12-31-2018

Tools of Teaching: Metal at Magunkaquog

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TOOLS OF TEACHING: METAL AT MAGUNKAQUOG

A Thesis Presented

by

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

MASTER OF ARTS

December 2018

Historical Archaeology Program

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ABSTRACT

TOOLS OF TEACHING: METAL AT MAGUNKAQUOG

December 2018

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This thesis provides the results of a comprehensive analysis of the metal artifact assemblage from Magunkaquog, a mid-17th- to early-18th-century "Praying Indian" community located in present-day Ashland, Massachusetts. Magunkaquog was the seventh of fourteen "Praying Indian" settlements Puritan missionary John Eliot helped in gathering between the years of 1651-1674 as part of the Massachusetts Bay Colony's attempts to convert local Native American populations to Christianity. Originally the site was discovered during a cultural resource management survey conducted by the Public Archaeological Lab (PAL), and further investigated by the Fiske Center for Archaeological Research (then known as the Center for Cultural and Environmental History) at the University of Massachusetts Boston during 1997 and 1998.

The information this thesis challenges popular historical narratives surrounding these praying communities during the early stages of colonialism,

which are perpetuated by a reliance on biased documentary records. The metal assemblage supports previous archaeologists' interpretations of the site's structure functioning as the town's "fair house" that would have stored a "common stock" to be shared, used, and returned by Nipmuc residents.

Results from this thesis suggest the metal artifacts are tools of teaching by which Eliot and his appointed Native teachers would have used in attempts to educate residents of Magunkaquog European ideals. The critical examination of the metal as a material resulting from missionary attempts to teach and Christianize the indigenous residents of Magunkaquog, formulates new narratives and interpretations of how the Nipmuc people negotiated their daily experiences at this site.

ACKNOWLEDGEMENTS

I would like to profusely thank my family: mom, dad, and Paulina. Your love, support and guidance is what carried me through this process. This thesis would not be possible without the counsel of Stephen Mrozowski, Stephen Silliman, Dave Landon, and other professors in the Department of Anthropology at UMass Boston. Thank you to my cohort, and my colleagues at the Massachusetts Historical Commission. Special thanks to Alexandra Crowder, Ross and Mary Harper, Holly Herbster, Melody Henkel, Tom Kelleher, Dennis Piechota, Linda Santoro, and Joe Trebilcock for all of your help along the way. Finally, shout out to my friends for your continued encouragement, interest, and being my support system during these last few years.

TABLE OF CONTENTS

CHAPTER Page

LIST OF FIGURES

Figure Page

Figure Page

LIST OF TABLES

Table Page

CHAPTER 1

INTRODUCTION

"Magunkukquok is another of our Praying-Towns at the remotest Westerly borders of Natick; these are gathering together is some Nipmuk Indians who left their own places, and sit together in this place, and have given up themselves to pray unto God."

- John Eliot, Roxbury, July 20, 1670

As the English missionary program's leader, John Eliot helped in gathering seven original Praying towns in the Massachusetts Bay Colony between 1651 and 1660 (Carlson 1986: 1). Magunkaquog was the seventh community incorporated into the English mission system around the years of 1659-1660, located in present-day Ashland, Massachusetts. Christian missions were attempts by Europeans to impose English "Civil Cohabitation, Government, and Labor" institutions in order to suppress Native American cultural and sociopolitical practices (Eliot and Mayhew 1834: 227). As demonstrated by the quote above, Eliot praised the success of his mission settlements in "civilizing" Indian converts to his European peers and financiers.

However, Eliot and his fellow missionaries likely exaggerated the success of these towns. There is a problem with assuming indigenous populations within these communities fully embraced and adopted Christianity. A critical examination of the historical record also presents inherent biases. The majority of the documentary record consists of accounts and records by John Eliot, Daniel Gookin, and Samuel Sewall—all

English, therefore making their accounts Eurocentric in nature. A lack of Native voice in these documents has created a history based on colonial notions of dispossession and acculturation (Mrozowski et al. 2009: 435). Since the documentary history of Magunkaquog is full of ambiguities, archaeological evidence can provide an alternative narrative and add to the body of literature lacking on these praying communities. As Brenner (1980) suggests, archaeological surveys on these towns can reveal the material results of Praying Indian cultural activities.

Before the excavations of the structure at Magunkaquog in 1997 and 1998, there was no archaeological evidence for any of the "Praying Indian" communities beyond that collected from cemeteries associated with the communities of Natick**,** Punkapoag (Canton) and Okommakamesit in what is today Marlborough, Massachusetts (Kelley 1992: 2; Mrozowski 2009). During a cultural resource management survey conducted on Magunco Hill by the Public Archaeology Lab (PAL) in 1995, archaeologists uncovered a concentration of 17th-century European material culture (Garman and Herbster 1996). During the 1997 and 1998 field seasons, under the direction of Dr. Stephen Mrozowski, students continued to investigate the area where the 17th-century material culture was recovered. The artifacts correlated with a 5 m x 5 m dry laid stone foundation, and a small external hearth was found in the area west of the structure's remnants. This hearth contained ash, burned quartz cobble fragments, and faunal remains—consistent with indigenous usage of the site. Archaeologists originally interpreted this foundation as the community's meeting house, where members would gather to learn English skills and worship.

This thesis provides a comprehensive analysis of the metal artifact assemblage from the late 1990s excavations. In other studies of metal artifact assemblages, scholars have discussed evidence of repurposing copper in collections from 17th-century sites in North America (Ehrhardt 2005; Bowers 2015). Some have also highlighted an interpretation that elites within indigenous society adopted European metal because of its powerful spiritual value (Bragdon 2017; Creese 2017; Howey 2017). Archaeologically, European trade goods—including copper and brass kettles—have been excavated within early colonial period Native burial contexts (Howey 2017; Kelley 1999; Simmons 1981). These artifacts functioning as mortuary objects support the notion that indigenous attraction to metal stems in part from a spiritual connection to the material (Bragdon 2017; Creese 2017; Crosby 1988; Howey 2017).

A critical examination of the Magunkaquog collection sought to answer research questions surrounding the Native community's experience at this 17th- century "Praying town." Questions included: Can the metal assemblage help to validate the structure's function? Previous archaeologists (Bragdon 1996; Herbster 2005; Mrozowski et al. 2009; Mrozowski et al. 2015) have interpreted the dry-laid foundation as the potential meeting house for the community or "fair house" where the town's common stock would have been stored and a visiting John Eliot would have stayed. It has also been suggested this building and its surrounding yard served as a locus of a combination of activities that reflect Nipmuc gathering spaces (Mrozowski et al. 2015: 129). Additional questions include: Can the metal assemblage be interpreted as the town's "common stock"? Linked to this question are a set of others concerning the assemblage: 1) were these artifacts

being used in a way consistent with their intended (English) function? 2) Do any of the artifacts exhibit use-wear? 3) What kinds of activities do these artifacts represent?

My analysis of the metals started with the cataloguing of the conserved metal and identification of diagnostic artifacts within the untreated metal. By doing so, the goal was to determine what functional groups existed and specific types of artifacts comprising each. Additional questions asked were: Are these artifacts in fact tools consistent with the practices being taught by English missionaries at these "Praying Indian" towns? How does this analysis highlight the Nipmuc experience at Magunkaquog? Ultimately, the intent of this thesis is to illustrate a complex, multicultural space, unlike that portrayed by the historical record. The goal of this research is to illustrate how the building and surrounding yard on Magunco Hill acted as a locus for gathering, a space where daily activities took place, and may have served additional purposes.

The functional categories determined through this thesis' analysis leads me to believe that the excavated structure functioned as the town's fair house and was a place visited on occasion by its residents—consistent with previous archaeologist's interpretations of the site (Herbster 2005; Mrozowski 2009; Mrozowski et al. 2009). The metal assemblage from Magunkaquog reflects English skills and activities missionaries and their Native teachers' attempts to teach the community's residents. However, it is unclear the extent to which the community embraced Christianity or English practice. The presence of material culture reflecting the teaching of English activities such as maintaining horses, woodworking, and sewing does not denote that the cultural meanings of objects were transferred or that they were being used to accomplish English tasks. For

example, Native peoples had been familiar with working wood for crafts and other purposes prior to English arrival. The use-wear exhibited on the metal tools from this collection could be from community members using these tools to work wood in ways they were familiar with, rather than assuming they were adopting English carpentry. Additional interpretations can be formulated for the artifacts in this collection showing use. It is possible that the community used these metal objects to maintain a façade in front of their English neighbors and English missionaries. These tools were an outward expression of their Englishness, while incorporating this material into their own toolkits. A spiritual motive may also be the reason behind use shown on this material. It is probable the Nipmuc at Magunkaquog were attracted to the power metal held, folding it into their cosmology (Creese 2017; Crosby 1988; Ehrhardt 2005; Howey 2017).

Results from analysis of the metal artifacts at Magunkaquog demonstrate the missionary enterprise's attempts to convert Native peoples to Christianity. Eliot helped in gathering these missions with the intent to "civilize" as part of the conversion process. He repeatedly discussed how praying town settlements facilitated sedentism, through animal husbandry and English agricultural methods. Sedentary settlements likely prevented Native people from completing their traditional seasonal subsistence patterns. Rules and fines were established to prevent "idleness," which was promoted by the institution of an agrarian lifestyle (Cipolla 2013: 14). An integral part of the missionary program was to enforce English ideas and require Natives to learn English skills. These teaching tools were provided to the communities by Eliot to form a "common stock" for residents to share, use, and return. The analysis of this collection is significant because it fosters a

stronger interpretation of activities transpiring at Magunkaquog. If this site is indicative of similar Christian communities in New England, then results from the metal analysis can serve as a case study for future researchers.

Theoretical Background

Archaeologists studying colonialism encounter a variety of issues concerning Native authenticity. Mrozowski et al. (2015) discusses how history has often been equated with the arrival of the Europeans, and how the adoption of their technologies and religion have been assumed to result in an overall loss of cultural authenticity (Mrozowski et al. 2015: 123). Acculturation theory has been used in the past by archaeologists to think about culture-contact scenarios. It has been critiqued to have assumed that all recipient cultures were passive receptors of the dominant culture (Cusick 1998: 135; Galke 2004; Rubertone 2000; Silliman 2005). The nature of examining colonialism through a dichotomous lens—that is separating Native from colonist, prehistoric from historic, "contact" from colonial—has polarizing effects on the historical narratives produced (Bagley 2013: 25; Mrozowski et al. 2015). The prehistory/history narrative has a tendency to mask the connected nature of tradition and innovation, instead making them appear as opposites (Mrozowski et al. 2015: 123). Silliman (2005) has also argued that the term "contact period" is inadequate because it does not account for the prolonged interactions between Native Americans and colonists, and detracts from the variety of cultural practices which emerged, continued, or changed. Part of the postcolonial critique is to tackle factual evidence supporting claims that indigenous culture is inevitably lost in the face of foreign things (Creese 2017: 60).

Models of acculturation with overtly Eurocentric tones continue to perpetuate a concept that assumes fundamental loss of culture through change in practice and prevents a discussion of cultural continuity. The casting of Native culture as lesser, being forced to incorporate and adopt the colonized culture, further disenfranchises Native peoples. The use of this framework has been criticized for perpetuating the narrative of a loss of authenticity, where Natives "became less Indian and more European or white" (Silliman 2009: 227).

Heather Law Pezzarossi (2014) emphasizes that over recent years, American historical archaeologists have begun to fixate on the elements of Native life that have remained the same over the course of colonialism in attempts to support the survival of their identity and community (2014: 355). Drawing on postcolonial theory, especially that of Homi Bhabba (1994, 1996), archaeologists have employed the concept of hybridity as a plausible response to acculturation models. Bhabba (1994, 1996) uses hybridity in a postcolonial sense to offer a direct critique of "colonially situated theory that considered the effects of colonialism on indigenous peoples to be that of assimilation, acculturation" (Silliman 2015: 281). This framework also provides a counterclaim of cultural creativity and agency, lending more ambiguity than traditional assessments of the effects of colonialism.

Hybridization has been a term generally applied by archaeologists when they encounter a new material culture produced within a context by which a group has sustained interactions with another group, whether by force or by choice (Mrozowski et al. 2015; Silliman 2015: 280). Mrozowski et al. (2015) have addressed hybridity in an

alternative way, by reconceptualizing the term as representing change in a generational sense—a blending of old and new practices—thereby stressing an indigenous perspective on hybridity. By using the phrase "hybridized reality," these scholars have been able to reinstate Native agency within hybridity. The combination of indigenous and European manufactured items at this site suggests the Nipmuc there were incorporating both older and newer technologies into their daily practices (Mrozowski et al. 2015: 130-131). For example, quartz crystals were incorporated during construction into the building's foundation. This indigenous spiritual practice steeped in long-standing tradition can represent a hybridized reality, where a practice was brought from past to present (Mrozowski et al. 2015: 129-130).

The original focus of hybridity in postcolonial literature was on the materiality of these adjustments and incorporations. The power of hybridity, or ability to be hybrid rests with the indigenous, colonized or subaltern as they negotiated their way through larger power structures and discourses (Silliman 2015: 280). However, this term has been met with its own set of problems. Scholars have questioned the effectiveness of hybridity as a theoretical framework (Law Pezzarossi 2014; Liebmann 2015; Loren 2015; Silliman 2009, 2015). The recognition that descendant communities should be active participants in the archaeological process has opened a dialogue regarding how archaeological scholarship emphasizing hybridity tends to assert a dominance of the colonizer over the colonized. The term has been labeled problematic because archaeologists have arrived at the notion of hybridity from a variety of theoretical origin points and are often not clear what—objects, people, practices—constitute a hybrid (Silliman 2015: 278). In her

master's thesis, Rymer (2017) discusses how white clay pipes do not fit neatly into the category of hybrid objects. Instead, arguing they can be categorized as another object of European manufacture by which Native peoples adopted as a result of colonial encounters. The metal artifact assemblage from Magunkaquog can be viewed this way as well. While other artifact categories excavated at the site, such as the worked gunflint or burned redware could be evidence applicable to a discussion of "hybrid" material culture, the metal artifacts in this case are not suitable examples (Mrozowski et al. 2009).

My analysis can benefit from exploring the framework that archaeologies of colonial labor relations provide (Silliman 2010). Archaeologists have a tendency to separate artifacts into neat categories to the point of oversimplification. Those attempting to study Native Americans look for items that can be defined as "Native American objects." This reasoning is complicated when assemblages lack these "diagnostic" artifacts. Additionally, archaeologists have found it especially challenging when trying to recognize and represent experiences of indigenous people in distinctly colonial spaces, where both indigene and colonist worked, negotiating their daily experiences (Silliman 2010: 32). By drawing upon the labor and practice model Silliman (2010) has advocated, I hope to alleviate these tendencies. This model requires consideration of the influence of labor relations on how Native peoples used the objects and space around them. Emphasis is placed on the various ways artifacts and spaces were used in daily life as opposed to their origination. If only details about the objects origins are remembered, the practice of Native Americans is undermined, if not outright negated (Silliman 2010: 36). The metal

assemblage from Magunkaquog is a primary example of this, where Native Americans are known to be using a European-originated material.

Based on documentary evidence concerning the praying communities of New England during the 17th century, it can be assumed that the larger plan of the missionaries was to train the "Praying Indians" to function in a colonial English economy. How these efforts were received by the communities is still a question; however, the artifact assemblage from Magunkaquog represents tool choices made by the English who wanted to teach English cultural practices to the Nipmuc residents.

These artifacts were always intended for Native use. My analysis found no evidence indicating these artifacts were being used in a way that deviated from their intended function. So the question arises: how do we see indigenous traces through these metal implements not visibly altered by their users? If we divert our attention from looking at the Nipmuc as consumers of European-originated metal and instead view them as active users of the space at Magunkaquog, then the relationship between indigenous uses of this material can be indicative of daily activities. For example, Law Pezzarossi (2014) recognized this challenge and interpreted the iron artifact assemblage from the Sarah Boston/Burnee Farmstead site in Grafton, Massachusetts, as components of a traditional Native basketmaker's toolkit, rather than a collection of European metal artifacts used in a way consistent with their intended function.

At Magunkaquog this assemblage can be considered "tools of teaching," which is a phrase highlighting the intersection of labor and space. Artifacts within the collection such as the thimbles, woodworking tools, ox shoes, and horse furniture are representative

of these "tools of teaching" missionary ideals surrounding gender roles, domestic animal maintenance, and prevention of idleness. This phrase plays on perceived space versus the Nipmuc lived experience (Lefebvre 1991): yes, the missionaries provided these tools to the Natives so these materials could act as surrogates of Christian ideals and allow participation in the greater English-colonial economy. However, accentuating labor (both as an economic phenomenon and social practice) demonstrates that use on some of the artifacts is a direct result of the Native experience at Magunkaquog. The presence of metal usage in conjunction with burned redware, worked gunflints, and quartz crystals displays how Native people occupied and manipulated this space—actively choosing to use metal implements, while remaining distinctly Native and pursuing aspects of traditional life. As Silliman notes, "all material culture, actions, and words take on as much meaning through use, practice, and experience as they do in their moments of intention or origination" (2010: 36). Since the ambiguity of material culture and space plays a crucial role in the study of colonialism (Silliman 2010:49), the ambiguous nature of metal acting as carriers of English practices highlights the indigenous experience in this perceived colonial space. This allows archaeologists to step away from pre-given meanings and instead explore the practice and social relations that evolved to challenge space and materiality, which in turn gives individuals their agency and break silences obscuring Indigenous peoples in colonial contexts (Silliman 2010:49-50).

Additionally, by using this framework a nuanced narrative can emerge, which permits a shared and entangled space with associated material culture. Magunkaquog inhabitants were not passive consumers within this space, but rather active participants in

choosing to work with the metal implements provided to them by English missionary efforts. A larger interpretation of the site can also be observed: the utilitarian building constructed in a European-style was a place of visitation by community members and as a site of these interactions potentially served as a counter-space, a place of resistance (Mrozowski 2009, 2012, 2016; Mrozowski et al. 2009: 495; Soja 1996). It is likely this building served a multiplicity of meanings and functions: as a workplace where missionaries and settlement leaders used metal tools to teach community members English cultural practices, a place where Native residents could outwardly display their "Englishness" to their neighbors, and a space where resistance simultaneously occurred.

Organization of Chapters

Chapter 2 begins by providing an overview of the archaeological excavations that took place at the site of Magunkaquog. Following this, a historical context and background of eastern New England Native peoples prior to the arrival of Europeans is provided as well as an introduction to indigenous familiarity with metal as a material. Then, Christianity as a social project stemming from the institution of colonialism and its effects on the Native populations in New England is presented. Chapter 3 outlines the methodological framework used to help answer research questions asked as part of this thesis. A criterion for cataloguing the metal assemblage is also discussed, including a description of how both the functional analysis and use-wear analysis were conducted. After this, an introduction of metal is detailed to demonstrate how artifacts within this collection were identified. The end of chapter 3 explains how archaeological evidence is

used in combination with historical documents to support an alternative site narrative, as part of an interdisciplinary approach. Chapter 4 summarizes the results of the functional and use-wear analysis portions for the metal assemblage. The sections within this chapter are structured in a way to highlight answers to different research questions deriving from the different artifact categories created out of results from this analysis. A comparison of the metal artifacts with two classes of material culture excavated at the site, lithics and redware, is incorporated in this section to demonstrate the coexistence at this site of traditional indigenous material culture and European metal objects. The chapter concludes with an explanation of the contribution that analysis of the metal artifacts has to understanding the Nipmuc experience at Magunkaquog. Chapter 5 further builds into concluding remarks on the results, formulating interpretations and statements about the data. Future work for this collection is addressed, as well as how this thesis can be used as a framework to have potentially positive implications for Native groups in the present.

CHAPTER 2

BACKGROUND

Archaeology at Magunkaquog

The "Praying Towns" of the 17th and early 18th century are poorly represented as archaeological sites (Herbster 2005: 54). The studies of these communities have relied heavily on the documentary record to identify their locations and infer the material culture that one would expect to find. This has been problematic because inherent biases exist in such sources. Catherine Carlson's (1986) survey report on the seven original 17th-century "Praying Towns" or plantations (Natick, Punkapoag, Hassanamesit, Okommakamesit, Wamesit, Nashoba, and Magunakquog) points out the poor representation of these as archaeological sites. She attributes this to several factors: (1) the lack of detailed locational references for plantation boundaries or habitation areas, (2) the relatively small-scale and short-term occupational periods for most of the towns, and (3) the degree of land development from the colonial period to modern periods (Carlson 1986: 156-159). The results from archaeological investigations at Magunkaquog are notable because the features and materials identified at this site are possible examples of what archaeologists and researchers can look for as components to the settlements organized by John Eliot.

As one of the last of the seven original Christian Indian settlements to be gathered between 1651 and 1661 by missionary John Eliot, Magunkaquog was originally excavated in 1995 by PAL (formerly Public Archaeology Laboratory, Inc.) of Pawtucket, Rhode Island, as part of a cultural resource management survey (Figure 1). This intensive survey of the 80-acre subdivision was completed in 1996, where Magunco III (ASL-HA-5) was designated (Garman and Herbster 1996). The site is still called Magunco Hill in Ashland, Massachusetts, and was investigated again between 1997 and 1998 by the Center for Cultural and Environmental History at the University of Massachusetts Boston, under the direction of Dr. Stephen Mrozowski (Figure 2). These excavations focused on three areas, one where PAL archaeologists had uncovered a concentration of 17th-century European material culture, a second where a deep depression was uncovered, and a third containing two large wells. During the 1997 field season, it became evident that the deep depression was actually associated with a well sounding dating to the 19th century. However, the small area of 17th-century material culture correlated with a dry laid, stone foundation built into the eastern slope of the hill, with the downslope area serving as a yard for the structure (Figure 3). This site was fully excavated as a result at the conclusion of these field seasons, with all associated material recovered (Personal communication with Dr. Stephen Mrozowski, 11/13/18).

While the foundation was the only structural evidence discovered, a small hearth was found in the yard west of the foundation that contained ash, burned quartz cobble fragments, and faunal remains representing a mix of domesticated and wild species (Mrozowski et al. 2009: 447). High phosphate readings found in close proximity to the

foundation and in the vicinity of the hearth, along with the large residential artifact assemblage, indicated a domestic function rather than a structure such as a barn. The placement of the building on the slope of Magunco Hill was for extra protection from winds, and the structure was built with two entrances. In her 1998 site visit, Kathleen Bragdon developed the idea that the foundation was that of the community's meeting house, and additional analysis has continued to support her statement (Mrozowski 2009: 447). Based on the analysis of the material assemblage, it is possible the structure could also have been used as the community "fair house" or a structure where tools and domestic items would have been housed for "common stock to lend to one as well as another, that no man may sit idle, or loose a days wrk for want of a toole" (Eliot 1882: 294). The remnants of this foundation fit well with John Eliot's original vision for the "Praying-Indian" communities. Eliot envisioned a landscape where architecture and day-to-day items promoted an "English Style" materiality. Eliot's practice was to "carry on civility with religion" (Cogley 1998: 6). His close working connections with the New England Company aided Eliot in providing Native residents of these communities with the bulk of English goods he thought would best suit their needs as they transitioned from traditional subsistence practices to English agriculture.

It is possible this space also functioned as a center for teaching and adopting of "English ways." Speculations aside, as E.W. Soja suggests, it is equally as possible that this same place served as a counterspace (Soja 1996: 68), a locus of resistance. The presence of quartz crystals in the corners of the foundation suggests that when the structure was built, Native traditions were incorporated. The evidence of indigenous

cultural practices coinciding with European technologies indicates a perpetuation of Nipmuc identity and a continual presence of community members using this space for work, worship, or other reasons. Interpretation of the documentary record suggests that prior to King Philip's War, Magunkaquog was very much an "Indian place" where Nipmuc and Massachusett clans were still residing in the place of their ancestors (Cogley 1998; Herbster 2005). Therefore, these cultural connections between the Nipmuc and their landscape were maintained and reinforced. The residents gathering at Magunkaquog may have even embraced the "fair house" building as their own due to its location on ancestral land, rather than a structure representative of colonial efforts.

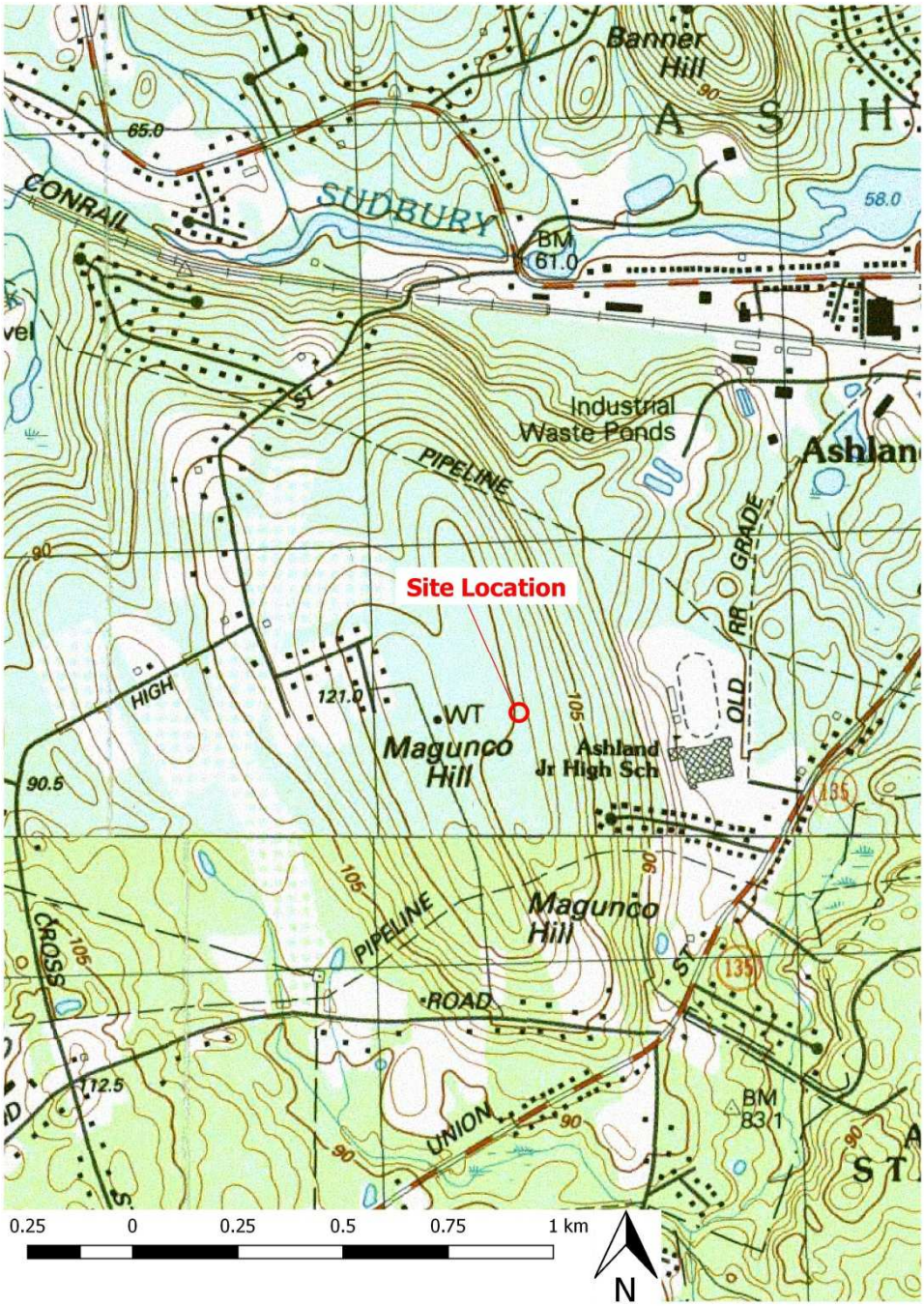

Figure 1: Map of Magunco Hill section of Ashland showing site location of Magunco III excavated during PAL Archaeological Survey (Framingham and Holliston USGS topographic quadrangles, 7.5 minute series)

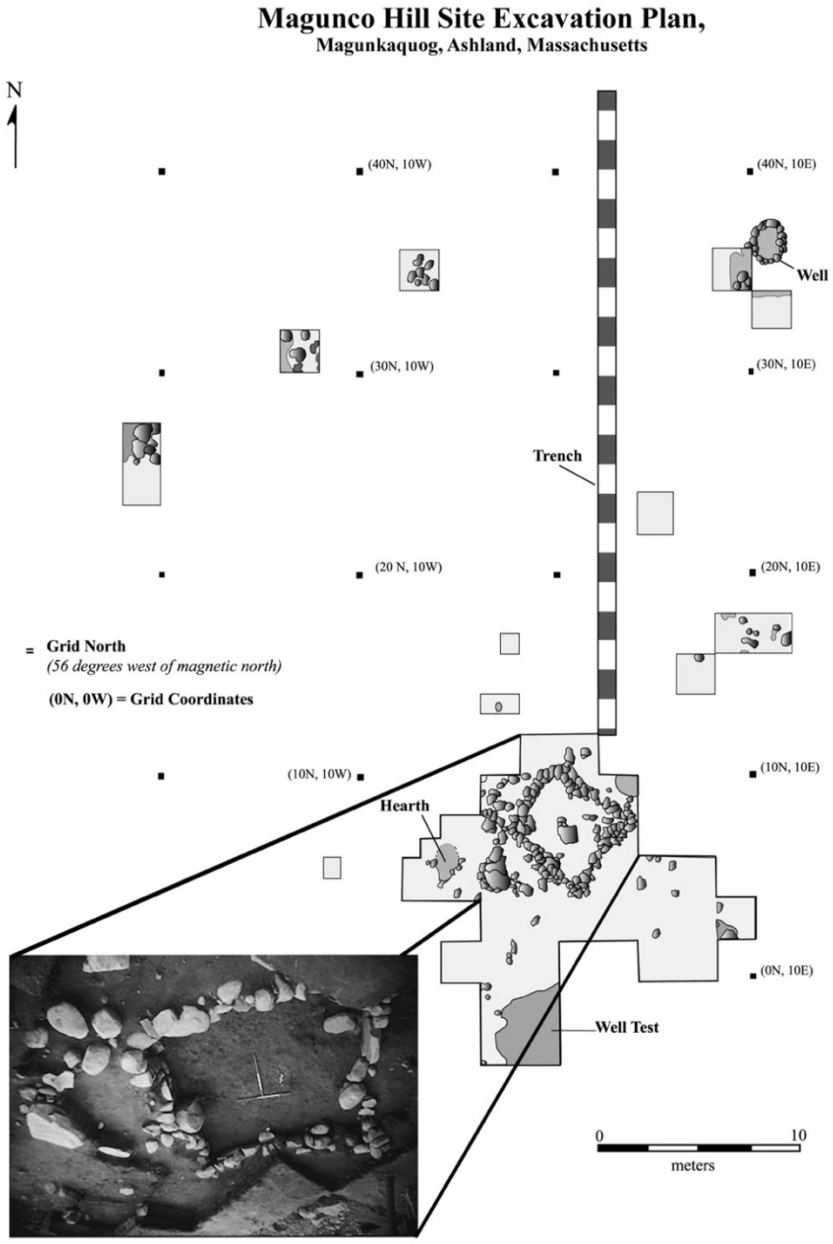

Figure 2: 1997 and 1998 Magunco Hill Excavation site plan completed by the Center for Cultural and Environmental History at the University of Massachusetts Boston

Figure 3: Photograph of Magunco Hill Site foundation during excavations

Introduction to Northeast Indigenous Peoples Prior to the Missions

In order to discuss interactions between the Europeans and Native people in the context of colonialism, it is essential to discuss indigenous people's traditional lifestyle prior to the founding of the Christian missions. Much of the available information on Nipmuc and other tribal settlement and subsistence practices for this period are from early explorer's eyewitness accounts and descriptions provided by missionaries. While some primary documents prove to hold obvious biases, it seems Eliot attempted to record indigenous lifestyles and customs that somewhat accurately represented traditional lifeways, even if they were at odds with his Puritan values (Garman and Herbster 1996: 7). Some archaeologists have proposed that when Europeans first arrived, Native peoples along the eastern seaboard were living as horticulturalists by farming, gathering wild plants, fishing, and hunting wild game (Bragdon 1988: 126; Braun and Braun 1994: 91; Carlson 2000; DePaoli et al. 1982; Hasenstab 2000).

This semi-sedentary subsistence strategy was based on the variety of known available resources, and communities gathered in places favorable for farming and fishing. Extended kinship groups lived in wigwams or wetus made of flexible plant fibers for easy building and disassembling that enabled easier movement for seasonal rotation between village habitation sites (Luedtke 1988; Turnbaugh 1993: 134). Additionally, evidence has shown Natives of Massachusetts Bay during the Woodland Period (500 B.C. to 1,000 A.D.) used estuaries that linked fresh-water and saltwater environments because they held important resources that they relied on, such as shellfish, birds, fish, and mammals. Groups of up to 200 individuals lived in these "estuary" bound zones for most or all of the year (Kelley 1999: 10). However, it has been proposed that when populations began to increase in these areas, subsistence patterns began to change to keep up with an expanding population size. Maize cultivation required a different kind and quality of labor, thereby changing family households to function independently (Bragdon 1996: 88). However, analysis of archaeological flora and faunal remains has provided evidence that supports maize was only part of the daily diet (Bragdon 1996: 88).

Primary documents of accounts from early European settlers included remarks that land had been cleared for settlement along the southern coast; on the off-shore islands; and inland along river valleys, ponds, and lakes (Braun and Braun 1994: 91). Native people of coastal regions were still relying heavily on estuarine resources to complement their agricultural activities (Dunford 2000). So when the English arrived in Massachusetts, they probably found people relying on estuarine bounty, but at the same time depending on agriculture for survival. Evidence of these sites of agriculture can be

seen archaeologically, and other materials recovered from Native American sites dating to this period include chipping debris, ground stone tools, bone tools, ornaments, decorated clay pottery, and the occasional European trade goods (Garman and Herbster 1996: 7).

Changing Dynamics during the Early Colonial Period

European goods entered Native society as new materials and expanded the traditional role of exchange (Turnbaugh 1993: 136). New tools were introduced at a time when indigenous people began turning to agriculture, due to a strain on resources in estuarine areas that made up part of Massachusetts Bay. The idea that the new technology in John Eliot's communities accelerated the process of becoming sedentary has been promoted by some scholars (Van Lonkhuyzen 1990: 412). They state the introduction of new technologies resulted in an interruption of traditional subsistence cycles. It has also been suggested that this change in the ability to be mobile also disrupted community-oriented exchange interaction. This process began with the sharing of food that characterized relationships with family, and then extended to guests through hospitality. Sachems received tribute from their subjects in certain contexts and in turn were in charge of redistributing goods to their tribal members (Turnbaugh 1993: 138).

The contesting of Native gender roles by the English missionaries was vital to their efforts of religious conversion. English ideas about domesticity had men working the fields and women rearing children, while engaging with household production such as carding and spinning wool (O'Brien 1997: 44; Van Lonkhuyzen 1990). Historians and anthropologists have interpreted traditional Algonquian society as a culture where women

were the ones responsible for agricultural production and processing, except for land clearing and the cultivation of tobacco (Van Lonkhuyzen 1990: 413). The social organization of Algonquian society was built on a clan system that was matrilineal and matrilocal, where all domestic affairs were regulated by the matriclan (Gray 2013: 115). Therefore, as Gray (2013) notes, "John Eliot used this pre-existing social structure as a means to persuade his female audience the potential similarities between Algonquian and Puritan models of womanhood" (Gray 2013: 119). Eliot used rhetoric to target his audience in a gender-specific way and as Jean O'Brien quotes him, "Indian women should work hard and produce for the market, but do so while staying put in the household, preferably engaging in English female household manufacturing such as spinning" (O'Brien 1997: 47). Based on historical accounts of the period, historian Van Lonkhuyzen (1990) has suggested that in the praying community of Natick, men fenced the fields and took care of harvesting, and the women continued their traditional activities of basketmaking and learned how to spin (Van Lonkhuyzen 1990: 413). Eliot introduced new European technologies and accompanying techniques to encourage participation in Christianity and reinforce English ideas. However, it can be proposed the new goods and technologies facilitated Native peoples in some respects, enabling them to become producers in a growing colonial economy.

The context of exchange evolved as Europeans arrived. It is probable that Native people interpreted European gift-giving as offerings into their gift exchange network. Because the newcomers were not accustomed to this Indian etiquette, they insisted on receiving certain kinds of commodities in return for their offered goods (Turnbaugh

1993). Through this expectation, normal standards of social exchange began to shift in southern New England, becoming commodity-oriented. However, Native people actively participated in choosing what European goods entered their lives. For example, the Narragansett were known to exercise considerable selectivity when it came to acquiring European goods for themselves; that is, they became demanding consumers. Turnbaugh (1993) argues that all too often the adoption of European material goods by other peoples has been viewed as an "inevitable consequence of the technological superiority of the new items" (Turnbaugh 1993: 143). In reality, a few utilitarian products did directly replace their Native counterparts, but for the most part Native peoples chose to employ other kinds of items to expand their culture right alongside well-established traditional lines. Even members of the Narragansett tribe, whose sachems and followers resisted Christianity, were found to have been buried with an assortment of European goods (Turnbaugh 1993: 143).

At the RI-1000 site, a 17th-century Narragansett cemetery in Rhode Island, European-manufactured artifacts excavated from the graves are representative of 17th-century "trade goods" (Rubertone 2001: 134). These burials are interesting because as Rubertone (2001) discusses, no account books by English colonists, such as Roger Williams, document other stock that was sold to the Narragansetts who came to trading posts like Cocumscussoc. Artifacts excavated in the vicinity of the trading post and blockhouse (Smith's Castle) are indicative of the many objects found in the RI-1000 graves (Rubertone 2001: 134-135). The European artifacts yield a crude and partial inventory of what Williams and others might have traded for the Narragansett's goods

and possibly their labor (Rubertone 2001: 135). Broken stems of latten spoons, whole and unused, were found complementing indigenous pottery, wooden dishes, and gourds (Rubertone 2001: 135). These examples facilitate the notion that material of English manufacture was being worked into Native lives without disrupting their sense of tradition and demonstrates cultural continuity during a time of cultural interaction.

John Eliot and the Christian Indian Praying Towns

The origins of missionary work in New England stemmed from Puritan ideas that conversion would allow Native peoples to abandon their traditional worldviews in order to emulate and enforce a European lifestyle. John Eliot, referred to as the "Apostle to the Indians," began his mission efforts fifteen years after his arrival in Massachusetts Bay (Cogley 1998: 45). Settling in Roxbury after his arrival in 1631, Eliot was ordained as the teacher for his congregation where he remained the church's teaching elder until his retirement in 1688. Similar to other 17th-century ministers, he participated in the larger affairs of the colony (Cogley 19989: 47). Eliot's sermon at Nonantum is how he dates the birth of the mission beginning in September 1647. The document indicates failure with engaging the Nonantum Natives at Dorchester Mill [Neponset], and outlines his reasons to persist in his missionary efforts. He stated that "a while after" the Neponset sermon, he heard that "God stirred up in some of them [Indians at Nonantum] a desire to come into English fashions, and live after there manner…" (Cogley 1998: 49). Eliot most likely began his language training shortly after this sermon in October 1646, and was able to instruct the Indians in the local Algonkian dialect without assistance in July of 1649 (Cogley 1998: 50). Over the next 20 years, he translated a large number of educational

and religious texts into the language. The culmination of his work resulted in the publication of a complete Bible in 1663: "*Mamusee Wunneetapanatamwe Up-Biblum God."* In the early development of the mission, he began to frequently visit the Nonantum Natives, and by the end of 1646 a progress report was published in London. This lead to ministers carrying out two of the directives enacted by the General Court, which included: 1) find a place for the Nonantum Indians to "live in an orderly way among us," and 2) prepare a code of "wholesome laws" for the Indians (Cogley 1998: 52).

The elders within the Native community were allowed to choose a site at or near Nonantum that met the proselyte's approval, thereby allowing members to maintain some of their ancestral homeland. However, the Nonantum code's regulations were created to disarticulate the community from their traditional societal values. Penalties were enforced for men wearing their hair long and for women who allowed theirs to grow loose or cut them in the fashion of English males. Eliot disagreed with indigenous hairstyle because he considered proper grooming the reflection of one's values, and longhaired men exhibited the opposite of Puritan values.

As anthropologist Elise Brenner (1980) has argued, John Eliot affirmed the success of the Praying Indian towns if two goals were met: that Native Americans engaged in agriculture as a full-time pursuit and remained sedentary (Eliot and Mayhew 1834). This theme was a driving force behind the missionary efforts in New England and directly conflicted with traditional settlement patterns (Garman and Herbster 1996: 13). He saw the traditional settlement system as one of the biggest impediments to his

missionary work and preached that, “A place must be found [where the committed could have] the Word constantly taught, and the government constantly exercised, means of good subsistence provided, encouragements of the industrious, means of instructing them in letters, trades and labors, as building, fishing, flax and hemp dressing, planting orchards, etc.” (Winslow 1834: 91). Colonial administrators supported Eliot’s suggestion of established boundaries because they thought it would begin to fix and control the growing issues involving Native land rights in the expanding EuroAmerican settlement (Herbster 2005: 73).

Eliot also provided a small, but steady amount of English goods and technologies to the Praying Indians within these communities. Historians note that Eliot provided Natick community members “hoes, shovels, spades, mattocks, and crowbars, cast-off clothing as well as new trade cloth; ox bells, cards, and spinning wheels…” (Van LonKhuyzen 1990: 406). English gender roles were also noticeably manifested in these tools.

In addition to providing new technology, Eliot felt that eliminating the powwows would positively affect his mission efforts. In the traditional sociopolitical structure and cosmology of southern New England Natives, political leaders (sachems) and religious leaders (powwows) had counterparts in the cosmological systems (Crosby 1988: 191). Richard Cogley explains that powwows were considered more influential than sachems (Cogley 1998: 60). However, the decimation of cultural knowledge that resulted from disease, which brought upon significant loss of life to the indigenous populations, had a profound impact on Native cosmology (Crosby 1988: 196; Gray 2013: 110). As much as

90% of the Native population of Massachusetts Bay having been eliminated due to an unknown epidemic during the years of 1616-1619 and by smallpox in 1633 (Bragdon 1996: 26). John Eliot is quoted as saying: "I finde, by Gods blessing, in some meanes used in Physick and Chyrurgery, they are already convinced of the folly of Pawwawingm and easily perswaded to give it over utterly as a sinfull and diabolicall practice…" (Winslow 1834: 154). As noted in Travis Lee Myer's dissertation (2015), Eliot's desire to develop medical competence among the Native community was used as a means to destroy the demand for powwows as healers, in order to decrease their religious influence.

Despite missionary efforts, the population of the praying towns was actually only a fraction of the whole indigenous population in New England. During the peak of Eliot's missionary efforts, only 1,100 individuals resided in the 14 towns (Herbster 1996:16) (Figure 4).

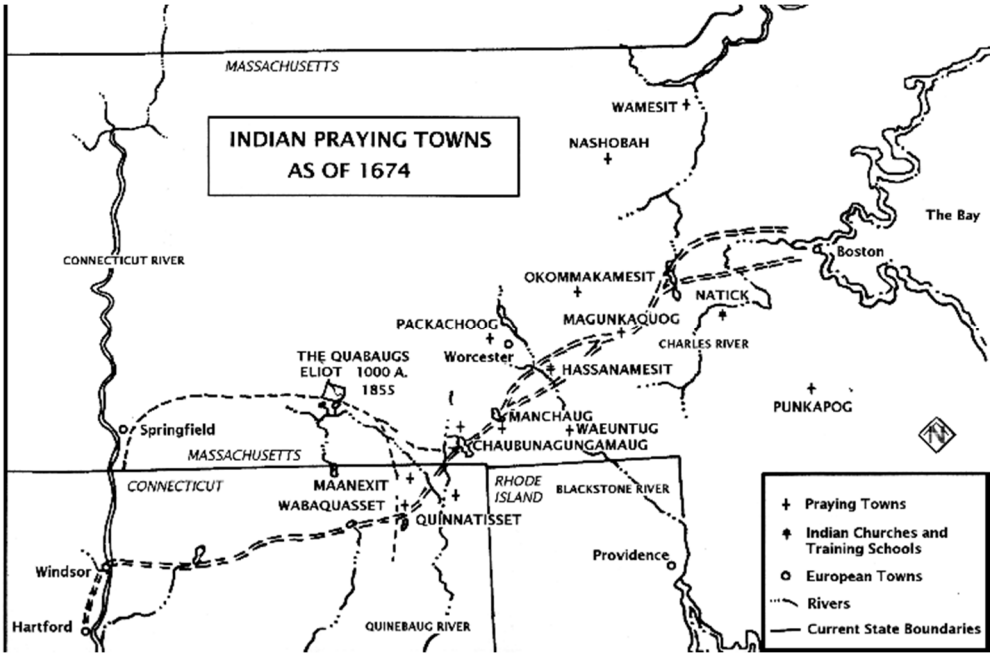

Figure 4: Map showing the location of "Praying Indian" communities in Massachusetts and Connecticut (after Ayres 1940: 34)

Magunkaquog

Magunkaquog was brought together as a Christian community by 1660, as the last of the seven "old towns" (Table 1). The Nipmuc place name has been recorded and can be spelled in a variety of ways: "*Magunkahquog, Makunkokoag, or Magunkook"* (Trumbull 1881: 18). The other six towns included Natick, Punkapoag, Wamesit, Hassanamesit, Okammakamesit and Nashobah—all gathered between 1650 and 1654. John Eliot took a 13-year hiatus before the creation of Magunkaquog, during which he focused on his fund-raising efforts. Magunkaquog was considered by Daniel Gookin as an "old" community because it was the last to be officially designated by Massachusetts Bay, prior to King Philip's War (Cogley 1998; Herbster 2005: 122). The settlement was where "some Nipmuck Indians who left their own places" made their home (Cogley 1998: 145). It was a town created out of a section of the Natick Plantation, and was the

only old praying town established this way (Garman and Herbster 1996: 17). As a parent community, Natick also served as the model for these six other original plantations. In October of 1669, Eliot petitioned the General Court to allot more land to Magunkaquog establishing the Magunkaquog plantation:

> "That whereas a company of new praying Indians are set down in the western corner of Natick bounds called Magwonkkmok, who have called one to rule, and another to teach them, of whom the latter is of the church, the former ready to be joined; and there is not fit land for planting, toward Natick, but westerly there is, though very rocky- these are humbly request that fit accommodations may be allowed them westward." (MGC, cited in Carlson 1986: 100).

The General Court responded to Eliot's request, by enlarging the plantation at the assurance the expansion would not exceed "1,000 acres, on the westerly side of Magunko Hill and in the adjacent Indian Brook Valley" (HRS 1942: 8; Garman and Herbster 1999: 19). By 1674 the settlement grew to about 3,000 acres in size.

In Eliot's *A Brief Narrative*, he includes a detailed description of Magunkaquog a year after its supposed establishment. In this account is explicitly stated that the people gathering at this location were Nipmuc. This is important because it demonstrates that the community was comprised of people who continued to reside on their traditional homelands. Eliot writes:

> "Magunkakquok is another of our Praying-Towns at the remotest Westerly borders of Natick; these are gathering together as some Nipmuk Indians who left their own places, and sit together in this place, and have given up themselves to pray unto God. They have called Pomham to be their Ruler, and Simon to be their Teacher. This latter is accounted a good and lively Christian; he is the second man among the Indians that doth experience that afflicting disease of the Stone. The Ruler hath made his Preparatory Confession of Christ, and is approved of, and at the next opportunity is to be received and baptized" (Eliot 1671: 8).

Daniel Gookin's accounts contain the most-cited primary information on the Magunkaqoug plantation. As the superintendent of Indian Affairs for the Colony, he spent a great deal of time with Eliot and among the community's praying inhabitants. Gookin's *Historical Collections* (1970) includes a section that describes each of the Christian Indian communities based upon his observation in the 1670s. He notes in his description that it "leith west southerly from Boston, about twenty-four miles, near the midway between Natick and Hassanamesit. The number of its inhabitants are about eleven families, and about fifty five souls…" (Gookin 1970: 78-79). If these statements are accurate, Gookin's description of the residents reflects primarily kin groups or families rather than individuals. He references "eight members of the church at Natick, and about fifteen baptized persons," which could possibly indicate the that these individuals had previously been associated with Natick, either as residents or as weekly attendees at lectures (Herbster 2005: 132).

Timeline of Events	
1630s	"Great Migration" (21,000 English colonists arrive in Massachusetts Bay Colony)
1649 (through the 18th c.)	Corporation for the Promoting and Propagating of the Gospel among Indians in New England (aka The New England Company) began to provide financial aid to John Eliot
1632-1690	John Eliot take position as a teacher in the Roxbury First Church
1650-1690	John Eliot preaches to the Indians
1650-1675	Natick came together as a praying community between these years
1660-1715	Magunkaquog plantation functions as a Christian praying town
1669	Eliot petitions the General Court to allot more land to Magunkaquog
1674	Daniel Gookin visits Magunkaquog and writes his description of the community
1674-1676	King Philip's War
1678	Capture of 22 Indians from a cornfield in Magunkaquog near Natick by a Mohawk raid
1715	Harvard College acquires Magunco lands
1719-1723	Magunkaquog land leased out by Harvard
1726	Leases terminated
1749	Magunkaquog Hill sold to Sir Henry Frankland

Table 1: Timeline of events surrounding the establishment of Magunkaquog

Argument for Cultural Autonomy among Praying Town Indians

Elise Brenner, among other scholars, argues that these praying communities may have been using "tribal" customs as bonding mechanisms in order to maintain cultural integrity and self-determination, but in ways that may not be detected or acknowledged as political actions by colonial society (Brenner 1980: 140). Brenner states six lines of evidence from ethnohistorical documents that demonstrate how self-determination was

embedded in Praying Indian strategies: 1) Europeans were not continually overseeing all goings-on in each praying town, 2) traditional lines of political succession seem to have been followed in praying towns, despite English attempts to have open election of leaders, 3) praying town inhabitants were not "prisoners," 4) instances of Praying Indians participating in their traditions may have not been disclosed by others within the community, 5) the seven "newer" praying towns allied themselves with King Philip in the war against the English, and 6) there never appears to have been any intention of Indian assimilation into the mainstream colonial society in New England (Brenner 1980: 141). Data from archaeological excavations and primary documents can support Brenner's lines of evidence. Since the material culture of Magunkaquog was analyzed after Brenner made her argument, she provides documentary evidence as examples. In the case of the praying community at Natick, several lines of evidence for Nipmuc self-determination are attained. None of the existing texts describe Eliot's attempts to keep people confined within the community, and it appears that anyone who did not openly disrupt activities was welcome to participate in the settlements (Herbster 2005: 95).

An initial appeal of the mission for northeast Natives may have been the promise of English goods, such as finished clothing, copper pots, and iron tools (Cogley 1998: 58). One of the reasons Native peoples prized these goods, as Brenner and Crosby state, is because they served as expressions of *manit*, the power inherent in objects according to their spirituality (Brenner 1980; Crosby 1988; Simmons 1970, 1981). John Speene, a resident of the Natick praying town's reasoning for "converting," was "because I saw the English took much ground, and I thought if I prayed, the English would not take away my

ground" (Eliot 1865: 58). The individuals who came to the other praying towns may have had the same thought and viewed these settlements as ways to ensure lands for themselves and future generations; the "essential elements of Indian culture remained, with the Indians incorporating some aspects of English material culture, such as metal tools, and livestock keeping" (O'Brien 1997: 52). As O'Brien writes, there was a hybrid government ruling Natick: English, Indian, and scriptural (O'Brien 1997: 48). This praying community became a place for Indians to rebuild kin connections and community within their homelands by using the institutions of the imposed English colonial order (O'Brien 1997: 11).

Because lineage and kinship constitute the central component to Indian identity, Natick, in a sense, at its founding always was an Indian place (O'Brien 1997: 30). Brenner (1980) argues that a motivation behind conversion was in fact to maintain and protect traditional lifestyles. It was a potentially beneficial situation since the Indians took advantaged of what the missions could offer in terms of receiving trade goods and land, during a time when their own tribal resources were exhausted or being encroached upon (Brenner 1980: 139). Christianity conveniently provided Native communities with an opportunity to create some kind of an alliance with their English neighbors, by easing tensions in a world they understood to be experiencing rapid change. Being in contact with the English was desirable in some respects. As archaeological evidence and documentary records demonstrate, Native peoples made use of European goods and technologies. They did not abandon, but rather fulfilled their traditions through selectively choosing items that offered advantages (Van LonKhuyzen 1990: 401). For

example, Thomas Mayhew on Martha's Vineyard convinced some sachems on the island to let him continue to proselytize, in exchange for an alliance with the English as a way to escape the tributary hierarchy arising on the mainland (Van LonKhuyzen 1990: 403). The adoption of praying to God could have been an action to protect them in an increasingly hostile environment (Van LonKhuyzen 1990: 401).

King Philip's War and the Christian Missions

At the time of King Philip's War, Eliot declared in 1671 that "all the Massachusetts pray" to God (Cogley 1998: 165). Prior to King Philip's War, Eliot visited Natick twice a month and traveled to other settlements in the intervening weeks (Cogley 1998: 145). However, the War's aftermath took a devastating toll on missionary efforts. In 1674, a year prior to the war's outbreak, Gookin listed the reasons for establishing praying towns. He notes there was a need to prevent conflict between settlers and Indians over land, give Indians a permanent home to survive under the pressures English encroachment, and mentioned that the praying town settlements were the most appropriate means of civilizing potential converts (Salisbury 1974: 40). Until the outbreak of the war, English individuals not living in close proximity to these communities offered less opposition to the creation of Indian praying towns. Toleration of the praying towns was based on two important qualifications: the Praying Indians were kept separate from the English settlements, and they could be used in the war of "civilization" against "savagery" (Salisbury 1974: 41).

At the site of the Praying Indian community of Okammakamesit, located in Marlborough, Massachusetts, conflict between the English settlers and community

members began with the building of the town's first meetinghouse in the 1660s (Tougias 1999: 206). It seems that Marlboro's minister, the Reverend William Brimsmead had located the meetinghouse upon an old Indian planting field, in a position that essentially blocked access from the praying village to Marlboro's main thoroughfare—the single location to most likely cause tensions between the two cultural groups (Tougias 1999: 206).

Members of the praying communities were pressured into service for the Colony. In the winter of 1676 two Praying Indians, James Quannapohit and Job Kattenanit (the teacher from Magunkaquog), returned from a spy mission at Menameset with news that the frontier towns of western Massachusetts were going to be attacked (Tougias 1999: 54). Additionally, at the outbreak of the war in June of 1675, John Sassamon, a Ponkapoag convert and teacher at Natick, was murdered by three Wampanoag Indians (Kelley 1999: 35; Van Lonkhuyzen 1990: 420). Weeks prior to his murder, he supposedly had warned Plymouth's officials that King Philip (Metacomet) had plans to attack English towns and begin a war with the settlers (Herbster 2005: 104). It was at the murder trial that six Praying Indians on the jury helped to convict the three suspects guilty of Sassamon's murder.

After this, John Easton, Deputy Governor of Rhode Island, arranged a meeting with Philip and some of his men in attempts to prevent possible attacks. It was reported that during this meeting Philip expressed his concern that the missionary movement was threatening of those Wampanoag's livelihoods who had been resisting the conversion process. He is quoted to have described the "Praying Indians" as "in everi thing more

mischievous" (John Easton 1675 cited in Herbster 2005: 105). Even with the Christianized Indians being dismissed by other Native people, and proving themselves "loyal" to their English neighbors, Massachusetts authorities became uneasy with the proximity of Eliot's missionary communities to English towns. In August of 1675, the Massachusetts Bay Colony authorities ordered all of the Praying Indians to consolidate between five towns: Natick, Punkapoag, Nashobah, Wamesit, or Hassanamesit (Herbster 2005: 106). These Christian community members found themselves stuck between cultures, where on both sides there was distrust of their intentions.

Daniel Gookin noted that while strict rules applied to the residents of these towns, there was an absence of EuroAmerican overseers that the Order required. Therefore, the Praying Indians were unable to comply with the restriction regarding traveling outside of the town centers (Herbster 2005: 107). In October of 1675, a group of Indians at Natick were accused of burning a house in Dedham. The Court's reaction to this resulted in relocating the residents to Deer Island in Boston Harbor. Since at the time the island was kept as a privately-owned pasture, the Indians were not allowed to cut any wood or take any of the sheep there (Gookin 1836: 472-474). As a result, the horrible winter conditions led to many deaths from starvation and exposure (Tougias 1999: 17). When Eliot and Gookin visited in December the Indians from Punkapoag and Nashobah had also been moved to the island—a total of 500 men, women, and children were held in captivity. It was during this time that Eliot and Gookin were seen as Indian sympathizers and neither held status in colonial society after the war's end. Gookin spoke out on behalf of the Indians at Deer Island, and after receiving death threats he was not re-elected as a

General Court Assistant in 1676, a position he had held for 25 years (Herbster 2005: 109). Based on documentary research, it appears that the New England Company and Massachusetts Commissioners did little post-war to support Eliot or the Indians.

By the spring of 1676 when the attacks on English towns began to subside, the Indians interned on Deer Island were finally allowed to leave. Those who survived the deplorable conditions were sent to Cambridge, where they stayed on the land of Thomas Oliver (Herbster 2005: 110). It was in August of 1676 that King Philip was captured and killed, and the war consequently came to an end. The fall and winter of 1676 led to most of the Indians returning back westward to their old settlements. Gookin writes, "most of them repaired to their plantations at Natick, Magunkaquog, and some planted at Hassanamesit" (Gookin 1836: 518-19). His observation implies that Magunkaquog was re-inhabited and continued to persist as a community after King Philip's War. However, it is unknown the extent to which the Nipmuc who chose to return continued to actively participate as members of the church.

During the post-war period, Eliot and Gookin continued to be involved with the religious and civil oversight of the praying towns, but were unable to travel as much as they had in years past. In 1682, the Commissioners provided Eliot with a horse to travel to Natick once every two months (Herbster 2005: 110). The first era of missionary activity came to an end with the deaths of Gookin (75 years) in 1687 and Eliot (86 years) on May 21, 1690 (Kellaway 1961: 121).

The Harvard and Magunkaquog Connection

The Nipmuc at Magunkaquog were approached to sell their lands in 1715 by Harvard University. Through the will of Edward Hopkins, Harvard had been left a monetary gift to purchase land under the guidelines that it would be used to help the English colonists (Rymer 2017: 28). The university decided to purchase the lands to lease them to English colonists. Between 1719 and 1723 the land was leased for 99 years at an annual rate of three pence an acre; however, the leases did not contain stipulations for the tenants to renew their leases following the end of the 99 years (Pierce 1833: 104). The Massachusetts legislature granted the Trustees of the Hopkins Charity's petition to purchase the lands officially on July 21, 1715. A portion of the resolution stated: "for them to purchase of the Indian Inhabitants of Natick and Tract of Wast Land commonly known by the Name of Maguncoog belonging but not inhabited nor improved by the said Indians" (Acts and Resolves IX, 410). While this document suggests that by 1715 the people living near or at Magunco Hill no longer were there, the archaeological evidence from the field excavations carried out in 1997 and 1998 suggests otherwise. It has been determined that the Nipmuc inhabitants of Magunkaquog did not leave right after the "sale" of the land in 1715, rather they occupied the land until about 1750, or 35 years after the deed signing.

A few other omitted lines from this decree also contradict previous descriptions of Native land use at Magunkaquog and the document states that the Natick Indians had authority over how the lands were to be disposed. On October 11, 1715, the Magunkaquog deed was signed by fifteen individuals from the town of Natick. The

General Court decided to add lands from the surrounding area to the original purchase, which was renamed Hopkinton in honor of Edward Hopkins. The 3,000 acre Magunkaquog plantation was renamed Ashland (Herbster 2005).

However, additional documentary research has brought forth several documents of opposing perspectives from Native community members. A letter insinuating town opposition was signed by three Natick men: Solomon Thomas, Benjamin Tray, and Abraham Speen. Part of the September 5, 1715 letter reads: "Mr. most hai and ounorabol Samuel Souwall and all the jin gentlemon that is with you we had the touwn meting monday last and we desire you [consl] us that we are boor indias we are nto will to sal our lands or to debate with it any ways" (original on file, CCEH, HUA as cited in Herbster 2005: 174). This letter clearly states that the majority of the community had discussed this issue over a town meeting and decided the Magunkaquog lands were not for sale. Samuel Sewall (Commissioner of Indian Affairs in 1715) notes in his diary that one of the Committee members and a signatory of the deed, Isaac Nehemiah, had hung himself the day after the Magunkaquog deed was signed. However, there is no explanation for his suicide and it marks the end of any references made by Sewall about the Magunkaquog purchase.

European Metal in Eastern North America

The change brought with the arrival of the Europeans can be seen in the material culture produced by archaeological excavations of early colonial sites. In particular, Native peoples had an interest in obtaining European metal. However, indigenous peoples of the Northeast were well acquainted with copper long before the arrival of

Europeans (Levine 2000). Through indigenous trade networks, copper from sources in the Lake Superior region found its way into New England during the Late Archaic period (5,000-3,000 B.C.) (Ehrhardt 2005; Levine 2000: 185). Based on artifact assemblages unearthed in Late Archaic contexts, it was within this period that copper began to be transformed into a variety of tools (Levine 2000: 185). Evidence for occurrences of Native copper has also been discovered in New England, primarily in Connecticut and Massachusetts (Levine 2000: 191-192). However, the extent to which these localized copper deposits existed prior to the 1800s is difficult to pinpoint (Levine 2000: 190).

In the 1500s, an influx of European copper and brass entered the East Coast through the fur trade. Native peoples traded pelts in exchange for iron tools, brass kettles, glass beads, and other manufactured commodities (Braun and Braun 1994: 87). They used this material alongside or as a substitute to other traditional objects and materials. Metal tools made it easier to drill holes into shell beads to create wampum, therefore creating an increased amount of this bead. For example, at the praying town of Natick, the material culture reflects the retention of indigenous cultural practices while borrowing European material. It was a place where essential parts of Indian culture remained, while incorporating aspects of English material culture. Woven mats and traditional basketry was complemented by English-manufactured kettles, "knives, combs, scissors, hatchets, hoes, guns, needles, awls [and] looking glasses" (Gookin 1792: 12). The replacement of animal skins with cloth and a required shift to don English hair styles served as markers of Praying Indians; however items of traditional personal adornment were still worn.

Women continued to adorn themselves with "bracelets, necklaces, and head bands, of several sorts of beads, especially black and white wampum" (Gookin 1792: 46).

Crosby (1988) and other scholars mention the role that Native people's cosmology and ideology played in the acceptance of European ideals (Cipolla 2013; Crosby 1988; Ehrhardt 2005; Howey 2017; Miller and Hamell 1986). One interpretations is that spiritual practices gave great strength an object's spiritual power (*Manitoo*), which would make metal an attractive material (Creese 2017: 77). *Manit* was contained in copper kettles and iron tools and was observed during the 17th century in the following ways: 1) its efficacy, such as the ability of an iron plough to quickly till a field for planting, 2) in its strangeness or unfamiliarity, 3) its manifestation of great spiritual power, as in the power of the Englishman's God, and 4) in *Hobbamock* as the personification of *manit* in the many forms which he is said to appear (Crosby 1988: 184). Crosby discusses how the concept of *manit* was crucial to the successful transformation of the ideology of southern New England Natives in the 17th century. Placing European materials in graves, adopting Christianity, and learning a new language can take on new meaning when viewed as the means to acquiring a greater spiritual power (Crosby 1988: 193). To the Algonquians the more powerful technology of the English and the resistance to disease meant that the English possessed greater *manit*. Therefore, the different ways in which the Indians used European material culture in ritual contexts can represent their attempts to control both Europeans and their diseases (Crosby 1988: 193).

Accounts from 17th-century observers demonstrate how the Native people perceived European goods on their own terms and how they were extending the concept of *manit* to items previously unknown to them. For example, William Wood noted, "the *Indians* seeing the plow teare up more ground in a day, than their Clamme shells could scrape up in a month, desired to see the workmanship of it, and viewing well the coutler and share, perceiving it to be iron, told the plow-man, hee was almost *Abamocho* [Hobbamock], almost as cunning as the Devill" (1638). In this passage, the Indians remarked on the power that manifested itself in the plow—an object that overturned more soil than their shell hoes. This observation shows that the acquisition of European material culture by Native peoples, in this case metal, was made as a conscious decision to gain access to greater spiritual power. This demonstrates the persistence of Algonquian tradition and supporting what Ehrhardt deems "a complex suite of historical and cultural processes in which Native Americans were thoughtful decision-makers in the selection, modification, integration or rejection of new objects, materials and technologies into their systems of value and activity" (Ehrhardt 2005: 19). Therefore, evidence of repurposing of European metal did not just occur through the physical repurposing of the material or object, but can be viewed as an intangible spiritual transformation.

An example of this can be seen during the mid-16th century, when the ancestral Wendat people of southern Ontario were introduced to small amounts of European metal in the forms of scrap copper and iron implements (Creese 2017: 76). However, by the first quarter of the 17th century, tubular copper beads began to become much more common on sites in southern Ontario (Creese 2017: 76). The European brass and copper

kettles being traded were not seen as superior or even suitable replacements for Native-made ceramic cooking vessels. Thermal characteristics of these metals possibly made cooking of traditional cuisine a challenge (Creese 2017: 76). Instead, these kettles were used as a source of raw material to fashion small implements and ornaments (Creese 2017; Ehrhardt 2005). Archaeological evidence from early 17th-century sites in Ontario demonstrates systematic processing of kettles to make tools and items of adornment (Creese 2017: 76). In 19th-century sources, the powerful healing power of copper is noted (Bradley and Childs 2007: 304). Creese (2017) adds to Bradley and Childs' (2007) interpretation of indigenous metalworking by suggesting that the adorning of one's body with copper would have effectively fulfilled indigenous dream desires and healing services (Creese 2017: 77). Thus, it is not surprising to see indigenous efforts of repurposing copper into objects of personal adornment.

In her master's thesis, Bowers (2015) identified repurposed copper kettles on 17th-century sites in and around Plymouth Colony. Copper-alloy sheet metal identified within all three collections appears to be heavily manipulated, showing signs of scoring, cutting, and riveting (Bowers 2015: 69, 90, 109). All three of the assemblages include evidence that the sheet metal was procured from kettles (Bowers 2015: 125). Bowers interprets this material as being the discarded waste fragments resulting from indigenous production of new objects. Artifacts within these collections also include pieces of sheet metal that were manipulated into their finished forms of projectile points, pendants or tokens, rolled beads and blanks, and clips (Bowers 2015: 126). She highlights that these artifacts are

examples of how European materials were selectively chosen for qualities and purposes that are of Native tradition (Bowers 2015: 126).

The archaeological evidence from southern New England burials, during the period of 1620-1676 reflected the increase in trade items between Native peoples and Europeans (Crosby 1988; Howey 2017). Grave goods from the West Ferry Site in Rhode Island—used by the Narragansett from ca. 1620 to 1660—consisted of European items such as kettles, knives, hoes, axes, drills, spoons, glass beads, thimbles, bells, buckles, muskets, and cloth (Bragdon 1988: 186; Turnbaugh 1993: 143-145). The Burr's Hill site in Rhode Island also consisted of graves with the same material culture, but in three to four times the quantity found at West Ferry. Thirty-six out of the 42 burials, or 86%, held grave goods, in contrast to about 50% at the West Ferry Site. What is interesting is that the arrival of Europeans and their material culture may have only increased the practice of placing grave goods with the deceased.

At the 17th-century RI-1000 burial site in Rhode Island, a variety of European-manufactured artifacts were found placed in an orderly manner alongside Native-made objects (Rubertone 2001: 134). However, the traditional orientation of the grave southwest to northeast, the placement of the body (head facing southwest), and the flexed position of the body continued throughout the 17th and well into the 18th century. The new practice of leaving European materials with the body did not conflict with old rituals surrounding burying of the dead (Bragdon 1988: 188). Similarly, graves excavated of Christian Indians from Natick that date to the 1820s, contained objects of English origin—beads, spoons, and bowls—despite the Christian belief one should not be buried

with material things (Bragdon 1988: 130). Christian Indians were using English objects as a way to express non-Christian ideals about the afterlife, manipulating their meanings and functions to suit their needs and traditions.

Archaeological excavations from later Nipmuc home sites in New England during the 18th and 19th centuries demonstrate how metal artifacts continued to find their way into Native domestic assemblages. The Sarah Burnee/Sarah Boston homestead is located in the Hassanamesit community of present-day Grafton, Massachusetts. The majority of the material culture recovered from the site dates from 1750-1840 (Mrozowski et al. 2015: 133). The large amount of eating utensils—over 70 knives, forks, and spoons—suggests that this household served as a community gathering place for the local Hassanamisco (Mrozowski et al. 2015: 133). This interpretation of the site points to a setting that would have allowed for the creation and maintenance of Nipmuc social memory, which was performed and transformed through the material culture used in this space.

The background chapter is structured to understand the basis behind interpretations created during analysis about the Nipmuc community's use of the metal artifacts at Magunkaquog and the types of activities they participated in. A historic overview about Algonquian peoples before and during colonialism is necessary to recognize how Christianity emerged as a social project from this institution. The information provided on other Nipmuc archaeological sites is also included for an important purpose. These sites offer evidence of indigenous interaction and familiarity

with European metal, which are examples used to supplement the analysis of the metal assemblage.

CHAPTER 3

METHODOLOGICAL BACKGROUND

Cataloguing Metal

The metal assemblage excavated at Magunkaquog had previously been catalogued during a preliminary assessment of the collection to see what broad categories of functionally identifiable tool types were present. Results identified seven groups: clothing fasteners, buckles, thimbles, building and furniture hardware, horse furniture, and cooking vessels (Mrozowski et al. 2009: 450). As part of past processing, potential diagnostic pieces were not systematically analyzed in terms of their function or for patterns of use. Devising a way to appropriately document and catalogue this material became a large portion of this project. One of the main goals that arose during analysis was to find evidence to support the previous identification of the foundation excavated and to infer the purpose it served. As a result of this process, I decided that completing a functional and use-wear analysis would provide me with a comprehensive study of the metal assemblage. I compared the metal artifacts with documented examples from comparative collections and used secondary literature sources to complete my analysis.

Functional Analysis

Because analysis of metal artifacts had been completed in a variety of ways and within different contexts, I decided to use a compilation of resources to create a worksheet to organize my data (Figure 5). In order to aid in artifact identification, I relied

on an assortment of comparative guides and written material on catalogued metal collections of the 17th and 18th century (Baker 1985; Barnes 1988; Beaudry 2007a, 2007b; Bowers 2015; Carlton 2016; Dilliplane 1980; Dunning 2000; Edwards 1963; Ehrhardt 2005; Fiore 1980; Garman and Herbster 1996; Hill 1995; Hughes and Lester 1991; Hume et al. 1973; Mrozowski et al. 2009; Olsen 1963; Plummer 1999; Salaman 1997; Schiffer 1979; Welsh 2013; White 2005; Wilbur 1992). In particular, analysis of the buckles and buttons, which fall under the category of personal adornment, required the synthesis of multiple classification systems and typologies. The Digital Archive of Comparative Slavery (DAACS) at Monticello, Virginia, has published manuals on buckle and button identification (Aultman et al. 2003; Aultman and Grillo 2006). These two guides were referenced to help establish standardized terminology and classification of the buckle and button artifacts in the Magunkaquog collection. The DAACS guides are based on Carolyn White's work that outlines a chronological typology and description of both artifact categories. The DAACS guides, used in combination with White (2005), Noël Hume (1969), and Stanley South (1964), enabled me to increase my accuracy for identification of the buckles and buttons. Since the collection had previously been conserved by the Fiske Center for Archaeological Research's conservator, Dennis Piechota, I consulted with him on my findings. I also visited Historian and Curator of Mechanical Arts, Tom Kelleher at Old Sturbridge Village, to compare the iron artifacts with some in their collections.

Use-Wear Analysis

Use-wear analysis was conducted for answering questions such as: What categories of metal exhibit heavy usage? Do any of the artifacts exhibit secondary usage? Did post-depositional breakage occur? Are any of the breaks, indentations, and striations a product of depositional processes? By examining patterns of use we can speculate how users of these objects were interacting with them prior to deposition.

Understanding areas of stress and breakage can suggest an object's original function. An area of stress or tension visible on the metal's surface can demonstrate where pieces were welded or joined together (personal communication Dennis Piechota 9/27/17). Each break can show a few things: a failure of an object's ability to perform its function, repeated usage until it could no longer function properly for its original purpose, or intentional breakage prior to discarding.

Another part of this analysis requires distinguishing manufacturing traces. For example, evidence of breakage and a scratched frame surface on shoe buckles could be adequate signs of use. But finding fully intact buckles with only parallel striations on the back of the frame reveals manufacture marks. These markings most likely were created by files used to remove excess metal during cast metal production.

The metal artifacts were visually inspected to identify evidence of physical manipulation that would indicate repurposing. Characteristics such as cutting, bending, hammering, and abnormal use deformation are normally visible to the naked eye. When necessary, a magnifier or light microscope was used to determine whether abnormalities on the artifact's surface or breakages were indicative of use-wear. As I learned more

about metal's intrinsic properties, it became apparent that the iron artifacts in this assemblage would not likely exhibit evidence of repurposing. However, as Miller et. al. (2007: 4) discuss, the extrinsic characteristics of iron can be interpreted based on metal's inherent attributes. Even though physical repurposing on these objects may not be evident, we can still address the possible cultural activities the Nipmuc community was using them for.

METAL RECORD

Date: _____ SITE: _____ Category:_____ Identification: _____

CONTEXT INFORMATION	Notable Attributes/Characteristics:
Conservation #: _____ **Artifact ID #:**_____ **Unit:** _____ **Context #:** _____ **Soil:** _____ **Level:** _____ **Conserved or Untreated:** _____	
FUNCTIONAL ANALYSIS	**Completeness:** < 50% 50% <75% **Use-wear:** Y N
Material (ie. Iron, brass, copper-alloy, pewter):_____ **Metal form** (ie. Ferrous/non-ferrous): _____ **Condition** (ie. Fragmentary/complete):_____ **Date (**if applicable): _____	
MEASUREMENTS	**Sketch or Photograph:**
Weight: _____g **Diameter:** _____mm **Height:** _____ mm **Thickness:** _____mm Right Side Left Side	
ADDITIONAL NOTES:	

Figure 5: Metal record worksheet for cataloguing conserved and untreated metal artifacts in the Magunkaquog collection

Conserved versus Untreated Metal

The majority of the metal collection from Magunkaquog had previously been conserved by Dennis Piechota, the conservator for the Fiske Center for Archaeological Research. This is the sample discussed in previous articles about the site (Mrozowski 2009, 2016; Mrozowski et al. 2009). However, the materials that had not been conserved were unaccounted for in these discussions. All metal considered to be "conserved" was analyzed and will be addressed in the results as well as diagnostic artifacts from the untreated collection (see chapter 4). When it came to the untreated metal, I chose to focus on identifiable artifacts that highlighted the categories already determined during analysis of the conserved artifacts and those that represented new categories such as "weaponry." All the artifacts that were selected exhibited diagnostic features to establish their functional category.

Metal as a Material

Placing artifacts into their functional categories relied on the physical properties of metal: luster, hardness, strength, malleability, and temperature sensitivity (NPS Handbook Part I 2002). Functional groups have particular purposes and based on those one may find that a certain metal better suits a function then another. Additionally, assessing an object's ability to be manipulated or withstand stress is essential in recognizing whether or not an artifact exhibits use-wear from performing its intended function. Identification of corrosion can also help to observe where stress on an object occurred and places or seams where objects were joined together (NPS Handbook Part I 2002). This "stress-cracking" corrosion can provide information on whether an artifact

was cast (metal made via a mold) or wrought (worked by a blacksmith) and how the object was used.

The majority of the metal at Magunkaquog is iron, while copper constitutes a small portion of the collection. Iron is the hardest of all metals testing on the Vickers Hardness (VH) scale at 61 VH. It is followed by copper at 37 VH, with lead being the softest measuring at 4 VH (Dungworth 2012). Since copper and copper-alloys have the ability to be easily manipulated, "smelted copper and one of its alloys, brass, are quite frequently found on native sites in various stages of reworking" (Ehrhardt 2005: 37). Terminology is important for correctly identifying metal. The term "alloy" refers to a process created by melting one metal and adding another metal to it. It is possible to obtain a range of alloys with differing properties; however, for the purposes of this thesis generic terminology was employed to identify the metal component of each artifact. For example, instead of misidentifying an object as brass, I use "copper-alloy."

Documentary Evidence

Through an interdisciplinary approach that combines the use of historical documents with archaeological evidence, it was possible to provide a narrative of Native people at this missionary settlement. This thesis investigates interactions between Native communities and Europeans within the context of colonialism. Therefore, a study of material culture, in combination with the usage of primary and secondary sources can provide a basis for archaeological analysis and interpretation (Beaudry 1988: 3). As Ian Hodder suggests, written texts can be considered an artifact produced under certain material conditions, embedded within social and ideological systems (Hodder 1994: 394).

Historical archaeologists have come to understand that historical documents and records are sources that have the ability to provide a different picture from that of the material culture. Comparing text with artifacts can help to critique and contradict popular narratives formed about marginalized groups. In this particular case, documentary evidence is used to bridge the gap between the metal artifacts and Magunkaquog's history as represented in documentary sources.

Previously, Herbster (2005) had completed her thesis on collecting and assessing documentary evidence pertaining to Magunkaquog. Her work examined the documentary records relating to Magunkaquog in order to better interpret the archaeological components of the fieldstone structure identified at Magunco Hill during excavations (Herbster 2005: iv). Reading this collation of research prior to analysis provided me with a historical context and ultimately aided in my interpretation of the material. Herbster's study delves into the interactions between the English missionaries and Nipmuc at this site, including a discussion of other Christian mission settlements during the 17th and 18th centuries. The documentary evidence explains to what extent English involvement was realistically occurring. Additionally, I was able to note particular primary and secondary sources I would need to revisit; specifically pertaining to the research questions I had about the metal artifacts. One of the questions I wanted to address was: "Does the archaeological evidence reflect the documentary record?" (Beaudry 1988: 1), and if it does not directly form a link, how can this be interpreted? As an example, I decided to revisit a primary source Herbster (2005) and Kellaway (1961) mention. Both scholars briefly discuss the New England Company's role in providing missionary John Eliot with

money and supplies known as the "Indian Stock," however, both secondary sources fail to detail the contents within these transaction and receipt documents. Part of my documentary research involved examining a group of papers known as "Accounts of Indian stock, i.e. receipts and disbursements of the Company's commissioners at Boston, Massachusetts, 1657–1731," (CLC/540/MS07946) from the London Metropolitan Archives located in Great Britain. This collection of papers was thought to contain receipts and correspondence outlining specific materials and their quantities that John Eliot was requesting from the New England Company, which forms the mission's "common stock." These lists offer details that can be compared to my results, providing evidence to support the interpretation of this structure.

These primary sources are not the only texts referenced. Additional reviewed documents include historical maps, observational accounts from Daniel Gookin and other Christian Missionaries, legal documents (some with Native writers), and written correspondence between John Eliot and the New England Company. Secondary sources included previous archaeological and historical scholarship that interpreted events and activities relating to time, plans, people, and interactions occurring both at Magunkaquog and sites of similar context.

All sources needed to be reviewed critically and assessed for their reliability (Ehrhardt 2005: 25). While inherent biases in colonial accounts of the period have been extensively deliberated, these written texts are an essential component in studying the missionary settlements of New England (Herbster 2005: 18). When reviewing these documents, whether from the 17th century or the present, one must be aware of the

author's viewpoint. By recognizing and acknowledging that built-in biases exist, these sources can become important lines of evidence from which to draw inferences (Ehrhardt 2005: 25). Very few primary texts written by Native people during the missionary settlements exist. Instead, they were the subject of these narratives, which mainly involve legal proceedings. While documentation of names, places, and events is somewhat complete, discussion about their traditions and lifeways remain under-documented and poorly represented (Herbster 2005: 160). A majority of accounts, both primary and secondary sources, are written by non-Native individuals and have perpetuated colonial stereotypes and assumptions. However, archaeological research has provided additional data about events and places described in historical documents. Archaeological evidence can also be influenced by the perspectives of those interpreting the results, but current attempts have focused on revealing colonial bias in order to feature and highlight the indigenous experience (Bragdon 1996; Brenner 1980; Carlson 1986; Cogley 1998; Murphy 2002; Silliman 2016).

Integrating documentary evidence into the discussion of results provides a sound footing to base interpretations of the metal. The primary and secondary sources, in conjunction with results from analysis of the metal artifacts, can provide a basis for determining what this structure at Magunkaquog was, as well as add a layer to the historical record that fails to represent Native inhabitants of this site.

CHAPTER 4

ANALYSIS

Functional Analysis

Results from the analysis of the metal artifact collection from Magunkaquog expand upon the seven categories originally suggested by Mrozowski et al. (2009). After completion of the functional analysis, a total of 217 metal artifacts fall into 12 broad categories (Figure 6; Table 2). These include building hardware, furniture hardware, tools, animal husbandry, sewing, buckles, buttons, horse furniture, weaponry, iron kettle, miscellaneous artifacts, and eating utensils. The collection also consists of 18 metal artifacts placed into an "unidentifiable" group. The data supports the archaeologist's original interpretation of the structure's function as John Eliot's version of a "fair house" at Magunkaquog, similar to the one he describes at Natick (Whitfield 1834: 138-143).

While the metal assemblage as a whole could be considered indicative of a domestic site, the limited nature of the faunal remains and lack of domestic material culture found in the yard space encourage an alternative interpretation. The metal excavated within and around the stone foundation correlates with material that would comprise Eliot's "common stock" for the community. This site may not represent a domestic one, but the metal functional categories constitute some of the domestic activities occurring in this space. This evidence supports sporadic usage of the site, where

it is possible that when a visiting Gookin or Eliot or Job, the teacher who stayed there on occasion, the site functioned or served as a domestic one. The outcome of the use-wear analysis further demonstrates which categories were being used out of this stock and provides evidence for interpreting this space as being visited periodically, not one used as a "livable" place for an extended period of time.

Categories of Metal	**Artifact Count**
Furniture Hardware	15
Building Hardware	38
Buckles	11
Tools	10
Animal Husbandry	16
Sewing	11
Horse Furniture	4
Buttons	38
Weaponry	2
Utensils	7
Iron Kettle	42
Miscellaneous Artifacts	5
Unidentifiable Artifacts	18
Total	217

Table 2: Results of the functional analysis by category and artifact count for metal assemblage from Magunkaquog

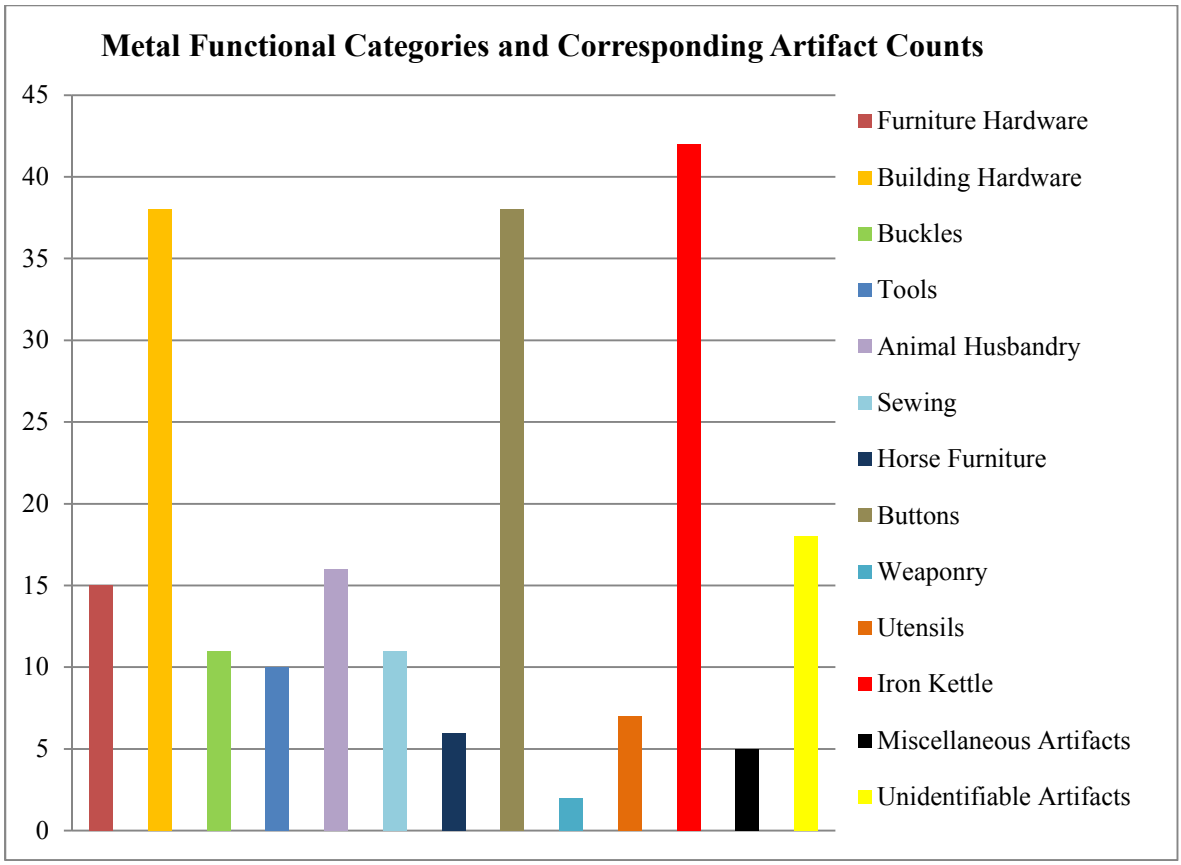

Figure 6: Chart demonstrating metal assemblage functional categories and corresponding artifact count numbers

Use-wear Analysis

The results of the use-wear analysis highlight certain metal artifact categories that displayed apparent patterns of use. Patterns of use were determined through observation of wear either visible to the naked eye or under magnification. Characteristics such as abrasions, breakage at stress points, bending, perforation, riveting, scoring, and scraping were looked for during analysis (Ehrhardt 2005). These attributes can indicate whether or not the object was used consistently for its intended function, demonstrated secondary usage, or served an alternative purpose.

Out of the 217 identified artifacts of the metal assemblage excavated at Magunkaquog, 179 were analyzed for the use-wear component. The decision to eliminate artifacts comprising the architectural material category was due to the difficulty in identifying a sufficient amount of complete pieces. The fragmented nature of the building material could have been a result of the structure's collapse. Based on the exclusions, 69.3% of the collection showed visible evidence of usage. The other 30.7% consists of artifacts that either did not display identifiable use, or were corroded in places on the object where areas of use would have been visually recognizable.

Literature that discusses Native people repurposing, altering, or innovating new ways to use European-made metal goods, in contexts of colonialism, was consulted (Beaudry 2007a; Bowers 2015; Boyer 2012; Bragdon 1988; Ehrhardt 2005; Fiore 1980; Kelley 1999; Law Pezzarossi 2014; Simmons 1970; Turnbaugh 1993; van Dongen 1996). Other scholar's work in regards to this topic helped complete use-wear analysis for this section because it provided an alternative way to interpret iron material in this collection. For example, Law Pezzarossi (2014) discusses in her article alternative interpretations of the iron implements excavated at the late 18th- to early 19th-century Burnee/Boston Site located in Grafton, Massachusetts. Her methodology consisted of searching for evidence of "material innovation," while carefully considering the assemblage's historic context, in order to keep her interpretation within reasonable bounds. By employing Law Pezzarossi's framework, the artifacts from Magunkaquog were examined in order to see if alternative explanations could be identified.

The results of this analysis conclude that not all the metal artifacts of Magunkaquog visibly exhibit patterns of use. Discussion within this chapter details use patterns that manifest themselves in a few of the artifact sub-categories: thimbles, knives, buckles, tools, and oxen shoes. The characteristics of iron make repurposing difficult to identify. Since iron constitutes the majority of the collection, it was likely no evidence of physical repurposing would have been found within this collection.

The completion of use-wear analysis for the metal is of importance, because these objects reflect Nipmuc interaction with European material within the context of a religious site. These European-made goods had their own set of prescribed uses and meanings, but they were also subject to interpretation and improvisation by their Native consumers (Law Pezzarossi 2014; Silliman 2010; Turgeon 1997). Although this material was not visibly altered to suit needs other than intended functions, complex historical and cultural processes were occurring at Magunkaquog. The Nipmuc community at Magunkaquog would have been the metal object's primary users. They are the decision makers in the selection, integration or rejection of these objects, material, and technologies into their daily activities.

Furniture and Building Hardware

In 1650, John Wilson, a Puritan clergyman from Boston, wrote a description of a building in which John Eliot would stay during his visits to the praying town of Natick:

> "which is neer a faire house which the Indians have built after the English manner high and large…In which Mr Eliot and those who accompany him use to lye, and the Indian School-Master was there teaching the Children, who doth read and spell vey well himselse...and as there is a larger Roome below, so there is a like Chamber above, in a Corner whereof Mr Eliot hath a little Room inclosed, and a

> bed and a bed-sted therein, and in the fame chamger the Indians doe as in a Wardrope hang up their skins and things of price" (Whitefield 1834).

This excerpt contains a rendering of a structure which held John Eliot's quarters, and at the same time functioned as a storage place for individuals in the community to keep their "valuables." Again, the use of the term "valuables" in this context refers to items of European manufacture that Eliot acquired for each of the villages (Mrozowski 2009: 145). This multi-use building erected at the larger Christian Indian community of Natick is represented in the archaeological record for Magunkaquog, but on a smaller scale.

Building and furniture hardware make up 24.4% of the identifiable portion of the site's metal collection. In Mrozowski et al. (2009), a portion of the building and furniture hardware had been previously identified, and analysis for this thesis project yielded the same results. Fifteen artifacts are identified as furniture hardware, and 37 fall within the building hardware category (Table 3). Each of the general groupings is further broken down to describe individual diagnostic pieces.

Furniture Hardware		
Curtain Ring	7	
Furniture Tack	2	
Drawer Pull	2	
Escutcheon	2	
Unidentifiable furniture hardware	2	
Total		15
Building Hardware		
Latch	5	
Strap Hinge	2	
Staple	1	
Pintle	2	
Key	1	

Assorted Hinges	7	
Window Came	1	
Reinforcement Piece	1	
Unidentifiable architectural hardware	18	
Total		38

Table 3: Furniture and Building Hardware Artifact Counts

The results of the furniture hardware analysis produced an assemblage consisting of seven rings, two furniture tacks, two drawer pulls, two escutcheons, and two unidentifiable pieces (Figure 8). The 7 brass and iron rings range in size from 19 mm up to 30 mm in diameter, with an average diameter of 29 mm. These rings and their sizes are consistent with those used for bed curtains or draperies (Hume et al. 1973: 452). Another functional interpretation of this artifact comes from Burr's Hill, a 17th-century Wampanoag Burial Ground located in Warren, Rhode Island. Nora Groce notes that it is possible a plain brass band could have served as a frame for Native beadworking (Groce 1980: 112). The rings from the Burr's Hill collection are flat in shape with rough inner surfaces making them unlikely bands that would have been used as finger ornaments. These flat brass bands are almost identical to the ones found at the Pantigo Cemetery Site in New York, where they were used as a base or framework to which threads were attached. It was on these threads that small beads were strung into a design on the circular band (Groce 1980:112). Additionally, no beads were found at the site, but this could be attributed to screening methods. However, after assessing the metal rings, it is unlikely they served a purpose other than their utilitarian function of hanging some kind of drapery.

The two drawer pulls are exemplary teardrop handles of the late 17th to early 18th century (Hume 1969: 228-229). These two pulls would have been backed by a round or diamond shaped plate, anchored by an iron or brass tang. They are associated with smaller pieces of furniture and date from ca. 1685-1720 (Hume 1969: 228). The two brass furniture tacks are floral in shape and most likely anchored a textile to a straight-backed chair. Brass tacks are considered one of the earliest fittings for anchoring and ornamenting upholstered furniture that date to the second quarter of the 17th century (Hume 1969: 227). The function of an escutcheon as a flat piece of metal is to cover or be used as a plate surrounding a keyhole or door handle. Characteristic of the early 17th-century brass lock plates, consisted of elaborately cut edges and stamping to resemble clock faces. During the late 17th century when locks were attached from behind and the escutcheon from the front, designs became diamond-shaped, followed by rosette patterns (Hume 1969: 230). This pattern is seen on the escutcheons found from Magunkaquog, which are potentially two fragments that comprised one large escutcheon.

The appearance of household furnishings mentioned in historical inventories for homes of the period is not unusual (Beaudry 1995; Cummings 1964; Deetz 1996; Harper et. al 2017). However, archaeological evidence of furniture hardware from excavations of First Period homes tends to be lacking. For example, probate inventory records from 1652 for the Waterman House Site in Marshfield, Massachusetts, indicate the home contained "3 chairs and 2 cushions; one table, 2 chests, 2 boxes, and a trundle bed" (Bowman 1909: 100-102). Still, an archaeological data recovery effort of this First Period

house resulted in hardware more likely associated with architecture, not furniture (Harper et. al. 2017: 116).

Based on the artifacts and their counts from the furniture hardware category, it is likely that the structure contained a bed and a singular drawer or small chest. The scarcity of furniture hardware is indicative of a sparse number of furniture pieces and supports the idea that this space was not likely inhabited for long durations of time. This inference would reinforce the narrative that the foundation excavated at Magunkaquog was not a domestic structure, but one used to house a visiting John Eliot or the community's teacher Job, for short durations. This layout also adheres to the Puritan ideal of valuing God over a display of material wealth.

One of the largest categories of metal artifacts is that of building or architectural hardware. A total of 37 artifacts fall into this group consisting of: five latches, two strap hinges, seven assorted hinges, one staple, two pintles, one key, one lead window came, one unidentifiable reinforcement piece, and 17 unidentifiable pieces of architectural hardware. As addressed by Priess (2000), the majority of building hardware, prior to the early 19th century, was hand wrought so items could fit particular needs (Priess 2000: 49). While there was difficulty in providing an exact date range for some of the building furniture due to a lack of standardization, a number of comparative guides were referenced in attempts to separate out diagnostic artifacts from the rest of the metal. The main sources utilized were Barnes' (1988: 15-36) index of colonial metal for its hand-drawn illustrations representing a variety of architectural furnishings that were produced for period buildings and Priess' (2000) in-depth chapter on historic door hardware.

Additional guides included a volume containing photographs and descriptions of archaeological finds from Fort Michilimackinac (1715-1781) (Stone 1974), and Hume's (1969: 235-236) description of hinge types.

Out of the assemblage of building hardware, 11 of the artifacts represent door hardware (Figure 7). Doors require two basic features: a means to open and close and a means of being secured (Priess 2000: 46). The movement is completed by a kind of hinging device, while security is provided through a variety of devices such as hooks, bolts, latches, and locks. There are two identifiable strap hinges in this collection, which consist of a relatively long and narrow metal strap that extends horizontally across the door and anchored to the frame by a pintle (Priess 2000: 51). Strap hinges are characterized by a number of holes along its length, including one in the finial (end), which attaches the metal to the door. The finial comes in a variety of shapes, and the one portion of a strap finial from Magunkaquog is exemplary of the diamond shape (c. late 17th century) (Priess 2000: 52).

Figure 7: Building hardware examples: key, latch, staple, and strap hinge

Other identifiable building hardware includes an iron staple that would have been part of a door latch, an iron latch hook used to hold open a door, a pintle, a piece of strap metal that could be part of a bar latch, an iron key, and a fragment of a lead window came (Priess 2000: 64, 76-77). It is difficult to make an exact determination on the four other latches and probable hinges. The assorted hinges are fragments of strap metal with evidence of punched holes for attachment by wrought nails. The most commonly recovered hinge shapes are H, HL, T, strap, butterfly, and cock's head (Hume 1969: 253-256). The fragments of strap metal are most likely either H or HL hinges because of their sizing; however, due to the fragmentary state of these particular metal artifacts a determination was not feasible.

All of the building hardware items noted above are comparable to those common during the 17th and 18th centuries as seen and noted in sources such as Barnes (1988) and Priess (2000).

Figure 8: Furniture hardware: (top row): tacks; (bottom row): escutcheons, and drawer pulls

Common Stock

The metal collection provides archaeological evidence that the foundation found on Magunco Hill did indeed serve as the residency of John Eliot or his teachers during short visits to the praying town, as well as a space where tools and other European made metal implements were stored. This "common stock" was a part of Eliot's plan to convert and civilize community members by prevention of traditional gift-giving (Eliot 1882: 294). He states in a document from 1652/3, "I thought best rather to lend than give these tooles, that so the publicke interest may keep them fro being imbezl[d] away, for they are

(many of them) feeble y^{t} way & will easyly p^{t} w^{t} they have not p'sent use of…" (New England Register 1882). Eliot believed that "civilizing" the Indians was a necessary prerequisite to completing their conversion to Christianity (Brenner 1980; Cogley 1998; O'Brien 1998; Mrozowski 2009; Van Lonkhuyzen 1990, 406). In the 1650s, Commissioners for Massachusetts began requesting that the Society for the Propagation of the Gospel in New England pay John Eliot £100 and given £1,000 in supplies (Kellaway 1961: 64). On April 12, 1651, the Society's first bill of lading was signed along with a detailed account showing the nature of the £70 worth of goods. This list consisted of hardware: nails, hatchets, felling axes, broad axes, narrow and broad hoes, spades, hand saws, two handed saws, augers, chisels, drawing knives, carpenter's hammers, adzes, and gimlets (Kellaway 1961: 64-65). Accounts following include requests for fish-hooks, knives, scissors of various kinds, and needles. These lists are similar to noted English goods provided at the praying town of Natick (Van Lonkhuyzen 1990: 406). The remaining artifact categories of metal to be discussed fall under the supplies listed in requests by John Eliot. This provides evidence to support the notion that the metal assemblage from Magunkaquog included items that formed the stock of common goods from which members of the community would visit, share, and utilize.

Animal Husbandry

The English conception of ownership over the land through their sedentary settlements was facilitated by the keeping of livestock. The promotion of animal husbandry within Indian praying towns can be considered one of the strategies missionaries used to civilize and Christianize (Silverman 2003). Similar to their treatment

of European metal, Praying Indians had little trouble finding a place for livestock in their traditional cosmos (Silverman 2003: 517). As previously discussed, Native peoples of the Northeast believed that behind every animal species was a giant double, or authoritative spirit, that emanated *manit* (see chapter 2) to its smaller selves and directed their actions (Silverman 2003: 518). They correlated the wild and the domestic animals with maleness and femaleness, respectively. The sensibility of men pasturing sheep while women milked cows and cared for chickens fit comfortably in their cosmology (Silverman 2003: 519). By the 1670s a substantial numbers of Praying Indians residing within Eliot's communities were raising livestock. Documentary evidence indicates that in 1652, the New England Company gave the praying community of Natick seven cows and eighteen goats to encourage Eliot's program of civility (Silverman 2003: 517). Gookin notes in his *Historical Collections* that the Praying Indians at Magunkaquog "keep some cattle, horses, and swine, for which the place is well accommodated" (Gookin 1970: 189). Based on ethnographic accounts, Silverman (2003) has suggested that animal husbandry became a minor economic activity for most praying town Indians. The keeping of livestock was incorporated into the traditional mix of horticulture, hunting, fishing, and gathering.

In 1656 and 1666, Massachusetts banned the sale of horses to Indians for fear of usage of them during wartime (Silverman 2003: 520). Rebuilding post-King Philip's War for Praying Indians was extremely difficult as they found themselves stuck between the English colonists and non-Christian Natives. The restriction of postwar Indian settlement to Natick, Ponkapoag, Hassanamesit, and Wamesit, forced converts to relocate out of

their permanent settlements. Those Praying Indians less invested in English farming methods likely found it easier to adjust (Silverman 2003: 521).

The iron shoes recovered from Magunkaquog related to animal husbandry were originally interpreted as consisting of both horse and oxen shoes (Mrozowski et al. 2009: 450). Analysis of the artifacts identified 11 oxen shoes, along with four associated shoeing nails (Table 4). Ox shoes are unusual looking, with a characteristic differentiating them from horseshoes. They are shaped much like an enlarged comma and function to protect the animal's cloven foot. These robust animals require two shoes on each foot, for a total of eight shoes per ox. As a result, the shoe must be broad, unlike the thin, one-piece, U-shaped horseshoe. Colonial ox shoes also exhibit creasing, where shoeing holes are placed. The early ox shoe was hand forged by blacksmiths and in later periods manufactured by machine. Colonial period farrier's generally placed ox in wooden stocks to immobilize them for shoeing (Simmons and Turley 2007: 66). Equipment used by farriers to shoe is the same toolkit used to shoe horses. Unlike horses, which require re-shoeing every 6-8 weeks, oxen are only shod from time to time. Shoes for oxen are not usually necessary in summer months, so most oxen are shod at the beginning of winter for traction and protection against harsh terrain (Personal conversation with Tom Kelleher, Old Sturbridge Village, 10/3/18).

Animal Husbandry		
Ox Shoe	12	
Shoeing Nail	4	
Total		16

Table 4: Animal Husbandry Artifact Counts

In the Magunkaquog collection, 10 out of the 11 ox shoes identified were likely hand forged by different blacksmiths (Figure 10). The exception to this: shoe C-00316, which was excavated within the first 10 cm of context 88 in unit D9 (Figure 9). Due to the smaller, uniform punched holes for shoeing nails and defined crease in the fullering towards the calk, it is possible this object's manufacture date is from a later period than the other shoes (Personal conversation with Tom Kelleher, Old Sturbridge Village, 10/13/18). The rest of the ox shoes exhibit irregularly shaped and placed holes for shoeing nails and a less-defined crease. The irregularity of punching on the edges of these shoes is indicative of hand forging techniques. Some artifacts have a bulky froggery (outer edge where nails are punched), which also is representative of hand forged metal. Seven of the shoes display visible calking at the shoe's heel. This is a feature used to gain traction on paved surfaces as well as for icy or snowy weather conditions (Personal conversation with Tom Kelleher, Old Sturbridge Village, 10/13/18). The variety in shoe nail hole size and placement along with differentiation in the curving nature of each ox shoe likely represents the work of multiple blacksmiths. There is not a farrier toolkit apart of this assemblage to support the idea that Praying Indians were being taught or practicing blacksmithing in this particular space. This could be a result of these tools being used by individuals with a specialized skill and were taken with them, rather than left behind to be used by others.

The shoes in this assemblage manifest heavy wear patterns. Breakage at the toes of six of the shoes is consistent with breakage prior to deposition. Heavy deterioration can be seen on the object's edges where nail punches are located. Based on the fact that

the majority of these shoes feature calking and heavy wear, it is likely these animals were shod for winter months. It can also be inferred that the shoes also fell off of the animal naturally. Whether these shoes fell off as the animal roamed nearby or were brought to the site is speculative, but the scattering of shoes around the foundation supports the idea this building did not function as a domestic one. An existence of heavily worn ox shoes on the site also facilitates the narrative that Nipmuc at this site were partaking in English agricultural practices.

Figure 9: Ox shoe and associated shoeing nail

Horse Furniture

The four pieces of horse furniture consist of: half of a snaffle bit, two fragments that refit to form one cheekpiece, and one harness escutcheon (Figure 11). The half of the

snaffle bit from this collection is consistent with Hume's typology of a jointed-mouthed bridoon (Hume 1969: 241). The term "bradoon or bridoon" is interchangeable with "snaffle bit," and refers to the small rings, which usually are used in conjunction with a curb bit, but no cheekpiece, to form a double bridle. However, the archaeological presence of a cheekpiece and curb bit suggests that this snaffle bit was not a part of a double bridle (Hume 1969: 240). Since the missing half of this bit would have been symmetrical, the diameter would have reached six inches, and according to Edwards (1963), the horse would likely have been the standard "hunting" horse size. The left cheekpiece (C-00311) identified refits with a fragment (C-00308), which would have acted as the attachment loop for the reins (Figure 11). The associated escutcheon lacks embellishment on its face other than a groove outlining its shape. It would have attached as an ornament to the harness leather by the two prongs located on the back (Hume 1969: 242). The horse furniture is indicative of a single horse, similar to the conclusion of the furniture hardware representative of a singular household assemblage. The artifact's date range of about 1675-1725 also falls within the occupational period of Magunkaquog (Mrozowski et al. 2009: 452). It has previously been discussed that the elements comprising the horse bridle could be attributed to dressing the horse John Eliot or his teachers used when visiting Magunkaquog.

Horse Furniture		
Snaffle Bit	1	
Cheekpiece	2	
Escutcheon	1	
Total		4

Table 5: Horse Furniture Artifact Counts

Figure 10: Oxen Shoes

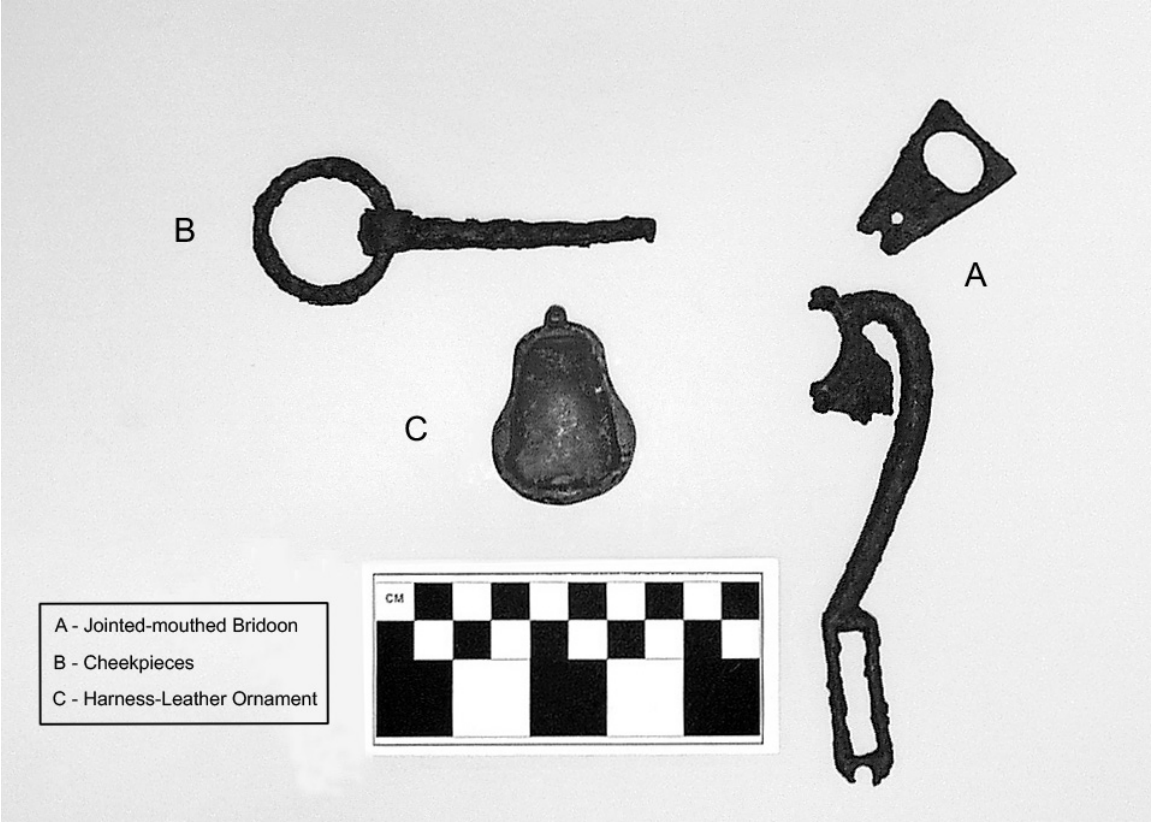

Figure 11: Horse furniture recovered from Magunkaquog excavations

Miscellaneous and Unidentifiable Artifacts

A total of five artifacts were placed in the miscellaneous category: one barrel hoop fragment, two iron metal rods, and one piece of sheet metal (Table 6; Figure 12). An additional 18 unidentifiable objects stand along with these five, since their identification was not possible due to their incomplete, corroded, or fragmentary nature. The barrel hoop fragment is a slightly curved, thin piece of iron measuring 200 mm in length. While it is unclear what the contents of the barrel may have been, the presence of this artifact within a unit of the foundation (A9) demonstrates some kind of storage occurring in that space. The original function of the two wrought, iron rods is unknown

due to their incomplete state. However, it is possible these rods are associated with hearth hardware or served some kind of architectural purpose. The first rod (C-00222) measures 273 mm x 9 mm, round at one end and has a broken edge on the other. An interesting characteristic is a rectangular shaped segment placed closer to the tapered edge. The second rod (C-00225) measures 244 mm x 8 mm, also featured broken ends, but with one side tapering into a thin splayed edge. The artifact's shape is rectangular and was associated with two wrought iron strap metal fragments displaying nail holes. One unidentifiable piece of sheet metal was analyzed and placed into this category due to the visible nail hole. This piece measures 60 mm x 55 mm and bends on one half creating a crease, which demonstrates some kind of tension occurred at that part of the metal. Although the original shape is unclear, this piece of sheet metal could have served as architectural material.

As an additional note, the quantitative data for the nails within the untreated collection is: n=1,295. The decision to forgo analyzing nails considered Law Pezzarossi's analytical framework that stemmed from her initial research question of "determining the use of iron in the Sarah Boston household," in Grafton, Massachusetts (Law Pezzarossi 2014: 344). I decided it was best to catalogue all metal artifacts except for nails in order to reflect the intended uses of daily activities.

Miscellaneous Artifacts		
Barrel Hoop	1	
Metal Rod	2	
Sheet Metal	1	
Total		5

Table 6: Miscellaneous Artifact Counts

Figure 12: Miscellaneous Artifacts (Top to Bottom): Barrel Hoop Fragment, two iron rods

Weaponry

Two small lead shot (C-00240 and C-00239) were recovered from units located outside the Magunkaquog foundation (Table 7; Figure 13). Both the artifact's patina and coating of a white oxide/lead carbonate/lead sulfate is evidence of the shots having been buried in the ground for some time (Silivich 2016: 17). One of the lead shots, C-00239, was found in an excavation unit F8 (horizon A, level 2), located away from the foundation. The caliper measurement of this artifact is 11 mm or 0.43 in. The undulating grooves and splaying of the surface on one side of the object is indicative of an impact. It is unclear what was hit after the shot was fired, because the deformed shape of the lead shot will vary with the many different types of possible objects it might strike (Silivich 2016: 62). The second lead shot, C-00240, was found in excavation unit B7 (horizon A,

level 4), located southwest of the foundation, measuring 10 mm or .39 in. In this case, only a quarter of the original lead shot was recovered. A method used to increase the actual or perceived lethality of a musket ball is to cut it in half and load both halves, known as a split shot. Quartering has similar effects because when fired, the projectiles will split into pieces (Silivich 2016: 73).

The presence of lead shot on the site could possibly be connected to the 1678 Mohawk raids on the praying communities, where at one point 22 Praying Indians were captured from a cornfield at Magunkaquog (O'Brien 1997: 65). The idea that the lead shot was fired as a result of the raid can still be entertained as a possibility, since it has not been determined what weapon these artifacts were fired from. The small size of the lead shot is not characteristic of a military weapon; rather they are diagnostic of birdshot associated with civilian weaponry. It is difficult to speculate whether or not these are directly linked to the raids or came from hunting-related activities, since no gun parts were recovered from the site. It is highly speculative, but the presence of firearm parts was possibly there as a result of stock for civilian usage.

Weaponry		
Lead Shot	2	
Total		2

Table 7: Weaponry Artifact Counts

Figure 13: Lead shot

Buckles, Buttons, Sewing

Buckles

Shoe buckles are the most common recovered type of buckle on archaeological sites (White 2002: 185). Beginning in the 17th century buckles served a variety of fastening purposes for shoes, breeches, stocks, gloves, hats, swords, collars, and girdles (White 2002:185). This mechanism for attachment was prevalent up until the late 18th century, when it went out of fashion, replaced by buttons and ribbons (White 2002:186). Because it is notably difficult to distinguish between buckles worn by men, women, and children, the analysis of the buckles from Magunkaquog focused on determining buckle function, parts, and date range. Out of a total of eleven buckles, none were identified as knee buckles, instead five were identified as shoe buckle frames, four harness or utilitarian, and two shoe buckle rolls (Table 8; Appendix C). During analysis of the Magunkaquog buckles, reference and resources guides were consulted such as Coe

(2006), Grillo et al. (2012), Hume et al. (1973), White (2002), and Whitehead (2003) to aid in identification.

Buckles		
Shoe buckle frame	5	
Utilitarian or harness buckle	4	
Shoe Buckle rolls	2	
Total		11

Table 8: Buckle Artifact Counts

Buckles worn between 1680 and 1820 were made of two basic parts: the frame (a.k.a. ring) and the chape (Figure 14). These parts are frequently detached from one another in archaeological contexts. The chape is the portion that fastens the buckle to the shoe and has three components: the pin or bridge, the roll, and the tongue (White 2002: 187, 192). The pin is set to the underside of the frame and was a solid piece of metal until the late 18th century when a hollow tube was used (White 2002:192). The tongue hinges on the pin and points away from the roll. Originally it had a single sharp spike, but the majority of 18th-century buckles have two (ca. 1720-1770), like a pitchfork (White 2002: 193; Whitehead 2003: 103).

Shoe buckles in the mid-17th century are generally small and square, usually less than 45 mm long, with the pin typically cast with the frame (White 2002: 211). Two features characteristic of shoe buckles between the years of 1690 to 1720 are rounded corners and the presence of a bulge in the inside edges of the frames (White 2002: 211; Whitehead 2003: 97). Decorations during this period varied from scalloping, serrated edges or mold extensions to shell and flower motifs (White 2002: 213). By the 1720s,

buckles were a common item of dress and it was during this time they became larger and rectangular (White 2002: 213).

In the buckle assemblage from Magunkaquog, two iron-alloy buckle rolls were found with double spikes (Figure 15). The roll is only one component of the chape; therefore, the rolls are missing their corresponding tongue and pin bridge. The complete roll (C-00248) measures 36 mm x 26 mm, and the fragmented roll (C-00249) measures 25 mm in diameter. It can be inferred that the missing tongues from both artifacts would have been double-pronged, indicative of the time period of the mid-1700s (ca. 1720-1770) (White 2005: 43; Whitehead 2003: 101).

This collection contains four utilitarian or harness buckles (Grillo et al. 2012: 5) (Figure 15). Characteristics of this group include square, iron, single-frames, and usually have their pin serving on one side. Frame C-00244 did not have a pin associated with it; however, it is an iron, square, single-framed buckle measuring 29 mm. C-00243, C-00250, and C-00252 are accompanied with pins and share similar sizes to C-00244. C-00250 is the only single-framed buckle, with a pin still attached measuring 25 mm. This artifact, along with C-00243, is comparative with a "Type 5" pin terminal, meaning the pin serves on one side of the frame (Coe 2006; Grillo et al. 2012: 12). C-00243 also measures 25 mm, with its detached pin measuring 23 mm. From the untreated metal C-00252 is a frame with two associated pins, so it is possible this artifact also would have exhibited a "Type 5" pin terminal.

The harness or utilitarian buckles are considered difficult to date, so the remaining shoe buckle frames from the assemblage were relied on to produce a date range. The

following buckles are indicative of the time period from 1690 to 1720, which falls during the occupation period of Magunkaquog. C-00245 is the only shoe buckle frame with intact pinholes and not in a fragmentary state. The copper-alloy, "sub-rectangular" frame measures 37 mm x 25 mm and the pin terminal is comparable to "Type 1": a protruding lobe where the hole for the pin is drilled the entire width of the frame (Grillo et al. 2012; White 2002: 191). The size and shape of this frame are similar to an example in Whitehead's book No. 662 (Whitehead 2003: 101). Other buckles in the group, C-00246 and C-00251, are two copper-alloy frames that can also be considered analogous to No. 662. C-00246 is a partial piece "sub-rectangular" in shape, measuring 26 mm across its frame length. The spindle hole is visible, so it was inferred the chape shape was a single prong (indicative of earlier shoe buckles). C-00251 is a little bit larger in size measuring 38 mm across its frame length (Coe 2006). The last two shoe buckle frames are rectangular in size and again are a copper-alloy material. C-00242 looks comparable to Whitehead's (2003) illustration No. 668, and is 40 mm across the frame length. The frame fragment, C-00247, is comparable to Whitehead's (2003) illustration No. 669 and exhibits a curvilinear line around the outer edge of the frame. This is the largest frame out of the group measuring 50 mm across.

The buckles do not exhibit any kind of decorative patterns and likely functioned as fasteners for shoes or harness/utilitarian garments. The identification of the buckles points to a date range of about 1690 to 1750, consistent with the occupation of the site.

After examining the 11 buckles, it was discovered that 5 shoe buckle frames provided the best evidence for use. The exterior facing side of the frames displayed

scratches, likely occurring from rubbing when the buckle was worn repeatedly. This is compared to abrasions created as a result of artifact cleaning or during excavations, which would have revealed themselves as minor surface scratches, rather than deeply ingrained striations. Another indicator of use on these buckles was exhibited by the breakage patterns of the frames. One would expect to see use by breakage on either side of the pin holes, which would be the primary locations of stress on the buckle frame. The curved nature of the frame was a feature necessary to provide a comfortable fit on the bridge of the wearer's foot. The majority of the buckles were excavated from units within the foundation that contained features. These contexts were dense with faunal remains, redware and other artifacts. Based on the breakage patterns and contexts by which the buckles were found, it is likely the use patterns are a result of pre-depositional breakage. Therefore, all five of the buckles are indicative of use because their frames are broken in a way consistent with overuse on points of stress. Use on the buckles from Magunkaquog could imply that Nipmuc at the site were participating, to an extent, in some form of English dress.

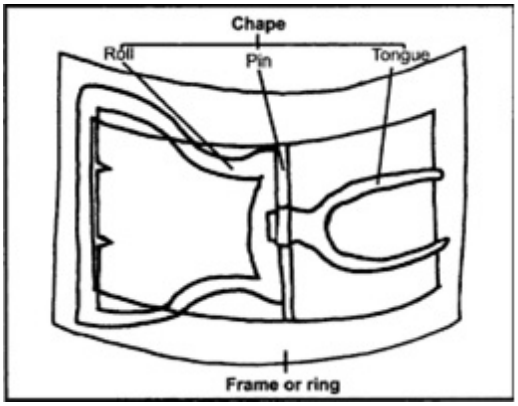

Figure 14: Parts of a Buckle

Figure 15: Example of buckles from Magunkaquog metal collection (Top row: Harness/utilitarian buckles; middle row: buckle rolls; bottom row: buckle frame)

Buttons

Buttons, similar to buckles, are the most ubiquitous artifact of personal adornment found on archaeological sites (Figure 16). However, unlike buckles, literature on early 17th-century button typologies is limited. The majority of the resources consulted for analysis of the buttons from Magunkaquog are heavily focused on the 18th century (Hume 1969; South 1964; White 2005). The reliance on the information provided from these guides may display bias in the dating of this collection. The nature of this collection may give the appearance of an 18th-century typology, but could in fact date to the late 17th century.

Out of a total of 37 buttons, about 2 to 5 fall into the "small" and "large" size categories (Appendix C). A small button is considered less than 12 mm and a large over 18 mm (White 2005: 57). The results yielded that the majority of fall into the "middle" size category of 12-18 mm (White 2005: 57). The size of buttons can also be indicators of what type of garment to which they were associated. Carolyn White (2005) states that coat buttons range from 18-35+ mm, waistcoat buttons between 14.5-19.5 mm, and sleeve buttons between 13-17 mm (Table 9). During analysis, these wide ranges were taken into consideration. For accuracy purposes, it was noted that some buttons overlapped into two categories for size and garments. Buttons were worn primarily by men in the 17th and 18th centuries for both functional and decorative purposes. Women did not begin to wear buttons as frequently until the 19th century (White 2005: 57). Colonial menswear in the late 17th century consisted of a long waistcoat, long-skirted coat, narrow, and tight-fitting breeches. In the 1600s, waistcoat buttons extended down in front of the garment, with only a few being functional. After 1690, the waistcoat rose above the knee and was fastened with a few buttons at the waist.

A handful of buttons are pewter, which was commonly worn in the 17th and 18th century by all economic strata. Materials like copper and brass were also popular in the 18th century. It was not until the late 18th century that it was associated with the lower and working classes. Pewter buttons have weak shanks, which could explain the lack of eyes on the pewter buttons in this collection. In an account from John Eliot in 1651, the Commissioners sent tools over to supply the Native praying community of Natick, and listed items included "3 gross of pewter buttons" (New England Historical and

Genealogical Register 1882: 296). Pewter buttons are less expensive to produce from cast molds and were imported from England during the 17th and 18th centuries (White 2005; Marcel 1994). Other materials comprising this button collection include copper-alloy, soft white metal, and iron. Sleeve buttons were most commonly made out of copper-alloy and pewter. The majority of buttons have spun backs with drill hole shanks, and based on diagnostic features of the individual buttons, the collection dates from ca. 1700-1776 (Figure 17; Figure 18). This date range could be indicative of a longer occupation period of the land that was acquired by Harvard University in 1715. The buttons could be evidence that people continued to reside near or visit the site after this land acquisition. It is also possible that the button typologies used for this analysis are not as accurate as one might assume and as a result produced a later date range.

The button assemblage from Magunkaquog is consistent in terms of the majority being small in size and lacking decoration on the button's faces. Based on these consistencies it is likely these artifacts potentially served a utilitarian purpose. The utilitarian and uniform nature of this assemblage is representative of bulk imported 'haberdashery'—thread, buttons, scissors, thimbles, cloth—similar to what is indicated on the receipts of supply lists missionary John Eliot requested from the New England Company. According to White's (2005) typology, these buttons would have been attached to a waistcoat or sleeve of a garment. However, this observation cannot be confirmed.

Another alternative interpretation of this material may be that those at Magunkaquog were participating in English dress. Whoever was assumed to be wearing

the garments likely had to be exhibiting modest behavior, or was at least urged to be. For Puritans, clothing was considered next to godliness and signified one's spirituality in this context (Loren 2014: 256). Daniel Gookin asserted in 1674 that Christianized Natives were easily identified "by their short hair and wearing English fashion apparel" (Gookin 1970: 17). Missionaries and colonists assumed that Indians who donned English clothing were acting obediently and submitting to English culture during their conversion to Christianity (Little 2001: 251).

A second interpretation could be that these buttons were provided by missionary efforts to the praying communities with the goal they would be attached to English-styled garments. However, ethnographic accounts have cited New England Natives wearing English-style coats and shirts along with cloth that they draped around themselves as cloaks to wear with their traditional Native American clothing and adornments (Little 2001: 246-261).

Examples of indigenous consumption and transformation of Anglo dress can also be seen in archaeological assemblages from 18th century Eastern Pequot sites as well as later period Nipmuc homesteads. At Site 102-123, excavated on the Eastern Pequot Reservation, Lewis (2014) discusses how a large quantity of buttons at the site suggest a male presence in the household, whereas hair ornament, a ring, and glass pastes denote a female. She hypothesizes that since associations of this material with gender are rooted in a dominant Anglo-American culture of the period, it is possible that confinements on dress were not followed on the reservation (Lewis 2014: 108). Instead, the Eastern Pequot consumed these objects and continued practices of their choice to define their

own conceptions of class and renegotiate European dress that maintained their individuality (Lewis 2014: 108).

Similarly buttons from the adornment assemblage at the Sarah Burnee/Sarah Boston site, a late-18th to early-19th-century Nipmuc farmstead existing on the original praying village of Hassanamesit, represent a variety of men's clothing. Local historic accounts describe Sarah Boston as embodying the exact opposite of femininity (Carlton 2016: 152). While, it does appear that Sarah Burnee and Sarah Boston were partaking in the domestic activity of sewing, the archaeological record contains evidence that these women could have been choosing to consume and wear men's garments, including coats, boots, and hats (Carlton 2016: 153). Carlton argues that evidence of Sarah Boston wearing male clothing in public spaces suggests certain aspects of Nipmuc women's conceptions of gender persisted (Carlton 2016: 156).

While it is unknown the extent to which the Natives at Magunkaquog manipulated English dress, these sites promote the idea that embedded social identities through clothing garments were used by Native people; tailoring English fashion to satisfy their needs (Carlton 2016; Little 2001: 246-261; Lewis 2014).

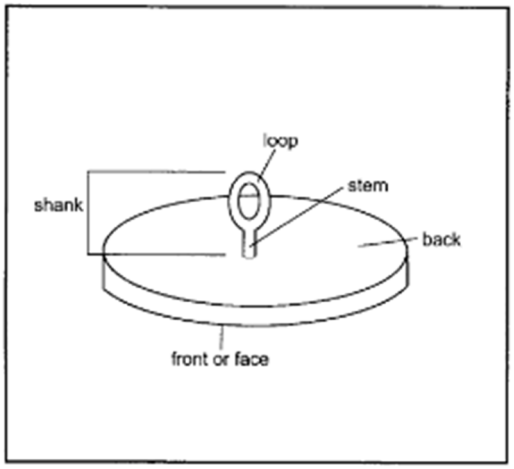

Figure 16: Diagram of button components

Buttons	Artifact Count
Sleeve (13-17 mm)	31
Waistcoat (14.5-19.5 mm)	27
Coat (18-35+ mm)	3

Table 9: Button counts and potential corresponding garment; Artifact count includes an overlap of individual buttons whose size can fall under more than one category and was counted as such

Figure 17: Examples of soft whitemetal buttons from Magunkaquog collection

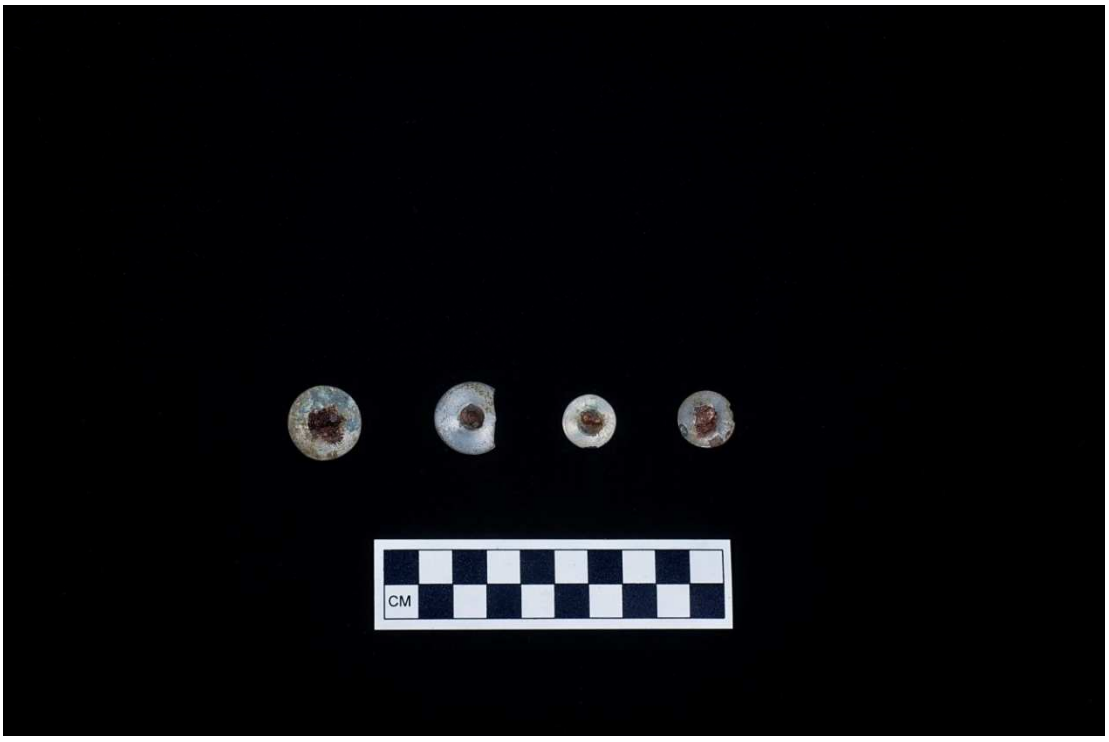

Figure 18: Example of spun back buttons from Magunkaquog collection

Sewing

The presence of ten thimbles and a scissor handle fragment at Magunkaquog can be further evidence of missionary efforts to service the ideology of colonialism and Christianity through "gifts" of European goods (Beaudry 2007a: 113) (Figure 19; Table 10). It is possible John Eliot provided these thimbles as gifts with an agenda to target the women and children residing there (Beaudry 2007a: 113). His requests for 'haberdashery' as supplies for these communities coincided with the promotion of English idealized gender roles. The thimbles recovered are all copper-alloy with cross checked and honey comb patterns, likely of English manufacture. They are considered to be on the small side, with rim diameters measuring less than 20 mm across, indicative of children sizes. Only a few of the thimbles exhibit use-wear; however, none have holes drilled through their crowns. This alteration is often noted by archaeologists who are observing repurposing of English goods by Native peoples into items of personal adornment or tinklers attached to clothing (Beaudry 2007a: 112; Bowers 2015; Groce 1980). It has been suggested by Beaudry (2007a) that these thimbles were there as objects to serve the purpose of teaching young female converts in the community the European techniques of sewing (Beaudry 2007a: 113). It cannot be assumed that the existence of thimbles on this site indicate Nipmuc adoption of Christianity; rather they can be considered carrier objects by which English missionaries were overtly trying to teach English skills. The thimbles underscore intentions of the colonizers and missionaries, but leave the actions and reactions by the praying communities up for interpretation (Beaudry 2007a: 114).

The scissor handle fragment identified measures 67 mm in length and handle loop, 27 mm in diameter. In Eliot's 1651 receipt items for the residents of Natick, "2 p^{r} of Taylo^{rs} sheers," are listed (New England Historical and Genealogical Register 1882: 296). The term 'sheers' in this context could also be referring to scissors because "technically the dividing line between a pair of scissors and a pair of shears is an arbitrary measurement" (Beaudry 2007b: 117). In general, shears measure six inches or more in length, have one small handle for the thumb and the other larger, for the insertion of two or more fingers, whereas varieties smaller than six inches are usually catalogued as scissors, made with two matching handles (Beaudry 2007b: 117). Whatever the case may be, it is clear that Eliot was requesting these implements of sewing with the motive of promoting English concepts of gender roles in the praying communities. Based on Hume's (1969) scissor typology and the handle fragment from the sewing assemblage, it can be inferred that this pair of scissors dates to the mid-17th century (Hume 1969: 268).

Sewing		
Thimble	10	
Scissors	1	
Total		11

Table 10: Sewing Artifact Counts

Figure 19: Collection of sewing materials from Magunkaquog: thimbles, scissor handle fragment, and assorted buttons (bottom left corner: pinched in base of thimble)

Thimbles

Out of the 10 thimbles recovered at Magunkaquog, only three showed evidence of use, but no signs of secondary usage (Figure 22). The three used thimble's rims display an interesting characteristic as well: breakage at stress points consistent with use, a smudge in the honeycomb pattern on their crowns, and pushed in rims that are not a result of trying to fit the thimble around one's finger, nor consistent with post-depositional processes (Figure 20; Figure 21). This feature is hypothesized to be a result of marking the object prior to discarding. Based on this interpretation we can theorize the user(s) were consciously disfiguring the thimbles to demonstrate that they had fulfilled their function and could no longer serve their purpose.

Figure 20: Example of used thimble (1 of 2)

Figure 21: Example of used thimble (2 of 2)

Figure 22: Example of conserved thimbles from Magunkaquog collection

Archaeologists have written about Native American's use of thimbles alternatively as items of personal adornment or tinklers affixed to clothing (Beaudry 2007a: 112). Instances of holes drilled in the crown of thimbles for wearing has been noted to be one of the more easily identifiable acts of repurposing. However, none of the thimbles from Magunkaquog show signs of drill holes or attempts to do so. The lack of physical wear on seven of the thimbles does not necessarily mean they were never used. In fact, the presence of this artifact on this religious site holds significant meaning to the teaching methods of the English missionaries. It has been previously suggested by Beaudry (2007a) that the sizes of the Magunkaquog thimbles indicate the missionaries were targeting younger female converts, rather than adult women in the community, for instruction in European techniques of sewing (Beaudry 2007a: 113). These objects were the perfect medium for the missionaries to convey values linking to femininity,

womanhood, cleanliness, godliness, and the production of modest, English dress (Beaudry 2007a: 113). The used and unused thimbles demonstrates how the proselytizers of the Christian praying towns carefully selected items of material culture as a medium for teaching values associated with objects (Beaudry 2007a: 111).

Tools

John Eliot's practice at the missions was to "carry on civility with religion" by teaching the Indians to "labor, and work in building, planting" etc. (Cogley 1999: 6-7). European tools and utilitarian items were provided to mission residents to encourage Christian virtues (Cogley 1999: 5). Shipments received in 1651, intended for usage by the Natick Praying Indians, included a variety of tools: felling axes, drawings knives, hatchets, cross cut saws, wedges, and spades (New England Historical and Genealogical Register 1882: 296). It has been proposed that Native people readily accepted iron implements to use with Native-made equivalents before the arrival of the Europeans (Fiore 1980: 96). Iron tools were also commonly used as grave goods in mid-17th century burial contexts (Kelley 1999; Johannsen 1980; Rubertone 2001; Simmons 1970). The tools found within mid-17th century burials of male and females at the RI-1000 Site in North Kingston, Rhode Island, reflect gendered activities. Male items included "knives, adzes, and craft-related tools," whereas female items included "iron awls and hoes" (Rubertone 2001: 157, 161). Assorted European knives, files, axes, utensils, and chisels have also been excavated at other known Native-colonial sites (Bowers 2015: 55).

Tools are used for both generic and specialized craft activities that have implications across the historical landscape (Gaynor 1994: 85). Since tools can

encompass a wide range of goods, it is important to note this category refers to implements associated with woodworking. This assemblage consists of one draw knife, two wedges, two drills, two chisels, one possible ax blade fragment, and two unidentifiable artifacts (Figure 23; Table 11). The draw knife was named as such because originally the blade was drawn towards the person during use (Sloane 1964: 38). It mainly functioned as a tool used to taper sides of shingles, rough-size the edge of floor boards and in general quickly shaped and trimmed flat products. The draw knife in this collection is an iron broken blade missing its handles, measuring 228.6 mm in length, dating to the 17th century (Barnes 1988). The top of the blade is a rectangular surface, which tapers into a thin bladed edge, and the backside is flat.

Wedges are considered to be the most common splitting tool (Gaynor 1994: 85), and the two from Magunkaquog measure 60 mm and 41 mm (10 mm head width) in length respectively. Both were identified by characteristics of a head for striking, flat backside, and tapering end. The 41 mm sized wedge has a head width of 10 mm and was identified in the box of untreated metal.

The ax blade fragment measures 60 mm in length and the broken edge is indicative of unintentional breakage occurring during use from a prying or cutting motion. The chisels found measure 82 mm and 45 mm, and exhibit two different types. The first chisel has its tang partially attached with a thin, brittle blade. The second has a flaked off indentation on the backside of the blade closer to the tang and is much smaller in size. Chisels were used to shape parts and cut joints more precisely than axes or adzes, and can be round in shape known as a gouge. The two drills measure 61 mm and 72 mm

in length, both of similar shape with a tapered end and a flat backside. Additionally, two artifacts resembling tools were unable to be placed into their corresponding subcategory due to their fragmentary nature, and therefore were labeled as "unidentifiable tools."

The archaeological presence of various tools associated with woodworking at Magunkaquog correlates with documentary records of supply requests for the Christian missions during the mid-17th century. The artifacts would have likely been components to the larger common stock for the community. These tools are representative of missionary attempts to "civilize" by facilitating notions of a sedentary life full of "hard work" and "strong labor" by supplying European goods (Cogley 1998: 107).

Tools		
Draw Knife	1	
Wedge	2	
Ax Blade	1	
Drill	2	
Chisel	2	
Unidentifiable Tool	2	
Total		10

Table 11: Tool Artifact Counts

Out of the ten artifacts categorized as tools, four artifact sub-categories stood out during use-wear analysis: wedges, drills, chisels and the draw knife. The two wrought wedges identified showed evidence of use on their striking platforms and tapered ends. The drills and chisels had scraped and worn surface on their ends close to where the artifact would have made contact with another material. The draw knife had snapped ends where the two handles, most likely made of wood, would have attached. The blade itself is snapped on one end, and flat on the other which may indicate a break while the knife

was in use. Since drawknives are usually tools associated with woodworking, as are the other metal implements in this category, it is probable the Praying Indians were taking part or learning the craft. These tools were also being used alongside the lithics present on site, so they could also be adding to their toolkit, while learning English craftsmen skills or using these tools to work wood in any way they so pleased.

Figure 23: Wedges, chisels, and drills

Cutlery/Utensils

At Magunkaquog, a total of seven artifacts were interpreted as cutlery or utensils consisting of a pewter spoon handle fragment, a pocket knife or razor blade, four assorted table knives, and one unidentifiable blade (Figure 24; Table 12). The knives lack their handles, which could have been made out of a variety of materials. The most common in

the first half of the 18th century was bone or wood (Dunning 2000: 32). Since, forks were not commonly used until later in the 17th century, it is not a surprise that none were recovered from this site. The typical table knife had a long, narrow, straight blade connected by the bolster to a handle (or shoulder), that was usually faceted and inlaid with brass and sometimes precious metals; in the handle case is a flat, full or scale tang (Hume 1969: 177; Dunning 2000: 33). The 17th-century manufacture of knives was divided into four operations undertaken by four different craftsmen: the bladesmith, the hafter, the sheather, and the cutler, who assembled and sold the product (Hume 1969: 177). The work of the bladesmith is significant because blades are the most common part of the knife to survive in the archaeological record (Hume 1969: 177).

The iron blades in this assemblage range in length from 79 mm to 127 mm. Compared to examples from Fort Michilimackinac (Stone 1974: 268, 270) and Hume's identification (Hume 1969: 182), the knives from this collection appear to date from the mid- to late 17th century. The first knife, C-00302, is 79 mm in length that includes the tapered blade, bolster, and a broken handle shaft. C-00304 has a thin blade with a rectangular bolster, whose blade tapers to a pointed tip from its straight handle shaft, and measures 109 mm. When compared to the collection at Fort Michilimackinac, this artifact looks similar to the "R" type (Stone 1987: 268). A third table knife, C-00300, is 120 mm in length, has an attached bolster with a broken blade tip. That last knife did not have a conservation number, nor provenience, but measures 127 mm in diameter with a broken blade, no handle or bolster attached. The pocket knife or razor identified, C-00218, has a bottom shaft length of 87 mm with a width of 20 mm, and a blade length of 92 mm. The

blade is stuck in a flipped opened position making it evident part of the bottom encasement is missing. This artifact looks similar to type "B" in Fort Michilimackinac's collection (Stone 1974: 268). The triangular pewter spoon handle fragment identified, C-00216, measures 40 mm in length. The lack of the spoon's bowl and stem makes it difficult to identify a date range as well as the appearance of a utilitarian-styled handle.

Natives in New England were familiar with iron implements and utensils as early as 1580, prior to the establishment of the mission system, when these items were used by the English during the fur trade in exchange for pelts. In a religious context, utensils and tableware were implements supplied to the Christian Indians to be used as part of the conversion process by promoting "civility." However, these objects were used by indigenous peoples for other purposes. In burials excavated at other Praying Indian towns, grave goods consisted of European trade items such as copper pots, spoons, knives, thimbles, alongside traditional Native technology such as whetstones and projectile points (Kelley 1998: 58). As suggested by Law Pezzarossi (2014), it is also possible that "crooked" European knives were used in the manufacturing process of traditional Native basketmaking. The archaeological and documentary record indicates that this class of metal became common in indigenous tool kits for different reasons, and should not be considered only items of European manufacture carrying English beliefs. Rather, the users of these implements are known to produce items of Native creation, thereby differentiating them from other English tools.

Cutlery/Utensils		
Table Knife	4	
Spoon	1	
Pocket Knife/Razor	1	
Unidentifiable blade	1	
Total		7

Table 12: Cutlery/Utensil Artifact Counts

All five of the identified blades within the collection exhibit brittle, dull, worn, and broken blades consistent with use. The tang where the blade would have been connected to a handle remained partially intact for the knives. The handle would have been made from bone or wood, but disintegrated after years buried in the ground. No maker's marks are visible on the objects. None of the blades exhibit qualities that would suggest alternative explanations or "material innovations." As pointed out by Law Pezzarossi (2014), the "crooked knife" was considered the Native basketmaker's premier tool. While the iron assemblage she analyzed was excavated from an early 18th- to mid-19th-century Nipmuc homestead, her argument can be applied to the knives from Magunkaquog. Her framework consisted of taking an activity not bound by task specific tools, and try to apply iron tools from the assemblage that have varied uses and reuses, which could possibly serve as the technology fundamental to the practice (Law Pezzarossi 2014: 56).

A noticeably bent tang is a quality that may imply function of another kind. It was expected to find no evidence of repurposing on the knives from this collection. Yet viewing this collection in a way similar to Pezzarossi, it is possible the Nipmuc community at Magunkaquog were using the knives as part of their daily activities. The material nature of the object may make repurposing in the physical sense difficult to see,

but these knives could be used to complete tasks that result in a Native-made product. Using the iron pocket blade and knives alongside the lithic tools in this space, can facilitate the notion that the "Christianized" Indians were active participants in choosing what these European goods meant to them. The lack of scrapers and knives in the lithic assemblage supports the decision to use the iron blades at Magunkaquog, but does not necessarily indicate Nipmuc at the site were following missionary efforts for conversion.

Figure 24: Examples of table knives, a blade tip and a pocket knife

Other material culture components to this site, lithics and redware, reflect evidence of repurposing at Magunkaquog. The functional analysis of the metal assemblage from Magunkaquog indicates that the European goods were being used for their intended function, but by whom? If this metal assemblage is archetypical of a 17th- and 18th-century English site, then what archaeological evidence is there to demonstrate members of the Nipmuc community were present and active participants at Magunkaquog? The evidence of this can be seen via artifact classes found in close association with the colonial material, gunflints and quartz crystals, as well as through the existence of an iron kettle alongside burnt redware. The presence of these material culture categories at this site are examples which demonstrate that Nipmuc practices are shaping/influencing the use of objects at Magunkaquog.

Lithics

The notable presence of smoky quartz crystals, re-worked gunflints, and quartz flakes at Magunkaquog can be interpreted as a continuity of traditional lithic practice into the period of European colonialism (Bagley 2013: 80; Bagley et al. 2014; Murphy 2002; Nassaney and Volmar 2003). The identification of crystals in the corners of the building foundation is evidence for a uniquely indigenous component of the site.

As discussed by Luedtke (2000), the gunflints from Magunkaquog exhibit repeated re-sharpening consistent with Native American practices of curating lithics (Figure 25). Her prior comparative work between European and Native American gunflints from New England aided in forming the argument that English or European colonists did not partake in the intensive reworking of flints (Mrozowski et al. 2009:

454). The reworked gunflints excavated from Magunkaquog were made from European chalk flint, and were retouched in ways not typical or consistent with Euro American practices (Luedtke 2000: 1). Her analysis corroborates archaeological studies that have demonstrated Native knapping traditions persisted at sites well into 17th century (Bagley 2013; Bagley et al. 2014; Murphy 2002; Nassaney and Volmar 2003). Four gunflints are classified as "French" blade type gunflints. All created out of the honey-colored flint with one badly burned. They were all likely made in western Europe and imported to the Massachusetts colonies. While there is no evidence gunflints were made at this site, they were likely re-sharpened there (Luedtke 2000: 5).

Of the 14 gunflints, 42.9% showed evidence of use on all four sides, with the heels and sides showing signs of bifacial retouching, a difficult task to complete without a wide range of knapping skills (Luedtke 2000: 7). Individuals at Magunkaquog did not view the gunflints as one-time use tools to be discarded when they became dull. Instead, they chose to use traditional techniques to reuse and recycle the material when possible. This does not appear to be the case for the metal artifacts at this site; rather the metal tools were used for their intended function until they broke or no longer performed up to their standards. The reworked Magunco gunflints support the idea that with the introduction of metal, traditional Native technologies continued to persist. It demonstrates active participation in selectively choosing European goods to fit their own purposes, contradicting the popular narrative in which Native peoples rapidly substituted their technologies with "superior" European ones (Luedtke 2000: 8).

The gunflints constitute one part of the lithic assemblage recovered from Magunkaquog. Murphy (2002) analyzed the six quartz crystals, 25 pieces of smoky quartz pieces, and eight tools. The crystals are thought to be of indigenous origin and support the identity of the site as Magunco, as they indicate the presence of Nipmuc at the site (Murphy 2002: 3).

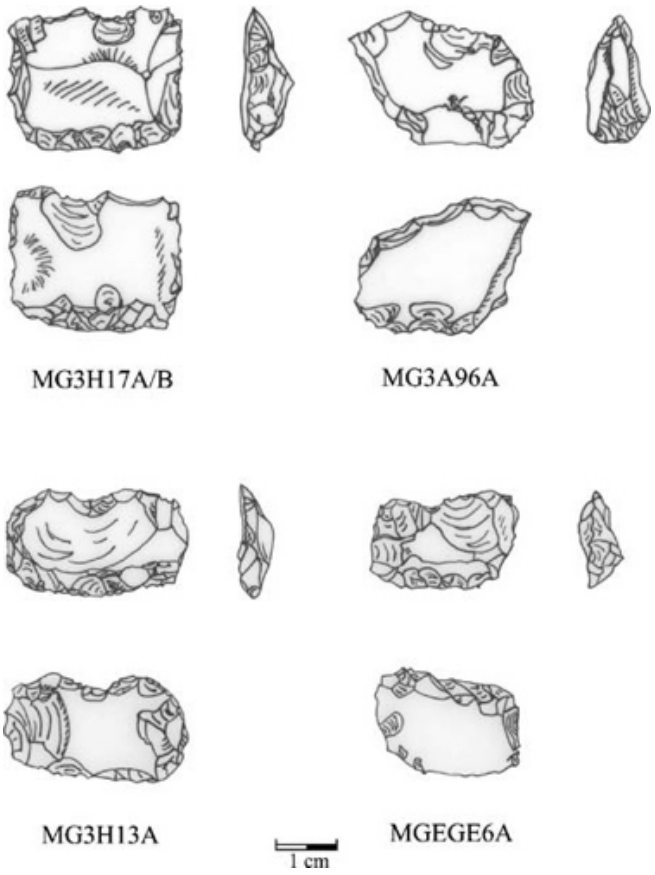

Figure 25: Illustration of gunflints recovered from Magunkaquog showing intensive edge working (Mrozowski 2009: 455)

The worked lithic artifacts include bifacial tools that would have been made by a skilled knapper. The stone tools and manuports identified as cultural were found in close association with historic artifacts and the foundation of the building (Murphy 2002: 97). The remains of several quartz cobbles recovered from the hearth located outside the

foundation exhibit evidence of heat treating, designed to facilitate the extraction of crystals (Mrozowski et al. 2009: 454) (Figure 26). Three quartz crystals were found within the foundation corners, suggesting that when the structure was built, Algonquian traditions were incorporated into the construction of this English style building (Mrozowski et al. 2009: 456). The use of crystals in spiritual contexts dates back some 5,000 years; therefore, the ones found in the corners of this religious site can be interpreted as the continuation of older Nipmuc religious practices (Murphy 2002; Mrozowski et al. 2009).

The presence of this material suggests that the Praying Indians of Magunkaquog were fitting Christianity into their pre-existing set of cosmic beliefs. It is also possible that in the minds of the Nipmuc, no connection existed to this structure functioning as a Christian one. These lithics present another layer because they are not tools in an industrial sense. Rather, the use of this material has been found on other Native American sites in Massachusetts, linked to shamanic activities (Murphy 2002: 98), which adds to the idea of indigenous traditions persisting at this site.

Figure 26: Quartz crystals recovered from foundation at Magunco Hill Site

Iron Kettle and Redware

The kettle was not just one of the most valued items in the colonial household inventory, but highly favored by Native Americans for a number of reasons (Dilliplane 1980: 80-82; Howey 2017). Kettles were used as a medium of exchange, offered to Indians by Europeans as rewards or payments (Howey 2017: 167; Dilliplane 1980: 81-82). The discussion surrounding kettles has been mainly around how the malleable nature of copper and brass kettles was attractive to Native peoples, who took this material to manufacture various utensils and ornaments (Dilliplane 1980: 80). Additionally, the highly charged spiritual value of copper was another reason for indigenous consumption of these kettles (Howey 2017: 167, 181). The use of kettles as mortuary offerings was popularized, likely because they had multifunctional and durable qualities, traits that would have been necessary for the afterlife (Dilliplane 1980: 82). Howey (2017) suggests

that Natives chose to place copper kettles in contact with their dead, not just desiring the power of the Europeans, but to reformulate this power for their use and protection in an exclusively indigenous next world (Howey 2017: 182).

In total, 41 fragments of a cast iron kettle and one kettle leg were identified within the collection (Figure 27). While each fragment is individually listed in the artifact count total, it is likely these pieces formed one iron kettle vessel. Some of the identifiable pieces of the rim and body exhibit a raised line mold pattern running across their exterior facing side, characteristic of a 17th-century kettle (Barnes 1988; Dilliplane 1980). Although there are quite a few large fragments, the majority of the iron kettle pieces are small, and were found scattered around the foundation. This is interesting because when a robust material such as iron is broken, the breakage pattern usually results in large pieces. The reasoning behind the smaller sized shards remains unexplained.

Kettle		
Body and Rim Fragments	41	
Leg	1	
Total		42

Table 13: Iron Kettle Artifact Counts

Ceramics of European manufacture comprised the largest category of material culture recovered at Magunkaquog (Mrozowski et al. 2009: 447). The most common ceramic wares comprising the minimum count of 30 vessels were plain, red paste, and coarse earthenwares with interior glazing. Recurrent forms in the archaeological record at this site included mugs, bowls, pans, and pots. The numerous milk pans and butter pots identified, associated with dairy related products, are consistent with Gookin's observation of cows being present at Magunkaquog. These ceramics facilitate the notion

that the Christian Indians were partaking in the English practice of animal husbandry (Mrozowski et al. 2009: 447). Additionally, sherds of a North Devon earthenware milk pan, dating to the mid-17th century indicates that perhaps dairying was practiced by some in the 1670s (Mrozowski et al. 2009: 448). However, physical evidence demonstrates that form did not necessarily translate into function. Several of the butter pots have blackened exteriors, suggesting they were being placed directly over fires, a practice consistent with Native foodways used for more than three and a half millennia (Mrozowski et al. 2009: 448).

The existence of the iron kettle at this site, along with the burnt vessel sherds of redware, reinforces the choice of the Nipmuc using European-made ceramics over the hearth, possibly over the feature recovered on the exterior of the foundation. Therefore, it is probable the ceramics designed to be used for dairying were also being used in a way consistent with long-standing cultural practices among Native groups in the region (Mrozowski et al. 2009: 448).

Figure 27: Iron kettle rim and body sherds and kettle leg

Discussion

The results of the functional and use-wear analysis facilitate the narrative that the structure excavated served as a place of active communal gathering and sporadic visitation by both the Nipmuc and English missionaries. These used provisions supplied by the missionary efforts demonstrate that this site was a place intended for teaching English ideals to the Praying Indians. At the very start it was accepted that evidence of physical repurposing on iron objects would be less likely to come across during this analysis. There is no evidence suggesting artifacts of the metal assemblage served uses other than their intended functions, nor were altered in ways to fulfill secondary usages. However, this does not mean these objects did not hold other cultural meanings. As Silliman (2010) notes, materials utilized by Native peoples immediately become

indigenous, even if produced originally by Europeans. The metal artifacts discussed in this section: thimbles, knives, buckles, ox shoes, and tools, exhibit the heaviest usage within the assemblage. The presence of use on these objects implies the residents of this community were actively selecting, using and interacting with this material—categories indicative of a praying town's "common stock."

It is also possible that the Nipmuc at Magunkaquog did not align this material with Christianity or civility, but rather the metal artifacts and tools fulfilled their needs in a functional sense. Members of the community could have used these objects from the stock to create a façade for visiting missionaries and their English neighbors, as part of their agenda to protect and continue practicing their traditions—as seen by the contemporaneous existence of lithic technology and burnt redware at this site.

CHAPTER 5

CONCLUSION

At the beginning of my analysis, I asked questions such as: What functional types are identifiable in the assemblage of metal artifacts? What evidence of use, if any, exists? However, as research progressed, additional questions were considered: What purpose did the structure where these artifacts were recovered serve for the community? Is the metal consistent with Eliot's description of a "common stock" or "fair house?" Does this material culture support previous archaeologist's interpretations of the site? What new information can these results provide? What can these results tell us about the Nipmuc experience at Magunkaquog?

The functional and use-wear analysis provided details that aided in interpreting the structure's function and provided new information on the cultural interactions between European and Native peoples occurring in this "Christianized" community. Previous archaeologists who excavated and studied Magunkaquog originally interpreted the foundation recovered as the community's "meetinghouse" or that it acted as a "fair house" with a similar function to the one that existed at the larger town of Natick. Analysis of the metal artifact assemblage reinforces their previous understanding, while elaborating on the community's usage of the building. The functional analysis was then compared to documents containing receipts of goods requested by John Eliot to the New

England Company to supply his praying towns. Based on this comparison it seems evident that the metal assemblage represents Magunkaquog's "common stock," which would have been stored in this structure to be used by residents, and watched over by the appointed Native teachers and spiritual leaders of the town. The fact that the site has also been fully excavated strengthens the argument that the metal assemblage is indeed representative of this stock.

The usage represented on some of the metal artifacts demonstrates this space was visited sporadically by missionaries and teachers or occasionally by the town's inhabitants. A lack of repurposing of these objects does not mean they did not carry other meanings. It is likely that the Nipmuc at Magunkaquog did not align this materiality with Christianity or civility, as the English missionaries would have hoped. Rather, it can be hypothesized they felt metal fulfilled their spiritual needs and fit into aspects of their traditional practices. Additionally, some Nipmuc could have joined this community and used this material to create a façade for visiting missionaries and their English neighbors, as a way to cope with a rapidly changing environment. As evidenced by the use of redware on the exterior hearth in a way not consistent with English practice and the presence of lithic technology, this space was still very much an indigenous one. This collection highlights the Nipmuc experience, while deepening and challenging popular colonial narratives carried through history into the present day.

Tools of Teaching

The results of this thesis depict a space where European and indigenous technologies were intersecting and forming new cultural meanings. The metal objects

being used within the space are the result of conscious actions and decision making by the community. It is important to remember that these are human beings making active choices, and use of European metal did not result in a loss of cultural authenticity. Eliot provided the metal artifacts to this community. These implements became vectors for English ideals. However, the Nipmuc of Magunkaquog were using and incorporating this material on their own terms, as seen through the presence of use on certain metal artifacts. These European goods were also being used alongside Algonquian techniques of cooking, as shown by the redware, and traditional lithic technology as displayed by the lithics and worked gunflint. The Nipmuc remained distinctly themselves, while experiencing the kind of change societies do when new technologies and cultural practices are adopted. They folded metal into their culture on their own terms and it does not appear they were any less Nipmuc than they had been prior to colonialism (Mrozowski 2012).

Traditions are "in fact dynamic, constantly being brought from the past into the present and enacted by individuals and groups of people" (Pauketat 2001: 1). Thus, the presence of quartz crystals representative of Algonquian spiritual beliefs, on a site where Christianity was being taught, along with the metal usage—holding its own position within Native cosmology—are evidence they used change to continue to persist culturally.

From this analysis we can better understand the types of activities occurring at this site. The primary results support the idea that these artifacts acted as tools of teaching the Praying Indians English skills with the goal that they would replicate European and

Christian values through a prevention of "idleness," and institute a sedentary, agricultural-driven way of life (Cipolla 2013). From this collection, the oxen shoes are the artifact category demonstrating heavy use. These shoes reinforce the idea Praying Indians were likely partaking in English agricultural practices.

A singular set of horse furniture indicates at least one horse was being brought to the site. This supports the notion that members in this community were taught how to handle horses, because during his town visitations it is Eliot likely expected his horse to be cared after. It is hypothesized that a lack of horseshoes to complement the furniture may be a result of short-term maintenance of the animal, which would corroborate with the narrative of periodic visitations by the community teacher or Eliot.

The thimbles as a functional group can reveal a gendered dimension to the site, because teaching Nipmuc women sewing techniques promoted English ideas on gender roles and domesticity. The disuse on a majority of the thimbles could suggest a few things: the site was not often visited by female community members, or that only a portion of the inhabitants were engaging with basic sewing techniques.

The use of the tools from this assemblage represents English attempts to teach residents craftsmanship, presumably so residents of the community could construct English-style dwellings and buildings. However, Native peoples were already well-versed in working wood for a number of material things. It is more likely that residents at Magunkaquog readily incorporated this material into their toolkits to complete their pre-existing and long established activities surrounding the use of wood in Algonquian society (Braun and Braun 1994; DePaoli et al. 1982; Orcutt 2014; Ritchie 2002).

It has been previously suggested by Mrozowski and other archaeologists that the structure excavated on Magunco Hill probably served as a "show place for the community to display aspirations to adopt the trappings of English culture" (Mrozowski 2012: 251). The building constructed in the English manner would have been an outward expression of their "Englishness" by the residents of Magunkaquog and the place where a visiting John Eliot or his Native leader/teacher resided. The results from this thesis substantiate that this building stored what would have likely been the community's "common stock" by which members of the town would visit to use European materials and learn facets of English culture. The presence of metal artifacts—with a large portion not demonstrating use—reaffirms the interpretation that residents would visit to use the tools they needed and subsequently return them. Compared to written exchanges between John Eliot and the New England Company requesting goods to comprise the larger community of Natick's common stock, (ie. pewter buttons, draw knife, tools), this collection represents a smaller version for Magunkaquog. The fact that the site has also been fully excavated strengthens the argument that the metal assemblage is indeed representative of this stock.

The framework offered by the archaeology of colonial labor relations was also employed in the interpretation of these results. Through this lens, consideration of the influence of labor relations on how groups use objects and surrounding spaces calls upon a focus on daily life rather than an emphasis on the object's origination. With a tendency to look for "diagnostic" artifacts to fit into neat categories, which determine an indigenous or English presence, archaeologists have a difficult time tracing indigenous

peoples in distinctly colonial spaces. Instead, this model embraces ambiguities in the material record. We can view residents of Magunkaquog as active users of this site—not passive consumers of European metal. If it is assumed Magunkaquog functioned as a Christian missionary settlement where Native peoples were being taught to participate in the larger English-colonial economy, then the relationship between wear exhibited on the material is reflective of daily activities community members participated in. The presence of used thimbles, woodworking tools, ox shoes, and horse furniture are here interpreted as "tools of teaching" representative of missionary ideals. Their coexistence with worked gunflints and burned redware demonstrates how the Nipmuc occupied and manipulated this entangled space: as active participants in choosing to use metal implements, while continuing to pursue traditional aspects of life. If the description of this structure is indeed accurate, this site can be considered what spatial theorist Edward Soja defines as a counter-space, a place of resistance (Mrozowski et al. 2009: 495, 2012, 2016; Soja 1996: 251).

As demonstrated by this thesis, historical archaeology has the ability to complicate and challenge colonial narratives of authenticity (Cipolla 2013: 12; Silliman 2009). Analysis of the metal artifacts offers an enhanced and layered perspective on this time in history. The combination of documentary and archaeological research has produced the often overlooked "gray areas" of colonial interaction and survival (Cipolla 2013: 19), in attempts to disentangle simplistic black-and-white colonial narratives. The literature discussing the establishment and history of these communities is almost exclusively written by John Eliot and Samuel Sewall. Both of these individual's accounts

perpetuate a narrative that suggests the "Praying Indian" towns were well on their way in becoming English in terms of culture and economy, as well as Christian (Mrozowski 2012: 246), and therefore supporting arguments in favor of colonization.

The Nipmuc community's experience highlighted by this thesis through archaeological evidence challenges and deepens the complexity of written documents, and has the ability to uphold political traction for contemporary tribal entities. The members of the Nipmuc tribal nation continue to fight for their land rights and identity. Evidence from Magunkaquog provides us with a chronological timeline. The metal artifacts indicate a longer site occupation date than what is offered by historians who argue the town was abandoned shortly after the conclusion of King Philip's War in 1676. Documentary evidence confirms an indigenous presence at the site in 1678, when the group was attacked during the Mohawk raids (Mrozowski et al. 2009). The archaeology—including dates from analysis of the buttons, buckles, and cutlery—strongly reflect an even later occupation of the town, or at least this site, by Nipmuc Indians until the mid-1700s, when the land and surrounding area was sold to an Englishman (Mrozowski 2012).

Archaeological excavations from this site, combined with Hassanamesit Woods, and the Cisco Homestead on the Nipmuc Hassanamisco Reservation accurately depict Nipmuc political continuity, more so than relying on the documentary research alone (Mrozowski et al. 2009: 459). It is purely speculative to think if these data would be accepted as a way to aid in political cases for the Nipmuc, but it does demonstrate how archaeology can serve a purpose of social justice and be an instrument of change.

APPENDIX A

CATALOG OF METAL ARTIFACTS FROM MAGUNKAQUOG

Category	C #	Cxt #	Unit	Level	Soil	Material	Measure-ments	Notes
Ox Shoe	C-00312		H5		0-10 cm	Iron	10.9 c (l); 2.5 cm (w)	Top half of shoe twisted at breaking point; Right Shoe
Ox Shoe	C-00318	32	D6	1	A	Iron	11.1 cm (l)	Shoe slightly twisted w. dull break; worn down nail hole; Right shoe
Ox Shoe	C-00313	322	H4	3	A/B	Iron	10 cm (l); 3 cm (w)	Twisted shoe and tapers on exterior edge; break at top is rough; Left shoe
Ox Shoe	C-00320	2	A1	1/2	A	Iron	10.1 cm (l); 3.2 cm (w)	Intact; no bending visible; Right shoe
Ox Shoe	C-00315	124	H1	1	A	Iron	9.7 cm (l); 2.9 cm (w)	Tapers at the top of shoe; clean, flat break; Left shoe
Ox Shoe	C-00314	146	H2	1	A	Iron	9.7 cm (l); 2.5 cm (w)	Left shoe
Ox Shoe	C-00319	33	A9	8	A	Iron	11.4 cm (l); 2.7 cm (w)	Sharp break at top of shoe; Left shoe
Ox Shoe	C-00317	54	B7	4	A	Iron	8 cm (l); 2.1 cm (w)	Right shoe
Ox Shoe	C-00210		M2	1		Iron	11.4 cm (l); 2.8 cm (w)	Left shoe
Ox Shoe	C-00204		H1	11	B/C (floor)	Iron		2 possible shoeing nails also associated w. concretions attached to shoe; right shoe
Ox shoe	C-00316	88	D9	1	A	Iron	11.7 cm (l); 4.9 cm (w)	Appears fully intact; nail

								tack still attached; Right shoe
Shoeing Nail	C-00388	216	EU3	9500-9320		Iron	1.8 cm (l); nail head (w) 1.2 cm	Shoeing nail associated w/ ox shoe
Shoeing Nail	C-00384	95	E7	3	A	Iron	2.1 cm (l)	
Curtain Ring	C-00306	216	EU3	9500-9322		Iron	3 cm (d)	
Curtain Ring	C-00310	219	EU4	9429-9420		Iron	2.9 cm (d)	
Curtain Ring	C-00229	325	H4	6	A/B	Copper Alloy	1.9 cm (d)	Flattened ring
Curtain Ring	C-00307	142	H1	8	A/B	Copper Alloy	3.65 cm (d)	Fragment mended
Curtain Ring	C-00231	142	H1	8	A/B	Copper Alloy	2.9 cm (d)	
Curtain Ring	C-00228	144	H1	9	A/B	Copper Alloy	2.9 cm (d)	
Curtain Ring	C-00230	292	G6	6	A	Copper Alloy	2.9 cm (d)	
Furniture Tack	C-00236	44	B5	2	A	Brass (wrought)	2 cm (l)	Late 1600s; wrought tack w. 6 petal floral design
Furniture Tack	C-00237	46	B6	4	A	Brass (wrought)	2.8 cm (l)	Late 1600s; wrought tack w. 6 petal floral design
Escutcheon	C-00232	87	D9	1	A	Copper Alloy		Floral design
Escutcheon	C-00324	325	H4	6	A/B	Copper Alloy		Floral design
Drawer Pull	C-00232	87	D9	1	A	Brass		Same C# as Escutcheon
Drawer Pull	C-00223	216				Brass		
Unidentifiable furniture hardware	C-00370	307	G5	5	B	Iron	6.1 cm (d); 2.4 cm-tapering to 1.8 cm	Lightweight; back edges of metal curve for attachment to an object
Unidentifiable furniture hardware		144	H1	9	A/B	Iron	3 cm (d); 1.9 cm (w)	Possible nob prev. covered in textile; 2 frags refit
Draw Knife	C-00305	274	G2	3	A	Iron	22.86 cm (d); .5 cm (w) at top	C. 17th c.; tapered edge w. blade; flat backside tapers on front

								to a thin blade; missing wooden handles
Wedge	C-00227	147	H2	2	A	Wrought Iron	6 cm (l)	Same C# as Drill b/c in same bag
Drill	C-00227	147	H2	2	A	Wrought Iron	7.2 cm (l)	Same C# as Wedge b/c in same bag
Ax Blade Edge	C-00219	29	A9	4	A	Wrought Iron	6 cm (l)	Fragment; tapered, sharp edge- perhaps to pry something; could be edge of razor
Drill/Chisel	C-00301	146	H2	1	A	Iron	8.3 cm (l)	Drill or chisel (see Ft. Michilimackinac pg. 302)
Chisel/Drill end	C-00213	181	EU3	PAL Unit Backfill		Iron	4.5 cm (l)	Indentation in back of object
Wedge		213	EU2	9510-9480	A	Iron	4.2 cm (l); 1 cm (w) of head	Found in untreated metal box associated w. wrought nails
Unidentifiable tool	C-00371	95	E7	3	A	Iron	6.1 cm (l)	
Unidentifiable tool	C-00224	74	D3	2	A	Wrought Iron	9.9 cm (l)	Hook at one end, heavy weighted at other; could be part of door hardware
Unidentifiable tool	C-00369	148 (SW Corner)	H2	3	A	Iron	3.8 cm (l); 1.8 cm (w)	Part of wedge?; could be used at attachment piece
Lead Shot	C-00240	54	B7	4	A	Lead alloy	10 mm (caliper measurement)	Only quarter of object; seam not visible
Lead Shot	C-00239	106	F8	2	A	Lead alloy	13.5 mm (caliper measurement)	Grooves in object associated w. impact
Scissor	C-	13	A6	2	A	Iron	6.7 cm (l);	Fragment;

	00205; 9230						2.7 cm loop (w)	Mid-17th c.; fits Type 4 Hume (1969) or Type 5
Knife						Iron	12.7 cm (l)	Broken blade; no handle; round bolster attached; no cxt written on bag
Knife	C-00302	139	H1	6	A/B	Iron	7.9 cm (l)	Handle shaft broken; tapered blade; bolster attached
Knife	C-00304	122	H1	7	A	Iron	10.9 cm (l)	Similar to "R" type (Stone 1987: 268); thin blade; rectangular bolster; straight handle shaft
Knife	C-00300	290	G6	5	A	Iron	12 cm (l)	Table knife; bolster attached; blade tip broken off
Pocket Knife/Blade	C-00218	114	H1	5	A	Iron	Bottom Shaft: 8.7 cm (l) x 2 cm (w); Blade: 9.2 cm (l)	Blade fits into bottom pocket partially corroded; Type "B" Ft Michilimackinac (Stone 1975: 268)
Spoon	C-00216	219	EU4	9429-9420		Pewter	4 cm (d)	Spoon handle fragment
Unidentifiable Blade	C-00207	106	F8	10-20 cm		Cast Iron	6.2 cm (l) x 3 cm (w) x 1 cm (h)	Bent in a way consistent w/ use; possible blade
Barrel Hoop Fragment	C-00212	33	A9	8	A	Iron	20 cm (l)	Slightly curved metal; thin
Sheet Metal	C-00359						6 cm (l); 5.5 cm	Crease in top half; bent piece of sheet metal; 2 pieces
Metal Rod						Wrought Iron		

Metal Rod						Wrought Iron		
Unidentifiable Metal Rod	C-00221	22	A9	2	A	Iron	26 cm (l)	Curved iron rod- possible kettle handle?
Bridle Snaffle Bit	C-00308	105	F8	1	A	Iron		Refits w. C-00311; abnormal thinning of ring at bottom (probably where attaches); broken off top of jointed bridal bridoon
Bridle Cheekpiece	C-00309	2	A1	1/2	A	Iron	10.3 cm (l)	French bridoon; missing other half of jointed mouthpiece; snaffle measures lein= usual hunter size; "finds them useful for horses who are fussy w. their mouths" (Edwards 1963: 62)
Bridle Snaffle Bit	C-00311	59	B9	1	A	Iron	12.7 cm (l)	Refits w. C-00308; jointed-mouth bridoon; small hold in cheekpiece above and below bit; would have been piece to hold ornamental brass bosses
Bridle Escutcheon	C-00211					Copper	5.2 cm (l)	Possible left cheekpiece due to design face; Backside has 4 prongs for attachment to cheekpiece; "harness

								leather ornament"; noted is no design or embellishment
Thimble								No provenience; found in untreated metal box
Thimble	C-00256; 9291	84	D6	2	A	Brass	17.5 mm x 11.80 mm x 19 mm	Cross checked pattern; break at crown consistent w. use; sides are pressed inward- not have been done by excavators
Thimble	C-00253; 8923	337	Foundation Floor			Brass	17.7 mm x 12.4 mm x 16.4 mm	Body pushed in on one side showing use; in tact crown
Thimble	C-00255; 8267	258	B1	9	A	Brass	17.7 mm x 12.4 mm x 16.4 mm	Thimble rim and body pushed inward- occurred prior to deposition; small sized thimble belonged to child?; crown showing signs of breaks; associated w. small hook; plain-banded rim
Thimble	C-00259; 8582	290	G6	5	A	Brass	15.6 mm x 16.6 mm (h)	Fully intact- no evidence of use; convex crown; flat rim
Thimble	C-00257; 9311	118	H1	6	A/B	Brass	16.7 mm x 16.7 mm (h)	Robust looking thimble; portruding rim; no signs of breakage or use; thicker

								cross pattern on crown then body
Thimble	C-00258; 8877	325	H4	6	A/B	Brass	16.6 mm x 17.1 mm (h)	18th c.; 1 of 3 in bag; distinct ridge in rim; honey comb pattern on crown; small waffle pattern on body; no signs of use
Thimble	Missing from bag				A/B			2 of 3
Thimble	C-00254; 8877	325	H4	6		Brass	(1 frag) 11 mm x 11.7 mm (h); (2 frag)15.3 mm x 12.5 mm (h)	18th c.; 3 of 3 in bag; 2 fragments likely comprised body of one thimble; honey comb design
Thimble	C-00255		C7 (w wall)	70-90 cm	A/B	Copper-alloy	13 mm (thimble); 17 mm (l) 9 mm (w) (nail head)	Thimble fragment; honey comb pattern on body, crown is checked
UNID	C-00396	290	G6	5	A	Iron		Possible kettle fragment; 1 unidentifiable rectangular piece, 3 metal concretions
UNID	C-00395	51	B7	3	A	Iron	30 mm x 12 mm	Flat, rectangular piece of iron
UNID Assorted Fragments	C-00329	352	A5		A	Iron	Iron Kettle Frag: 40 mm x 30 mm; Knife Tip(?): 35 mm x 29 mm; (2 fragments) 40 mm x 25 mm & 22 mm x 30 mm	4 Iron Frags: 1 possible kettle, 1 possible blade (knife end tapers), 2 thin sheet metal
UNID	C-	165	H5	2	A	Wrough	25 mm x 7	Rectangular

	00365					t Iron	mm	attachment piece of some kind; thin brittle metal fragment
UNID	C-00385	14	A6	3	A	Brass (?)		Twisted pieces of metal; wire-like like a fastener of some-kind
UNID	C-00330	363	K1		A	Iron		Small fragment, partial undulated surface
UNID	C-00355		H2	2	A	Iron	25 mm x 35 mm	Intentionally broken or bent; potentially could be a kettle frag-folded in part w/ a break
UNID	C-00386	89	D9	2	A	Wrought Iron	25 mm x 35 mm	Potentially wrapped piece of metal curved around something for attachment
UNID	C-00353	14	A6	3	A	Iron	25 mm x 25 mm	Irregular shape of iron fragment; bent at one end, shaped like a triangle
UNID	C-00348	323				Iron		small corroded, curved metal frag
UNID	C-00214	144	H1	9	A/B	Iron		3 Corroded piece of iron, unidentifiable due ot corrosion
UNID	C-00382	4	A1	3	A/B	Iron	43 mm (l)	1 fragment w/ multiple pieces that are too corroded for identification; possibly part of hinge or

								small latch; irregular, undulated surface on one side/flat on other which could indicate what side faced out
UNID	C-00380	36	A9	10	A	Iron	5 cm x 2.1 cm	Unidentifiable, possible part of knife blade (could also be strap for building)
UNID	C-00215	163	H2	10	A	Iron	3.6cm (small end of cone 1.6 cm in length; 0.6 cm at other end	Conical shape, tapers at end- possible attachment piece for two objects (?)
Iron Kettle	C-00364	149	H2	1	20-30 cm	Iron	5.4 x 2.5 x 3.1 cm	Half circle; looks to be broken off of something; possible attachment to kettle; flat interior
Iron Kettle	C-00364	165	5 Block 4	2	1	Iron	h- 10.5 cm; d- 10.3 cm	2 fragments: 1 large, 1 small; exterior flat; interior parts curve inward to show a platform
Iron Kettle	C-00334	24	A9	4	A	Iron		Rim fragments; #23, 24 piece
Iron Kettle	C-00326		H4	4	A/B	Iron		Extremely worn down piece of iron, most likely a kettle fragment; #34 piece
Iron Kettle	C-00357	33	A9	8	A	Iron		two small piece of kettle; worn; #35, 36
Iron Kettle	C-00336	319	H4	5	A	Iron		Rim fragment, w/ line

								indentation; #7 piece
Iron Kettle	C-00338	165	Block H; Unit 5	2	1	Iron		Large piece of iron kettle broken irregularly; most likely bottom piece since it curves inward; heavy and one side is smooth, while broken side is jagged; piece #20, 21
Iron Kettle	C-00333	18	A7	2	A/B	Iron		Fragment is part of kettle body with attached rim; piece # 27, 28
Iron Kettle	C-00210	?	M2	1	?	Iron		Kettle fragment is part of rim and body with an irregular shape broken off at the top; strap hinge contains 3 drill holes spaced almost evenly
Iron Kettle	C-00343	274	G2	3	A	Iron		Body of kettle with rib design matching other pieces; #8
Iron Kettle	C-00337	257	B1	8	A	Iron		body of kettle w. no design + 2 extra fragments; piece #37, 38; unidentifiable iron concretion
Iron Kettle	C-00352	8	A4	3 (20-25 cm)	1	Iron		part of kettle body with raised line; piece #13
Iron Kettle	C-00362	269	C7	9	A (Buried)	Iron		triangular piece of kettle; piece

								#4
Iron Kettle	C-00344	272	G2	1	A	Iron		curved part of kettle (unclear if it is part of top or bottom); piece #15
Iron Kettle	C-00327		Foundation Floor			Iron		Piece is from Magunco II; curved broken fragment most likely from kettle body; Piece #11
Iron Kettle	C-00351	7	A4	2	A	Iron		Piece of body most likely; piece #3
Iron Kettle	C-00335	314	H4	1	A	Iron		Large piece of rim and body with the line design; piece #1; possibly could refit with other pieces
Iron Kettle	C-00340	6	A4	1	A	Iron		two fragments; piece #18, 19; one has a rectangular design on the front side that ends in the middle of the piece
Iron Kettle	C-00345	125	H1	2 (NE Corner)	A	Iron		bottom (or top) of piece is on a 45 degree angle curving inward w/ hint of line design; piece #30
Iron Kettle	C-00358	57	B7	6	B	Iron		Fragment part of kettle body; piece #9
Iron Kettle	C-00360	298	G5	1	A	Iron		Kettle fragment is part of body; but unidentifiable thin piece of iron with

								small drill hole- perhaps part of a hinge?
Iron Kettle	C-00341	60	B9	2	1	Iron		bent piece of kettle with cross-line design similar to other pieces; piece #6
Iron Kettle	C-00339	150	H2	3	A/B	Iron		Could be part of body; design is linear lines; one side of broken piece has been worn down and smoothed; piece #31
Iron Kettle	C-00342	52	B7	3	A/B	Iron		small triangular shaped kettle frag; piece #25
Iron Kettle	C-00346	34	A9	8	B	Iron		leg of kettle
Iron Kettle	C-00325	312	H3	3	A/B	Iron	44 mm x 19 mm	Magunco II
Iron Kettle	C-00363	264	B4	3	A	Iron	1st Frag: 45 mm x 45 mm; 2nd Frag 20 mm x 28 mm	#32, 33; larger one shows "ribbed pattern"
Iron Kettle	C-00383	126	H1	3	A	Iron	35 mm x 12 mm	#5; rectangular fragment of iron; looks warn
Iron Kettle	C-00331	369	EU01	10-20 cm	A	Iron	30 mm x 28 mm	#17
Iron Kettle	C-00321	213				Iron	large frag: 61 mm x 33 mm	2 fragments; one has line design- 2 unidentifiable pieces of sheet metal (perhaps corrosion)
Iron Kettle	C-00354	17	A7	1	A	Iron	30 mm x 20 mm	#2

Iron Kettle	C-00356	29	A9	5	B	Iron	30 mm x 23 mm	#40
Iron Kettle		332	L2	3	A	Iron		4 Small fragments (most likely an iron kettle)
Iron Kettle	C-00332	360	H7		A/B	Iron	21 mm x 12 mm	
Iron Kettle	C-00349	613	A7	3	A	Iron	155 mm x 75 mm	#12, large kettle frag w/ embossed line; curves on either side
Iron Kettle	C-00322		W wall of C7	(75-90 cm)	Buried A	Iron	75 mm x 40 mm	#16; Iron kettle frag, deep irregular depression in interior to form exterior design
Iron Kettle	C-00347		A9	4	A	Iron	74 mm x 82 mm	#14; bends at linear design
Iron Kettle	C-00324	7	A4	3	1	Iron	9 mm x 30 mm	Possible show of breakage; break tapers to sharp edge fragment
Iron Kettle	C-00162	216	EU03	9500-9322		Iron	First Frag: 3.3 cm wide; Second Frag: 3 cm wide	2 small frags of what looks to be iron kettle
Iron Kettle	C-00323	13	A6	2	A	Iron	2.6 cm x 3.5 cm	Curved fragment; raised decoration on curved portion (thick line)
Iron Kettle	C-00088	98	F6	1	A	Iron	4.5 cm x 5.7 cm	Consistent w/ breakage pattern; embossed line on frag
Building Hardware: Latch	C-00303	204	TB04	2	AP2	Iron	11.8 cm (L) x 2.6 cm (w)	Tapered edge on one side; broken sharply on end; flat on back side-raised on front
Building	C-	311	H3	3	A	Iron	7.9 cm (L)	Curved, end

Hardware: Latch	00217							has a little notch, potentially some kind of latch
Building Hardware: Unidentifiable building material	C-00379	32	A9	7	A	Iron	3.7 cm (L) x 2 cm (w)	Delicate, thin piece of metal; some kind of architectural piece like a window hinge?
Building Hardware: Small Hinge	C-00392	33				Iron		In three pieces; possibly small strap hinge; iron concretions
Building Hardware: Strap hinge	C-00206		G2	A-C	B	Iron	29.5 cm	end broken off
Building Hardware: Unidentifiable building material	C-00348	323				Iron	3.3 cm x 1.7 cm x 6.7 cm	could have been part of some kind of reinforcement; metal twisted to break in a way consistent w/ two ends pulled in either direction up and down
Building Hardware: Unidentifiable architectural material	C-00382	4	A1	3	A/B	Iron	Round piece: 3.6 x 2.9 x .6 cm; flat "strap like" piece- 3.7 x 1.52 x .6 cm; L-shaped piece- 3.7 x 1.3 x .34 cm	3 pieces
Building Hardware: Unidentifiable building material	C-00389	84				Iron	.76 x .46 x .15 cm	Triangular end w/ curved stick-like piece that broke off; unidentifiable piece is too

								incomplete- perhaps a rivet of some sort
Building Hardware: 3 Unidentifiable pieces	C-00228		L2			Iron	L-Shaped Piece- 3.4 x 3.4 x 5 cm; Nail- .5cm x .6 cm; large piece- 6 x 1.4 x 2 cm	Thick "pintle" looks like it was broken off by some process that made it move horizontally in position; this piece comes to a tapered dull point
Building Hardware: Corner hinge	C-00347	140	H1	7	A/B	Iron	2.4 cm	Possible corner hinge; bend down center with drill holes on either side mirroring one another
Building Hardware: Unidentifiable architectural material	C-00381	2	A1	1	A	Iron	6.94 x 3.3 x .52 cm	Flat backside could mean it was placed up against something; corner cut out
Building Hardware: Possible Nail	C-00238	221	EU5	5 to 18		Iron	2 cm	Nail of some sort (PAL Catalogue); piece is too incomplete, but could be part of hearth hardware (?)
Building Hardware: Reinforcement strap	C-00376	32	A9	7	1	Iron	8.6 x 3.10 x .4 cm	curved strap fragment; metal support on wood; drill holes not present, but thinness of metal + clean breaks at other end
Building Hardware: Unidentifiable architectural material	C-00366	82	D6	1	A	Iron	3.8 cm	drill hole and metal twisted in opposite directions

Building Hardware: Pintle	C-00223	30	A9	6	A	Iron	5.4 cm (L), .8 cm (w)	Pintle; curved toward backside
Building Hardware: Part of Suffolk latch	C-00368	105	F8	1	A	Iron	3.2 cm	there is a clear back + front where nail would have been punched through (back end notch sticks out); see (Karklins 2000: 52)
Building Hardware: Staple	C-00375	171	I7	2	A	Iron	7.1 cm; staple length 2.3 cm	staple- one is twisted opposite of other
Building Hardware: Hinge	C-00374	140	H1	7	A/B	Iron		hinge part of some sort; drill holes located on both sides of metal, can see where nail punched
Building Hardware: Hinge	C-00393	325	H4	6	A/B	Iron	7.8 cm	3 pieces; hinge of some sort; looks twisted vertically which may explain snapped look
Building Hardware: Wrought nail	C-00378	318	H4	4	A	Iron	nail length- 5 cm; nail head length- 1 cm	tapered bottom (twisted slightly); rectangular body w/ square head
Building Hardware: Piece of pintle hinge	C-00373	352	A5		A	Iron	4.2 cm x 1.8 cm	twisted and broken piece of a pintle hinge
Building Hardware: Band	C-00391	52	B7	3	A/B	Iron	5.8 cm	broken hinge strap where nails would have been; smaller frags
Building Hardware: Hinge	C-00226	362	H7		A	Iron	6.4 cm x 2.3 cm	hinge of some sort; broken at both spots where nails

								would have been; "flared distal end" (Fort Michilimacki nac pg. 219)
Building Hardware: Key	C-00202	24	A9	4	A	Iron	8.3 cm; length of shank: 5 cm	key- could fit door lock, padlock or hasp lock; one notch in proximal blade
Building Hardware: Latch			H1	7	A/B	Iron	19.80 cm	wrought; end looks broken; 1 bag 4 artifacts; located in NW corner of foundation
Building Hardware: Latch hook		140	H1	7	A/B	Iron	8 cm	hole in latch that is diagnostic
Building Hardware: Potential part of door hinge		140	H1	7	A/B	Iron		Part of door frame hinge (?); angular shaped; thickness varies on either side- looks broken off of another piece on thicker side
Building Hardware: Unidentifiable architectural material		140	H1	7	A/B	Iron		Unidentifiable, but associated w/ the latches and entrance; cast iron and heavy - meant to be permanent and stable; most likely foundry made
Building Hardware: Unidentifiable architectural material	C-00376	32	A9	7	1	Iron	83 mm x 30 mm	Extremely thin, bent piece of metal, probably wrought; bent in an almost

								U-shape
Building Hardware: Unidentifiable architectural material	C-00372	142	H1	8	A/B	Iron		Possible architectural material; or unidentifiable; curves on end indicate wrapping around (clear front and back)
Building Hardware: Unidentifiable architectural material	C-00066	258				Iron		Corroded piece of sheet metal with nail hole present
Building Hardware: Window Came	C-00398		B9	4	A/B	Iron	57 mm (d)	Fragment of lead window came
Building Hardware: Fragments	C-00394	24	A9	4	A	Iron	Latch/hinge : 47 mm x 13 mm	Total of 5 frags, 2 concretions, 1 possible part of latch/hinge (small drill hole), I flat irregular shape of metal (UNID)
Building Hardware: Unidentifiable architectural material	C-00377	370	E401	20-30 cm	A	Iron	63 mm x 19 mm	Curved piece of strap metal, thin
Building Hardware: Unidentifiable architectural material	C-00208	33	A9	8	A		90 mm (d)	Irregular shaped artifact, tapers on one side; welded at tapered end- Perhaps tool related (edge of a hoe)
Building Hardware: Strap hinge		125	H1	2	A		11.7 cm x 2 cm; .7cm thick	Broken strap hinge, very corroded

APPENDIX B

CATALOG OF BUCKLES FROM MAGUNKAQUOG

Buckle Catalog											
Category	**Conservation #**	**Unit**	**Context**	**Soil**	**Level**	**Material**	**Measurements**	**Date (If Applicable)**	**Notable Attributes**		**Quantity**
Partial Buckle Frame	C-00247	A1	4		3	Brass	50 mm (d); Between No. 667, No. 668, No. 669 (Whitehead 2003)	C. 1720s-1770s	**Type**	Shoe Buckle Frame	1
									Frame Shape	Rectangular	
									Hook Shape	N/A	
									Pin Terminal Shape	N/A	
									Tongue	N/A	
									Decoration?	Curvilinear Line around outer edge of frame	
Partial Buckle Frame	C-00251	A9	37	A (Mottled Clay)	9 (80-90 cm)	Cast; Copper-alloy	38 mm (d); only part of buckle-potentially matches No.662 (Whitehead 2003)	C.1690-1720	**Type**	Shoe Buckle Frame	1
									Frame Shape	Sub-Rectangular (?)	
									Hook Shape	N/A	
									Pin Terminal Shape	N/A	
									Tongue	N/A	
									Decoration?	N/A	
Buckle Frame with Pin	C-00250	B9	59	A	1	Iron	25 mm	N/A	**Type**	Harness or Shoe Buckle Frame	1

									Frame Shape	Square; single framed	
									Hook Shape	No Hook	
									Pin Terminal Shape	"Type 5" DAA CS; Pin served as one side of the frame	
									Tongue	N/A	
									Decoration?	None	
Buckle Hook	C-00248	D6	82	A	1	Iron Alloy	36 mm x 26 mm	C. 1720s-1770s	**Type**	Shoe hook	1
									Frame Shape	N/A	
									Hook Shape	Loop Hook	
									Pin Terminal Shape	N/A	
									Tongue	Double-pronged; Pitchfork	
									Decoration?	None	
Partial Buckle Hook	C-00249	A1	2	A	1	Iron Alloy	25 mm	C. 1720s-1770s	**Type**	Shoe hook	1
									Frame Shape	N/A	
									Hook Shape	Loop Hook	
									Pin Terminal Shape	N/A	
									Tongue	Double-pronged; Pitchfork	
									Decoration?	None	

Buckle Frame	C-00244	H4	316	A	3	Iron Alloy	29mm	N/A	**Type**	Harness or Shoe Buckle Frame	1
									Frame Shape	Square; single framed	
									Hook Shape	N/A	
									Pin Terminal Shape	N/A	
									Tongue	N/A	
									Decoration?	None	
Partial Buckle Frame	C-00246	D6	84	A	2	Copper-alloy	Spindle hole visible; 26 mm	C.1690-1720	**Type**	Shoe Buckle Frame	1
									Frame Shape	Sub-Rectangular	
									Hook Shape	N/A	
									Pin Terminal Shape	N/A	
									Tongue	Infer: single prong based on one spindle hole	
									Decoration?	None	
Partial Buckle Frame	C-00242	EU02	213		9510-9480	Copper-alloy	No. 667 (?) (Whitehead 2003); 40.02 mm	C.1690-1720	**Type**	Shoe Buckle Frame	1
									Frame Shape	Rectangular	
									Hook Shape	N/A	
									Pin Terminal Shape	N/A	

									Tongue	N/A	
									Decoration?	None	
Buckle Frame with Pin Holes	C-00245	B9		A/B	3 (26-30 cm)	Copper-alloy	No.662 (Whitehead 2003); 37 mm x 25 mm	C.1690-1720	**Type**	Shoe Buckle Frame	1
									Frame Shape	Rectangular	
									Hook Shape	N/A	
									Pin Terminal Shape	"Type 1" DAACS; Portruding lobe where hole for pin is drilled the width of entire frame	
									Tongue	N/A	
									Decoration?	None	
Buckle Frame with Pin	C-00243	H2		B	6	Iron Alloy	Pin= 23 mm; Frame= 25 mm	N/A	**Type**	Harness or Shoe Buckle Frame	1
									Frame Shape	Square; single framed	
									Hook Shape	No Hook	

									Pin Terminal Shape	"Type 5" DAA CS; Pin served as one side of the frame (dettached in this case)	
									Tongue	N/A	
									Decoration?	None	
Possible Buckle Pin + Iron Buckle	C-00252	A9	32 (Feature 10)	A	7	Iron Alloy		N/A	**Type**	Harness or Shoe Buckle Frame	1 Buckle Frame; 2 Pins
									Frame Shape	Square; single framed	
									Hook Shape	No Hook	
									Pin Terminal Shape	"Type 5" DAA CS; Pin served as one side of the frame (dettached in this case)	
									Tongue	N/A	
									Decoration?	None	

APPENDIX C

CATALOG OF BUTTONS FROM MAGUNKAQUOG

Button Catalog													
Category	**Conservation #**	**Unit**	**Context**	**Soil**	**Level**	**Material**	**Measurements**	**Date Range**	**Notable Attributes**		**Quantity**	**Notes**	
Button	C-00281; Art ID # 8860	H 4	232	A/B	4		14.8 mm (Face Length); 5.3 mm (Shank Height)		**Shank Form**		1	Maguncoh II	
									Eye/Loop Description				
									Back Description				
									Button Size and Possible Garment	Medium; Waistcoat or Sleeve			
									Decoration (Y/N)	N			
Button	C-00285; Art ID # 8518	G 2	282	A/B Mottled	7	Pewter	14.8 mm (Face Length); 6.2 mm (Shank Height)		**Shank Form**	Missing	1	Maguncoh II	
									Eye/Loop Description	Missing			
									Back Description				
									Button Size and Possible Garment	Medium; Waistcoat or Sleeve			
									Decoration (Y/N)	N			
Button	C-00292; Art ID #9302	D 5	81	A/B	2	Copper-Alloy	18.9 mm (Face Length); 3.9 mm (Shank Height)	Possibly unidentifiable due to corrosion	**Shank Form**		1	Possible Waistcoat; splayed shank, brittle	
									Eye/Loop Description				
									Back Description				
									Button Size and Possible Garment	Large; Waistcoat or Coat			
									Decoration (Y/N)	N			
Button	C-00267; Art ID #9301	C 8	79	A	4	Copper-Alloy	15.5 mm (Face Length); 8.1 mm (Shank Height)	ca. 1726 - 1776	**Shank Form**		1	Hume: Type 6 (Cast with eye in pla	

												ce, visible casting spur)	
									Eye/Loop Description				
									Back Description				
									Button Size and Possible Garment	Medium; Waistcoat or Sleeve			
									Decoration (Y/N)	N			
Button	C-00265; Art ID #9329	G?	161	A/B	8	Copper-Alloy	19.1 mm (Face Length); 6.5 mm (Shank Height)	ca. 1700s	**Shank Form**		1	Too deteriorated to make accurate determination, but appears to have spu back; Hume: Type 7 (Cast with eye in place, foot on eye in boss)	
									Eye/Loop Description				
									Back Description				
									Button Size and Possible Garment	Large; Waistcoat or Coat			
									Decoration (Y/N)	N			
Button	C-00271; Art ID #8610	G6	292	A	6	Copper-Alloy	14.1 mm (Face Length); 8.6 mm (Shank Height)	ca. 1700-1765/ca. 1720-1776	**Shank Form**	Shank cast w/ button	1		
									Eye/Loop Description	Drilled			
									Back Description				
									Button Size and Possible Garment	Medium; Sleeve			
									Decoration (Y/N)	N			
Button	C-00278; Art ID #8844	H4	22	A/B	3	Copper-Alloy	14 mm (Face Length); 9 mm (Shank	ca. 1726-1776	**Shank Form**		1	Photo: MG_Buttons_Gr_E_F [2]	
									Eye/Loop Description			(3rd from L)	

							Height)		**Back Description**	Spun Back		Hume: Type 7 (Cast with eye in place, spun back)	
									Button Size and Possible Garment	Medium; Sleeve			
									Decoration (Y/N)	N			
Button	C-00274; Art ID #6316	A4	6	A	1	Copper-Alloy	14.8 mm (Face Length); 6.7 mm (Shank Height)	ca. 1700 - 1765/ca. 1720 - 1776	**Shank Form**	Shank cast w/ button	1	Photo: MG_Buttons_Gr_E_B	
									Eye/Loop Description	Drilled		(Farthest R)	
									Back Description				
									Button Size and Possible Garment	Medium; Waistcoat or Sleeve			
									Decoration (Y/N)	N			
Button	C-00280		171	A	2	Copper-Alloy; Copper Gild	18 mm (Face Length); 9 mm (Shank Height)	ca. 1700 - 1765/ca. 1720 - 1776	**Shank Form**	Shank cast w/ button	1	Photo: MG_Buttons_Gr_E_B [2]	
									Eye/Loop Description	Drilled		(Second from R)	
									Back Description	Spun Back			
									Button Size and Possible Garment	Medium; Waistcoat			
									Decoration (Y/N)	N			
Button	C-00279; Art ID #6956	B9	60	A	2	Copper-Alloy	18 mm (Face Length); 6 mm (Shank Height)	ca. 1700 - 1765/ca. 1720 - 1776	**Shank Form**	Shank cast w/ button	1	Photo: MG_Buttons_Gr_E_F [2]	
									Eye/Loop Description	Drilled		(Third from R)	
									Back Description				

									Button Size and Possible Garment	Medium; Waistcoat			
									Decoration (Y/N)	N			
									Shank Form			Photo: MG_Buttons_Gr_D_B [2]	
									Eye/Loop Description			(Far R)	
									Back Description			Hume: Type 6 (Cast with eye in place, visible casting spur)	
Button	C-00277; Art ID #7912	D9	89	A	2	Copper-Alloy	15 mm (Face Length); 4 mm (Shank Height)	ca. 1700 - 1765 /ca. 1720 - 1776	**Button Size and Possible Garment**	Medium; Waistcoat or Sleeve	1	No decoration; face is concave; eye most likely bent inward	
									Decoration (Y/N)	N			
									Shank Form			Photo: MG_Buttons_Gr_D_B [2]	
									Eye/Loop Description			(Middle)	
									Back Description			Embellished interior copper gild	
Button	C-00276; Art ID #9215	H4	22	A/B	3	Copper-Alloy	15 mm (Face Length)	ca. 1726 - 1776	**Button Size and Possible Garment**	Medium; Waistcoat or Sleeve	1		
									Decoration (Y/N)	N			

Button	C-00275; Art ID #9200	A9	22	A	2	Copper-Alloy	15 mm (Face Length); 5 mm (Shank Height)	ca. 1700 - 1765/ca. 1720 - 1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	Shank cast w/ button Drilled Medium; Waistcoat or Sleeve N	1	Photo: MG_Buttons_Gr_D_B [2] (1st from Left) Hume: Type 1 (One piece cast back with drilled eye)	
Button	C-00361	C7	271		10	Iron Oxide Coating; Steel Cast	12 mm (Face Length); 8 mm (Shank Height)	ca. 1726 - 1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	 Small/Medium; Not Identifiable N	1	Photo: MG_Buttons_Gr_C; Hume: Type 12 (One piece cast steel)	
Button	C-00269; Art ID #8337	B4	264	A	3	Steel Cast	11 mm (Face Length)	ca. 1726 - 1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	 Missing Spun Back Small; Sleeve N	1		
Button	C-00263	G3	Feature 10	C	6		16 mm (Face Length)	ca. 1726 - 1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	Missing Missing Spun Back Medium; Waistcoat or Sleeve N	1	Hume: Type 7 (Cast with eye in place, spun back)	

Button	C-00272	H4	319	A	5		11 mm (Face Length)	ca. 1726-1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	 Small; Sleeve N	1	Hume: Type 7 (Cast with eye in place, spun back)
Button	C-00264; Art ID #9308	H1	142	A/B	8		21.9 mm (Face Length); 6.5 mm (Shank Height)	ca. 1726-1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	 Spun Back Large; Coat N	1	Hume: Type 7 (Cast with eye in place, spun back)
Button	C-00262; Art ID #8008	EU02	213		9510-9480		21 mm (Face Length)	ca. 1726-1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	 Spun Back Large; Coat N	1	Brittle Material-but usually used for coats (Carlton, 79; Hughes and Lester 1991)
Button	C-00273; Art ID #8879	H4	325	A/B	6	Soft White metal (Lead-alloy)	15 mm (Face Length)	ca. 1726-1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	Iron shank Spun Back Medium; Waistcoat or Sleeve N	1	1 of 2 buttons in artifact bag
Button	C-00273; Art ID #8879	H4	325	A/B	6	Soft White metal (Lead-alloy)	17 mm (Face Length)	ca. 1726-1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	 Spun Back Medium; Waistcoat or Sleeve N	1	2 of 2 buttons in artifact bag
Button	C-00299	H2		1	2	Soft White	15 mm (Face	ca. 1726-	**Shank Form** **Eye/Loop**		1	Photo: MG_Buttons_Gr_A

						metal (Lead-alloy)	Length); 6 mm (Shank Height)	1776	**Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	 Medium; Waistcoat or Sleeve N		_B; Hume: Type 11 (One piece cast soft whitemetal)
Button	C-00284; Art ID #6705	A9	32	A	7	Pewter	16.2 mm (Face Length); 7 mm (Shank Height)	18th century	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	 Medium; Waistcoat or Sleeve N	1	Soldered eye, shank pressed down to back of face
Button	C-00297; Art ID #7230	D9	90	A/B	3	Soft White metal (Lead-alloy)	15 mm (Face Length)	ca. 1726 - 1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	 Medium; Waistcoat or Sleeve N	1	Hume: Type 11 (One piece cast soft whitemetal)
Button	C-00296; Art ID #9336	H5	165	A	2	Soft White metal (Lead-alloy)	15 mm (Face Length); 1 mm (Shank Height)	ca. 1726 - 1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	 Medium; Waistcoat or Sleeve N	1	Hume: Type 11 (One piece cast soft whitemetal)
Button	C-00295; Art ID #8072	EU04	219		9429-8072	Soft White metal (Lead-alloy)	15 mm (Face Length); 5.3 mm (Shank Height)	ca. 1726 - 1776	**Shank Form** **Eye/Loop Description** **Back Description** **Button Size and Possible Garment** **Decoration (Y/N)**	 Medium; Waistcoat or Sleeve N	1	Hume: Type 11 (One piece cast soft whitemetal)
Butt	C-	D	84	A	2	Soft	14.9	ca.	**Shank Form**		1	Hume:

on	00298; Art ID #9292	6				White metal (Lead-alloy)	mm (Face Length); 3.3 mm (Shank Height)	1726 - 1776	**Eye/Loop Description**			Type 11 (One piece cast soft whitemetal)
									Back Description			
									Button Size and Possible Garment	Medium; Waistcoat or Sleeve		
									Decoration (Y/N)	N		
Button	C-00268; Art ID #9322	H2	148	20-30 cm	1	Copper-alloy	15 mm (Face Length)	ca. 1700s	**Shank Form**		1	Too deteriorated on backside to make determination; possibly Hume Type 6/7- cannot see spun back; possible cast eye
									Eye/Loop Description			
									Back Description			
									Button Size and Possible Garment	Medium; Waistcoat or Sleeve		
									Decoration (Y/N)	N		
Button	C-00288; Art ID #7451	H1	125	A	2	Pewter	12 mm (Face Length); 3 mm (Shank Height)	ca. 1726 - 1776; Beginning and Second-half of 18th century	**Shank Form**		1	White 2005: Type D/E (Cone-Shaped Shank; Wire Eye set in metal)
									Eye/Loop Description			
									Back Description			
									Button Size and Possible Garment	Small/Medium; Possibly Sleeve		
									Decoration (Y/N)	N		
Unidentifiable Fastener	C-00387	H3	312	A/B	3		Loop Size: 10 mm		**Shank Form**		1	
									Eye/Loop Description			
									Back Description			
									Button Size and Possible Garment	Either furniture related; Not ID		
									Decoration (Y/N)	N		
Button	C-00287;	A9	34	B	8		17 mm (Face	ca. 1726 -	**Shank Form**		1	White 2005: Type D/E
									Eye/Loop Description			

	Art ID #6741						Length)	1776	**Back Description**			(Cone-Shaped Shank; Wire Eye set in metal)
									Button Size and Possible Garment	Medium; Waistcoat or Sleeve		
									Decoration (Y/N)	N		
Button	C-00284; Art ID #7414	H1	120	A	5		14 mm (Face Length)	ca.1760-1785	**Shank Form**	Cone-shaped	1	
									Eye/Loop Description	Missing		
									Back Description			
									Button Size and Possible Garment	Medium; Sleeve		
									Decoration (Y/N)	N		
Button	C-00266; Art ID #6866	B7	49	A	1		16.5 mm (Face Length); 3.5 mm (Shank Height)	ca. 1726-1776	**Shank Form**		1	Hume: Type 7 (Cast with eye in place, spun back)
									Eye/Loop Description	Missing		
									Back Description			
									Button Size and Possible Garment	Medium; Waistcoat or Sleeve		
									Decoration (Y/N)			
Button	C-00270; Art ID #8560	G6	280	A	3		15 mm (Face Length); 8.8 mm (Shank Height)	ca. 1726-1776	**Shank Form**	Iron;	1	Photo: MG_Buttons_Gr_E_B
									Eye/Loop Description			(First on L)
									Back Description	Spun Back		
									Button Size and Possible Garment	Medium; Waistcoat or Sleeve		
									Decoration (Y/N)	N		
Button	C-00286; Art ID #9327	H2	160	A/B	8	Pewter	15.9 mm (Face Length); 7.4 mm	ca. 1726-1776	**Shank Form**		1	White 2005: Type E?; Shank dettached, face partially
									Eye/Loop Description	Missing		
									Back Description			
									Button Size and Possible	Waistcoat		

							(Shank Height)		**Garment**	or Sleeve		off
									Decoration (Y/N)	N		
Button	C-00283; Art ID #7422	H1	122	A	7	Pewter	18 mm (Face Length); 7.2 mm (Shank Height)	ca. 1726 - 1776	**Shank Form**		1	Hume: Type 8 (Cast with eye in place)
									Eye/Loop Description			
									Back Description			
									Button Size and Possible Garment	Medium; Waistcoat or Coat		
									Decoration (Y/N)	N		
Button	Art ID #8013	EU03	213		9510-9480	Pewter	14.4 mm (Face Length); 7.6 mm (Shank Height)	ca. 1726 - 1776	**Shank Form**		1	Shank partially missing (Cone shape)
									Eye/Loop Description			
									Back Description			
									Button Size and Possible Garment	Medium; Sleeve		
									Decoration (Y/N)	N		
Button	C-00261; Art ID #6717	A9	32	A	7	Copper-alloy	5.1 mm (Shank Height)		**Shank Form**		1	Only shank available; untreated metal collection
									Eye/Loop Description	Drill Hole		
									Back Description			
									Button Size and Possible Garment			
									Decoration (Y/N)	N		

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