the sherd assemblage is twofold. For one, vessel analyses explore forms of objects which can be more accurately dated and interpreted (Voss and Allen 2010:1-2). Secondly, sherd counts can skew the data used to interpret the mean date of the ceramic assemblage (Sussman 2000) because it

puts more analytical weight on how many pieces an object breaks into rather than the object itself. The number of sherds can also be misleading in that breakage can happen while the object was being used originally, while also being susceptible to breakage during post-depositional processes (Voss and Allen 2010:2). Sherd counts are applicable in other analytical methods, such as more in-depth spatial analyses than was applied here, but are only used in this thesis as a point of comparison between the minimum vessel mean ceramic date along with the historical documentary data.

Using Voss and Allen (2010) as a starting point I decided to take a more quantitative (rather than qualitative) approach to the ceramic assemblage (Voss and Allen 2010:1-2). This was because it caused me to establish more definite criteria, therefore making the process as replicable as possible. The three criteria that structured my minimum number of vessel analysis are as follows. The sherd(s) representing a unique vessel in my analysis must be: 1. a unique rim sherd or mending rim sherds, 2. a body sherd that directly mends to a rim sherd, or 3. any other sherd that is not a rim fragment but is categorically different than any rim or body sherds already representing a vessel. Ware type, glaze, and decoration were incorporated into my analysis to sort the ceramic vessels based on these criteria. Considerations of glaze and decoration were added after sorting into ware types. Many of the sherds present on the site were affected by taphonomic processes such as burning, weathering, and possibly trampling. Due to these factors the vessel counts reflect what ceramics could be positively identified, with the exception of one vessel whose specific ware type is indeterminate but represents a type of white-bodied refined earthenware that has a unique profile throughout the assemblage. There is only one vessel in this assemblage

represented by a single, decorated body sherd. Usually, decorated body sherds of specific ware types that do not mend to a rim sherd of that type are not used to represent a unique vessel because it cannot be guaranteed that it is indeed a different vessel—the same applies to foot rims. There are only a few instances in this analysis where vessels are represented solely by non-rim sherds, but they are unique enough to fall into criteria number 3.

Another important variable to consider when conducting an MNV analysis is intravessel variation (Voss and Allen 2010:2), and it proved to be an aspect that required extra attention to separate a few of the vessels in this project. If two rim sherds of the same ware type have slightly different profiles that could be attributed to small variances as a possible result of production, I only considered them to represent a single vessel. With that said, shell-edged/scalloped rim designs and redware rim sherds were the two ware types in my analysis that required the most consideration of intravessel variation.

Before discussing specific results of the MNV it is worth noting the discrete clusters that the vessels are in. I started out analyzing the property as a whole, narrowing my analysis down to the three clusters within the Newman lot. The sherds used to represent the vessels in my MNV analysis were all recovered from either cluster A, B, or C (see Figure 8). When comparing the mean ceramic dates [MCD] between the sherd and vessel data, included in the sherd MCD are counts of ceramic body sherds that are not represented in the vessel MCD. They were not included in the vessel analysis simply because they did not fit any of my three criteria. Also, individual objects in vessel analyses have a value of one when calculating the mean ceramic date, but for sherd mean ceramic dates the value depends on the

sherd count. The following is a quick breakdown of the ceramic sherd assemblage from the Newman site.

There is a total of 565 ceramic sherds recovered from across the whole lot, 550 of those were excavated from within one of the clusters. See Table 1 for number of excavations in each site area. Less than 3% of the total ceramic assemblage was recovered from outside either of the clusters, and these were scattered across the whole lot. In total across the site, there were 560 earthenware sherds: 214 redware, 344 refined earthenware, and two Native ceramic. Three American stoneware sherds and two Chinese porcelain sherds were recovered from within a cluster and were not found outside of one. The specific sherd types recovered from outside any of the clusters are as follows: ten redware sherds, three creamware, one pearlware, and one whiteware sherd. Table 2 shows the ceramic sherd ware type counts for the site as a whole.

Ware Type	Redware	Creamware	Pearlware	Whiteware	Factory Slipware	Yellow -ware	Am. stoneware	Chinese Porcelain	Brown Ware	Jackfield-type	Native Ceramic
Count	213	216	102	21	3	1	3	2	1	1	2

Table 2 Ceramic sherd ware type totals from entire site.

MNV- Results

I compiled minimum number of vessels for both the ceramic and glass assemblages. I did not use the results from the glass MNV for dating but will include them in this chapter. This step was both easier and more difficult than the ceramic MNV in that glass has a more fluid chance for intravessel variation. It is, however, a very small assemblage to analyze.

In total, there are 39 vessels from the entire Newman lot (see Table 3); seven of these are glass vessels. Clusters B and C are described together in this chapter because vessel 16

has rim sherds that mend across the two clusters. The total number of vessels from clusters B and C is almost four times higher than those from cluster A, and the ceramic vessel count from B and C is more than five times that of cluster A. In total there are 31 vessels from B and C, and 8 vessels from cluster A. There are 27 ceramic vessels from clusters B and C, and 5 from cluster A.

Vessel No.	Ware Type/Glass Object	Form	Cluster
1	Yellowware	Indet.	C
2	Whiteware, purple transfer print	Plate	B
3	Pearlware, blue hand paint	Saucer	C
4	Pearlware, blue hand paint	Cup	C
5	Pearlware, blue shell edge	Flatware, undet.	C
6	Pearlware, molded	Dish	C
7	Pearlware, blue shell edge	Flatware, undet.	C
8	Creamware, molded	Flatware, undet.	C
9	Creamware	Saucer	C
10	Creamware	Hollowware, undet.	C
11	Redware	Teapot	C
12	Redware	Pan/basin	C
13	Pearlware, edge decorated	Flatware, undet.	C
14	Creamware (CC Ware)	Indet.	C
15	Native ceramic	Indet.	C
16	Engraved glass, clear	Tableware/stemware	B, C
17	Mouth-blown, dark green	Curved, undet.	C
18	Whiteware, brown transfer print	Flatware, plate/platter	B
19	Pearlware, green shell edge	Flatware, indet.	B
20	Chinese porcelain	Indet.	B
21	Factory slipware, undet., banded, cat's eye	Tankard/Mug	B
22	Pearlware, underglaze painted	Saucer	B
23	Brown ware (poss. Yellow printed)	Hollowware, undet.	B
24	American stoneware, gray	Utilitarian hollowware	A
25	American stoneware	Utilitarian hollowware	B
26	Redware, slipped	Dish	B
27	Redware	Tankard/Mug	A
28	Redware	Hollowware, undet.	C
29	Pearlware, black transfer print	Flatware, undet.	A
30	Indet., refined earthenware	Hollowware, undet.	A
31	Whiteware	Indet.	A
32	Machine made glass, colorless	Tableware	B
33	Machine made glass, colorless	Tableware/stemware	A

34	Mouth-blown, colorless, corroded	Vial	A
35	Mouth-blown, dark green	Curved, undet.	B
36	Machine made glass, brown	Curved, undet.	A
37	Redware	Dish	C
38	Jackfield-type	Hollowware, undet.	C
39	Pearlware, rococo edged	Flatware, undet.	C

Table 3 List of Newman site vessels.

Before describing the ceramic vessel assemblage, I would like first to describe the criteria I used to identify vessel forms. There were two separate sets of criteria I employed for vessels forms: one for coarse earthenware/redware, and one for refined earthenware and porcelain. The stoneware assemblage on site is minimal and can only be identified as a utilitarian, hollow-bodied American stoneware. Due to the fragmented nature of this ceramic assemblage, I was restricted by not having the full ceramic vessel profiles. Therefore, my criteria are modified to focus on the vessel profile that is visible as well as rim diameter. The criteria I used to identify the redware vessel forms comes from Beaudry et. al. (1983) and Gible (2005), but slightly adapted for my analysis to utilize such a small assemblage. Criteria for five types of redware vessels were considered for this thesis, each having its own characteristics: pan/basin, dish, pot, bowl, and undetermined hollowware. I characterized a pan/basin as a vessel with an exterior lip around the rim, straight or convex sides that have a more gradual slope than pots and bowls, possible spout(s), and a flat bottom. This departs from Beaudry et al. (1983) because the vessels in this assemblage are not represented by enough sherds to determine the profile shape of the walls, therefore I made pans and basins the same category just to show a more common purpose or function between them (see also Gould et al. 2020:71-72). A redware dish is characterized as a round vessel similar to a pan/basin but has an interior lip around the rim, and is shallower

having a slightly curved or flat bottom; can be used to serve or distribute food. A redware pot has a thick body, flat bottom, pronounced exterior lip, and no interior lip. The last identifiable redware form is a bowl, which is characterized with a pronounced exterior lip, steep sides, thinner body compared to pots, and no interior lip. There are no redware bowls in this assemblage. The last form for redware vessels is undetermined hollowware, which includes a body sherd of a hollow vessel with no diagnostic features.

The refined earthenware in this assemblage has three identifiable flatware forms and two identifiable hollowware forms. The flatware forms consist of three saucers, one plate, three larger dish/platters, with seven undetermined flatwares. The hollowware forms consist of one cup and two mug/tankards, along with six undetermined hollowwares. There are four vessels whose forms are entirely indeterminate. Saucers are characterized as flat tableware, whose rim diameter is smaller than a plate (roughly 12-15 cm); the saucers in this study have rim diameters of 14-15 cm. Plates are medium-sized, flat tableware whose rim diameter is between that of a saucer and a dish/platter (roughly 20-25 cm); the plate in this study has a rim diameter of 20 cm. A dish/platter is a larger flat tableware or shallow serving vessel. For this study, the small assemblage only granted measurements of rim diameter and not full profile views, this is why criteria mainly reflect rim diameter. Dish/platters have a rim diameter larger than that of a plate, roughly 30 cm and larger. The vessels in this category from this study have rim diameters of 30-34 cm, 40 cm, and 41 cm. Undetermined flatwares are flat tableware whose rim diameters could not be measured. Undetermined hollowware are curved vessels whose full profile could not be analyzed. The indeterminate vessel forms

reflect unique sherds too small to analyze beyond ware type, including the Native ceramic recovered from one of the clusters.

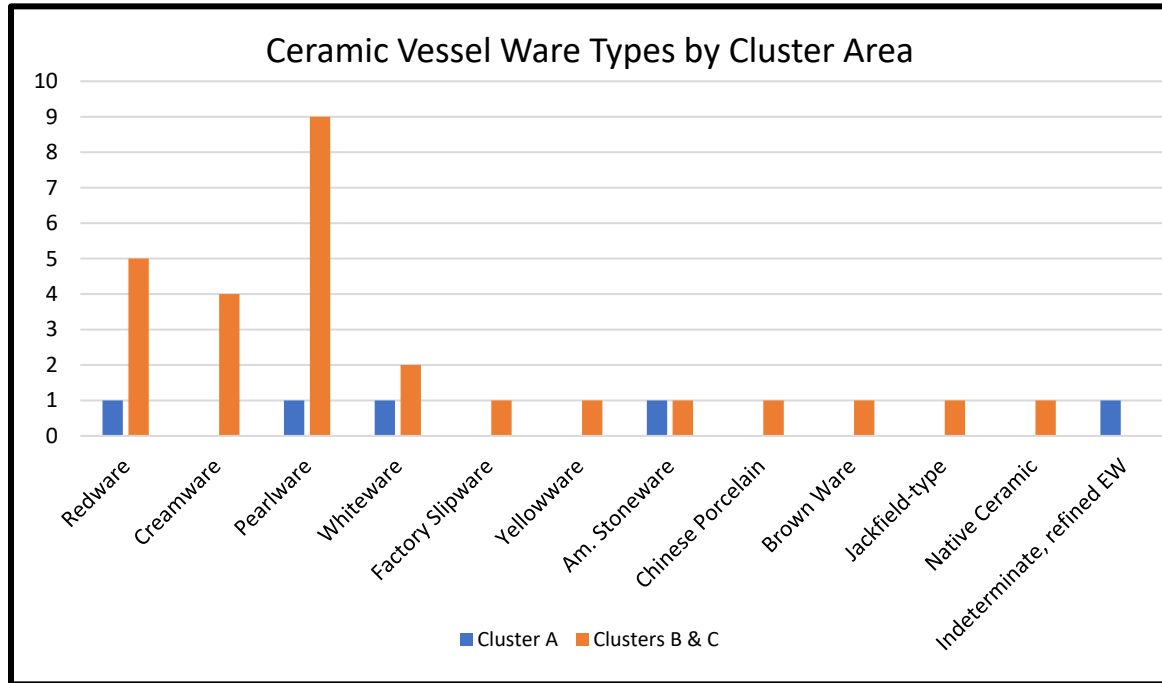


Fig. 11 Ceramic vessel ware type by cluster area.

The ceramic ware types present on-site are indicators of a domestic assemblage (see Figure 11) and more specifically one used for consuming food and drinks, but an expanded understanding of utility is gained by looking at the forms of the ceramic and glass vessels. The vessel forms from these clusters are indicative of food service and eating more so than storage or preparation. The ceramic vessels more likely to have a utilitarian purpose would be the two American stoneware vessels. The two mouth-blown glass vessels present at clusters B & C (Figure 13) could be interpreted as either food consumption or storage, as the liquids therein could be stored and served in the same vessel. The only remaining vessel

across the site that does not indicate food consumption is a highly corroded glass vial recovered from cluster A.

The majority of vessel ware types are refined earthenware. Refined earthenware and porcelain vessels have been shown to be associated with areas where people are fed, as opposed to coarse earthenware and coarse stoneware used in areas of food preparation or storage (Gould et al. 2020:116; Pezzarossi 2008, 2014). The ceramic vessel assemblage from the Newman site consists of 66% refined earthenware, 25% coarse earthenware, 6% coarse stoneware, and 3% Chinese porcelain. Following the pattern just mentioned, 69% of the ceramic vessel assemblage would be tableware or serving vessels, with the remaining 31% serving utilitarian or other purposes. Of the 32 ceramic vessels from the three clusters, I was able to identify vessel forms for 12. The remaining 20 ceramic vessels were identified to the scale of hollowware vs. flatware, except for five indeterminate vessel forms. Four of those are represented by sherds too small to indicate the vessel's shape, and the remaining vessel is Native ceramic and is also too fragmented to identify a form.

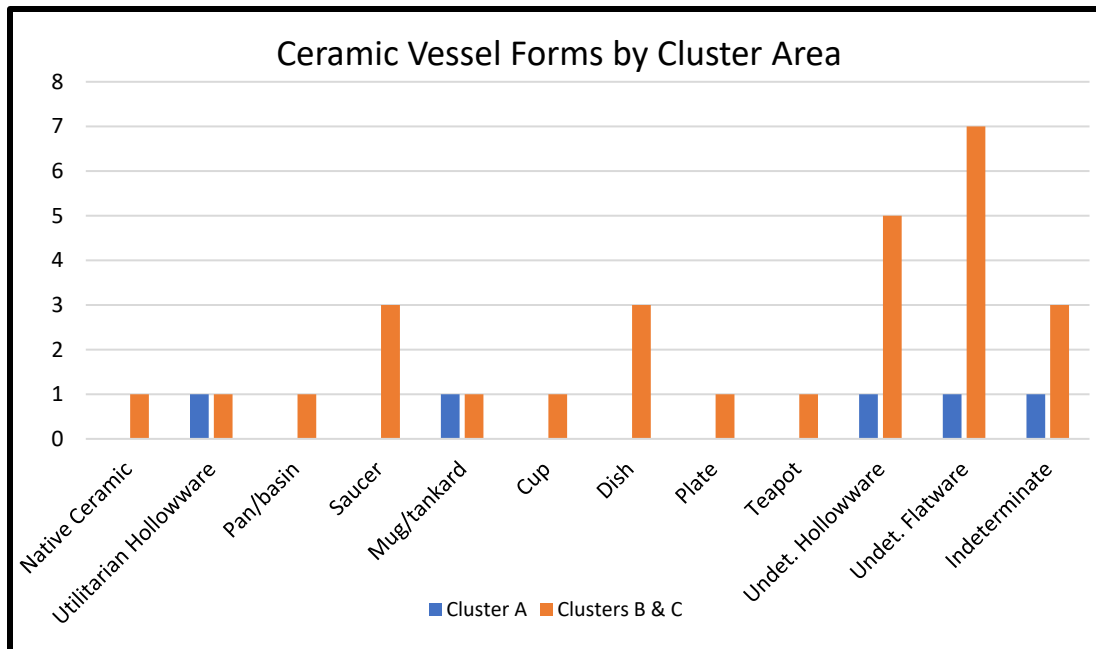


Fig. 12 Ceramic vessel form by cluster area.

Figure 12 shows the total count of ceramic vessel forms recovered from the Newman site. The Native ceramic and American stoneware in this figure are repetitive. That is because I identified the stoneware vessels using both material type and general form as a single proxy, and the Native ceramic as only the ware type. Doing so allowed me to infer a general purpose for the stoneware without being able to identify the vessel form specifically, while also being able to include both types in my analysis. Figure 13 below shows the glass vessel forms by cluster areas. The two curved olive-green vessels are both mouth-blown, but not enough remains to determine if they were produced using a mold or not. Air bubbles are visible in the sherds; one measures roughly 2 mm in thickness and the other 5.5-6mm. The vial from cluster A is represented by a heavily corroded rim fragment. Each area has

table/stemware, though only one glass vessel is decorated. This is vessel 16, which mends between clusters B and C and includes an engraved design around the outside of the rim.

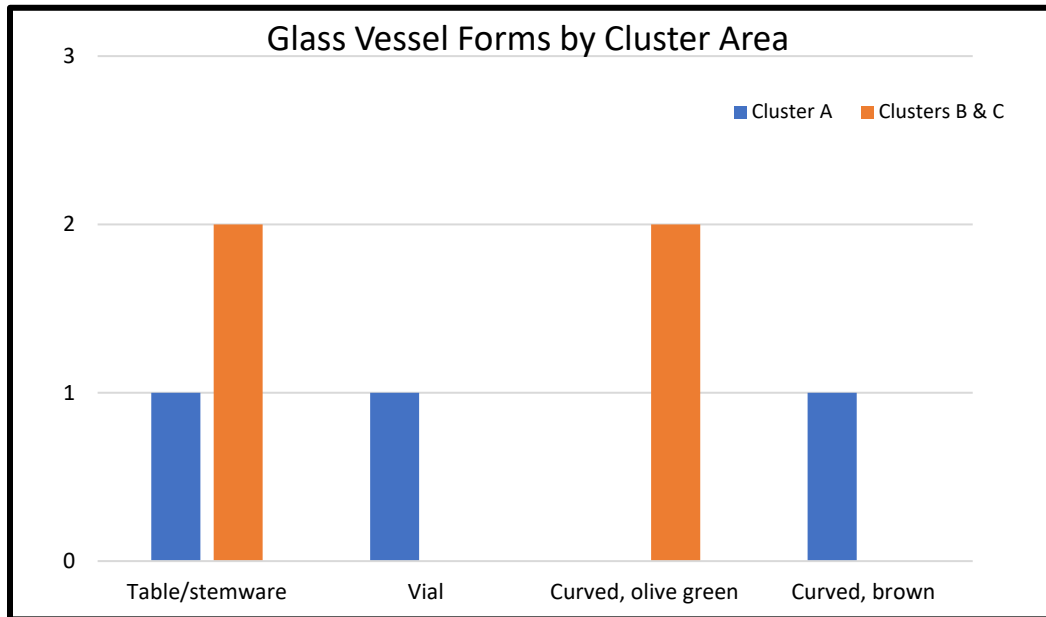


Fig. 13 Glass vessel forms by cluster area.

Decoration

Roughly half of the vessel assemblage (49%), including both ceramic and glass, recovered from the Newman site is decorated. Nineteen of the total 39 vessels are decorated using methods such as hand painting, transfer printing, molded designs, slip decoration, and engraving. As mentioned above, the only decorated glass vessel is an engraved table/stemware vessel. When looking at only the ceramic vessels, the ratio of decorated-to-undecorated changes. Eighteen of the 32 ceramic vessels are decorated, which amounts to 56%. This could go up to 60% if I include the undetermined vessel in Table 6, which is either

blue hand painted or blue transfer print. The decorated ceramic vessels include mostly refined earthenwares, but also one Chinese porcelain vessel (Vessel 20) and one slip-decorated redware dish (Vessel 26). Below is a table displaying the different types of decoration present in the ceramic minimum vessel assemblage.

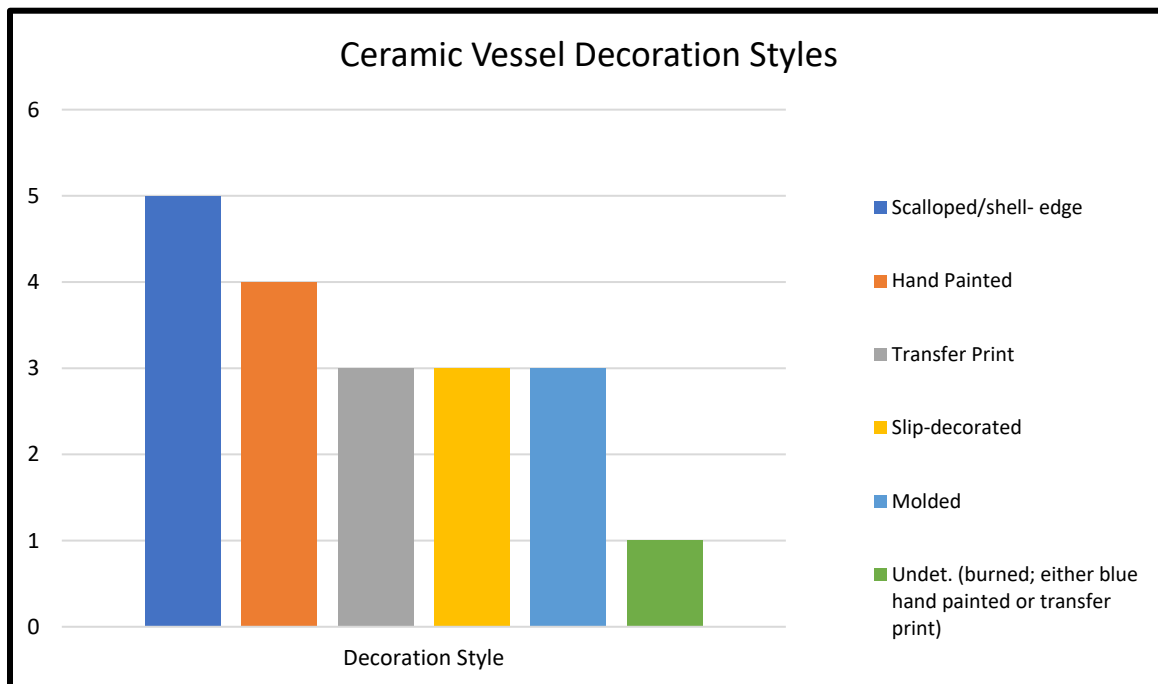


Fig. 14 Ceramic Vessel Decoration Styles

Mean Ceramic Dates (MCD)

To get the most detailed perspective on the date of the ceramic assemblage I compiled multiple mean ceramic dates, comparing the sherd and vessel results with one another. When I calculated the vessel MCD I did so two different ways: one included redware and one did not. For the sherd calculations I only calculated it without redware. This is because production years for redware are both wide-ranging and variable putting its analytical value

in such a method into question. Redware was produced in many places and is most datable when decoration is present, which is not entirely the case for the Newman assemblage. Also, the large number of redware sherds on site would work to skew the date early if the count ratio is higher than the rest of the ceramic assemblage in a significant enough amount. In the end I calculated mean ceramic dates based on the parameters just mentioned, along with different areas and clusters of the site (see Table 4 below).

For the most part I identified the ceramic production ranges used in my calculations by identifying ware type, although decoration was used in a few instances. These include the single factory slipware vessel, as well as edge painted/molded refined earthenware. Miller et al. (2000) and Maryland Archaeological Conservation Laboratory (2008) aided in narrowing down dates for edge decorated and hand painted wares. Other sources utilized for ceramic dating include the Digital Archaeological Archive of Comparative Slavery's (DAACS) "Ware Type" file (n.d.) and "Mean Ceramic Date- Type File" (2006), South (1971), as well as the comparative ceramic collection in the lab of the Andrew Fiske Memorial Center for Archaeological Research.

Cluster/Area	Vessel MCD w/ redware	Vessel MCD w/o redware	Sherd MCD w/o redware
A, B, & C	1812.9	1816.1	1799
B & C	1807.6	1809.4	1797.8
A	1847.5	1863.3	1808.9
B	1818.3	1820.6	1801.7
C	1801.9	1802.5	1796
in b/w	N/A	N/A	1804.7
Entire lot	Same as A, B, & C together	Same as A, B, & C together	1799.1

Table 4 Mean ceramic dates, by area, for vessel and sherd calculations.

The table above shows all the mean ceramic date calculations made based on the different areas of the site. The “in b/w” is my designation for the area in between clusters, which is every part of the Newman lot that is not within one of the clusters. The reason that calculations for the “in b/w” area are not applicable for my vessel calculations is, again, because no pieces that were used in my MNV analysis were recovered from outside either of the three clusters. The same reason applies to the vessel MCDs for the entire lot compared to all three clusters combined. The sherd MCD in my “in b/w” area accounts for less than 3% of the total ceramic assemblage, while the calculations for the three clusters combined account for just over 97% of the total ceramic assemblage. Most significant for this thesis are the calculations for clusters A, B, and C together, along with that of just clusters B and C. The reason for this is because most of the ceramics fall within a cluster, and the majority of those are within clusters B or C. These two areas are analyzed together because they share a glass vessel that cross mends (Vessel 16), and cluster C is the area with the most recovered features so far. Below I describe the rest of the material culture recovered from the Newman site. In doing so, the significance of cluster C becomes more apparent.

Mean Ceramic Dates and the Documentary Record

The mean ceramic dates for the Newman assemblage line up with site’s occupation by Deborah and Isaac Newman, as well as possibly the later years of Betty Sampson’s occupation. Many of the documents used to determine when this family lived at Hassanamisco also place them at the location of the Newman site. This location within the

overplus lot is likely the extra ten acres of land Deborah Newman's grandfather, Andrew Abraham Sr., was granted in 1728 (see TR:ii). This site was occupied by the Newman family until 1821, at which point it was auctioned off. The MCDs for clusters B/C reflect an occupation during this time. In Table 4 above, the mean ceramic dates for cluster A are noticeably later than the rest of the site. At this point it is difficult to discern if the assemblage at cluster A reflects the usage of the space by later occupants, or if its later date is an effect of sampling size. The number of vessels at cluster A is fewer than at clusters B/C; eight and 31, respectively. This indicates that the mean ceramic dates for clusters B/C are more refined due to the increased number of objects.

Lithics

The recovered lithic assemblage is fairly small. As stated in a previous chapter, there is evidence that people have been living at Hassanamisco for thousands of years (see Bagley 2013; Bagley et al. 2014; Gary 2005; Gould 2010; Gould et al 2020; Law 2008; Mrozowski and Gould 2019; Mrozowski and Law Pezzarossi 2015; Mrozowski et al. 2009; Pezzarossi 2008). Scattered across the entire site are quartz and quartzite debris, shatter, flakes, and likely natural breakage. Quartz is particularly difficult to analyze due to its molecular structure and the way it breaks during flintknapping, so it is very hard to discern between natural breakage compared to flakes or knapping debris without other evidence (see Bagley 2013:47). It is also not the intent of this section to do that— only to detail the fact that several quartz quarries were identified not far from the Newman site (see Bagley 2013:79; Bagley et al. 2014:177, 184; Gary 2005:30-31; and Mrozowski and Law Pezzarossi 2015:178), and a

few quartz and other stone tools were found within or close to one of the three clusters at the Newman site. Notably, excavations within one of the clusters were the only ones to recover complete stone tools or fragments of whole tools; flakes, shatter, and natural debris were recovered from within the clusters as well as outside of a cluster.

Large chunks of quartz have also been recovered from a few areas across the site. Some that are pyramid- or uniquely-shaped were recovered from areas close to and within cluster C. Quartz crystals have a place in Native American religion, and have been found within the corners of the Burnee/Boston foundation and that of the Magunkaquog Meetinghouse (discussed later; see Bagley 2013:79, Gould et al. 2020, and Mrozowski et al. 2009). The large chunks present at the Newman site are not of the same proportions as the those found at the Boston/Burnee home or Magunkaquog meetinghouse, but these and a large quarry blank that was found just outside the north boundary of the Newman site could have served multiple purposes, as a source to extract tools or, to obtain the right type of crystal through a process of heat treatment.

The list of stone tools and tool fragments is not long and would be easiest described by site area. As mentioned above, everything from outside one of the clusters was either a flake, shatter, or natural debris consisting of mostly quartz. Cluster A had one quartz biface. Because a full lithic analysis has not been completed for this assemblage, I cannot say whether it is a biface tool waiting to be finished, or if it is a rough complete tool. One rhyolite flake and two tool fragments were recovered from cluster B. Of these fragments, one is the only nearly complete projectile point excavated so far from the Newman parcel, and it is not made of quartz. In his examination of the preliminary lithic assemblage from earlier

excavation seasons at the Newman site Joe Bagley has identified this as a Neville point; projectile points of this typology are 7,000-5,500 years old (Bagley 2013:81). The other tool fragment from this area is a darker or smoky quartz. It appears to be worked from each face, but the fragment is very small. It is too curved to be a drill but could be the tip of a knife or scraper— or even the barb of a projectile point. This type of quartz was also found at the Burnee/Boston site. Cluster C only has one flaked stone tool fragment, and this is the tip of a red rhyolite biface point. Also recovered from cluster C were two possible ground slate artifacts. One is only 2-3 cm long, while the other is roughly 6-8 cm. They are both completely smooth, but the larger one has a chip taken from one of the shorter ends. If a chip with the same proportions was taken from the opposite end as well, it would closely resemble a side-notched weight (Massachusetts Archaeological Society 1991:50-51). Even the single chip from one end could indicate one too many strikes as a hammerstone used during lithic reduction.

Lastly, two flat pieces of aqua-colored glass were recovered from cluster C that exhibited some evidence of being unifacially pressure flaked— enough to raise the possibility that the flake scars on these pieces are the result of lithic reduction technology applied to glass. This particular opportune application of practices connected to the deeper past applied to new materials is only one such example of Indigenous integration of new goods into daily practice. And this example of lithic technological practices being applied to glass would only add to examples of this occurrence from other Indigenous spaces across southern New England (Bagley et al. 2014; Gould et al. 2020:67-68; Mrozowski and Law Pezzarossi 2015; Mrozowski et al. 2009; Silliman 2009, 2015) But just like the quartz shatter

and debris scattered across the lot, it is difficult to give a form, function, or meaning to these slate and glass objects without further evidence.

Personal Adornment, Pipes, and Small Finds

My discussion of the items of personal adornment will be brief in part because these artifacts are the focus of another students' thesis and are still being analyzed. There are several artifacts in this category, mainly copper alloy buttons and fasteners, and they were all recovered from either cluster B or C. In total, seven copper alloy buttons and fasteners were recovered. Two of the larger examples have embossed designs, one being a crown. Another of the smaller fasteners has a plain face, but resembles Noël Hume's Type 9 (Noël Hume 1969:91), and still has the attachment on the reverse side. The rest are too worn or corroded for a basic description other than one smaller button has an embossed ring encompassing the edge. One copper alloy buckle was also found, broken and bent out of shape. The last items of personal adornment and small finds are a copper coin, which is heavily worn and unidentifiable at this time, and a small copper ring or band that is disjointed; this ring has a diameter of 1.9 cm.

There is a total of 12 white clay pipe fragments and the only two areas on the Newman site they were recovered from were clusters A and C; this includes both the shovel test pit surveys and excavation units from all seasons. Just under 60% of the pipe fragments show evidence of being smoked from, three from cluster A and four from cluster C (see Fig. 15 below). There were two pipe stem fragments from cluster A, one smoked and one not, which have bore-diameter measurements of 4/64" and 5/64" respectively. One of the three

pipe bowl fragments from cluster A is decorated or incised with “TD,” (see Mrozowski and Law Pezzarossi 2015:167, Figure 8-17 and Rymer 2017:41, Figure 1 for the same marking on a pipe bowl recovered from the Burnee/Boston home site). The decorated fragment and one plain fragment indicate they were smoked.

Cluster C has a total of 7 pipe fragments—four bowl fragments and three pipe stems. One pipe stem fragment has a bore-diameter measurement of 4/64” and shows it was smoked. The other two stem fragments have bore measurements of 5/64”. Of these two one has a maker’s mark or decoration and was smoked, but the mark is too worn to detail. Three of the remaining bowl fragments were smoked, and one was decorated with incised lines. The last bowl fragment does not show evidence of use but is decorated with a raised vine (see Mrozowski and Law

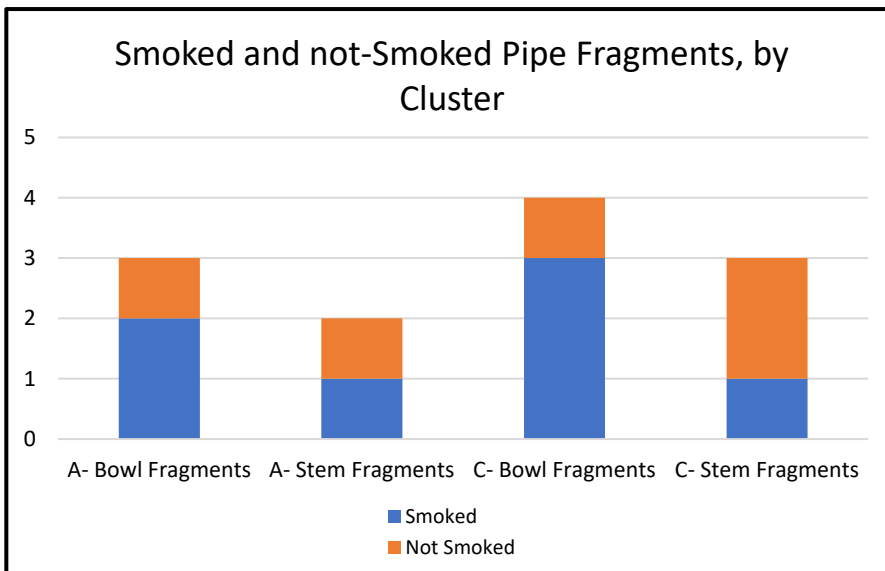


Fig. 15 This table shows the pipe fragments from each cluster that were either smoked from or not.

Pezzarossi 2015:167, Figure 8-16 for the same marking on a pipe bowl recovered from the Burnee/Boston home site). This is a very small assemblage, especially when compared to the Burnee/Boston site, but the few pipe fragments that are datable place them between the years 1700-1800 (see Rymer 2017 for in-depth analyses and discussion about clay pipes on archaeological sites, focusing on Hassanamisco Nipmuc homes during the same time period).

Unique Metals

There are several metal artifacts that I wanted to describe separately from the other small finds and architectural metals, which includes a small group of unique ferrous and non-ferrous objects. These were recovered across the site, but the majority were excavated from the area around and within cluster C. The first two types would fall under a kitchen or cookware classification in a general sense. Two fragments of an iron kettle were recovered from cluster C and just east of that a cup handle was found. This is a copper cup handle, with silver corrosion and hard solder at the thinner end (Piechota 2018: personal communication).

I will draw from Law Pezzarossi (2014; see also Gould et al. 2020:113-114) for my description of the remaining artifacts in this category. In utilizing DeLanda's "assemblage theory," Law Pezzarossi is able to analyze and interpret an assemblage of iron objects recovered from the Burnee/Boston site that exemplifies the utilization of on-hand goods and materials into a basketmaking toolkit (Gould et al. 2020:113-114, Law Pezzarossi 2014a&b). Law Pezzarossi details how iron objects were altered from their original form either out of

necessity, because the original item broke, or both, and were applied to the practice of woodsplint basketmaking. These artifacts include, but are not limited to, a scythe blade-turned-drawknife as well as formed and sharpened utensil handles used for carving (Law Pezzarossi 2014a:348, 352; see also Law Pezzarossi 2014b; Gould et al. 2020:113-114; Mrozowski and Law Pezzarossi 2015). I cannot begin to analyze the artifacts I am about to describe into a uniformed assemblage at the given time, and at this point it is only my intention to describe and introduce these artifacts. At the end of this section I will include a description of one artifact, found via the 2018 experimental metal detecting survey at the Newman site, that could very well have a place in a woodsplint basket-maker's toolkit.



Fig. 16 Rolled and stamped copper sheet. Photographs by Dennis Piechota, Fiske Center Conservator, University of Massachusetts-Boston. (Photos not to scale).

The above artifact is the only metal artifact, apart from the clothing buttons, that has a decoration. Figure 16 shows two holes punched into the body of this object from the outside—not punched straight through it— and that these holes are at uneven heights to one another. The object’s description from the Fiske Center’s conservator Dennis Piechota is as follows: “Copper sheet stamped with a banded floral pattern, rolled and welded into a tube. One end has a fragment of welded flange [toward the bottom of Figure 16]; the other end has been flattened and torn.” (Piechota 2019: pers. comm.). This description is an objective detail and does not imply that the stamping or welding used to create this object occurred on-site—the alterations on the other hand are possible. It is hard to describe what this object might be, but the shape resembles the ferule of an umbrella. The next object is a heavily corroded iron wedge, measuring no more than 9-12 cm in length and 4-5 cm in width, and is included with these metal artifacts because it seemed out of place in any other category. There are no noticeable modifications made to it and was likely used to split wood. A simple internet search leads to modern examples of iron wood splitting wedges that match the diameters of the one found (see also Gould et al. 2020 and Law Pezzarossi 2014a&b).

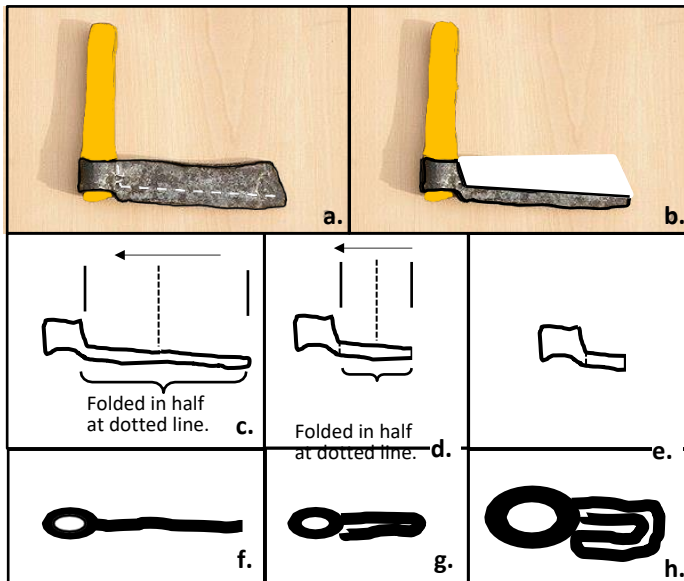


Fig. 17a. Side view of a complete froe blade, hafted. **17b.** Side view of froe blade, showing section removed from the one recovered at the Newman site. **17c.** Side view of remaining blade, dotted line indicates where the first bend was made. **17d.** Side view with dotted line showing second bend. **17e.** Side view of final object **17f.** Top-down view of modified blade before bends. **17g.** Top-down view of object after the first bend. **17h.** Top-down view of final object after both bends (**enlarged to show detail**). **Diagram not to scale and does not show actual artifact recovered from the Newman site.**

The iron object depicted in the diagram above is heavily corroded, but its shape is still evident; the diagram above is not the actual recovered object. This tool would have been hafted onto a wooden handle. But the modifications made to it, possibly after the original tool broke, make it difficult to use in the same way. The closest tool this artifact resembles is a froe, which is a tool used to split wood into shingles or other flat strips. But as shown in the diagram above, most of the blade has been removed. Even more interesting is that the remaining part of the blade has been folded in half, twice. It is not rolled, or unevenly folded. Instead, the blade has been furled with even bends. It is difficult to describe a purpose for this artifact. As an intact froe there would have been many uses for woodworking— and possibly even in woodsplint basketmaking. But the purpose, if any, of its current form is not apparent, nor has it undergone further analysis beside my attempt to identify it.

The last object in the unique metals section is a piece of nonferrous metal that has been shaped in multiple ways. This is the object mentioned earlier that could be included in a woodsplint basket-maker's toolkit and further could be used during the basket weaving stage (see Law Pezzarossi 2014a:346, Table 1). This piece of copper alloy has been cut/sheared, rolled, folded, and punched. Below in Figure 18 you can see the object. Even though the pictures do not have a scale, the measurements are accurate. One interesting detail is that the holes punched in the side are two different shapes. In Figure 18b, the top and bottom holes in the series are square, while the middle hole and the one on the reverse side are round.

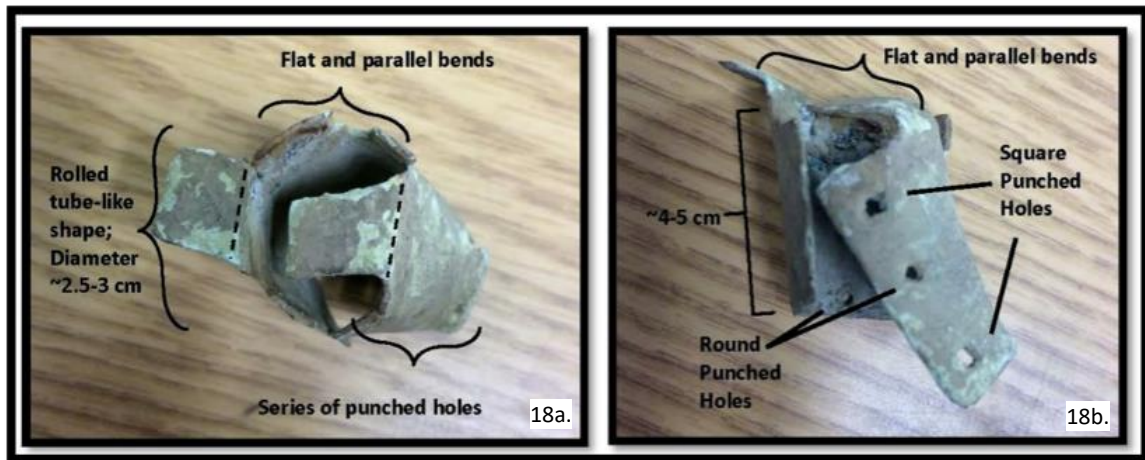


Fig. 18a. Top-down view of modified piece of copper alloy. **18b.** Side view of modified piece of copper alloy. (Photos not to scale).

The way this piece is imagined as being used in basketmaking is to replace the blunt object used to separate different components of the basket in order to draw other components into place (see Law Pezzarossi 2014a:351-352). What makes this tool unique is that the basket-maker would wear this on their thumb or finger, freeing up the hand originally grasping the blunt object. Looking at Figure 18b., if one is right-handed this is the position

the tool would be when it is placed on the thumb or finger. The fold of metal over the center, see Figure 18a., would stop the thumb or finger from going through the tool. And the fold protruding from the left in Fig. 18a. and top left in 18b. would be the part used to push-through, separate, or make any modifications to the basket being created. It is like a flat extension of the finger, replacing a tool that normally requires a whole hand. Law Pezzarossi (2014) analyzed an assemblage complete enough to describe the entire basket-making process. The artifacts described in this section are not comparable to the assemblage that she describes, but three artifacts recovered from the Newman site could perform tasks in this process. The iron wedge would split wood, the froe would make strips or more accurate cutting, and the copper alloy object just described would be used in constructing the basket.

This description becomes even more interesting knowing that basketmaking was a communal activity for Nipmuc women (see Gould et al. 2020:113-115; and Law Pezzarossi 2014a&b) and that Deborah Newman was a basket-maker along with Sarah Boston (Mrozowski 2019b:507-508; Mrozowski and Gould 2019:410). Woodsplint basket making was an activity in which Nipmuc women strengthened their community through the reinforcement and creation of social connections. This was a very important aspect of life for many Indigenous groups in southern New England, including the Nipmuc (Gould et al. 2020; Law Pezzarossi 2014a&b; Mrozowski 2019b; Mrozowski and Gould 2019). During the time following the American Revolution, woodsplint basketmaking making progressed into a means of earning money for Nipmuc communities (Law Pezzarossi 2014a; Gould et al. 2020:110-115). By this time basket making was not only a way to strengthen community and

create social ties, but it was also another role that Nipmuc women filled as civic leaders and providers.

Architectural Artifacts

One of the remaining artifact categories include architectural materials. The reason for discussing these artifacts followed by organic materials in sequence is because the architectural artifacts are mainly concentrated around the clusters, for the most part cluster C, and the artifacts that indicate they were heated/burned also come from cluster C. The exceptions to this, discussed in the following chapter, are calcined bone and charcoal. Figures 19, 20, and 21 show the counts for brick fragments, flat glass, and nails at each of the site areas. Each of these artifact categories have something unique about them, particularly within

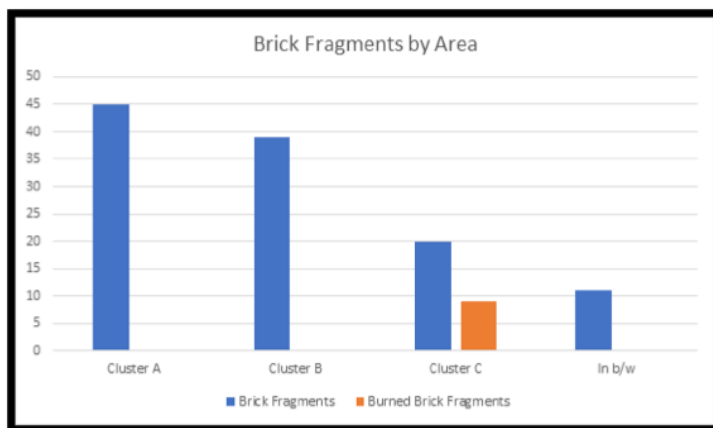


Fig. 19 Brick fragment counts at each site area.

outside of a cluster, or the “in b/w” space. Eleven brick fragments, ten pieces of aqua flat glass, and four nails were recovered from this space. Two of the nails are too corroded to

cluster C. This section will be discussed by site area, beginning with the space not within any cluster, and will describe the three artifacts types together. The lowest number of these artifacts were recovered from areas

identify, and the other two can be identified to be either a wrought or cut nail. Surprisingly, no wire drawn nails were recovered from the Newman site.

Cluster A had 45 brick fragments, 28 fragments of aqua flat glass, and 18 nails; 13 were either wrought or cut, and the remaining 5 were too corroded to identify. Cluster A was also one of the areas where melted glass was recovered. The counts of these objects go down

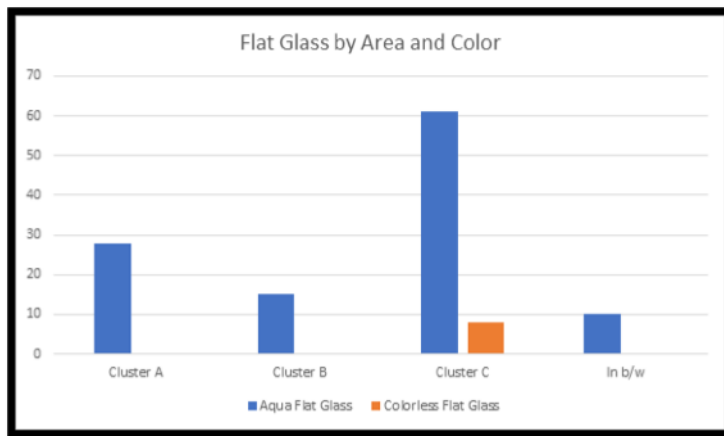


Fig. 20 Flat glass counts by color and site area.

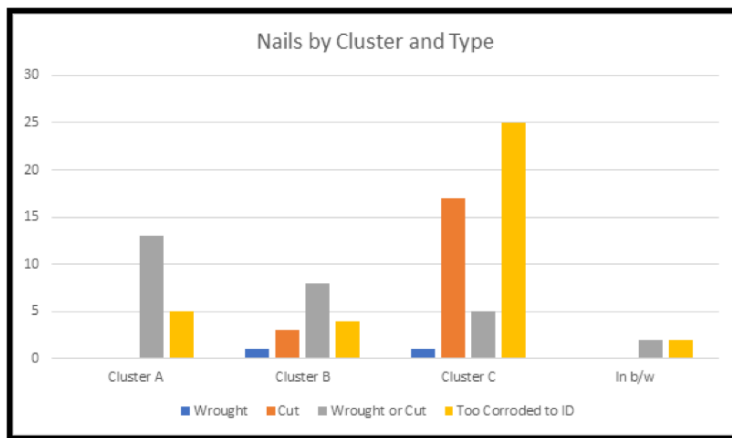


Fig. 21 Nail counts by type and site area. No wire drawn nails were recovered from the Newman site.

slightly at Cluster B. There were 39 brick fragments, 15 fragments of aqua flat glass, and a total of 16 nails from here. The nails recovered are as follows: one wrought, three cut, eight either wrought or cut, and four too corroded to identify. The last site area is cluster C and, aside from the brick counts, has the highest quantity of each of these material types.

There is a total of 29 brick fragments, ranging in size, recovered from cluster C. What makes the brick assemblage from cluster C unique is that it is the only area on site where burned brick was excavated. Cluster C had a total of 69 flat glass fragments. Eight of these were clear, and the remaining were aqua. One of the more interesting fragments of window glass is from a casement window, with ghost-marks of the lead coming still visible. This fragment has segments of two original edges, and the angle formed by their intersection is roughly 80 degrees. This sharp angle would make it the top or bottom part of a diamond windowpane dating to the 17th- or 18th-century, probably part of a casement window rather than a sash window (see Parks Canada Glass Glossary 1989:172). Forty-nine nails were recovered from this cluster, and again, no wire drawn nails were excavated. Twenty-five of these nails were too corroded to identify, five were either wrought or cut, one was wrought, and 17 were cut nails (see Figure 21 above).

The remaining artifact in the architectural materials is one bent iron bracket. The artifact appears to have two originally-squared angles, but the recovered item is slightly bent into an elongated-“W” shape. A possible function for this object could originally have been a bracket.

Organic Artifacts- Taphonomically Altered via Heat

The organic artifacts, particularly the faunal remains, are unique in that almost every single one has been altered one way or another by heat. The few pieces that were not altered by heat (see Table 5 below) are not part of the clusters and are closer to the northeast portion of the lot. This category consists of mostly animal bone fragments, but two charred peach pit

fragments were excavated from Cluster B and one very small, charred seed from cluster C. This process is discussed in the next chapter, but calcined bone is slightly different than burned bone in that it is heated at higher temperatures for longer periods of time. Its resulting color and composition are different than that of burned bone, and it is unlikely that calcined bone would result from the cooking processes that normally produce burned bone (see also Appendix C).

	Cluster A	Cluster B	Cluster C	In b/w
Calcined	18	11	56	6
Not Calcined	2*	0	0	4

Table 5 Calcined and non-calcined bone by site area. * These two fragments are on the way to being calcined, but they not fully at that point. Even though they are not without taphonomic alteration, I included them in the non-calcined count.

Table 5 above shows the amounts of bone recovered from the different areas across the site. The reason this table represents only bone and calcined bone, leaving out burned bone, is because there was no bone that was just burned. The two fragments from cluster A depicted above are listed as not calcined because they have been altered by heat but are not fully calcined— they are not fully unaltered either, but should not be considered as burned bone. These fragments were on their way to becoming calcined, but the process stopped for one reason or another. The four fragments that are not burned or calcined included in the “in b/w” space come from areas of the site not near the clusters. They were excavated from shovel test pits close to the northeast corner of the lot. The percentage of calcined bone on

site is 94% on the conservative side, or 96% if I were to include the two fragments from cluster A.

Summary

When comparing the material counts of each cluster, the data presented above shows that cluster C has the highest count of most artifact types. Clusters A and B have higher brick fragment totals, but cluster C was the only area where burned brick fragments were excavated. Clusters B/C represent the lived-in area by Deborah Newman and her family, whose mean ceramic dates line up with their occupation as revealed through the documentary record. The Newman family lot was auctioned off in 1821, and the MCD for clusters B/C show an occupation just prior to this. More excavation would help interpreting the later MCD of cluster A. While it does date to a time after the Newman family's occupation, the number of vessels used in determining its MCD was much lower than that of B/C. This means due to the higher number of vessels at B/C, the date may be more refined.

The following chapter will describe how the Newman site and assemblage adds to the body of known Indigenous sites in southern New England. This chapter will be divided into two parts. The first part focuses on the material culture, and the Newman assemblage's similarities to that of both local and regional sites. The second part will describe the spatial data on site, and hypothesize on the nature of the structure on the Newman site. While more excavation is needed to detail the floor plan of the structure at cluster C, the locations of features and soil staining at the Newman site bear similarities when compared to the plan map of site 72-161 on the Mashantucket Pequot Reservation (Handsman 2018:58, Fig. 4).

CHAPTER 5

THE NEWMAN SITE IN CONTEXT

After establishing that the mean ceramic dates of clusters B/C line up with the site's occupation by Deborah Newman and her family, this section will compare the Newman site with other Indigenous sites in southern New England. The first part of this section will include an extended comparison to the Sarah Burnee/Boston farmstead as a contemporaneous Hassanamisco family, but will also use data from the Magunkaquog meetinghouse (Gould et al. 2020 and Mrozowski et al. 2009) as well as sites 102-113 and 102-116 on the Eastern Pequot Reservation, North Stonington, CT (Cipolla, Landon, and Silliman 2007; Silliman 2009). In comparing the Newman assemblage with these other sites, three Nipmuc practices connected to a deeper past emerge—basketmaking, lithic practices, and disposal method of faunal remains. The second part of this section will describe the spatial data and features at cluster C, comparing them to two *wetu* occupations on the Mashantucket Pequot Reservation, Ledyard, CT (Handsman 2018).

Material Culture and Indigenous Practices

Archaeological excavations and research describing the Sarah Burnee/Sarah Boston farmstead span almost 15 years, resulting in a robust and detailed account of another Hassanamisco Nipmuc family who were also proprietors of the 1727 land sale (see Allard 2010; Bagley 2013; Bagley et al 2014; Gary 2005; Gould et al. 2020; Law 2008; Law Pezzarossi 2014a&b; Mrozowski, Gould and Law Pezzarossi 2015; Mrozowski and Law Pezzarossi 2015; Pezzarossi 2008, 2014; and Rymer 2017). The Burnee/Boston family was another female-headed household who not only passed property from mother to daughter like the Newman family (see Gould et al. 2020:101, 103, 111), but histories indicate that members of these families were close and practiced basketmaking together (Mrozowski and Gould 2019; also Gould et al. 2020:113-114). It is again not surprising that members of these families are listed together in the Trustee Records and court petitions, they experienced similar effects from the Guardianship-system in place.

Broadly speaking, both sites include much more imported or European goods than Indigenous-produced goods. The Burnee/Boston farmstead operated as a community gathering place for Hassanamisco families, indicated by voluminous amounts of cutlery, many types of ceramics, glass drinking vessels, smoking pipes, and a diverse faunal assemblage (Allard 2010; Gould et al. 2020; Law 2008; Mrozowski and Law Pezzarossi 2015; Pezzarossi 2104; Rymer 2017). It was occupied between 1750-1840 (Mrozowski and Law Pezzarossi 2015:145), with more intense occupation between 1790-1820— coinciding almost directly with the occupation of the Newman site.

The Newman site and the Burnee/Boston farmstead differ in scale and complexity. The Burnee/Boston farmstead was a Nipmuc family's household that also acted as a gathering place for the Hassanamisco community. Faunal and material culture analyses have found that serving large meals were common at this home (Mrozowski and Law Pezzarossi 2015:145). Over 120,000 artifacts have been recovered from the Boston/Burnee farmstead, and this amount significantly overshadows the number of artifacts from the Newman parcel—though this is in part due to the larger excavated area at the Burnee/Boston farmstead. But what these assemblages indicate is that similar activities were occurring at both sites, just at different scales. Where the Burnee/Boston farmstead was a larger gathering space located at a Nipmuc home, the Newman parcel represents a more intimate, familial setting. The structures themselves are also very different. The Burnee/Boston farmstead included a framed, walled-in home with a foundation, while the Newman parcel lacked a stone foundation and possibly included a *wetu* or other similar vernacular structure.

Pezzarossi (2014) compared the ceramic sherd assemblages of the Burnee/Boston site with eight other nearby farms. The nearby Pratt-Keith farm was contemporaneous with the Burnee/Boston farmstead, and was occupied for roughly the same amount of time (Pezzarossi 2014). A total of 56.6% of the ceramic assemblage was refined earthenware at the Burnee/Boston home, while the Pratt-Keith farm had a heavier presence of coarse earthenware—roughly 75% was coarse (Gould et al. 2020:116; Pezzarossi 2014). Though the ceramic assemblage is smaller at the Newman parcel, the ratio of refined earthenware to coarse earthenware is 66%. Furthermore, most of the ceramic vessels from the Newman assemblage reflect forms used for serving or eating food. If this ratio from the Burnee/Boston

site is an effect of the large meals served there, then the ratio at the Newman parcel may reflect the same activities, albeit at a smaller scale.

Evidence suggests that other similar activities were occurring at both sites. As previously mentioned, members of the Newman and Burnee/Boston families were close and made baskets together (Mrozowski and Gould 2019; also Gould et al. 2020:113-114). Enough tools were recovered from the Burnee/Boston site to detail the entire basket making process (Law Pezzarossi 2014a&b). Some of the ferrous and non-ferrous objects from the Newman site may have been implemented in this activity as well, particularly a bent and formed piece of copper alloy (see Figures 18a and 18b). Woodsplint basket making was an activity in which Nipmuc women strengthened their community through the reinforcement and creation of social ties (Gould et al. 2020; Law Pezzarossi 2014a&b; Mrozowski 2019b; Mrozowski and Gould 2019). Following the American Revolution, basket making also became a means for Nipmuc women to earn money by selling their wares (Law Pezzarossi 2014a&b; Gould et al. 2020:110-115). It was another role that Nipmuc women filled as community providers and civic leaders.

A common activity that often went together with eating meals was smoking. Each site had the presence of white clay pipe stem and bowl fragments, but again the number from the Newman parcel is lower than that from the Burnee/Boston farmstead. Bowl fragments from each site also have matching decorations. One bowl fragment from the Newman site has an impressed maker's mark of "TD." Five bowl fragments with this same mark were recovered from the Burnee/Boston site (Mrozowski and Law Pezzarossi 2015:168; see Mrozowski and

Law Pezzarossi 2015:167, Fig. 8-17 and Rymer 2017:41, Fig. 1 for images of the bowl fragment from SB/SB). Also, one bowl fragment decorated with a raised vine was excavated at the Newman site; 14 pipe bowl fragments from the Burnee/Boston site have the same decoration (Mrozowski and Law Pezzarossi 2015:167, see also Fig. 8-16).

Another example represents an activity that brings together the Magunkaquog meetinghouse, the Sarah Burnee/Boston farmstead, and the Newman site. Creating and curating stone objects and tools through the lithic reduction process is a practice that existed long before Eliot's influence, and has continued into the time of colonization. At the Magunkaquog meetinghouse, two artifact types represent Indigenous processes that were not introduced by Eliot and other colonists: quartz crystals and curating valuable lithic objects. Ironically, the case of the quartz crystals introduces Indigenous religion into their Christian lives (Mrozowski et al. 2009:454; see also Mrozowski 2013 and Murphy 2002), whose use within a religious nature may not have been tolerated by a strict Euro-Christian outlook (see also Cipolla 2013:14-15 and Cipolla et al. 2018:136-137). Firstly, gunflints were recovered from the Magunco Hill Site and through research conducted by Barbara Luedtke they were determined to have been sharpened or touched-up through a process used by Indigenous people during the lithic reduction phase, particularly the finer stage of pressure flaking. Luedtke concludes that this level of reworking is not found on reworked flints from English or European colonists, and this repeated sharpening is consistent with Indigenous practices of curating valuable lithic objects (Gould et al. 2020:69-70; Luedtke 1999a&b; Mrozowski et al. 2009:454; see also and Waski 2018:107-110).

John Murphy and Barbara Luedtke analyzed the small assemblage of quartz crystals that were recovered from the foundation at the Magunco Site (Mrozowski et al. 2009:454 and 2013; Murphy 2002; Waski 2018). These crystals show they are of Indigenous origin, and is supported by the recovery of several quartz cobbles from the hearth outside of the foundation. The cobbles indicate that they were heat treated in a fashion as to extract crystals; these crystals were recovered from within three of the foundation corners. Murphy argues that this use of crystals has deep roots in Indigenous societies, and his research of the crystals from Magunkaquoog have produced evidence of this practice dating back at least 5,000 years (Mrozowski et al. 2009:454 and Murphy 2002; see also Cipolla et al. 2018; Gould et al. 2020; Mrozowski 2013 and Waski 2018). The quartz crystals placed in the foundation of the meetinghouse, as well as the practice of curating valuable lithic objects, are two ways in which the Magunkaquoog community continued Nipmuc activities after John Eliot's influence.

In a comparison of six Nipmuc sites in central Massachusetts that have undergone archaeological investigations, Bagley et al. (2014:174) showed that lithics were documented within household refuse on all six sites, including the Newman site. Lithics from the foundation and a sheet midden at the Burnee/Boston farmstead revealed a wide variety of lithic objects. The list includes a steatite bowl, a pestle, gunflints, flakes, cores, and tools. The majority of these objects are made from quartz or quartzite, and some of these object types were not recovered at the Newman parcel— i.e. steatite artifacts and gunflints. There were roughly 164 quartz and quartzite flakes and cores recovered from the Burnee/Boston foundation and sheet midden. About 117 quartz and quartzite flakes were recovered across

the whole Newman site, and also includes 2-3 possible cores. The Newman parcel also includes a Neville point, a rhyolite flake and point tip, a rough quartz biface, 3-4 large quartz chunks, a smokey quartz tool fragment. At both sites, the lithics were recovered from similar concentrations as later ceramics and household goods, suggesting contemporaneous use times. Furthermore, when compared to sites in the greater surrounding area, Bagley et al. (2014:175) show that when lithics are found in association with post-contact material culture, which they indicate is a rare occurrence, it was in association with an Indigenous- and in these cases Nipmuc- occupancy.

The final point of comparison regarding the lithic assemblages from these sites is the use of lithic methods and technologies applied to glass. A broken glass tumbler was recovered from the Burnee/Boston site that was bifacially worked to produce a scraper (see Bagley 2013; Bagley et al. 2014; Gould et al. 2020; Law 2008). At the Newman site, two fragments of aqua flat glass exhibit evidence of being unifacially pressure flaked. These two fragments were recovered from the central area within cluster C. Applying lithic technologies to stone, and later glass, would have provided readily accessible materials to make tools out of. This would have relieved the need to carry around metal implements, and as shown from the Burnee/Boston site, may have been a preferred means to acquire needed tools (Bagley 2013 and Bagley et al. 2014).

Tobacco Pipes and Calcined Bone: Hunting Rituals and Taboo

The high percentage of calcined bone along with the presence of white clay smoking pipes raise questions about religious hunting practices and the treatment of animal remains at the Newman site. As mentioned in the previous chapter, 94% of bone remains from the Newman site are calcined. For a comparison, 32% of the faunal remains from the Sarah Boston/Burnee farmstead exhibited signs of burning, totaling 1514 specimens (Allard 2010:67-68). For now, this will remain a comparison because much more area was excavated at the Burnee/Boston farmstead. Cipolla, Landon, and Silliman (2007) describe the faunal remains and dietary habits of two Pequot households on the Eastern Pequot Reservation, sites 102-113 and 102-116. Each site includes evidence for a building that had stone foundations and possibly framed walls, but the taphonomic processes that affected the faunal assemblage are of note. The sites combined have a total of 40% calcined bone (Cipolla, Landon, And Silliman 2007:53). Though their total number of specimens, 858, is higher than the Newman site's 118 specimens, the percentage of calcined bone is much greater at the Newman site. Along with the presence of calcined bone, tobacco use has been shown to play an integral part in religious hunting practices for Indigenous populations of northeast North America (Harper 1999:154-156, 162-166).

In addition to being an activity commonly done with eating, the use of tobacco pipes at the Newman site may also carry a religious connection to the calcined bone. Tobacco use plays an important part during different stages of hunting. It is used for stimulation, luck, divinations, and other rituals done by Indigenous peoples in northeast North America (Harper

1999:154). The sacrificial use of tobacco was used in part to show respect for the animals being hunted (Harper 1999:162). This show of respect is also extended to high-temperature treatment of bone, resulting in calcined remains.

The fact that nearly all bone recovered from the Newman site is calcined is significant in two ways; the first being its preservation in the archaeological record. The New England climate can make recovery of faunal remains in general difficult in that many remaining bones erode in cycles of hot and cold, arid and humid. Also particular to domestic sites is the effect trampling plays into depositional and postdepositional effects (Gould et al. 2020:115). In their study, Kalsbeek and Richter (2006) experimented with defleshed metapodials (metacarpal bones of the wrist, and metatarsal bones of the ankle) from modern roe deer, and the effect temperature and pH levels have in deterioration of these bones. Within all pH levels, bone material heated to temperatures between 100-1000 degrees Celsius becomes more susceptible to mechanical degradation than bone that was not heated. Furthermore, carbonized bone remains heated up to 900 degrees Celsius have very low hardness, while bone exposed to higher temperatures have increased levels of brittleness (Kalsbeek and Richter 2006:134). Given these conditions, calcined bone would have less of a chance for preservation, yet remains the most abundant faunal evidence on site with a very high ratio of calcined-to-not calcined.

Secondly, in his discussion of Pequot life during the historic period, McBride describes the burning of animal remains during times of hunting or feasting as a means of showing respect for the animals hunted (McBride 1991:63-64; also Vasta 2007:79). He

describes that “one of the more interesting aspects of the faunal remains recovered from both historic and prehistoric sites on the reservation is the presence of heavily burned or calcined bone,” (McBride 1991:73). He notes that on older sites within the Mashantucket Pequot Reservation all the calcined bone was that of wild animals, and even on later sites where domesticated animals were introduced, the calcined faunal remains still were only that of wild animals. In her doctoral dissertation, Meredith Vasta analyzed faunal utilization at the Mashantucket Pequot Reservation (2007). She states that Native groups of the northeastern United States burned animal remains to show respect for that animal (Vasta 2007:25-26, 30-31, 79; see also McBride 1991 and Silverman 2003:540-1). One question my results raise is whether the calcined bone at the Newman site is from wild or domesticated animals. In her dissertation, Vasta shows that it was not only wild animal bones that were calcined (see also Mrozowski et al. 2009:447). Once domesticated animals became utilized on the Mashantucket Pequot Reservation, some but not all of these types of animal bones were found to be calcined (Vasta 2007:181-186). Furthermore, Harper describes that the proper treatment of animal remains may be dependent on the ecosystem in which the animal lived or had a cosmological association with, i.e. animals associated with water would have their remains returned to water (Harper 1999:176-177). There has not been a complete faunal analysis of the Newman assemblage, so the bone fragments remain unidentified.

The processes by which bone is burned or calcined are very similar, with the differences usually resulting from cooking procedures rather than deliberate, high-temperature heating. Cooking does not always result in burned bone, let alone bone that is fully calcined. This is especially true if there is soft tissue surrounding the bone (Vasta

2007:29), which would certainly be the case for roasting or boiling meat on the bone for consumption. Burning bone results in modifications such that the collagen within it is carbonized and its color changes to yellowish, red/brown, dark brown/black, or blue/black depending on heat source and duration of exposure. Calcined bone results from heating at higher temperatures for longer periods of time, turning the bone blue/white and depleting it of all organic matter (Vasta 2007:30-31; see also Lyman 1994:385). With increasing temperature applied to bone, color changes reflect the decomposition of the organic material, until the whole collagen component disappears at roughly 600-700 degrees Celsius (Kalsbeek and Richter 2006:123). Calcined bone is fragmented and chalky, usually requiring temperatures of around 500 degrees Celsius to become fully calcined (Cipolla, Silliman, and Landon 2007:53; McBride 1991:73; also Kalsbeek and Richter 2006).

The proper disposal of animal remains is an important practice in maintaining the relationship between humans and animals. Rooted in religious practices, the proper treatment of animal remains is based on the belief that the spirit of the animals dwelled within the bones of the animal (Harper 1999:175). Through the proper and respectful disposal of animal remains, the soul of the animal is able to be reborn and hunted again (Harper 1999:178). Though the intricacies and nuances of this widespread Indigenous practice may differ from group to group, Harper notes that in many instances it was actually taboo to not treat the bones through burning (Harper 1999:177-178), and in effect resulting in calcined remains.

Interpreting Spatial Data

This section will focus on some of the site's spatial data, also concentrating on the features within cluster C at the Newman site. I will draw data from two sites on the Mashantucket Pequot Reservation for comparison, sites 72-161 and 72-66. Handsman (2018) discusses *wetu* sites that are contemporaneous to the Newman site, and the work detailed in this article provides a much-needed comparison for the Newman site and other *wetu*-based occupations in New England. His description of site 72-161 serves as one of the only widely-available published archaeological findings of a *wetu* occupation dating to the last quarter of the 18th century in New England (see Handsman 2018:59). This regionally comparative site, as well as those discussed on the Eastern Pequot Reservation, indicates that during the later 18th- into the early 19th centuries, Indigenous populations in New England were occupying framed houses, *wetu*, and possibly both.

Figure 22 below (Handsman 2018:58, Fig. 4), shows a plan map of site 72-161. His description of a soil type labeled “light red brown burned soil, fine sandy loam” can be seen in this map at a few areas within the structure as well as some smaller patches around the exterior. At this and the Newman site, these burned soils abut large rocks. If this can be considered rubified soil caused by combustions features, like at the Newman site, then its presence within the structure's interior around what he describes as “dark brown to black basin feature, fine sandy loam” would almost match that of the Newman site. We did not find much of this dark black basin soil within cluster C, but the presence of the rubified soil with similar texture around large rocks and boulders at both sites indicates a similar process

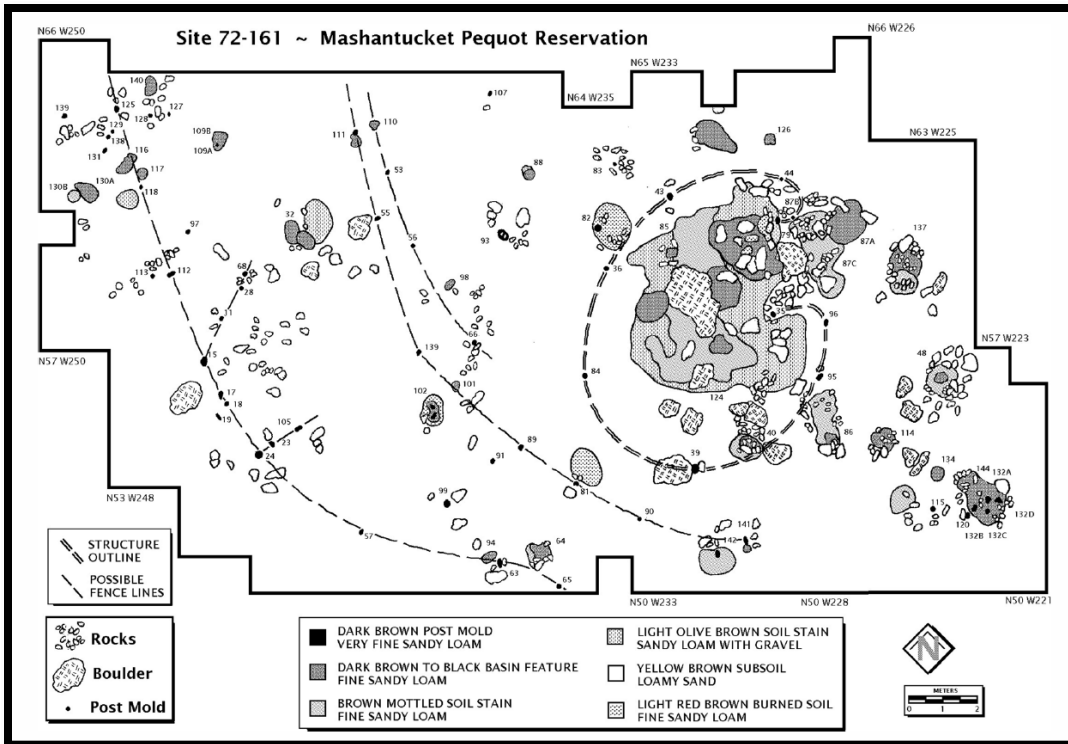


Fig. 22 Plan of Mashantucket Site 72-161: The oval-shaped wetu floor is on the right. (Handsman 2018:58, Fig. 4; Plan courtesy Mashantucket Pequot Museum Research Department, 2009.)

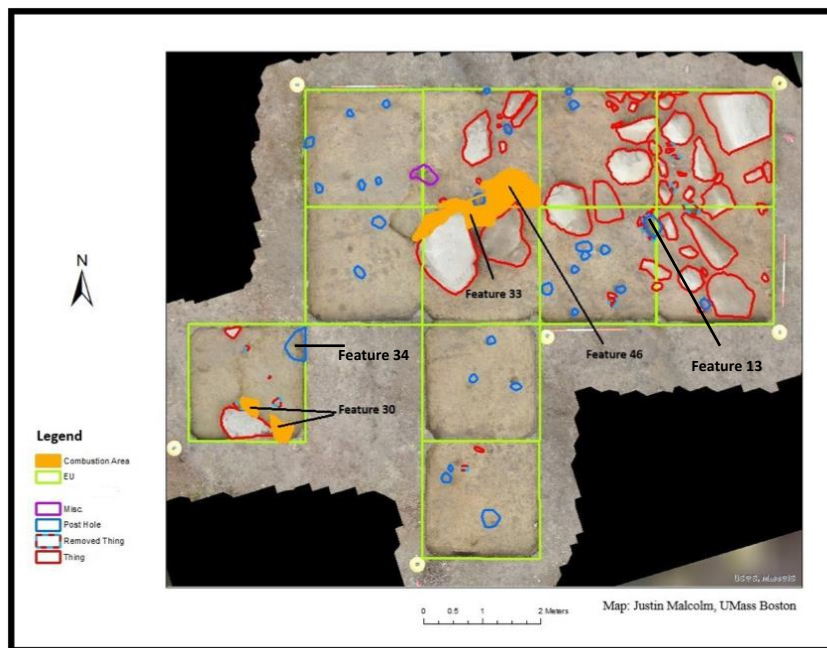


Fig. 23 Aerial view of cluster C showing location of features. Features 30, 33, and 46 are the remains of combustion features. Features 13 and 34 are large post holes. Map by Justin Malcolm.

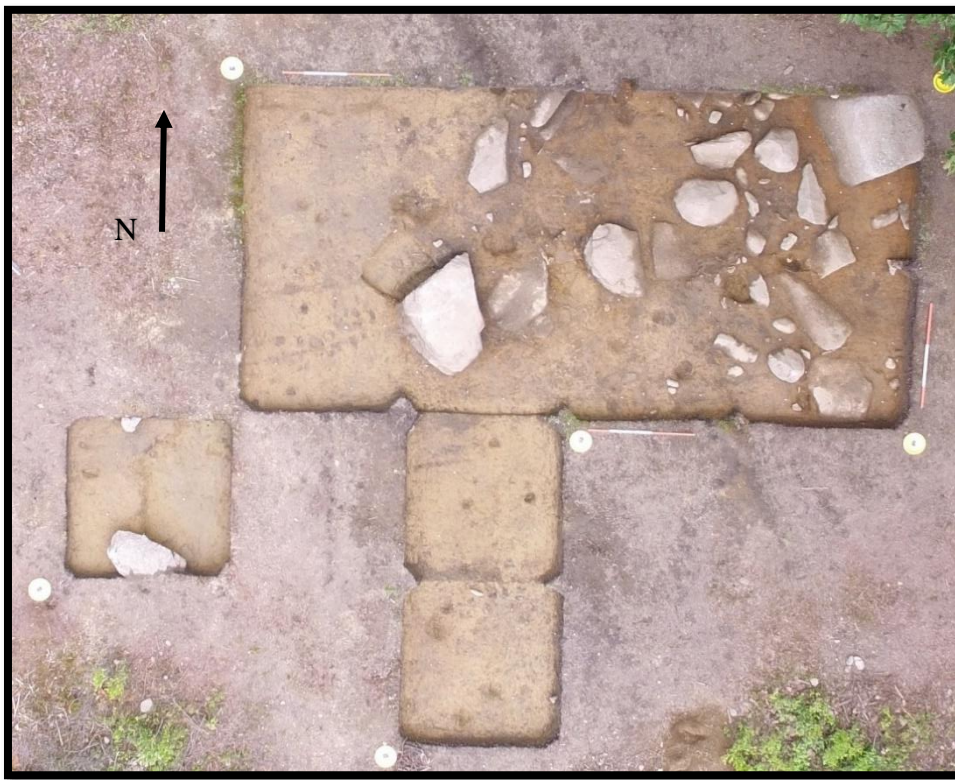


Fig. 24 Overhead drone photo of cluster C at the Newman site after excavation was complete. Each square is a 2-meter x 2-meter excavation unit.

creating the rubification (see Appendix C for detailed discussion of rubified soil and the combustion features at the Newman site).

The *wetu* at site 72-161 encompasses about 56m² with interior features including shallow fire basins, storage and garbage pits, and postmolds for structural support (Handsman 2018:57). Artifacts from the interior area of the *wetu* include wrought nails, window glass, fragments of metal cooking pots, glass bottles, white-clay pipes, and metal cutlery; Handsman also notes a diverse assemblage of imported, American-made, and locally produced earthenwares and stonewares (Handsman 2018:57). The size of the ceramic

assemblage from site 72-161, as well as the actual area excavated, exceeds that of the Newman site but perhaps the only artifact type that is not present at the Newman site would include the metal cutlery, although the Newman assemblage does include one copper-alloy utensil handle.

Another significant point made by Handsman's is his description of the artifact assemblage from the exterior of the structure at site 72-161. He describes this part of the site's assemblage as "sparse," having no exterior middens or activity areas as well as sparse artifact concentrations (Handsman 2018:57). Below, Figure 25 details a plan map of site 72-66, showing the artifact densities. Site 72-161 was a family's *wetu* built in vernacular style, and completely lacked a stone foundation, but site 72-66 includes a "less substantial *wetu*" that is associated with a stone foundation but separated from it in another part of the yard (Handsman 2018:60).

Site 72-66 includes a cellar-less wood-framed house with interior lofts, hearths, and partial chimney along with remains of a stone-lined foundation in the northwest portion of the site. Roughly 10 meters south of this structure, the "less substantial *wetu*" is indicated by a small architectural assemblage and a lack of stone-lined wall supports (Handsman 2018:59-60). Handsman notes that seriation studies show this smaller structure overlaps with the occupation of the wood-framed house, but only slightly earlier. He further describes that dates for ceramic assemblages along with two Connecticut copper coins narrow the occupation date to 1775-1785— which is the same period of occupation for the *wetu* at site 72-161 (Handsman 2018:60). The small concentration visible in the bottom right is not

discussed in detail, but is a “hot spot” first interpreted as a midden deposit (Handsman 2018:60).

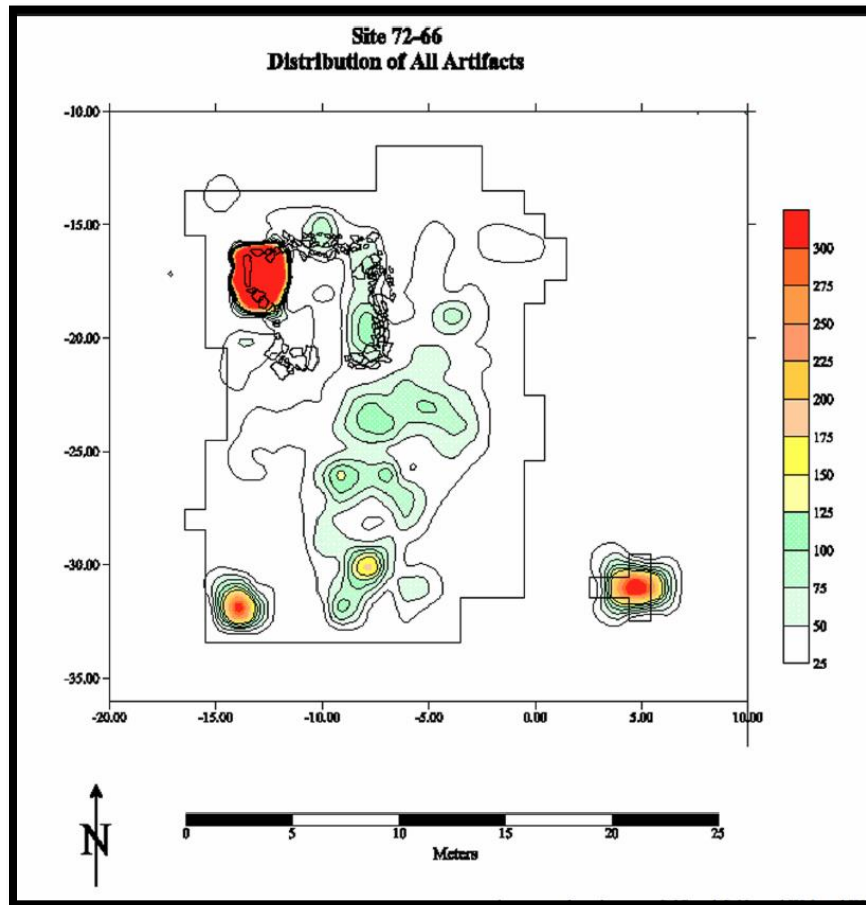


Fig. 25 Artifact densities, Mashantucket Site 72-66. The stone-lined foundation of the frame house can be seen in the upper left (northwest) quadrant with its hearth and associated artifact concentration. A second house (likely a wetu) is located in the southwest quadrant between S-27 and S-32, and W-8 and W-15. (Handsman 2018:61, Fig. 6. Figure courtesy Mashantucket Pequot Museum Research Department, 1995.)

Summary

While the documentary and material data suggest that the assemblage discussed in this thesis was that of Deborah Newman and her family, our understanding of the nature of this structure is less explicit at this time. At this point, my interpretation of the Newman structure is only a hypothesis. More excavation would be required to understand the floor

plan, though the data described above may point to a vernacular structure more similar to the *wetu* at sites 72-161 or 72-66 than a home with a stone foundation; another possibility may be a post-in-ground framed home without a foundation. Similar features and soil staining reveal common qualities between the Newman site and site 72-161, though the pattern or layout of support poles at the Newman site is currently unknown. The degree to which the window glass played a part in the architecture is also unclear. If the flat aqua glass from the Newman site represents a window that was built into the structure, this may indicate more of a modern and permanent building feature. Since the documentary record about *wetu* in the northeast United States is very sparse, it is unclear if installing windows into *wetu* became a common practice later in the 18th century.

The remains of the combustion features indicate that some of the larger rocks were used as a fire back. At the Newman site, it is possible that other exposed rocks were used for structural support or other functions such as a table or work surface. The combustion features at cluster C also give some indication of interior vs. exterior. Historical sketches and descriptions of *wetu* usually detail a central indoor hearth (see Dunton 1686 and Stiles 1761). Features 33/ 46 may represent an indoor hearth, as these are the only two combustion features with any ash present. Feature 30 had none and may represent an exterior combustion feature. The small amount of ash within Features 33 and 46 could be a result of people maintaining an indoor hearth of a living space, while the lack of ash in Feature 30 could be effects of weather and bioturbation (for more details see Appendix C).

Besides having similar features, the Newman site follows the pattern mentioned by Handsman whereby most of the site's artifacts come from the area of the structure (Handsman 2018:57). At the Newman site, there are three densities of artifacts (see Figure 8 and Table 1). Using the data represented in Table 1, and given that our shovel test pits were 50cm x 50cm and excavation units 2m x 2m, roughly 46% of the total area excavated at the Newman site was within or encompassing cluster C. The area outside any of the clusters accounts for roughly 16% of the total area excavated, yet less than 3% of the total ceramic assemblage came from this space; all of the diagnostic sherds used in my MNV came from within one of the clusters as well. Cluster C had 51% of the total number of vessels, and 56% of the ceramic vessels from the Newman site. For architectural materials, cluster C had 62% of the site's flat glass, 59% of the site's nails, and 26 % of the site's brick. With the lower number of brick fragments at cluster C comes the unique aspect of this being the only area where burned brick was recovered. Following this, cluster C also had 62% of all calcined bone recovered from site.

CHAPTER 6

DISCUSSION

While we do not yet understand what this structure was exactly like, the analyses in this thesis attempt to provide a starting point for further research.

The Trustee Records began by detailing an agreement whereby Nipmuc and English families would live, and prosper, together from the agreed upon land sale in 1727. The overplus lot, wherein the Newman Site lies, was granted as extra communal land for the use by Nipmuc proprietors and the Hassanamisco Nipmuc community (TR:ii). These same records detail multiple ways the government-appointed Trustees appear to have embezzled and misappropriated funds due to Nipmuc families. This paints a picture of Nipmuc proprietors having no choice but to part with their land as capital— the Trustees often did not pay out money when it was required, but they were there when land was sold to settle debts owed to them. The 1694 and 1702 legislative actions gave the Trustees the ability to consolidate lands and money, effectively controlling the prosperity of Hassanamisco families as well as their capability to retain their land (see also Gould et al. 2020:102-109). This indirectly forced the sale of some Nipmuc-owned lands. Nevertheless, this did not erase

Nipmuc presence; in fact, many proprietors were very present in government petitions to protect their rights.

The associated material culture and dating of the assemblage recovered from the Newman lot lines up with Betty Sampson and later Deborah Newman's appearance in the archival data. Within the Trustee Records alone, Betty Sampson and Deborah Newman are consistently recorded in each yearly account. This is important because it shows their continual presence at Hassanamisco during their lives. The ceramic vessel assemblage mostly comprised of drinking vessels and flat dishware including saucers, plates, and platters.

The same family has been residing on the Newman parcel from at least 1765 until the second decade of the 19th century, but documentary data indicates their occupation may have begun much earlier— any time after 1728. The objects that make up the artifact assemblage would have been acquired throughout this span of time. More importantly there is a noticeable lack of artifacts from the earlier 18th century as well as later 19th into 20th centuries. Once the Newman lot was auctioned off under the late Otis Newman's name in 1821, no further site occupation seems to have occurred. Furthermore, Deborah Newman's name and home are listed on an 1886 deed map, which is no less than 66-72 years after a Newman family member resided there, as indicated from the perspective of the documentary record.

Land records also indicate that other heirs to Andrew Abraham Sr. resided within the bounds of the overplus lot. Submit W. is presumably a niece to Betty Sampson. She is visible in the Trustee Records beginning in 1753. In 1780 Thomas Nichols sold a portion of the

overplus lot just east of the Newman site to Nath. Batchellor, specifically mentioning a “heap of stones” that marked “Submit W[...]’s upper division of said hundred acres now the property of Thomas Nichols” (WCRD Book 82, Page 349). This transaction exemplifies two things. First, is that other heirs to Andrew Abraham lived within the overplus lot, and may have even had their own division within it. Second, it shows how land within the overplus lot was referenced within these deeds (see also Gould et al. 2020:83). One thing that seems to remain constant through the 18th-century within the land deals is how they would refer to the southern area of Grafton wherein the Hassanamisco overplus lot was. For deeds that were depicting parcels of land in within this space, the boundary descriptors would usually begin with wording explicitly stating that the land lies within the “Indians hundred acres” or “hundred acres overplus.”

Later in the 18th-century, as more of the overplus lot was owned by English families, more references were made to the southern Hassanamisco line (see Anon. 1886) rather than the entire overplus lot. Over time the overplus lot became less and less of communal Nipmuc land and more of an asset for the English families. This southern boundary is the southmost line, running roughly west-east, marking the extent of Hassanamisco and by extension the overplus lot. Interestingly, the Newman parcel nearly abuts this line and played a huge factor in how I was able to track its location and ownership.

Between 1750 and 1765, but possibly before this, Betty Sampson became owner of a piece of land in the overplus lot and stayed there. At this time most of the land surrounding her parcel was owned by English families. As it was being consolidated, the Newman parcel

remained the missing piece of the overplus lot that remained in Nipmuc hands. By 1787 Betty Sampson passed away (see WCRD Book, 119, page 437) and Deborah and Isaac Newman not only inherited the property, but they improved it as well. Deeds from 1787 and 1795 for an adjoining property to the Newman parcel both mention the land as belonging to the heirs of Betty Sampson (WCRD Book 119, page 437; WCRD Book 124, page 198-199). A few years later in 1799, a deed for the same adjoining property mentions bounding “land improved by Newman,” and again in 1801 bounding “land in possession of Isaac Newman,” (WCRD Book 135, page 586-587; WCRD Book 144, page 339-340).

By 1814 Ebenezer Leland Jr. owns the land within the overplus lot that is immediately surrounding the Newman parcel and sells the whole area to John Warren (WCRD Book 190, page 449-450). The only mention of the Newman parcel is a “corner at Otis and John Shermans land,” (WCRD Book 190, page 450). Within the deed it mainly references heaps of stone or other property markers of already-owned English plots, opposed to more concrete references to the Newman family. As more of the same family begins to own the land encompassing the Newman parcel, fewer mentions about the Newman family are referenced within the deeds for these parcels, instead opting for more vague boundary descriptors.

In 1821 the Newman parcel was auctioned off to John Warren. At this time Otis Newman is deceased. The deed mentions the parcel as “the late residence of the Newman family,” and describes its bounds beginning on the “ancient Hassanamisco line,” (WCRD Book 280, page 258); this line is the southernmost Hassanamisco border. This deed describes

the bounds of the nine-acres and fifty-two rods worth of land that John Warren was unable to acquire in 1814 from Ebenezer Leland Jr. This nearly-ten acres is likely the additional land granted to Andrew Abraham Sr. in 1728, which was arranged to be established within the 100+ acres (TR:3).

This thesis works to build upon an already robust historical account of Hassanamisco families connected to the 1727 land sale. Focusing on Deborah Newman and her family adds another perspective of how Nipmuc proprietors and family members navigated the colonial Guardianship-system initially put in place in 1694. This project also adds to our understanding of how the overplus lot was utilized and developed over time— beginning as communal land for the Hassanamisco Nipmuc community, but later consolidated by being sold to English families and proprietors. This archaeology reveals a lived-in space of a well-known Nipmuc family, who had a significant presence at Hassanamisco.

The history of Hassanamisco Nipmuc, the guardianship system put in place, and their decreasing ancestral homelands over time provides a lens from which to view the issue of survivance described in the introduction of this thesis. Survivance is not necessarily documenting overt survival; rather it is a broader understanding of the voluminous contexts that affected Indigenous populations in North America as a result of capitalist-colonialism throughout the 16th-century to today, and reframing those histories in a decolonized fashion with an active sense of presence (see Vizenor 2008:1). This includes telling histories of continuation, instead of termination, and the archaeology at the Deborah Newman site shows a continuation of a family on their ancestral land during a time when their greater landscape

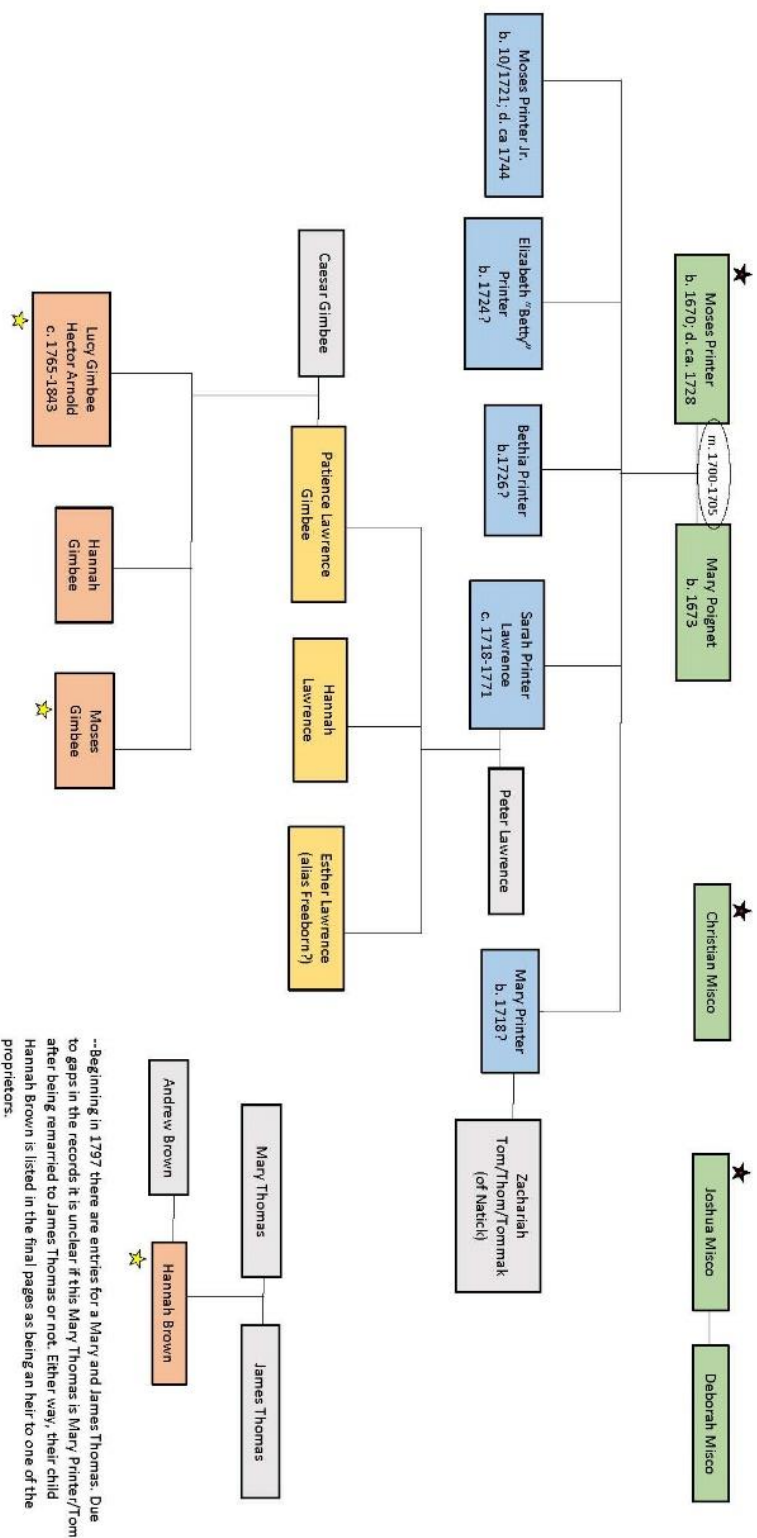
was shrinking. Often, histories that need to be decolonized portray Native populations in North America as dying away, assimilating, vanishing, or otherwise being terminated. It is important to correct these because results of colonized histories still affect Native populations today. The issue of “authenticity” arose from these histories, and today is used against efforts to protect sovereign rights of Indigenous people.

As stated in the introduction to this thesis, a goal of the Hassanamisco Woods Project is to counter false narratives about Nipmuc families within the historical and archival arenas. In doing so, part of this objective includes rejecting notions of waning Indigenous authenticity throughout the 17th-21st centuries. Gould et al. 2020 (109) promotes that “[c]ountering narratives of indigenous decline often requires specifics about indigenous survival.” The ability of Betty Sampson and her daughter Deborah Newman to retain their roughly ten acres of land within the overplus lot, as well as their continuing Nipmuc practices, are testaments towards better understanding Hassanamisco Nipmuc survival during this time period.

APPENDIX A

HASSANAMISCO FAMILIES

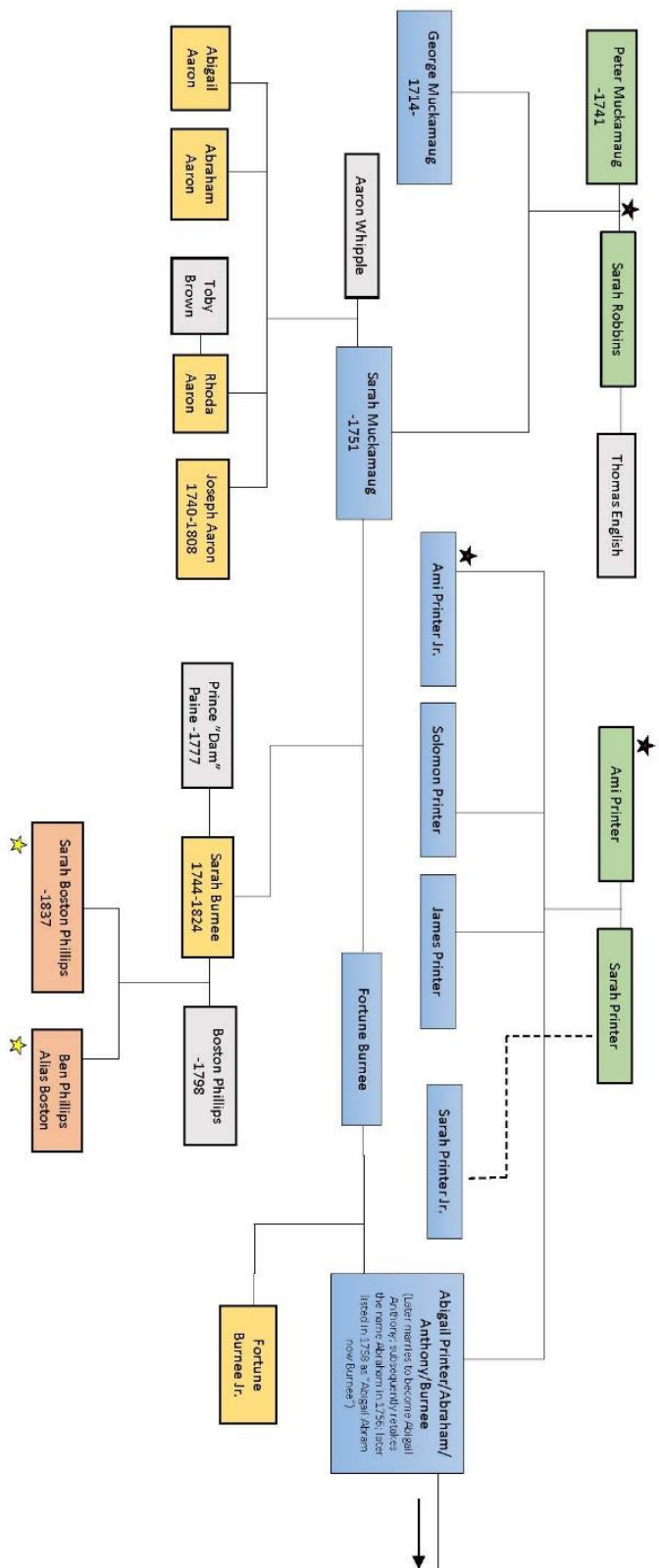
(FIGURE 26)



* Deborah Misco receives the shares of both Christian Misco and her husband Joshua at the time of their respective passing. After her passing in 1760, it looks like her total share was divided four-ways among the then-current proprietors: quarter share to Sarah Printer (Ami Printer's wife); one-quarter to be split between the daughters of Moses Printer (Sarah Lawrence and Mary Tom); one-quarter share to Fortune Burnee in right of his daughter Sarah Burnee—the daughter of the late Sarah Muchlanaug; and lastly one-quarter share to Deborah Abraham (Betty Sampson's mother).

**On page 14 of the Trustee Records it states that a Benjamin Speen married a daughter of Moses Printer, but does not detail which one.

Most of the genealogical information for Sarah Printer/Peter Lawrence and their descendants comes from Gould (2010:201). Gould (2010) includes 5 generations of Lucy Gimbee's descendants beyond what is listed here.



Most of the genealogical information for the Muckamaug/Robbins family comes from Wrozkowski and Law Pezzarossi (2015: 15).

APPENDIX B

AUGUSTUS SALISBURY SITE FEATURE 4 VESSEL LIST

Vessel #	Ware Type	Form	MCD
1	Pearlware, embossed edge	Dish, shallow	1827.5
2	Pearlware, shell edge	Dish, deep	1817.5
3	Whiteware, shell edge	Dish	1840
4	Pearlware, shell edge	Dish, deep	1817.5
5	Pearlware	Cup	1812.5
6	Pearlware	Saucer	1810
7	Pearlware	Saucer, deep	1824
8	Pearlware	Cup	1812.5
9	Pearlware	Saucer, shallow	1812.5
10	Pearlware, factory slipware	Bowl	1810
11	Pearlware, factory slipware	Bowl	1810
12	Pearlware, factory slipware	Bowl	1810
13	Pearlware, factory slipware	Bowl	1820.5
14	Pearlware	Saucer	1812.5
15	Pearlware	Cup	1812.5
16	Pearlware	Saucer	1822.5
17	Pearlware	Cup	1822.5
18	Pearlware	Cup	1805
19	Pearlware	Saucer	1812.5
20	Pearlware, flow blue	Flatware, undet.	1850
21	Pearlware, flow blue	Saucer	1850
22	Creamware	indet.	1797.5

23	Pearlware	Cup	1822.5
24	Pearlware	Saucer	1822.5
25	Pearlware	Dish, deep	1827.5
26	Ironstone/White Granite	Hollowware, undet.	1886
27	Creamware	Bowl	1771
28	Creamware	Flatware, undet.	1771
29	CC ware	Hollowware, undet.	1797.5
30	Pearlware	Indet.	1812.5
31	CC ware	Plate, deep	1797.5
32	Pearlware	Tea pot	1802.5
33	North American Stoneware	Jug	1862.5
34	Redware	Pot	1800
35	Redware	Pan/Basin	1800
36	Redware	Dish	1800
37	Redware	Pan/Basin	1800
38	Redware	Hollowware, undet.	1800
39	Redware	Bowl	1800
40	N. Am. Stoneware	Hollowware, undet.	1862.5
41	Scratch Blue White Salt Glazed Stoneware	Hollowware, undet.	1759.5
42	Yellowware	Indet.	1885
43	Pearlware	Tankard/Mug	1802.5

Table 6. HWAS
Feature 4 vessel
list

MCD with Redware	1816.1
MCD without Redware	1818.7

Table 7. HWAS Feature 4 MCDs

APPENDIX C

DIRECT AND INDIRECT EVIDENCE FOR COMBUSTION FEATURE

This section analyzes the archaeological evidence for deliberately created combustion features within cluster C of the Newman site. These feature types are strong indicators of human activity or use, and what this chapter will do is explain how excavations at the Newman site uncovered remains of such features from within the area with the densest number of other features and artifacts. Given proper analysis one can discern between deliberately created fires opposed to something like a natural forest fire, and it is the goal of this section to show just that. This type of feature includes hearths as well as simpler low-intensity fires. I will demonstrate that the combustion features at the Newman site are evidence of higher intensity burning and will be interpreted as repeatedly used hearth-like features. Hearths and other combustion features can represent the remains of a single event, more permanent occupation of a site, or repeated provisional use of an area over a few or many years and/or seasons (Mentzer 2014:617). The combustion features at the Newman lot would either fall under the third category, or a combination of the second and third.

Description of Features 30, 33, and 46

These three features (see Figure 27 below) were all identified initially through staining and slight texture change in the soil, as well as the presence of charcoal and other

burned materials. They were all excavated around large rocks and smaller boulders, and share other qualities indicating they are not the result of natural burning events. The immediate surrounding area within cluster C shows the remains of several post holes. Most were 15-20 cm in diameter, but two were more substantial in size. There are two separate concentrations of combustion features within proximity to each other at cluster C. The larger one is in the central part of cluster C and includes features 33 and 46, while the other is closer to the western edge of this cluster's excavation (Feature 30). The substrate of these features is a rubified, or reddened through heat, form of the surrounding soil. In both plan and profile views the rubified sediment forms a homogenous blending into the background soil and is not defined by sharp lines or cuts in the stratum. As discussed later in this section, when viewed in profile these features have a bowl- or U-shaped bottom (see Figure 28). Since the three features discussed here were excavated beside and around boulders, the rubified soil smoothly blends into the background substrate away from the large rocks. This would make it seem like the rocks acted as a heat barrier or other partitioning device to control the fire.

Historical sketches and descriptions of *wetu* usually detail a central indoor hearth. Features 33 and 46 may represent a central indoor hearth, as these are the only two combustion features with any ash present. Feature 30 had none and may represent an exterior combustion feature. The small amount of ash within Features 33 and 46 could be a result of people maintaining an indoor hearth of a living space, while the lack of ash in Feature 30 could be effects of weather and bioturbation.

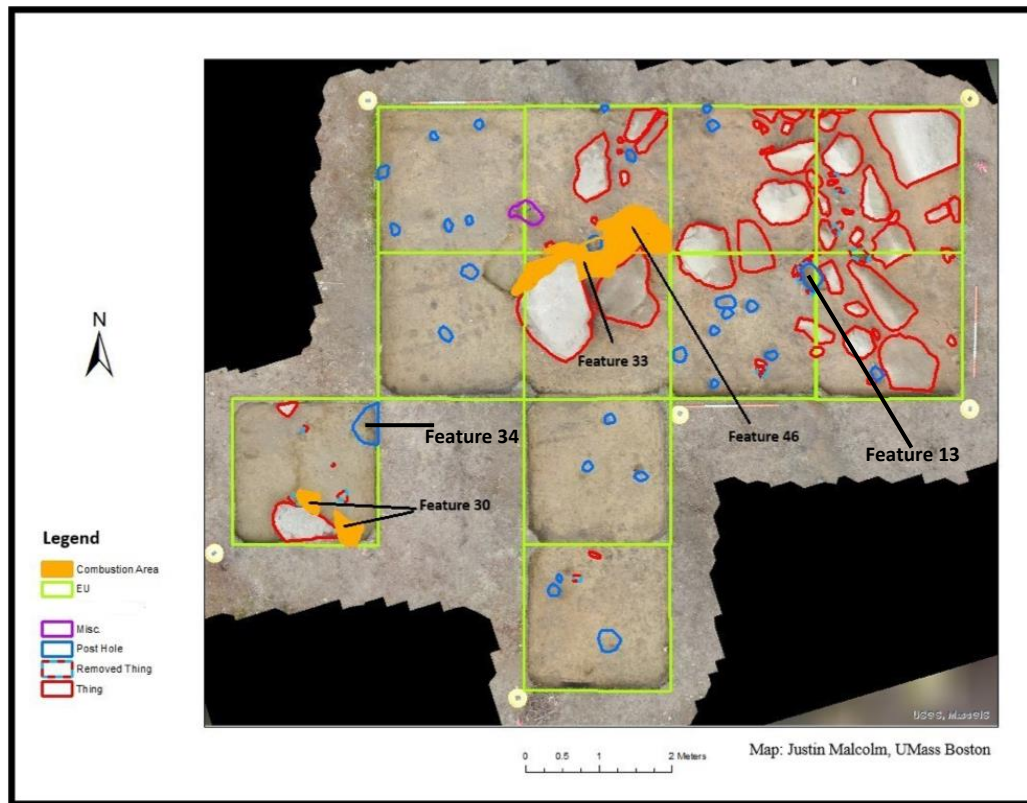


Figure 27. Aerial view of cluster C showing location of features. Features 30, 33, and 46 are the remains of combustion features. Features 13 and 34 are large post holes.

Direct Evidence

In-tact hearths and other combustion features are normally identified in the archaeological record through the presence of three components: rubified sediment/fire-cracked rock, charcoal, and ash (Mentzer 2014:632-633). The components in this list that were ubiquitous among the three combustion features at the Newman site include rubified soils and charcoal, in addition to the boulders used as a fire back. Feature 30 did not have any ash present, while Feature 33 and 46 had a slight amount. This can occur for a variety of reasons and one of the main points I will describe is that with a structure such as this, the

fires and hearths were likely maintained and had some degree of exposure to the outside elements. Given exposure to weather and other processes, sites with open-air combustion features usually have better charcoal preservation compared to ash (Mentzer 2014:630). This is not to say the Newman structure did not have overhead construction or was either entirely or substantially open, but rather that outside elements may have had a greater effect in this instance when compared to combustion features with zero exposure to outdoor weather effects. The two factors that most determine preservation of charcoal and ash from combustion features are the depositional environment, i.e. environment and soil type, and postdepositional processes (Mentzer 2014:629). Charcoal and ash are direct by-products of burning, while rubification of soils is dependent on substrate composition and exposure to heat (Mentzer 2014:633). For these reasons, the types of evidence for combustion features just listed are referred to as direct evidence. Indirect evidence will be discussed shortly, and in this case includes material remains such as burned artifacts and calcined bone.

Before discussing the ash and charcoal preservation at the Newman site it is important to further consider the environment in which the hearths/combustion features were created. Combustion features are affected by weathering and other mechanics differently depending on whether they existed in open-air or enclosed site environments. Mentzer (2014) describes approaches archaeologists can take to identify combustion features, and I use her overall model in my analysis of the combustion features at the Newman site. Because these types of features are affected differently based on many environmental factors, the preservation of direct and indirect archaeological evidence will vary depending upon whether it was in an enclosed space or not. Therefore, identifying combustion features per Mentzer is

also contingent upon its level of exposure to the elements. Though the sites they describe are much older, dating to the Paleolithic era, I believe her methods can be applied to the features at the Newman site, which have a material assemblage dating from the late 18th-early 19th centuries.

Combustion features in open-air environments have a greater range of post-depositional processes that can be affected by; winnowing by wind, transport/dissolution by water, trampling, and bioturbation being three significant examples (Mentzer 2014:647). Wind and water would certainly transport surface materials away from the original location of a feature. Also, decalcification is a basic soil-forming process occurring within the leached surface horizons of sedimentary deposits that greatly affects ash preservation (Mentzer 2014:648). This can occur as a result of acidic soil conditions or by flushing of water through porous sediments and it works to negatively affect ash preservation by moving the small particles away.

Preservation of ash remains are also affected by hearth maintenance— which may be a process not as significant in the Paleolithic sites of Mentzer's study. When it comes to identifying deliberately created combustion features at domestic sites, it is not just environmental factors affecting the preservation of direct and indirect archaeological evidence. The people who start the fires that create these features act as taphonomic agents (see Cipolla, Silliman, and Landon 2007:53-57), and can influence preservation in two significant ways. In relation to ash and charcoal remains this includes maintaining the hearth area in such a way where these remains are moved out of the hearth and deposited elsewhere.

Another taphonomic process caused by people that can affect these types of features is by dousing the fire with water.

Reddening of the substrate directly under and around a combustion feature is an important example of direct evidence in understanding the type and intensity of a fire. Also known as soil rubification, the process of such reddening and the color of the remaining soil are dependent on the composition of the substrate/soil and its exposure to heat (Mentzer 2014:633), and the form this reddening takes helps to show the nature of fire that burned (Canti and Linford 2000:393).

In their 1993 article “Forest Fire Effects on Soil Color and Texture,” Ulery and Graham describe the effects that differing intensity forest fires render in their wake. The three types described therein are characterized by level of burned plant material and alteration to the soil, and are further classified by the approximate temperature of the fire. Low intensity fires produce lightly burned areas with black ash, scorched duff and leaf litter, with low plant mortality (Ulery and Graham 1993:135). A fire with a maximum surface temperature of 100-250 degrees Celsius would produce these effects. Moderate intensity fires consume most of the plant material within them, exposing the underlying soil. Surface temperatures of moderate intensity fires reach 300-400 degrees Celsius, leaving the underlying substrate uncovered but unaltered (Ulery and Graham 1993:135). High intensity fires and severe burning are recognized by the white ash remains after the complete combustion of heavy fuel. Reddening of the underlying soil is also characteristic of high intensity fires. Surface temperatures of these fires reach in excess of 500 degrees Celsius

(Ulery and Graham 1993:135). The combustion features from the Newman site that I will describe fall under the third category of high intensity burning.

Canti and Linford (2000) experiment with different types of substrates commonly found on archaeological sites and the effect fire has on them (see also Mentzer 2014:636-637). Their focus was to ultimately determine under what circumstance(s) does fire produce reddening of the underlying substrate (Canti and Linford 2000:385). Generally, reddening of soil is understood as being a factor of temperature, and the temperature required for reddening to begin is about 500 degrees Celsius (Canti and Linford 2000:392). In their experiments only one fire produced a temperature just below the surface of above 550 degrees Celsius. The texture of the soil in this study was sandy-loam, and this is the soil texture most like that at the Newman site (Canti and Linford 2000:392).

One of their more significant conclusions is that “simple fires built on normal humic topsoil *rarely* heat the underlying soil enough to cause significant reddening,” (Canti and Linford 2000:392, emphasis in original). If organic matter inhibits the transfer of heat from the fire to the underlying soil, then reddening would tend to be found on sites where the topsoil had been removed beforehand (Canti and Linford 2000:393). They gave the example of soil erosion being able to cause the removal of topsoil, but for the case of this thesis I would like to introduce the notion of hearth maintenance once again. I would argue that preparing and clearing a space for a fire or hearth would have been the activity that removed the topsoil and exposed the underlying substrate prior to a fire being lit at the Newman site. Canti and Linford go on to conclude that if soil reddening is genuinely a factor of high

temperatures then it would unlikely be a result of simple fires burning on the humic surface, and “may indicate special circumstances, such as burnt tree-stumps, hearths, or industrial processes” (Canti and Linford 2000:393).

The shape of the reddened soil also indicates the circumstance of the fire concerning its cause or nature. If the reddened patches are uneven or sharply variable, then the fire could have been from a tree-throw, a fire burnt in a pit, “or other circumstances where the soil is held up in the flame, so avoiding the insulation of ash cover,” (Canti and Linford 2000:393). They go on to state that when reddened patches are relatively homogenous, occurring as a smooth transition into the background substrate color “that the questions posed by surface-built fires come into focus” (Canti and Linford 2000:393).

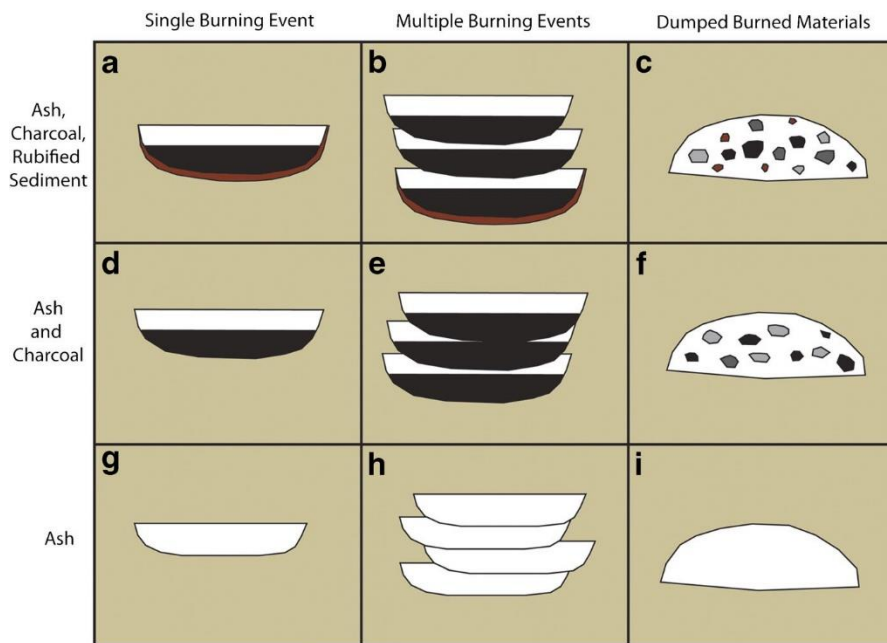


Figure 28. Stratigraphic sequence of combustion features. Source: Mentzer 2014:634, Fig. 8.

Above is an illustrated table created by Susan Mentzer showing the typical stratigraphic sequence of combustion features. When all three components are recovered *in*

situ, the sequence typically occurs as rubified sediment on the bottom, charcoal on top of that, with ash topping it off. The table illustrates three different scenarios: a single burning event (a, d, g), multiple burning events (b, e, h), and dumped burned materials (c, f, i). It further illustrates each scenario with different combinations of the components used to identify combustion features. The important part about this table is the shape of the features themselves. If the features at the Newman site were the dumped remains of a fire from somewhere else the profile shape would be reversed, appearing as a hump rather than a “U.” If this were the case and the reddened soil was also redeposited, it would not blend smoothly into the underlying soil. It would result in it being mixed with other components of the fire along with non-rubified soils, appearing as patchy and uneven in the archaeological record. Even though thickness of the rubified soil does not necessarily correlate with how long the fire burned or its function (Mentzer 2014:637), its presence and shape only add to the evidence that the combustion features on the Newman site are indeed significant features and not resultant from natural burning events.

Figures 29 and 30 below show two bisect profile views of Features 33 and 46, respectively. These features follow the patterns described by Mentzer (2014) and Canti and Linford (2000) indicating that they are not the result of natural combustion events. Figure 28 shows the complete stratigraphic sequence of combustion features as described by Mentzer (2014). On top, indicated with A, is the interface of the level 1/A horizon soils with a charcoal and ash layer. The thin layer of ash is shown at B. The rubified soils, indicated by C, show the bowl-shape these features take, as well as the smooth homogenous blending into

the background substrate. The substratum is indicated by D, showing the difference in soil colors between it and the rubified layer.

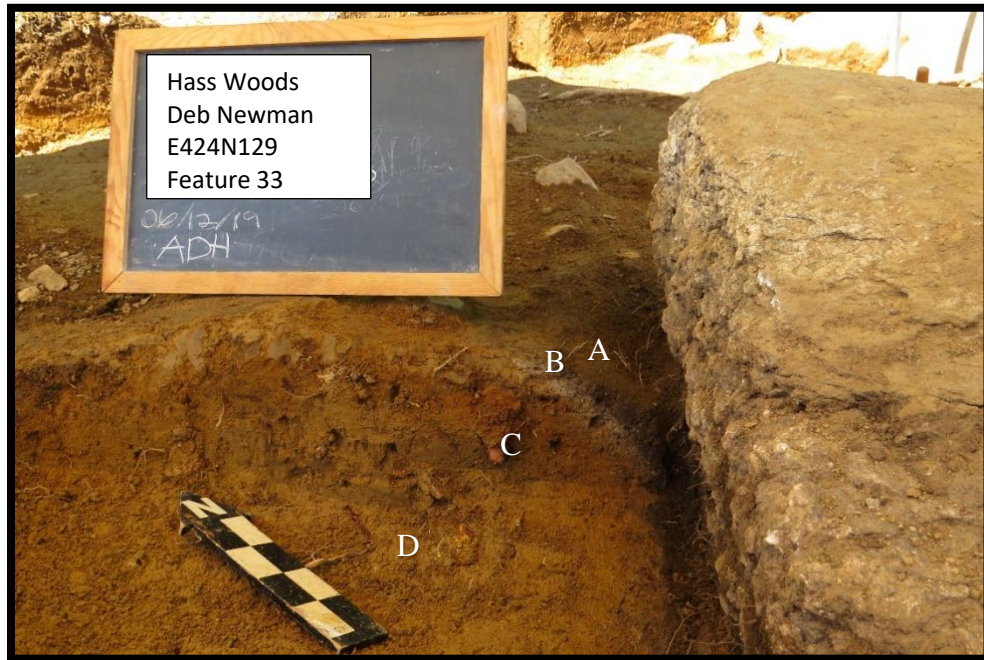


Figure 29. Bisect profile of Feature 33. A- Level 1/A horizon at interface with blacked soils, ash, and charcoal. B- thin ash layer. C- Rubified soils. D- subsoil.

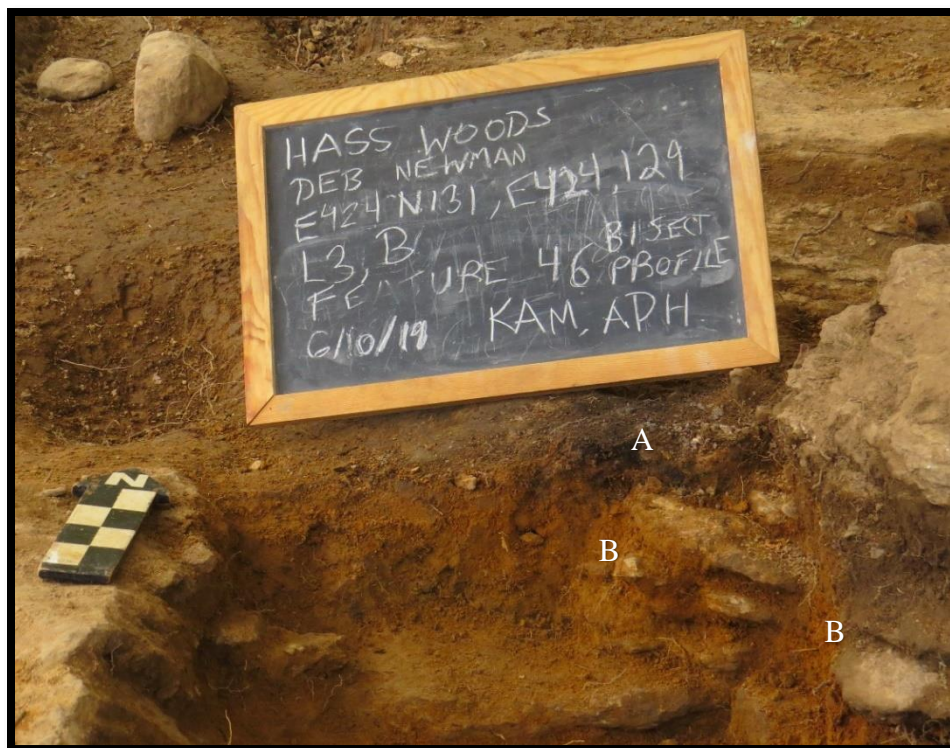


Figure 30. Bisect profile of Feature 46. A- Blackened soils/charcoal, with a slight amount of ash. B- rubified soils.

Figure 30 above shows the bisect profile view for Feature 46. The mixed charcoal and ash layer is indicated with A, and the rubified soils with B. This feature, Feature 30, and Feature 33 are all abutted by flat sides of large rocks. Feature 30, not shown here, was the only one without any ash present. Given this fact, these features reveal some semblance of interior vs exterior. If the interior features, 33 and 46, contained small amounts of ash due to its protection from outdoor elements, while Feature 30 was exposed and had the ash washed away, this would indicate separate depositional and postdepositional processes affecting them. The interior features would have also been maintained, so the existence of only a slight amount of ash is not antithetical to the idea of an interior combustion feature.

Indirect Evidence

Up to this point the proof for combustion features described on site are simply direct evidence that fires occurred. But the features on the Newman site are just as Canti and Linford described when considering the possibility of deliberate surface-built fires. As mentioned at the beginning of this chapter, in both plan and profile views, the rubified substrate of these features appear as a homogenous reddening that smoothly blends into the background substrate. These features on the Newman site also have the indicative U- or bowl-shape in the profile view (see Figure 28), where the heat radiating from the fire created a smooth and homogenous reddening. Given the shape of the rubified soils and the notion that the topsoil/humic debris was cleared prior to the fire burning, one can begin to conceptualize these features as being the result of deliberate human action. The fact that ash is largely lacking in these features, and to a lesser degree the charcoal, is not antithetical to the notion of deliberately built fires. As previously stated, weather, bioturbation, and hearth maintenance can remove these components away from these features. What is significant is the circumstances that allowed the underlying soil to redden, in this case preparing the surface prior to starting a fire, and the form the reddening took, the homogenous u-shaped blending of the rubified and background substrate.

In such an instance one would look for a material assemblage that is associated with the combustion features. This introduces the indirect evidence for combustion features that were excavated on site. For this project, the indirect evidence includes burned artifacts and calcined bone. Brick fragments were excavated within every cluster on site, but the few

burned fragments came from units associated with a combustion feature. The same applies to the burned ceramics and melted glass. There are more burned ceramics than burned/melted glass, although counts for each are not high. The noteworthy point is that they all come from contexts associated with the combustion features.

The most significant piece of indirect evidence for combustion features at the Newman site is that of calcined bone. Prior to the 2019 excavations 91% of the bone excavated was calcined. The non-calcined fragments are nearer the edge of the property and could be attributed to natural faunal remains. The 2019 excavations were exclusively within cluster C, and 100% of the bone excavated from this year is calcined. This raises the total percentage of calcined bone across the whole site to 94%, again with the noncalcined fragments away from the clusters and activity areas of the site (as mentioned in a previous chapter, this could go up to 96% depending how conservative one is with the analysis; see Table 5).

The fact that nearly all bone recovered from the Newman site is calcined is significant in two ways; the first being its preservation in the archaeological record. The New England climate can make recovery of faunal remains in general difficult in that many remaining bones erode in cycles of hot and cold, arid and humid. Also particular to domestic sites is the effect trampling plays into depositional/postdepositional effects (Gould et al. 2020:115). In their study, Kalsbeek and Richter (2006) experimented with defleshed metapodials (metacarpal bones of the wrist, and metatarsal bones of the ankle) from modern roe deer, and the effect temperature and pH levels have in deterioration of these bones. Within all pH

levels, bone material heated to temperatures between 100-1000 degrees Celsius becomes more susceptible to mechanical degradation than bone that was not heated. Furthermore, carbonized bone remains heated up to 900 degrees Celsius have very low hardness, while bone exposed to higher temperatures have increased levels of brittleness (Kalsbeek and Richter 2006:134). Given these conditions, calcined bone would have less of a chance for preservation, yet it is the most abundant faunal remains on site with a very high ratio of calcined-to-not calcined— 94%.

Secondly, in his discussion of Pequot life during the historic period, McBride (1991) describes the burning of animal remains during times of hunting or feasting as a means of maintaining cultural lifeways into times of colonial encroachment (McBride 1991:63-64; also Vasta 2007:79). He describes that “one of the more interesting aspects of the faunal remains recovered from both historic and prehistoric sites on the reservation is the presence of heavily burned or calcined bone,” (McBride 1991:73). He notes that on older sites within the Mashantucket Pequot Reservation all the calcined bone was that of wild animals, and even on later sites where domesticated animals were introduced, the calcined faunal remains still was only that of wild animals. In her doctoral dissertation, Meredith Vasta analyzed faunal utilization at the Mashantucket Pequot Reservation (2007). She states that Native groups of the northeastern United States burned animal remains to show respect for that animal (Vasta 2007:25-26, 30-31, 79; see also McBride 1991 and Silverman 2003:540-1). One question my results raise is whether the calcined bone at the Newman site is from wild or domesticated animals. In her dissertation, Vasta shows that it was not only wild animal bones that were calcined (see also Mrozowski et al. 2009:447). Once domesticated animals became utilized

on the Mashantucket Pequot Reservation, some but not all of these types of animal bones were found to be calcined (Vasta 2007:181-186). There has not been a complete faunal analysis of the Newman assemblage, so the bone fragments remain unidentified.

One of the more crucial questions regarding the nature of the faunal assemblage recovered differentiates between bone that has been cooked/burned from bone that is calcined. This is significant because burned and calcined bone are results of slightly different processes and activities. Furthermore, McBride (1991) and Vasta (2007) show the importance of calcined bone in Native religion in southern New England, thus raising the question to what degree is the calcined bone from the Newman site connected to this activity if it is not a result of cooking. The processes by which bone is burned or calcined are very similar, with the differences usually resulting from cooking procedures rather than deliberate, high-temperature heating. Cooking does not always result in burned bone, let alone bone that is fully calcined. This is especially true if there is soft tissue surrounding the bone (Vasta 2007:29), which would certainly be the case for roasting or boiling meat on the bone for consumption. Burning bone results in modifications such that the collagen within it is carbonized and its color changes to yellowish, red/brown, dark brown/black, or blue/black depending on heat source and duration of exposure. Calcined bone results from heating at higher temperatures for longer periods of time, turning the bone blue/white and depleting it of all organic matter (Vasta 2007:30-31; see also Lyman 1994:385). With increasing temperature applied to bone, color changes reflect the decomposition of the organic material, until the whole collagen component disappears at roughly 600-700 degrees Celsius (Kalsbeek and Richter 2006:123). Calcined bone is fragmented and chalky, usually requiring

temperatures of around 500 degrees Celsius to become fully calcined (Cipolla, Silliman, and Landon 2007:53; McBride 1991:73; also Kalsbeek and Richter 2006).

Bennet (1999) analyzes the post-burial thermal alteration of bone. What she is asking is whether thermal alteration can occur to bone that has been buried/deposited prior to having a combustion feature present in the above strata, to the same level as if the bone was directly in the fire. An example she uses from Binford is that of a fire kindled on top of a previously abandoned bone feature (Bennet 1999:2), and whether this would result in similar bone modification. This question works to address the relationship between the calcined bone on the Newman site and the combustion features, and whether the bone was calcined within the fire, or under it. She does not distinguish between burned and calcined bone but includes temperatures and bone color which will allow me to connect this to the faunal remains from the Newman site.

In her experiment she buried bone at different depths (surface, 2 cm, 5cm, 15cm, and 25cm) within two different soil types (clay- and sand-dominate). She concludes that it is possible for thermal alteration of bone to occur in deposits underneath a fire (Bennet 1999:5), but her description of the resulting bone modifications and temperatures lead me to believe that calcification of bone is not likely to fully occur in these situations. Her recorded temperatures do not go over 500 degrees Celsius at the 5 cm depth and below, and the color of the bone in her experiment changes to pale yellow/brownish and yellow/grey/pink (Bennet 1999:6). The bone fragments at the 2cm and 5cm depths are the most likely to become calcined, but even in her experiments she describes them as in the process of calcification

and not fully calcined (Bennet 1999:6-7). Ultimately, appearance of bone burned in a subsurface context differs slightly from bone burned in a surface context (Bennet 1999:7). Without being able to measure the fire in real-time, archaeologists use the color of bone (as well as sediment color) to indicate the intensity of a fire. And while assessing the surface color of bone is subject to researcher variation, “the applicability and availability of the technique warrants its use as a measure of heat exposure,” (Bennet 1999:2).

One additional question concerns the possibility of the calcined bone at the Newman site being used as fuel for the fires, as opposed to a continuation of Native practices in southern New England. Evidence suggests that burned artifacts are only associated with combustion features around cluster C, while calcined bone was found across the whole site. If the bone were indeed a fuel source for the fire then one would expect to find it only within the combustion features, or at least transported away from the feature with other identifying proxies of the fire. Though calcined bone was recovered from each of the combustion features, it was also recovered at spots across the entire property. The same is not the case for other burned artifacts, and to a lesser degree charcoal. Burned artifacts were only recovered from within or directly surrounding combustion features. If bone were used as a fuel source and was moved by one means or another away from the fire area, I would expect to also find other burned artifacts across the property as well. There must be a reason why calcined bone and some charcoal were found across the whole site, but other burned materials only in association with a combustion feature. It could be possible that the act of burning animal remains as a sign of respect was not only contained to the activity, or living-areas of the clusters, but could have been carried out in multiple areas across the site. The existence of

charcoal without calcined bone associated with it could also be a result of natural combustion events.

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