2019

Archaeological Investigations at the Old Manse, 2018-2019, Concord, Massachusetts

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Cultural Resource Management Study No. 84

September 2019

Abstract

In 2018-2019, the Fiske Center for Archaeological Research at UMass Boston excavated 38 shovel test pits and three excavation units at The Old Manse in Concord, Massachusetts, in advance of planned landscaping work, parking lot expansion, and the installation of a buried propane tank. The Old Manse (CON.347; CON.9037; CON.HA.20; 19-MD-89) is a late 18th-century house at 269 Monument Street in Concord, Massachusetts, located on a 7-acre property abutting the Concord River and Minute Man National Historical Park. The property is owned by The Trustees of Reservations. The standing historic house dates to 1770 and is significant because of its association with a number of important literary and artistic figures, particularly Nathanial and Sophia Hawthorne and Ralph Waldo Emerson.

The excavations found scattered, low density trash deposits from the earliest period of the standing house in several areas and evidence of landscape alteration in the form of a ca. 1770 ground surface buried by cellar ejecta northwest of the standing house (STPs 250-251). There were plow scars visible below this buried surface. However, the most significant result of the excavations was the discovery of three areas with intact Native deposits. In total, the excavations produced 831 lithics (including flakes, shatter, one hammer stone, and seven flaked tools) and 29 pieces of Native ceramic. Two charcoal-rich pit features and a buried ground surface were radiocarbon dated.

Area 1 was located along the entrance drive. EU84, initially a 1 x 1 m unit, was expanded to a 1.5 x 1.5 m unit to completely excavate the impact areas for a tree planting. The deposit was from an episode of tool finishing or resharpening, containing two point tips and 513 flakes and pieces of shatter concentrated at the A/B interface. The lithics were predominantly small (<1 cm in length) and dominated by four material types: black and gray rhyolite (57%), green rhyolite (22%), quartzite (10%), and andesite (9%). This deposit is limited in extent and did not continue into surrounding STPs.

Area 2, located in the west yard, consisted of a buried ground surface and a charcoal rich pit in EU131. Calcined bone and lithic flakes, including non-local Pennsylvania jasper, were found in multiple levels, and 9 fragments of Native ceramic were found in the modern topsoil and in the buried ground surface. Charcoal samples from the buried ground surface and the pit were dated to the Late Woodland/Contact period (1455-1624 AD) and the Late Archaic (2556-2349 BC or 3955 +/-20 BP) period respectively (AMS calibrated radiocarbon dates). The presence of calcined bone in large quantities (almost 900 pieces in very small fragments) suggests that there was a hearth nearby where animal bones were disposed of by burning. The extent of this area of preserved strata is not known, since we did not excavate additional STPs beyond the tree planting site. In response to this discovery, The Trustees altered the tree planting plans in order to avoid this area.

Area 3 was a possible residential area identified in multiple test areas (STPs 120-123 and 58) over about 8 meters in the area of a seasonal event tent. These deposits contained tools, flakes, and Native ceramics (17 pieces) in a buried ground surface/stratified artifact deposits and a large, charcoal rich pit feature. The charcoal came from willow and oak trees. Charcoal from the pit feature dates to the Late Archaic (calibrated date of 2836-2496 BC), and the tool assemblage includes a modified black rhyolite Levanna point (Late Woodland) as well as a gray rhyolite Small Stemmed point, a quartz point tip, and a hammer stone. Lithic types included black, gray, and green rhyolites, quartzite, and a fine grained red rhyolite (Saugus jasper). Because this deposit covers a broad area, The Trustees identified an alternate planting location for tree planting where no significant cultural material or intact strata were identified.

This report also includes a copy of the catalog of the Native artifacts collected from the fields around the Old Manse in the late 19th and early 20th centuries, now in the collections of the Concord Museum, cataloged by Dr. Shirley Blancke, Associate Curator of Archaeology and Native American Studies and reproduced courtesy of the Concord Museum.

ACKNOWLEDGEMENTS

The authors would like to thank the Trustees of Reservations, particularly Josh Hasenfus and the staff at the Old Manse, for their support for this project and their commitment to the Old Manse's cultural history. Dr. Shirley Blancke, Associate Curator of Archaeology and Native American Studies at the Concord Museum, visited the site, provided valuable commentary on the report, and graciously shared her catalog of artifacts from the site now at the Concord Museum. We would also like to acknowledge the Fiske Center students and staff who participated in the project (John Steinberg, survey and GIS; Melody Henkel, artifact photography; Megan Sheehan, Nicholas Zeitlin, Gary Ellis, and Lauryn Poe, fieldwork and laboratory analysis; and Jocelyn Lee, GIS maps).

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Introduction

The Old Manse (CON.347; CON.9037; CON.HA.20; 19-MD-89) is a late 18th-century house located at 269 Monument Street in Concord, Massachusetts (Fig. 1). The 7-acre property abuts the Concord River and is owned by The Trustees of Reservations (The Trustees). It is adjacent to Minute Man National Historical Park. The historic farm house dates to 1770 and is significant because of its association with a number of important literary and artistic figures, particularly Nathanial and Sophia Hawthorne and Ralph Waldo Emerson. The Management Plan for the Old Manse begins by stating that the property is significant because it "provides a window into Concord's political, literary, and social revolutions" through six generations of residents who were "authors, artists, philosophers, botanists, intellectual thinkers and reformers, and historians" (TTOR 2010: 2-1). Interpreting the use of the landscape through time is an important part of the current management plan for the Old Manse (TTOR 2010, section 7), and archaeology has the potential to contribute significant information to that effort. The most recent survey identified three areas where intact sections of Native sites carry the story of the landscape back into the deep past. These areas offer the Trustees the opportunity to present specific information about the Native use of the landscape.

In addition to the standing 1770 house (Fig. 2), which is original, an attached service wing covering the area of the former shay shed and wood shed was reconstructed. The barn on the property burned in 1924 and was filled over the following 15 years. In ca. 2000, TTOR constructed a symbolic foundation inside the historic barn footprint. A parking area exists along Monument Street. The area around the house is primarily maintained as a grassy lawn, with a substantial garden on the front portion of the southern part of the property. There is a seasonal event tent located south of the house. The field north of the house, separated by a fieldstone wall, is planted with taller grasses. The section of the property along the river has heavier tree cover and undergrowth, and part of the most recent landscaping project included removing invasive plant species and planting more native plants in this zone.

The Trustees developed landscape restoration and visitor access plans in 2018, and the excavations described in this report were carried out as an intensive survey in advance of that work. These included changes to the parking lot footprint, new tree plantings, and modifications to the entrance drive (Figs. 3-5). In 2019, we also tested the area where a buried propane tank was going to be placed and subsequently monitored the excavation of the pit for the tank. Many of these impact areas were very limited, such as tree planting sites, and test pits were placed at the tree planting site itself whenever possible; these were offset as needed to work around existing stumps. In total, we excavated 41 shovel test pits (STPs), three of which were expanded into excavation units (EUs). We found intact Native deposits in three areas, including two areas with stratified deposits close to the standing house. These date from the Late Archaic (5000-300 BP or 3000-1000 BC) to the Late Woodland (1000-450 PB or 950-1500 AD) periods. Counterintuitively, these were probably preserved by being relatively close to the house, in the farm work yard, because that area seems never to have been plowed. While Native artifacts were present in the test pits further from the house, many of these are in plowed or disturbed contexts. We did not find any significant deposits from the historical period.

Archaeological Sensitivity

The Old Manse is a Massachusetts Archaeological and Historic Landmark (1966), a National Historic Landmark (1963), a State and National Register-listed property (1966), and subject to a preservation restriction held by the Massachusetts Historical Commission (1996). It falls within a Local Historic District (1973) and a National Register District (2002). In the MHC listings, the building is listed as CON.347 and is a contributing resource to the Minuteman National Historical Park (CON.EC), as well as being within CON.DV (North Bridge Monument Square Local Historic District). As an archaeological site, it is registered with the MHC as CON.HA.20 (historic) and 19-MD-89 (Old Manse Lands Native site).

As the paragraph above suggests, the Old Manse property has recognized significance to

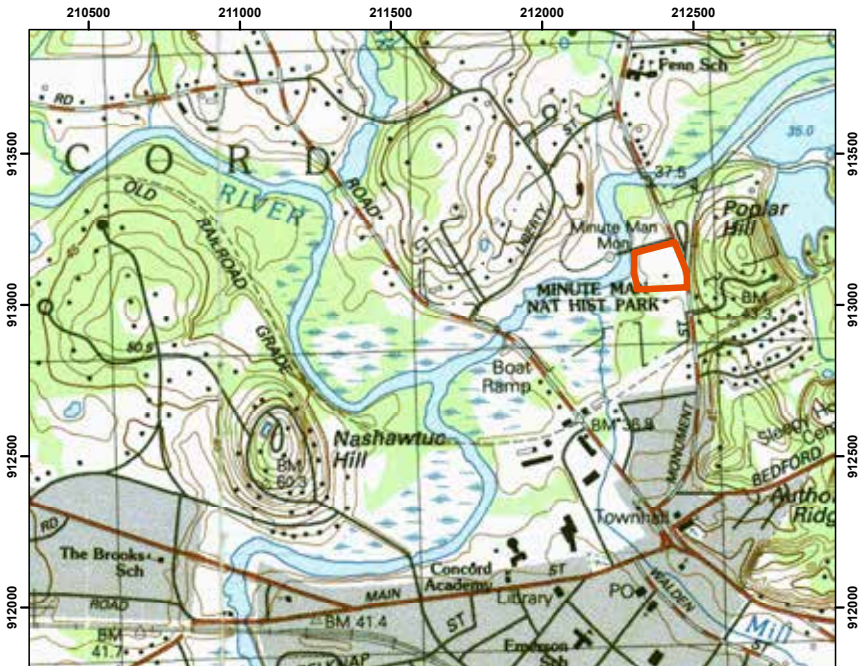

Figure 1. USGS map of Concord showing the location of the Old Manse property. Numbers in the margins are the Massachusetts State Plane grid coordinates in meters.

both the Native and Euro-American history of the region. Previous excavations and surrounding sites (see below) indicate that Native people inhabited the areas along this section of the Concord River to take advantage of riverine resources from at least the Middle Archaic to the Late Woodland periods. There are areas west of the main house (extending to the river) where there are intact Native deposits, and one of the research questions for this project was whether any Native deposits remain intact close to the historic farmstead core. We identified three areas with stratigraphically intact Native deposits, and many additional areas where Native artifacts had been mixed into historic layers by plowing or other activities.

For the Euro-American occupation of the property, previous excavations, as well as the expectations of the types of features and deposits commonly found around late-18th and 19th-century domestic and farm buildings suggested that we might find trash deposits, evidence of fields and gardens, evidence of pathways and work areas, historic utilities such as wells and privies, and evidence of agricultural outbuildings. While we found historic period artifacts in all of our test pits, these were low density sheet refuse (near the house) or field scatter. No significant historic period features or deposits were identified during this phase of work. Thus, this report will focus on the ancient Native occupation of this area.

Previous Excavations

In 1994, 1997, and 1998, UMass Boston excavated at the corners of the house where dry wells were going to be located, in the meadow west of the house, in the footprint of the former shay shed and an adjacent foundation, and in the area of the former barn and an adjacent outbuilding (Mrozowski and Kelley 1999). In 2000, archaeologists from UMass Boston returned to the Old Manse to test the boathouse along the Concord River and western end of the adjacent meadow (Mohler et al. 2001). One of the 15 STPs excavated in 2000 contained a Native occupation layer with three flakes. One of the STPs from the 1990s (STP4) revealed an intact Native American hearth dating to the Middle Woodland period (1600-1000 BP) and discovered a Levanna projectile point associated with the Late Woodland period in the plowzone in the same area. These artifacts together suggest that the Native occupation of this area continued for a long time. The hearth discovered

Figure 2. The Old Manse in 2018. View to the west.

west of the house is significant because it indicates the presence of an intact section of a habitation site that probably extended to other areas of the property.

In the barn area, previous investigations determined that the western wall of the historic barn had been significantly disturbed by landscaping, but that the other walls were intact. The barn had been built on a natural rise that was augmented by spreading excavated soils from the barn in the area to the east. The barn therefore could be accessed from the east at a first floor level or from the west at a lower, cellar floor level. The west wall of the barn is still visible as a disturbed rocky embankment (at the location of the rear wall of the proposed visitor center). The barn burned in 1924 and was filled over the next 10 or 15 years. Excavations consisted of a 2 by 6 meter (6.5 by 20 ft) trench that exposed the barn's southeast corner and ran east, covering about 4 meters outside the building; one 2 by 2 meter (6.5 by 6.5 ft) unit excavated inside the barn, and a 2 by 4 meter (6.5 by 13 ft) excavation area in an outbuilding adjacent to the barn. The trench excavated outside the barn contained stratified historic yard deposits above a redeposited B soil, likely excavated out of the barn area when it was constructed, and deposited over a buried ground surface. The top of the buried ground surface, which predates the barn construction, was located between 10 and 25 cm below the surface in the area that was tested. The unit inside the barn showed that the barn was filled with 2.15 meters (84 inches) of cultural deposits; the upper 1.71 meters (67 inches) were 20th-century fill from after the 1924 fire. Below that were burned beams; below the large beams in some areas was a concentration of material culture that pre-dated the fire containing mid to late 19th century materials. Because of the depth of the deposits, only a 1 by 2 meter portion of the original excavation unit reached the full 2.15 meter depth. After the archaeological excavations in the 1990s, the Trustees constructed a symbolic foundation, with a slightly sunken interior, in the barn area, covering a smaller footprint than the barn.

A small outbuilding, interpreted after the excavation as a tack and tool shed, projected off the north east corner of the barn at an angle. This was investigated by a 2 by 4 meter (6.5 by 13 ft) excavation unit primarily inside the building.

In 2016, a geophysical survey was carried out over the parking lot and in the area east of the historic barn location. The geophysical surveys detected utilities, possible outlines of a former agricultural outbuilding (previously archaeologically tested), and broad differences in the subsurface deposits of different parts of the property (Crowder et al. 2018). Although subsequent test excavations had been proposed for the same areas, these were not carried out because the plan to construct a new visitor center was put on hold.

In 2017, five shovel test pits and one excavation unit were excavated in an area west of the current garden in an area that was proposed for per-

colation test trenches for a septic system (Crowder et al. 2018). Three of the shovel test pits did not uncover significant features or deposits, but two others contained deep deposits of construction and demolition debris seemingly dated to the middle of the 18th century. One of these was expanded into a 1 x 1 m excavation unit which encountered a deeply buried (130 cm below surface) fieldstone foundation, possibly from a domestic structure the predates the standing 1770 Old Manse. Because of this potentially significant archaeological feature, percolation tests were not carried out in this area.

Background History (Native and Historic)

Herbster's (2005) Archaeological Overview and Assessment of the Minute Man National Historical Park lands, which surround the Old Manse property, provides the most recent summary of Native sites in the Concord, Sudbury, Assabet, and Shawsheen river drainages. Ritchie et al. (1990: 19-32) also provides a summary of the Native sites in the Minute Man National Historical Park and surrounding area. Blancke (1993) outlines a short history of Native settlement in Concord in her overview of sites in Walden Woods.

Herbster's (2005: 21) assessment is that this river drainage system is a core of Native settlement in Eastern Massachusetts and that sites identified in this region span all occupation periods and range from small activity areas to large semi-permanent settlements. Ritchie et al. (1990: 21) had reached a similar conclusion, noting that in this section of the Minute Man Park, sites commonly had Middle and Late Archaic and Middle and Late Woodland components. The concentration of Middle and Late Woodland sites in this area was particularly notable (Ritchie et al. 1990: 21). The rivers were important for transportation, as boundaries, and as hunting, gathering or collecting areas. The Old Manse property abuts the Concord River, just east of the confluence of the Sudbury and Assabet rivers.

A large number of sites along the river were identified by collectors and avocational archaeologists in the late 19th and early 20th centuries. Henry David Thoreau was one of the early (1840s) collectors in Concord, and his collection is now at the Peabody Museum at Harvard University and the Fruitlands Museum. Other late 19th and early 20th-century collectors (including Adams Tolman, Alfred Hosmer, and George Prescott) followed, with large collections from agricultural fields along the rivers (see Ritchie et al. 1990: 23). These collections contain primarily stone projectile points picked up from the surface of plowed fields. Members of the Massachusetts Archaeological Society (MAS) also surveyed this area in the 1940s and conducted some excavations (Smith 1944). Development in this area accelerated after the 1950s, and work in recent decades has been largely in the form of CRM excavations driven by development pressure.

Despite the large quantity of data (in terms of numbers of known sites), much of the data is of limited quality in that the size and occupational histories of the sites surrounding the Old Manse are not well known. In part, this stems from the fact that many sites in this area are known from the artifacts in collections of later 19th and early 20th century collectors. However, there are also avocational and professional excavations in the region.

In recounting this history commonly used conventions such as Paleo-Indian and Archaic Period will be used in accordance with the standards established by the National Park Service and the Massachusetts Historical Commission. Dates for different periods are consistent with the dates used in Herbster (2005). They also represent conventions that archaeologists employ in virtually all of the research they undertake. In using these conventions we acknowledge that there are Native historical traditions that suggest a much longer history and very different terminology that does not accept the standard dichotomy between history and prehistory (Mrozowski 2013).

Paleo-Indian Period (ca. 12,500-10,000 BP)

Archaeological evidence of Native society suggests that New England was first occupied soon after the retreat of the Wisconsin ice sheet around 13,000 B.P. The environment at the time was rapidly changing as the glacial margins slowly moved northward. The environment of the area was dominated by forests comprised of spruce,

birch and alder. Fauna would have been characterized by cold adapted species including mastodon, mammoth, caribou, elk and a variety of birds and smaller mammals. While big game would have been an important source of food (Ritchie 1980), smaller species probably made up the bulk of the diet along with a wide variety of plant foods (Dincauze 1990; Dincauze and Curran 1984; Donta et al 2002). Nothing is known of human social structure from this time, but it likely was characterized by small family groups that banded together to move frequently about the landscape in search of food. This mobile hunting and gathering lifeway led to habitation sites that were typically occupied for short durations. Artifact assemblages from such sites are dominated by stone tools that include scraping tools, drills, gravers fluted projectile points and large quantities of flakes from stone working, some of which are utilized. Many of the tools are manufactured of exotic, fine grained stone that was carried for long distances from its sources of origin. With the exception of isolated finds (Elia and Mahlstedt 1982) few archaeological sites of this period have been found in New England. Bull Brook in Ipswitch, the Neponset site in Canton (Carty and Spiess 1992), and the Shattock Farm site in Andover (Luedtke 1985, see also Spiess, Wilson and Bradley 1998) are a few that have been investigated.

Herbster (2005: 23, 24) identifies three sites in the Concord/ Sudbury/ Assabet river drainage (in the towns of Concord, Wayland, and Bedford) at which distinctive projectile points from this period have been found, though no Paleo-Indian occupation levels are known, indicating that people were in the region during this period but that sites have not yet been identified.

Early Archaic Period (ca. 10,000-7500 BP)

Although little is actually known of this phase due to a scarcity of well-documented sites, a lifeway characterized by mobile hunting and gathering is believed to have continued during the Early Archaic with an emphasis on seasonal settlement patterning (Ritchie 1980). The environment remained cool, but through a slow warming trend forest species in the Boston area came to be dominated by pine, oak and birch (Ritchie 1994). The manufacture of stone tools out of locally available materials suggests a trend toward occupation of particular regions with a decrease in long distance mobility and trade. Differences in the lithic tool kit characterized by the manufacture of bifurcate-base projectile points have been interpreted to suggest a discontinuity with the preceding Paleo-Indian Period (Donta et al 2002; Ritchie 1969; Snow 1980), while others suggest a general continuum of development (Custer 1984).

Herbster (2005: 24, 28) identifies 4 sites in the Concord/Sudbury/Assabet river drainage and 6 additional sites in the Shawsheen river drainage with distinctive bifurcate base points that are characteristic of the time period. Most of these are from avocational collections.

Middle Archaic Period (ca. 7500-5000 BP)

During the Middle Archaic the New England landscape began to resemble that of today with the establishment of a deciduous forest and increased diversity of plant and animal foods (Dincauze 1976; Dincauze and Mulholland 1977). The number of archaeological sites from this period increases dramatically in comparison with the past period, suggesting a significant rise in population. The Merrimack River Valley associated with northern Massachusetts and southern New Hampshire, in particular, contain the best known sites of the period. These include the Neville and Smyth sites in New Hampshire (Dincause 1976; Kenyon 1983) and Shattuck Farm in Andover (Luedtke 1985). There are a number of sites, especially along river meadow and marshes, that seem to have been repeatedly occupied beginning in the Middle Archaic (Herbster 2005: 28-30). Larger sites seem to be concentrated along rivers, with smaller single component sites in the uplands.

Settlement in and exploitation of a variety of environments is clearly indicated by both faunal remains and tool kits and this was increasingly associated with seasonal resource availability (Dincauze and Mulholland 1977; Barber 1979). Andromous fishing at falls was clearly the primary attraction at a number of localities including the Neville site that revealed evidence of reoccupation over a period of time. The lithic tool kit during this period is characterized by three distinctive

projectile point styles (Dincauze 1976). These include the Neville, Stark, and Merrimack that are joined by atlatl weights, knives, perforators, axes, adzes, scrapers, abraders, ulus, gouges and harpoons (Donta et al 2002). Lithic materials during this period in the Concord area were drawn from from local outcrops, Boston basin sources, the Blue Hill, and Braintree (Herbster 2005: 28-30).

Late Archaic Period (ca. 5000-3000 BP)

The greatest number of Native American archaeological sites in New England are associated with the Late Archaic. Herbster notes that all of the large sites in the Concord/ Sudbury/ Assabet river drainage have points from the Late Archaic (Herbster 2005: 30-31). Seasonal temperatures were slightly higher than today and an oak-hickory forest came to dominate southern New England. The period is characterized by relatively high populations that occupied the entire range of available environments for the purpose of using an equally wide range of plant and animal resources. Seasonal settlement patterns continued, but toward the end of the period populations became more settled on the landscape as evidenced by shell middens and fish weirs. Coupled with this sedentism was limited cultivation of plant foods such as squash, gourds and sunflower.

Three different lithic traditions suggest the possible development of regional ethnic diversity (Dincauze 1974, 1975) or of differing tool kit functions. The Small-Stemmed point tradition is most widespread and is associated with indigenous populations that had long inhabited the region. The Laurentian tradition may represent a migration of peoples from the Great Lakes region where such tool kits are common. The Susquehanna tradition is generally associated with groups that derived from the Middle-Atlantic region. The mixture of these traditions in single sites suggests the coexistence of the three groups and exchange of technologies (Dincauze 1976; Ritchie 1969; Snow 1980; Custer 1984; Bourque 1995). Evidence of religious beliefs from burials becomes more common during this period due to the use of particular practices that includes red ocher and burial goods.

Early Woodland Period (ca. 3000-1600 BP)

The Early Woodland is generally associated with a period of population reduction and a clustering of sites in valleys along river courses, but this characterization may be a product of sampling error or misidentification of Early Woodland sites to the Late or Transitional Archaic periods. Herbster's review concludes that this misidentification may be because Small Stemmed points continued to be used in the Early Woodland, making it difficult to separate Early Woodland from Late Archaic sites on point types alone (Herbster 2005: 32-33). An expansion of spruce and slight decline in oak may have been associated with a cooling trend during the period (Ritchie 1994). Coastal resources, particularly fish and shellfish, take on greater importance, but the most significant development during this period is the transition from simple cultivation to horticulture, and the development of ceramic technology that coincided with an increasingly settled lifeway. The Small-Stemmed and Susquehanna projectile point traditions continue in this period and were joined by the more common Meadowood and Rossville projectile points. The latter is associated with indigenous development, while the former may derive from the western interior (Loparto 1986). The Early Woodland is also known for increasingly complex burial customs that incorporate artworks including gorgets, pottery pipes, copper beads as well as red ocher (Ritchie 1965; Ritchie and Funk 1973; Spence and Fox 1986). These goods imply a rich belief in the afterworld. Ceramics with thick bodies, a cord marked exterior, and burnt-rock temper are also present.

Middle Woodland Period (ca. 1600-1000 BP)

The general lifeway established during the Early Woodland continues in the Middle with a subsistence and settlement focus on marine and riverine environments. Living sites by this time were semi-permanent or year-round habitations, where surpluses of cultivated foods began to be preserved in storage pits (Donta et al 2002; Snow 1980). Ceramic use expanded and came to include the use of decoration, thought in some cases to signify ethnic identity. These ceramics indicate interaction through the whole Merrimack River valley and its tributaries (Herbster 2005: 33-34).

The major technological innovation of the period was that of the bow and arrow that ushered in a new repertoire of small projectile points. There are also a high percentage of exotic lithics, based on long distance interaction. In the Concord/ Sudbury/ Assabet drainage, there is continued use of Early Woodland sites and apparent renewed use of Middle and Late Archaic sites, even in the absence of evidence for use in the Early Woodland period (Herbster 2005: 33-34).

Late Woodland Period (ca. 1000-450 BP or 950-1500 AD) and Contact Period (1500-1650 A.D.)

By the Late Woodland Period Native populations were living in larger villages, some of which were occupied throughout the year. Some seasonal movement continued to occur, particularly for the exploitation of migratory species. In addition, small groups may have traveled varying distances for the purpose of hunting as well as gathering of plant foods. While wild food resources remained a large component of the diet, cultivated species came to be produced in fields cleared specifically for that purpose. There was an increase in ceramic production, and the lithic resources in use became more local with quartz and quartzite dominant in this region with smaller amounts of Boston basin materials. The development of regional home bases by this time also led to the formation of ethnic diversity reflected in the growth of linguistic and cultural traditions unique to individual groups. The Boston Harbor area came to be occupied by the Massachusett-speakers, while southeastern Massachusetts was home to the Wampanoag (Simmons 1986; Goddard and Bragdon 1988). The Nipmuc and Pawtucket (or Pennacook) were present to the north and west of the Massachusett, and to the west and south were the Narragansett and Pequot. Together these groups became known as the Eastern Algonquians.

In the Concord, Sudbury, and Assabet river drainage, Middle and Late Woodland settlement patterns seem to be similar. There is abundant evidence for Late Woodland peoples' use of the confluence of the Sudbury and Assabet rivers (Herbster 2005: 34-35), and in fact Late Woodland use of this area has already been established by work at the North Bridge site (Towle 1984) and previous excavations at the Old Manse (Mohler et al. 2001; Mrozowski and Kelley 1999).

There are no identified sites from the Contact Period in the Concord area. In the Contact period, Herbster identifies the Sudbury and Concord river drainage as the territorial boundary between groups: the Massachusett, focused on the coast; and the Nipmuc, whose traditional territory went from this river drainage to the Connecticut River valley (2005: 35). Dudek et al (2001: 27-29) posit that the Sudbury River drainage was part of a Nipmuc homeland, a broad area of different environmental and resource zone (ie., river and upland) containing the different kinds of plants, animals, planting sites, living sites, and hunting, fishing, and gathering areas that a group needed throughout the year. Groups of people would move between these sites seasonally, or as needed, often retuning to specific locations that had good resources repeatedly over the course of multiple years. The Old Manse site seems to have been such an area, with evidence of multiple periods of use for different purposes.

Known Native Sites in the Vicinity of the Old Manse

Herbster's (2005) survey of both MHC and Minute Man National Park (ASMIS) site files identified 8 Native sites in the area covered by the North Bridge unit of the National Park which surrounds the Old Manse land. Seven of these sites are on Park Service land and one is on the Old Manse property. Review of MACRIS in 2016 added 7 additional Native sites registered in the circle with a ½ mile radius centered on the Old Manse that are not on Park or Trustees land (Table 1). These are known largely from collectors and avocational excavations between the 1890s to 1940s. Of the sites for which the time period has been identified, most seem to be multi-component with Middle and Late Archaic and Middle and Late Woodland occupations. Two sites (19-MD-88 and 19-MD-101) are identified as village sites, 8 as camp sites (some with workshops), 2 as flake scatters, 1 as a rock shelter, and 2 are unidentified to a type. Burials were reportedly also found at 19-MD-88, although Towle (1984: 13) argues

Table 1. Known Native sites within half a mile of the Old Manse; time periods and site types taken from MACRIS; other information from MHC site forms.

MHC No.	Site Name	Time Periods	Site Type	Notes
19-MD-82	Flint/Carr Farm	None listed (Late Archaic, per S. Blancke)	Camp site	2 artifacts from avocational collector (Tolman) and 8 flakes in 3 STPs during a CRM survey
19-MD-88	Poplar Hill	Middle, Late, and Transitional Archaic, Middle and Late Woodland	Burial and large village	On NPS land; Identified by avocational excavators S. Hoar and G. Prescott during early 20th c house construction. Tolman and Smith also collected. Reportedly extended burials and domestic features.
19-MD-89	Old Manse Land	Middle, Late, and Transitional Archaic, Middle and Late Woodland	Camp site	Trustees of Reservations; identified by avocational archaeologists and collectors (H.D. Thoreau, A. Tolman, B. Smith; limited professional excavation (focused on historic period components) by Mrozowski found a Middle Woodland hearth.
19-MD-90	Battle Lawn (Edwin Barrett Estate)	Late Archaic, Late Woodland	None listed	NPS; collected by Tolman in 1890s; Native artifacts noted but not collected during excavations focusing on historic period components.
19-MD-91	Liberty Hill	Middle and Late Archaic, Late Woodland	Camp site	NPS; identified by avocational collectors and excavators B. Smith and R. Wheeler.
19-MD-92	Dennis Rock/ Keyes Hill	Middle, Late, and Transitional Archaic, Late Woodland	Rock shelter	Collected by A. Tolman, B. L. Smith, and G. Keyes.
19-MD-101	Lang's Hill/ Dr. Bartlett	Middle, Late, and Transitional Archaic, Woodland	Village site	Collected by Tolman, Smith, Hosmer, and Prescott; at least 1000 artifacts but Prescott's large (ca 800 artifacts) collection could not be located as of 1981. Notable for being not directly on the river.
19-MD-102	Prescotts	None listed	Camp site	Collected by Tolman and Smith.
19-MD-103	Hosmers Rocks	Early to Transitional Archaic, Middle and Late Woodland	None listed	Concord Land Trust property. Collected by Tolman, Hosmer, and Smith.
19-MD-105	Mantatuket Rock	Late Archaic, Woodland	Camp site	Town land. Collected/excavated by Warren Moorehead and B. L. Smith. Site form suggests possible Palaeo-Indian component, but questionable.
19-MD-487	Old North Bridge	Late Archaic, Late Woodland	Workshop (LA), camp site (LW)	NPS; Professionally excavated (Towle 1984). Two components are spatially distinct. 1140 artifacts including lithics, ceramics. Evidence for tool mfr, tool repair, and cooking.
19-MD-1002	Ephraim Buttrick House	None listed	Flake scatter	NPS, Two Native artifacts in artifact collection from historic period component.
19-MD-1003	Roads West of North Bridge	None listed	Flake scatter	NPS; Two Native artifacts found along the roads.
19-MD-1004	Jonas Bateman/ David Brown	Early Archaic	Camp site	Excavated in 1987 (25-1097); 363 Native artifacts (incl 6 ceramics) in plowed fields. *NB, MACRIS lists site as EA; site form says LA/unknown.
19-MD-1104	Robbins House North locus	None listed	Workshop, camp site	Discovered during CRM survey (Dudek and Mailhot 2010); 6 of 38 STPs contained Native material; total of 8 Native artifacts in the plowzone.

that the burials were most likely from the historic period.

North Bridge Site

Of these sites, only the Old North Bridge Prehistoric Site (19-MD-487) has been subject to professional excavations that defined its boundaries and configuration (Towle 1984). The site was identified in excavations by the National Park Service, directed by Linda Towle, in 1983 prior to site improvements along Monument Street immediately north of the Old Manse property; the area that was tested was north of the path leading to the Old North Bridge. Most of the Native artifacts were recovered from the plow zone, and consist of lithic debitage, tools, and floral and faunal remains, primarily calcined bone, including turtle bones. Although there were several small pit and post features, Towle (1984: 38-41) could not confidently assign most of the features to the ancient Native period (and several were historic period post holes). The most notable feature was a concentration of cobbles in a bright orange-red sand with flakes, lithic tools, and calcined bone in the surrounding deposits.

Despite being recovered primarily in plow zone contexts, the artifacts had enough spatial patterning to indicate multiple different activity areas, occupied in different time periods. Middle Archaic material was present on both the east and west slopes of the excavation area. There was a Late Archaic component on the east slope (Area A), and a Late Woodland component on the west slope (Area F/G/K). The Late Archaic component (which may extend into the Early Woodland period) was identified based on the presence of diagnostic projectile points (Brewerton Eared Triangles and 2 Small Stemmed Points). Quartz was the predominant lithic material, and there was one clear area where someone had made quartz tools (Towle 1984: 43). Towle interpreted the Late Archaic component here as a short term camp site (1-2 nights) with no evidence of cooking or fishing. The Late Woodland component (Towle 1984: 44-46) was spatially distinct from the Late Archaic component, and found on the western slope of the knoll, towards the river. It was dated based on the presence of ceramic sherds, a Levanna point, and the variety of lithic sources used. This component was also interpreted as a short term camp to gather local resources or as part of a hunting, fishing, or trading trip along the river. The Late Woodland site shows evidence of tool repair and of cooking, based on the calcined bone, though no hearth was identified. The presence of turtle bones among the calcined bone indicates that the site was used between the spring and the fall, since turtles were presumably not captured during the winter when they are hibernating (Towle 1984: 72). Towle felt that the site likely extended onto the adjacent Old Manse property, and our recent excavations do provide evidence of Late Archaic and Middle and Late Woodland occupation at the Old Manse. Specific comparison of the finds from the North Bridge and the Old Manse sites will be made in the Analysis section.

Towle's evaluation at the time was that the North Bridge site "does not add significantly to the understanding of the prehistory of the Concord/Sudbury River Valley" (1984: 49) and the site was determined not eligible for the National Register because of the level of plowing and prior disturbance (1984: 51-52). She described the Late Woodland component as somewhat more significant since few sites from that time period were known in the region. Towle saw the primary significance of the site as adding some diversity to the information gathered from artifact surface collections, which are dominated by projectile points. Activities such as tool repair and cooking are underrepresented at these sites since chipping debris, ceramic fragments, and calcined bones are not often picked up during surface collection. At the local level, however, the North Bridge site may be more significant than Towle recognized at the time since few other Native sites have been discovered and professionally excavated in this part of Concord in the 35 years since Towle's work. Herbster (2005: 103) points out that the fact that this site had portions that were intact despite subsequent historic period use means that other nearby areas with a similar land use history could have similar areas of preservation.

Other Sites

Other recent professional excavations had

identified Native materials (and in some cases features), but none have been excavated to the extent of 19-MD-487. Two of the camps sites (19-MD-1004 and 19-MD-1104) were discovered during CRM surveys. Both found Native materials in plowed contexts and no intact Native features or deposits. Two of the sites, the Ephraim Buttrick House (19-MD-1002) and the Battle Lawn/Edwin Barrett Estate (19-MD-90), have Native tools that were identified during Park Service excavations of historic period sites. The Roads West of North Bridge site is also defined based on 2 fragmentary points in the Park collections. Finally, excavations on the Old Manse property in the 1990s identified a Middle Woodland hearth (see below). Sites not discussed above were identified by collectors and avocational work.

The Old Manse Land Site (19-MD-89)

Early Collectors at the Old Manse

The Old Manse Lands site is previously known from both collectors and limited professional excavation. As listed on its MHC site form, it was collected by Adams Tolman, Ben L. Smith, and Alfred Hosmer between the 1890s and 1940s. Henry David Thoreau also reportedly collected from the Old Manse fields, but his collection, now at the Peabody Museum at Harvard and the Fruitlands museum, lacks site specific provenience information for the most part. The Tolman, Smith, and Hosmer collections are now at the Concord Museum and have been cataloged by Dr. Shirley Blancke, Associate Curator of Archaeology and Native American Studies. Blancke shared her catalog of the objects from these collections that are associated with the Old Manse property, reproduced here by permission of the Concord Museum (Table 2). The catalog lists 131 items, all but 2 of which are lithics. The tools include 3 abraders, 5 scrapers, 5 knives, 5 perforators, 1 pestle, 1 plummet, 1 sinker, and 50 projectile points (Table 3). Late Archaic types dominate the projectile point collection, and these come from all three of the Late Archaic traditions (Laurentian/Brewerton, Small Stem, and Susquehanna) described by Herbster (2005: 30-31). The spatial distribution of these point types across the property is not known.

Early UMass Boston Excavations

Stephen Mrozowski and excavators from UMass Boston's Center for Cultural and Environmental History (predecessor to the Fiske Center) conducted excavations focused on the historic period structures (the house, barn, and associated outbuildings and the boathouse) between 1994 and 2000 (Mrozowski and Kelley 1999; Mohler et al. 2001). Both the 1994 and 2000 excavations included an STP survey of the field west of the main house, towards the river. The 1994 STP survey tested an area that had been an apple orchard in the historic period and found an intact Native American hearth dating to the Middle Woodland period (1650-1000 BP; based on radiocarbon dating) and discovered a Levanna projectile point associated with the Late Woodland period in the plowzone in the same area. The work in 2000 tested the area further west, closer to the river and the boathouse and again found an intact Native layer, a buried A-horizon containing two rhyolite flakes and one jasper flake in STP 4/2 (Mohler et al 2001: 27-28). Twelve of the 15 STPs excavated in 2000 contained some Native material, but in all other cases it was in contexts that had been mixed during later periods and also contained historic-period artifacts. These findings led Mohler et al (2000: ii) to conclude that the meadow west of the main house has "medium to high archaeological integrity" for Native materials. While sections of this area have been disturbed by historic period farming, landscaping, and construction, there appear to be areas where Native deposits are preserved. Excavations around the house and barn did not uncover any intact Native deposits.

Historic Period Context for the Old Manse

The historic period details for the Old Manse are presented here only in brief since the bulk of the archaeological remains dated to the ancient Native period. The earliest European title for the Old Manse land was to James Blood who acquired 666 acres, including the current Old Manse property, in 1640 (TTOR 2010: 3-1). Over the next century, the Bloods maintained a working farm and orchard on the land. The location of their house is not known. Analysis of the existing house had suggested that it might stand on

Table 2. Catalog of the 131 artifacts collected from the Old Manse property in the late 19th and early and mid 20th centuries, now in the Concord Museum. Cataloged by Dr. Shirley Blancke, Associate Curator of Archaeology and Native American Studies and reproduced by permission of the Concord Museum.

Count	Object	Type	Material	Period	Collector
1	Abrader?	(missing)			Hosmer
1	Abrader/burnisher	pebble w very smooth surface	sandstone?		Hosmer
1	Abraider	fragment	soapstone, gray		Adams Tolman
1	Ceramic sherd	grit temper, corded		W	Adams Tolman
1	Ceramic sherd	grit temper, plain		W	Adams Tolman
1	chipping waste	chunk	rhyolite, gray		B L Smith
1	Chipping waste	chunk	argillite, gray-green		B L Smith
5	Chipping waste	chunks	rhyolite, black/white		B L Smith
2	Chipping waste	chunks	quartz		B L Smith
1	Chipping waste		rhyolite, purple		Adams Tolman
1	Core?	rough, small	quartz		Adams Tolman
1	Edge tool	end scraper, teardrop	rhyolite, gray		B L Smith
1	Edge tool	end scraper, teardrop	rhyolite, black/white		B L Smith
1	Edge tool	knife, triangular pointed	rhyolite, brown		B L Smith
1	Edge tool	knife?, leaf-shaped	argillite, gray-green		B L Smith
1	Edge tool	scraper, small circular	quartz		Hosmer
1	Edge tool	scraper, thumbnail	chert, gray		B L Smith
1	Edge tool preform	scraper, thumbnail	quartz		B L Smith
1	Edge tool, fragment	knife point, large	quartzite, buff		B L Smith
1	Edge tool, fragment	knife, blade mid-section	rhyolite, black/white		B L Smith
1	Edge tool, fragment	knife, rectangular base, large	rhyolite, gray		B L Smith
3	Flakes	large/medium	rhyolite, black/white		B L Smith
4	Flakes	large/medium	rhyolite, gray		B L Smith
10	Flakes	small	quartz		B L Smith
2	Flakes	small	argillite, gray-green		B L Smith
5	Flakes	small	hornfels, black		B L Smith
1	Flakes	small	quartzite, gray		B L Smith
17	Flakes	tiny	rhyolite, black/white		B L Smith
1	Pendant	(missing)			Hosmer
1	Pendant	rectangular	slate, gray		Adams Tolman
1	Pendant fragment?	rectangular	slate, gray		Adams Tolman
1	Perforator	Fishtail base	rhyolite, black/white	LA	B L Smith
1	Perforator	Small Triangle, graver point	quartz	LA	B L Smith
1	Perforator		rhyolite, purple		Adams Tolman
1	Perforator		rhyolite, green		Adams Tolman
1	Perforator fragment	shaft point	rhyolite, black/white		B L Smith
1	Pestle	small, elongated, wear on each end	metamorphic, gray		Hosmer

Table 2. Continued.

1	Pipe fragment	stone, platform pipe center fragment w bowl	soapstone, gray	W	Adams Tolman
1	Pipe fragment	stone, unfinished	quartzite, gray		Adams Tolman
1	Plummet		hornfels, gray		Adams Tolman
1	Point fragment	base, Fox Creek Lanceolate?	chert?, brown	MW	B L Smith
1	Projectile point	Atlantic	rhyolite, black/white	LA	Adams Tolman
1	Projectile point	Atlantic	rhyolite, purple	LA	Adams Tolman
1	Projectile point	Atlantic	rhyolite, black/white	LA	B L Smith
1	Projectile point	Brewerton Eared Triangle	rhyolite, black/white	LA	Adams Tolman
1	Projectile point	Fishtail	rhyolite, black/white	LA	B L Smith
1	Projectile point	Jacks Reef Pentagonal, small	rhyolite, black/white	MW	Hosmer
1	Projectile point	Levanna preform	rhyolite, green	LW	Hosmer
1	Projectile point	Levanna triangle	rhyolite, red	LW	B L Smith
1	Projectile point	Levanna triangle	rhyolite, gray banded	LW	B L Smith
1	Projectile point	Levanna triangle	mylonite, green	LW?	Adams Tolman
1	Projectile point	Levanna-like triangle, small	rhyolite, black/white	LW?	Adams Tolman
1	Projectile point	Neville	quarzite, tan	MA	Hosmer
1	Projectile point	Neville variant	rhyolite, gray	MA	Hosmer
1	Projectile point	Neville variant	quartzite, buff	MA	B L Smith
1	Projectile point	Neville variant	quartzite, gray	MA	B L Smith
1	Projectile point	Neville variant	rhyolite, black/white	MA	B L Smith
1	Projectile point	Neville variant	rhyolite, gray	MA	B L Smith
1	Projectile point	Small Stemmed	quartz	LA	Adams Tolman
1	Projectile point	Small Stemmed I	quartz	LA	B L Smith
1	Projectile point	Small Stemmed I	quartz	LA	B L Smith
1	Projectile point	Small Triangle	rhyolite, black/white	LA	Adams Tolman
1	Projectile point	Small Triangle	rhyolite, black/white	LA	Adams Tolman
1	Projectile point	Small Triangle	quartz	LA	Adams Tolman
1	Projectile point	Small Triangle	quartz	LA	Adams Tolman
1	Projectile point	Small Triangle	quartz	LA	Adams Tolman
1	Projectile point	Small Triangle	rhyolite, black/white	LA	Adams Tolman
1	Projectile point	Small Triangle	argillite, gray-green	LA	Hosmer
1	Projectile point	Small Triangle	quartz	LA	Hosmer
1	Projectile point	Small Triangle	quartz	LA	Hosmer
1	Projectile point	Small Triangle	rhyolite, black/white	LA	Hosmer
1	Projectile point	Small Triangle preform	rhyolite, black/white	LA	Adams Tolman
1	Projectile point	Snappit Triangle?	quartzite, buff	MA	Adams Tolman
1	Projectile point	Snappit Triangle?	quartzite, gray	MA	Adams Tolman
1	Projectile point	Squibnocket Stemmed/ SSIII	quartz	LA	Adams Tolman
1	Projectile point	Squibnocket Stemmed/ SSIII	quartz	LA	Adams Tolman

Table 2. Continued.

Count	Object	Type	Material	Period	Collector
1	Projectile point	Squibnocket Stemmed/ SSIII	quartzite, buff	LA	Adams Tolman
1	Projectile point	Squibnocket Stemmed/ SSIII	rhyolite	LA	Adams Tolman
1	Projectile point	Squibnocket Stemmed/ SSIII	quartz	LA	Adams Tolman
1	Projectile point	Squibnocket Stemmed/ SSIII	quartz	LA	Adams Tolman
1	Projectile point	Susquehanna Broad	rhyolite, gray	LA	Adams Tolman
1	Projectile point	Susquehanna Broad	chert?, black/white	LA	B L Smith
1	Projectile point	Susquehanna Broad	rhyolite, gray	LA	B L Smith
1	Projectile point	Wading River/ SSI	argillite, gray-green	LA	Adams Tolman
1	Projectile point	Wading River/ SSI	quartz	LA	Adams Tolman
1	Projectile point	Wading River/ SSI	quartz	LA	Hosmer
1	Projectile point	Wading River/ SSI	quartz	LA	Hosmer
1	Projectile point	Levanna triangle preform	mylonite, green	LW	Adams Tolman
1	Projectile point	Stark	rhyolite, green	MA	Adams Tolman
1	Projectile point/knife	Brewerton Eared	rhyolite, black/white	LA	Adams Tolman
1	Sinker		metamorphic, gray		Adams Tolman

Table 3. Projectile points in the Concord Museum collection from the Old Manse. Data courtesy of Shirley Blancke, Associate Curator of Archaeology and Native American Studies, Concord Museum.

Period	Count	Type
Middle Archaic	(9)	
	6	Neville and Neville variants
	2	Snappit Triangle
	1	Stark
Late Archaic	(33)	
	3	Atlantic
	2	Brewerton Eared Triangle
	1	Fishtail
	3	Small Stemmed
	11	Small Triangle
	6	Squibnocket Stemmed (SSIII)
	3	Susquehanna Broad
	4	Wading River
Middle Woodland	(2)	
	1	Fox Creek Lanceolate?
	1	Jack's Reef Pentagonal
Late Woodland	(6)	
	6	Levanna

the foundations of an earlier, 17th-century structure (Chase and Fannin 1991: 14). However, the discovery in 2017 of a foundation of what appears to be an early 18th-century domestic structure near the west side of the current garden suggests another possible location for the Blood house (Crowder et al. 2018).

In 1769, a descendant of the Bloods sold 22 acres to Rev. William Emerson. Emerson and his wife Phoebe were living in a new house (the current structure), a central hall Georgian style structure with four rooms per floor, by 1771 (TTOR 2010: 3-1). Fighting on April 19, 1775 spilled over from the North Bridge area into the field north of the Old Manse. After William Emerson died, Phoebe remarried Rev. Ezra Ripley in 1780. Ezra Ripley lived at the Old Manse until his death in 1841. Under the Ripleys, the property became more of a gentleman's farm, with farming supplementing Ripley's income as a minister (TTOR 2010: 3-2). Also under the Ripleys, a number of notable literary figures stayed at the Manse. Ralph

Waldo Emerson (grandson of Phoebe Emerson Ripley) stayed there for a year (1834-1835), and Nathaniel and Sophia Hawthorne rented the house from Samuel Ripley from 1842 to 1845. Hawthorne wrote about his stay there in *Mosses from and Old Manse* (1846). Members of the Ripley family, and their descendants, the Thayer and Ames families, stayed there for the rest of the century. Many of them were artists and intellectuals. The excavations of the shay shed and wood shed foundations in the 1990s found some evidence for these activities in the form of paint brushes and paint tubes. By 1900 the property was primarily serving as a summer house, and in 1939 the estate of Sarah Thayer Ames sold the property to the Trustees of Reservations.

2018-2019 Archaeological Investigations

Research Design and Methods

Archaeological excavations were undertaken by the Fiske Center for Archaeological Research from the University of Massachusetts Boston from October 22-31 and Nov. 12, 2018, and in May and June 2019 under State Archaeologist's Permit #3869. The field crew consisted of University of Massachusetts Boston graduate students Gary Ellis, Lauryn Poe, Megan Sheehan, and Nicholas Zeitlin, under the direction of Christa Beranek. Sheehan and Zeitlin assisted with the laboratory analysis following the excavation.

The investigations were prompted by the TTOR's plans to conduct landscaping around the Old Manse property including the re-graveling of the driveway, widening of the parking lot, and the planting of trees and shrubs around the property. Shovel test pits (STPs) were planned around the parking lot at the boundaries of its proposed expansion area, along the gravel driveway, and at the locations of all proposed major tree plantings to test the project area for significant archaeological resources. Additional judgmental STPs were placed in these areas to test anomalies detected by previous geophysical surveys conducted by the Fiske Center for Archaeological Research. Plans were made to expand excavations into 1x1m excavation units (EUs) as needed to evaluate the integrity of archaeological resources. The project was continued into 2019 in order to archaeologically excavate one of the tree planting locations and to test the location for a buried propane tank. A total of 41 STPs were excavated (39 for the landscape work in 2018; 2 for the propane tank in 2019); three of these were expanded into EUs (Figs. 3-5). For the discussion, the property has been divided into five broad areas: the parking lot, the driveway, the area under the event tent (south of the house), the yard west of the house, and the propane tank site near the northwest corner of the house (Table 4).

The project was a targeted survey to investigate the nature, extent, chronology, and integrity of buried cultural resources in the specific areas that would be affected by grading, landscaping, and tree planting.

In particular:

1) Are there any material remains that indicate the historic use of the area that is now the parking lot?

2) Do any deposits associated with the foundation discovered in 2017 extend to the west, into the area where new fruit trees will be planted?

3) Are any deposits or features from the Native occupation of the property preserved in any of the proposed work areas, particularly near the river?

4) Is there evidence of Native activity here that was disturbed by the colonial farm (in the form of concentrations of Native lithics or ceramics in plowed contexts), particularly in the area surrounding the parking lot?

All field data was mapped using the Massachusetts State Plane grid coordinates, established using initial GPS points and a total station by John Steinberg. This grid was also used during our 2016-2017 work. Coordinate data for each excavation area can be found in Appendix A.

All excavations were done by hand with trowels and shovels. Soils were screened through ¼ inch hardware cloth and artifacts placed into labeled bags. When Native features and deposits were encountered, the soils were screened through 1/8 inch mesh. Excavations continued to sterile subsoil with the exception of waterlogged units close to the river which were ended at the water table. All of the test units were recorded as appropriate with photos, plans, and profile drawings.

We collected soil samples from several highly organic Native deposits in EUs 120 and 131 for flotation. All samples were processed at the Fiske Center for Archaeological Research's Paleoethnobotanical Lab. Soil samples were processed using a Flotec flotation machine to separate botanical materials from the soil through water screening. The low density botanicals and high density inorganic materials were both collected for analysis. All materials were analyzed under microscope. Seed identification was conducted on all samples.

Light fractions were screened through sieves ranging from 2mm-0.5mm and scanned for seeds.

The majority of seeds identified during analysis were uncharred grasses and flowering plants native to the local environment such as cranesbill (Geranium), Viola (Violaceae), sedges (Cyperaceae), goosefoot (Chenopodium), purslanes (Portulacaceae), crabgrass (Digitaria), and carpet weed (Aizoaceae). Raspberry seeds were found in three samples, but all raspberry seeds except for one were uncharred. Due to the uncharred nature of the seed assemblage the material has been considered to be non-archaeological in nature and transported into the contexts through bioturbation. No further analysis is to be conducted on the seed assemblage. Charcoal analysis was conducted on samples 2, 3, and 4 from EU 120 in the tent area (see below). The charcoal from EU131 was in too small fragments for identification and study. Wood charcoal samples from three contexts were sent to Dr. Brain Damiata at the Keck Carbon Cycle AMS facility at the University of California at Irvine, for AMS radiocarbon dating. These results are discussed in the appropriate sections below, and the section of Damiata's report that pertains to the Old Manse is Appendix B.

Once excavations were complete, the artifacts were brought back to the archaeological laboratories at UMass Boston. Glass, historic ceramic, lithic, and stable bone artifacts were washed; fragile bone and metals were dry brushed. Artifacts were identified and cataloged in FiskeCat, the Fiske Center's FileMaker database, and then re-bagged for long-term storage. The catalog can be found in Appendix A. After completion of the final report, the artifact collection will be curated at the Trustees Archives and Research Center in Sharon, MA.

Results

Overview

Most of the STPs did not identify significant cultural deposits. The historic artifacts in all areas were small pieces of sheet refuse; no primary trash deposits were identified. The whole artifact collection from the 2018-2019 excavations fits into a single banker's box. Summary numbers of artifacts by excavation unit can be found in Appendix A. The historic period artifacts consist of a normal range of late 18th and early 19th-century domestic trash, broken ceramic vessels from the kitchen and the table, fragments of glass bottles, nails, brick fragments, window glass, and small numbers of smoking pipe fragments. We also found a horse shoe in STP143 along Monument Street. The historic artifacts were not evenly distributed across the property, but were concentrated as low density sheet refuse in the areas closest to the house: STP/EU131 in the west yard and all of the STPs in the tent area, which would historically have been the barn workyard.

Table 4. STPs and EUs by area; EUs in bold.

Area	STP and unit numbers
Parking lot	**84,** 85, 94, 95, 97, 98, 99, 101, 102, 103, 105, 106, 107, 108, 109, 110, 139, 140, 141, 142, 143
Driveway	89B, 90B, 93, 132, 135 offset, 136 offset
Tent area	58, **120,** 121, 122, 123, 200, 201
West yard	130, **131,** 144, 202, 203, 204, 205
Propane tank	250, 251

The ceramic collection is described by area in Table 5; note that the different areas are represented by different numbers of test pits. For example, the 149 ceramic sherds from the Parking Lot area come from 20 test pits and 1 EU, while the 188 sherds from the tent area come from 6 test pits and 1 EU, meaning that the historic artifact deposits in the tent area were denser than in the parking lot.

Based on the ceramic types represented, artifact deposition in all of these yard areas took place primarily in the late 18th and early 19th centuries, corresponding with the Emerson and Ezra Ripley family periods (1769-1841). Historic ceramics consisted predominantly of redware, creamware, and pearlware, with smaller amounts of porcelain. These types could have all existed simultaneously in a late 18th or early 19th century household. Smaller amounts of ware types that were more common earlier and later are also present. Of the datable ceramics, creamware (introduced in England in the 1760s) dominates. Creamware remained popular in the colonies through the rest of the 18th century. Pearlware also occurs across the

Table 5. Historic period ceramics from the Old Manse by area.

Ware type	Area					
	Whole site	Parking lot	Driveway	Tent area	West yard	Propane tank
Native American	29	1		17	11	
Redware	301	94	30	41	41	95
Tin glazed	5			2	3	
Creamware	177	19	7	90	26	35
Pearlware	60	24		19	14	3
Whiteware	5	5				
Yellow ware	1	1				
Indeterminate earthenware	16	2	1	9	4	
Porcelain	12	3		3	6	
White salt glazed stoneware	7			1	1	5
Jackfield type stoneware	6			6		
Other stoneware	2					2
Total, all types	619	149	38	188	106	140

site in small amounts; most of the fragments are undecorated, but there are some underglaze polychrome painted sherds and few pieces of transfer printed wares which date to the early 19th century. Whiteware and yellowware, ceramic types that are introduced in the 1820 and 1830s only occur in the parking lot, suggesting that small amounts of trash were still be deposited and incorporated into the plowed field in this area in later decades.

There is a small collection of hand painted porcelain (Fig. 6) in the deposits in the tent area and behind the house in EU131 (West yard). This is the most expensive of the ceramic types represented. Although the fragments are not large enough to indicate the shapes of the vessels that these came from, porcelain was frequently used for tea cups and saucers. The Emerson and Ripley families had porcelain in several different patterns, possibly from different sets. We also found fragments of a black-glazed Jackfield

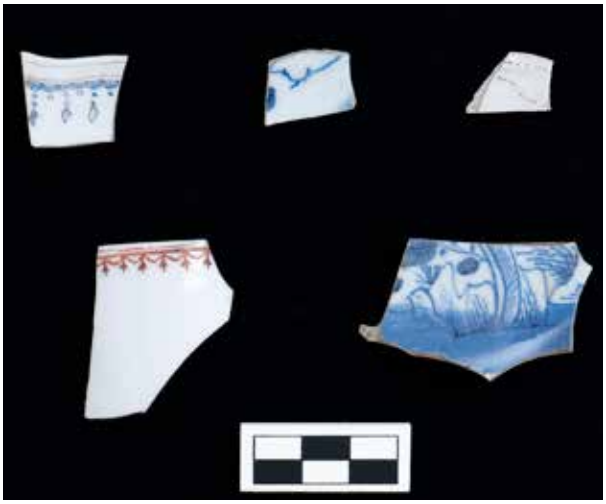

Figure 6. Hand painted porcelain from the tent area and the west yard. Photograph by Melody Henkel; scale in cm.

type teapot in the tent area. Although tea drinking was a politically charged activity in the years around the American Revolution, for most of the Emerson and Ripley's tenure at the Old Manse, it would have been a normal form of genteel, small group socializing. Tea taking was well suited to the smaller social gathering that took place in rural households (as opposed to the larger, refined dining events at contemporary urban homes). The presence of pieces in porcelain, at a time when refined earthenware such as creamware were available, reflects the investments that Phoebe Emerson Ripley and her first and second husbands made in having refined goods for their gatherings.

In three areas, however, we found potentially significant cultural resources in the form in Native artifacts that seem to be in intact strata (Figs. 3-5):

1) Driveway: A lithic working area at STP/EU 84. This deposit is limited in extent and has been truncated by the driveway and parking lot. The 1.5 x 1.5 m area need for the tree was excavated by hand so that all of the soil in the tree planting area was archaeologically excavated.

2) West yard: A buried ground surface and a pit feature with calcined bone and lithic flakes, including non-local Pennsylvania jasper, in STP/EU 131. Charcoal samples from the buried ground surface and the pit were dated to the Late Woodland and the Late Archaic periods respectively. The presence of calcined bone in large quantities (multiple hundred small fragments) suggests that

Figure 7. Left: STP98 north profile which is representative of STPs surrounding the parking lot; right: view of plow scar in STP99. Large block on the north arrow = 10 cm.

there was a hearth nearby where animal bones were disposed of by burning. The extent of this area of preserved strata is not known, since we did not excavate additional STPs beyond the tree planting site. In response to this discovery, The Trustees altered the tree planting plans in order to avoid this area.

3) Tent area: A possible residential area identified in STPs 120-123 and 58, represented by tools, flakes, and Native ceramics in a buried ground surface/stratified artifact deposits and a large, charcoal rich pit feature. Charcoal from the pit feature dates to the Late Archaic, and the tool assemblage includes a modified Levanna point (Late Woodland). Because this deposit covers a broad area, The Trustees identified an alternate planting location which we tested (STPS 200 and 201) where no significant cultural material or intact strata were identified. Tree planting proceeded in the alternate location.

Excavation Details by Area

Parking Lot

The proposed parking lot (25 x 30 m) is located over the existing parking area and expands it to the north and west. New work will remove the existing parking area and resurface it, with expected disturbance of 20 cm (8 inches). There is a buried electrical line running across the north end of parking area. We tested around the margins of the parking lot in areas where it was going to be expanded and placed several test pits in the existing parking lot to determine the depth of the bedding deposits. In total, we excavated 22 test pits around the parking lot; one of these was expanded into a 1 x 1 m excavation unit (STP/EU 84), and later to a 1.5 x 1.5 m unit in order to hand excavate the whole area needed for the tree planting in this location.

Tests on the western, eastern and northern borders of the parking lot identified low density Native and historic material throughout homogenous contexts mixed by plowing (Fig. 7) or disturbed by parking lot construction. In general, the deposits were compact, especially near the parking lot margins, and shallow. On the west side of the parking lot, there were ca. 25 cm of homogenous plow zone above the subsoil. Closer to Monument Street, the topsoil was 40 to 50 cm deep. STPs 99 and 110, both on the west side of the parking lot, had plow scars running N-S visible at the upper interface of the subsoil. These provide additional evidence for plowing the North Field. A few STPs were excavated through the parking lot surfacing material to determine its depth. STP97, for example, had 38 cm of brownish yellow sand and gravel that made up the parking surface and 5 cm of sterile dark brown clayey silt before transitioning to subsoil.

With the exception of the lithic collection in EU84, discussed separately below, the artifact density for both historic and modern material in the parking lot STPs was very low. Historic

Table 6. Lithics from all STPs, by material and area.

Area	Unit	Material types						
		Quartz	Quartzite	Rhyolite, black/gray	Rhyolite, red	Rhyolite, green (Melrose)	Mylonite	
Driveway	STP135 offset	1		1		10		
	STP136 offset			4	1	1		
Area subtotal		1	0	5	1	11	0	
Parking lot	EU84	1	38	221		97	4	
	EU84ext	5	14	73		15		
	STP85			3		1		
	STP94	1	1	1		1		
	STP95			1				
	STP98	3						
	STP101	1				1		
	STP103			1				
	STP105							
	SPT106	2						
	STP107		1					
	STP109	1						
	STP110	1						
	STP140	3						
	STP142	1						
Area subtotal		19	54	300	0	115	4	
Tent area	STP58			2				
	EU120	3	2	5	2	2		
	STP121		3	1	2	2		
	STP122	5	1	11	5	4		
	STP123	1	1	4		3		
	STP200			1				
	STP201							
Area subtotal		9	7	24	9	11	0	
West yard	STP130		2	4	2			
	EU131	21	15	18		32		
	STP202		1			1		
	STP205	1	2	8		3		
Area subtotal		22	20	30	2	36	0	
Propane tank	STP250			11				
	STP251	2	4	13	4			
Area subtotal		2	4	24	4			
Total by material		53	85	383	16	173	4	

									Total by unit
	Porphyritic andesite	Jasper, red (PA)	Jasper, tan (PA)	Munsungen (ME) chert	Hornfels	Slate	Granite	Unidentified/ other	
								1	12
									6
	0	0	0	0	0	0	0	1	19
	38								399
	9								116
									4
									4
									1
									3
									2
	1								2
	1								1
									2
									1
									1
									1
	1								4
									1
	50	0	0	0	0	0	0	0	542
									2
						1			14
	1								9
		1		1			1	4	26
									9
									1
									0
	1	1	0	1	0	1	1	4	69
						1		1	8
		32	2	1	6	7			86
								1	2
		1		0					14
	0	33	2	1	6	8	0	2	162
	2							2	13
	3								26
	5								39
	56	34	2	2	6	9	1	7	831

Figure 8. Projectile points recovered in 2018. Top, l-r: quartz point tip (EU84, cxt 176, parking lot), PA jasper point base (EU131, cxt 160, west yard); middle, l-r: banded purple rhyolite point tip (EU84, cxt 186, parking lot), quartz point, missing base, possibly Squibnocket triangle (EU120, cxt 65, tent area); bottom, l-r: quartzite Stark point (STP109, cxt 61, parking lot), black rhyolite Levanna point, modified to a graver (STP123, cxt 87, tent area), gray rhyolite small stemmed point (STP 121, cxt 188, tent area).

ceramics (Table 5) were incorporated into these deposits by plowing as field trash, possibly from spreading household compost over agricultural fields. These include the very few ceramics from the second quarter of the 19th-centry found during this project, but late 18th and early 19th-century types were predominant. The Native material was represented by low numbers of flakes; 16 of 21 STPs have at least 1, but none have more than 4, excluding EU84 discussed below (Table 6). Quartz, quartzite, green rhyolite, and black/gray rhyolite are represented. STP109, on the west side of the parking lot, had a quartzite Stark point (Fig. 8) (Middle-Late Archaic) in the plowzone (0-26 cm bs) with redware, brick, and nails. Quartzite is a local material and one of the common materials from which Middle and Late Archic period people made Stark points (Ritchie et al. 1990: 29). This lithic distribution suggests that this whole area was the location of short term, non-intensive use by Native people in the past. The Stark point suggests Middle or Late Archaic use, consistent with the collector data from this area, but Native use of this area was almost certainly not limited to that period.

STP 84 (Area 1) was located south of the parking lot and just north of the driveway, at the site of a proposed tree planting location. It identified a significant number of Native lithic flakes at the A/B soil transition; no features were identified. This STP was extended into a 1 x 1 m EU84 to further evaluate the material, then in 2019 to a 1.5 x 1.5 m unit so that the whole tree planting hole was hand excavated. The excavation unit soils were screened through 1/8th inch mesh. There was a dense lithic scatter containing 515 lithics (flakes, shatter, and two point tips) (Fig. 8). It covered the whole initial 1 x 1 m unit, but was less dense in the 50 cm strips added to the north and east for the expansion, suggesting that this location was used intensively for tool resharpening, but possibly only for a short time period, since

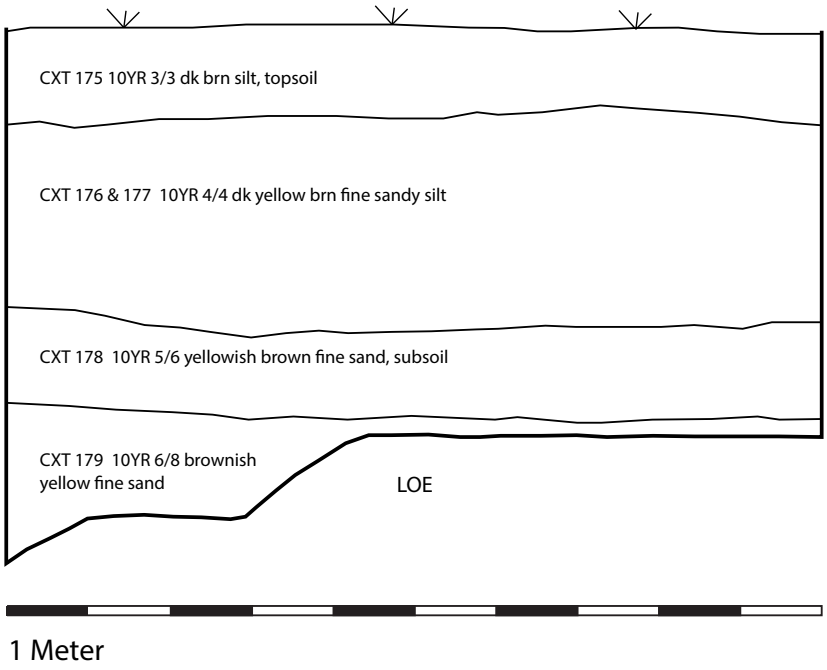

Figure 9. EU84 north wall profile of original excavation unit. The same strata continued in the 2019 extension.

Table 7. EU84 flake material types. The differences in counts between the original 1 x 1 and the extension show how the material density drops off in the extension to the north and east, which cover a greater area than the initial EU, yet have a lower artifact density.

Material	Count (1x1)	Count (extension)	Percent
Quartz	1	5	1%
Quartzite	38	14	10%
Ryholite, black/gray	221	73	57%
Rhyolite, green	97	15	22%
Mylonite	4	0	<1%
Porphyritic andesite	38	9	9%

the flake density tapered dramatically towards the edges of the unit. Flakes occurred in levels 2/3, and 4, with the largest concentration in top few centimeters of the subsoil at 44 cm bs (Fig. 9).

Rhyolites were the dominant material, in black/gray and green, with smaller amounts of quartzite and andesite (Table 7). The only quartz fragment was one of the two point tips; the other point tip was a purplish gray banded rhyolite. Compared to other areas of the property (tent area and EU131), this collection comes from a relatively narrow range of lithic types (4 primary sources/ types represented), and the materials found in EU84 are consistent with the material types found elsewhere around the parking lot. The absence of quartz flakes is notable, and combined with the narrow range of lithic types suggests that this was a short duration/special function work area. The use of this area cannot be conclusively dated based on lithic types alone, but Ritchie et al. suggest that this range of stone types (especially the Melrose green rhyolite) is characteristic of Late Woodland sites in the region (1990: 122).

Flake sizes from the EU84 1x1 were measured (shatter and point tips excluded) and fall into the following categories: 222 flakes that are 1 to 10 mm; 150 flakes that are 11 to 20 mm; 8 flakes that are 21 to 30 mm; and only 1 flake larger than 30 mm. Flakes less than 1 cm in length are predominant, suggesting that this was an area for resharpening or finishing tools rather than for primary reduction.

Furthermore, this deposit is quite limited in extent; it did not continue into the surrounding STPs. EU84 is bounded immediately to the south and west by the driveway which disturbed all cultural layers. To the north, STP 97 was also located completely within the parking lot bedding mate-

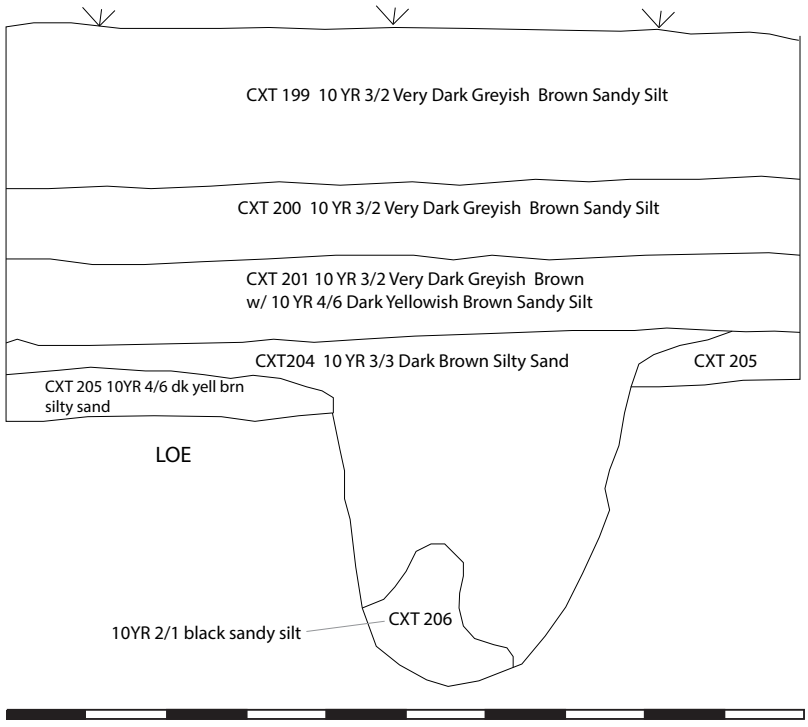

Figure 10. EU131 south profile.

rial. To the east, STP 139 did not contain any Native material; STP 140 did contain a small number of flakes, as well as a single refined earthenware sherd, at the A-B transition, but not the dense lithic scatter seen in EU84.

Driveway

Six STPs were excavated along the driveway. Four were at tree planting locations (89B, 90B, 135, and 136), and the other two (93, 132) were in areas where the course of the driveway was going to be altered. STPs 89B and 90B both had top soil (0-20 cmbs) and a mottled A-B transition (20-40 cmbs) suggesting that this area had not been plowed, possibly because of its proximity to the entrance driveway. These contained a very low density of historic material (brick, granite spalls, and nails), and no Native material.

STP93, in an area where the walkway to the house was going to be altered, contained a layer of walkway gravel (0-10 cmbs) over a thin buried topsoil (10-24 cmbs) and an A-B transition (24-43 cmbs). It also contained a low density of architectural material (brick and nails) and no Native artifacts. STP 132, placed to test an area where the driveway was going to be graded, consisted of driveway surfacing (0-21 cmbs) and bedding (21-65 cmbs) material and no cultural deposits, indicating that the existing driveway had already disturbed any cultural deposits in its path.

STPs 135 and 136 were both intended to be at the locations of replacement trees, however, since the old stumps were still present, we offset the excavation locations to get a picture of the stratigraphy in the area. Both of these STPs had 10-15 cm of modern topsoil and root mat over a thick A horizon (16-42 cm; 12-37 cm). The thickness of the A horizon suggests that this area might have been plowed, or more likely filled to level it in the past. Both of these units contained Native lithic flakes, predominantly at the A-B interface, with 13 in STP135 and 6 in STP136. Melrose green rhyolite was the predominant material, accounting for 11 of the flakes (see Table 6). This area was probably also the location of an episode of tool sharpening, but there is no evidence of intensive activity.

West Yard

We placed 7 test pits in the yard areas west of the house, all in planting locations. One of these, STP131 encountered potentially significant Native deposits and was expanded into EU131, discussed below. STPS 203 and 204 encountered the water table at 30 and 40 cm bs respectively and were negative for cultural material along the river in wetlands. STP202 was in a small grove of trees west of the historic barn location. The soil profile was a thick A horizon (0-42 cm) above subsoil, with no A-B transition layer, suggesting that this area may have been plowed in the past. The A horizon contained a mixture of historic material (creamware, pearlware, vessel glass, and brick), a flake, and 3 pieces of shatter. Given the mixed nature of this deposit, the tree planting here will likely not disturb intact cultural resources. STP144 was located at a tree planting location north of the historic barn and contained only a low-density scatter of historical period material (nails, brick fragments, window glass, creamware, and pearlware).

In contrast to these, the three STPs along the stone wall – STP205, STP130, and STP131 – encountered a similar range of Native lithic material, suggesting that they are all part of a broad occupation area that ran down to the river. STP205 was placed in an area where small "1 gallon" plants were going to be placed. This area had modern topsoil (0-18 cm) and a very deep A horizon extending to 80 cm bs, but with a mixture of historic ceramics (redware, creamware, and white salt glazed stoneware) and Native lithic material throughout. The Native lithics in this unit were 15 flakes of varied materials (Table 6) including a single flake of an unknown, very dark red chert or jasper. This area seems to have been part of the Native settlement also visible in EU131, based on the similar lithic materials, but the area of STP205 has been disturbed by historic period activity, possibly plowing or flood-related river turbation. Since the area has been disturbed, and the plantings planned are small and shallow, our interpretation is that the planned landscaping here will not affect significant archaeological resources. However, if deeper or more intensive re-landscaping of this area were ever to take place, more testing would be recommended.

STP130, a planting location along the stone wall that separates the area behind the house from the North Field, also seemed to have been a location of Native activity, now disturbed by plowing. It contained 10 flakes (Table 6) and two fragments of Native ceramic. Some of these were in the topsoil, mixed with historic materials (0-15 cm bs), and a roughly equal number were in a level 2 (15-40 cm bs) that also included some brick fragments. This level 2 was interpreted as a plowed context because there was no mottled A/B zone below it, instead transitioning directly to a level 3 yellowish brown fine sand subsoil. However, it is possible that significant numbers of Native artifacts and potential features could be preserved in this area, and if more extensive work is planned here, more testing would be recommended.

STP131 (Area 2) encountered stratified deposits, with topsoil and root material (0-18 cmbs), a historic topsoil containing refined earthenwares (predominantly creamware), hand painted porcelain, bottle glass, architectural material and Native lithics (18-31 cmbs), and an apparent buried Native ground surface (31-40 cmbs) containing only Native ceramic and lithic material and calcined bone. Based on these findings, we opened a 1 x 1 m excavation unit (EU). The EU had the same stratigraphic profile of modern topsoil (cxt 199), historic topsoil that incorporated Native material (cxt 200), and a buried Native ground surface (cxt 201). Below this ground surface in the southern part of the unit was a charcoal rich pit feature (cxt 204), also containing only Native material (Fig. 10). We took a flotation sample from the pit feature and the buried Native surface. Two samples from this unit were sent for AMS radiocarbon dating (see Appendix B), a piece of burned bark from the buried ground surface (cxt 201, sample #212537) and a piece of willow charcoal from the pit feature (cxt 204, sample #212538). These produced calibrated dates of 1455-1624 AD and 2556-2349 BC (or 3955 +/-20 BP) respectively. The radiocarbon dates place the buried ground surface in the Late Woodland/Contact period and the pit feature in the Late Archaic. The dating of

Figure 11. Decorated Native ceramic rim fragment from EU131, context 199, and Pennsylvania jasper from EU131. Photographs by Melody Henkel; scale in cm.

Table 8. EU131 Native artifact types by level.

	Modern topsoil (158/199)	Historic topsoil (159/200)	Buried ground surface (160/201)	Pit feature (204)
Material				
Native ceramic	2	1	6	
Calcined bone	60	57	690	84
Quartz	1	4	8	5
Quartzite	12	1	2	
Rhyolite, black/gray	3	5	5	4
Rhyolite, red	1			
Rhyolite, Melrose green	1	2	16	12
Jasper, red (PA)	1	8	12	11
Jasper, tan (PA)				2
Munsungen chert (ME)		1		
Slate		1	3	3
Hornfels		1	5	

the ground surface to the Late Woodland/Contact period probably reflects the fact that this was, in fact, the ground surface at this time period, before being capped by later historic period deposits. The Late Woodland/Contact period date likely represents the later end of the use of this surface. The lithic assemblage from the two contexts (ground surface and pit feature) however contains a similar range of local and exotic materials (PA jasper; Fig. 11), and both contexts contain numerous pieces of calcined bone (Table 8). The same range of lithic materials and calcined bone, in lower densities, can also be found in the historic topsoil (cxt 200). Native ceramic fragments were recovered from the mixed historic ground surface and from the buried Native ground surface, but not from the pit feature. These fragments are small, and most have only one surface preserved. A fragment from cxt 188 with both surfaces is 9 mm thick, and a fragment from cxt 201 is 5 mm thick. A relatively large (2.5 cm x 2.5 cm) rim sherd from cxt 199 has a decorated rim (Fig. 11) and visible shell temper.

Native ceramics and calcined bone are found most densely in the buried ground surface, while the lithics occur quite densely in the pit feature and the buried ground surface. The same range of lithic types, including distinctive Pennsylvania jasper are spread through all of the levels and the pit feature, suggesting that there has been some disturbance or bioturbation in this area. However, stratigraphic layers were still visible, suggesting that at least parts of the ancient Native ground surface were still intact. Dating the strata in this unit is complex. Charcoal from the pit feature dates to the Late Archaic period. The ceramic fragments in the buried ground surface indicate occupation in the Woodland period, and the presence of the Pennsylvania jasper suggests possibly a Middle

Woodland occupation. Ritchie et al.'s study of sites in this region identified Pennsylvania jasper, obtained through long distance trade, as a lithic characteristic of Middle Woodland sites dated to 500-800 AD (1990: 32, 121). The Late Woodland/ Contact period date from the ground surface suggests that this area continued to be occupied by Native people until shortly before the colonial period. In sum, the dated charcoal, stratigraphy, and other materials in this unit suggest that this area was occupied repeatedly from the Late Archaic until the Contact period.

The lithic flakes in EU131 were much less dense than in EU84, suggesting that while some tool working took place here, this was a more multi-use area. Although we did not find a hearth, the amount of charcoal and calcined bone suggests that one would have been nearby. The Native ceramics, charcoal, and calcined bone suggest that cooking and disposal of food remains may have taken place here. This is the only test area where a significant amount of calcined bone was found. All of the recovered bone was calcined. Calcined bone is commonly recovered on Native sites in the northeast (Harper 1999; Sportman 2007). Bone becomes calcined through direct exposure to high heat in the fire, not as a by-product of cooking. Ethnographic information suggests that deliberate burning was one of ways for Native people in the Northeast broadly to correctly and respectfully dispose of the bones of animals hunted to be eaten, and that this may be a ritually important activity (Harper 1999: 354; Sportman 2007). Respectful disposal was necessary because animals were not a resource to be used, but important actors in their own right, possibly with spirits. Acting respectfully in all phases of interaction (hunting, butchering, cooking, eating, and disposal) was a way to ensure successful hinting. Not all bones were necessarily disposed of this way. Others might be put in the water, and some others might not have required ritual disposal (Harper 1999: 354), but the poor bone preservation in acidic New England soils makes this variation difficult to study archaeologically. Most of the bone recovered from the North Bridge site was also calcined (Towle 1983: 37), including a number of bones that were identified as from river turtles.

EU131 is the location of significant, intact Native activity from multiple time periods, and the single excavation unit provided evidence of both long-distance trade and intentional, possibly ritual, disposal of animal bone. This area seems to have extended along the stone wall towards the river, in the areas covered by STPs 130 and 205, although the deposits in those STPs were no longer stratigraphically intact. We do not know the limits of the intact deposits in the area, so this area should be carefully protected, or tested prior to disturbance. It is possible that this area was protected because of the stone wall; the wall created a barrier that could not be plowed over, and which prevented other kinds of planting in the area. The intact area probably continues to and possibly under the stone wall to the north.

Tent Area (Area 3)

STPs 120-123 and 58 in the south of the survey area focused on locations for tree planting to improve the viewshed around an outdoor event tent. This area is a raised, artificially level area south of the standing house, bounded on the east by a wooden fence. East of the fence, the area has been terraced by 20th-century landscaping for a garden and a septic system. Excavations in proposed tree planting locations immediately west of the fence, STPs 58, 121, 122, and 123 identified a thick, generally homogenous A horizon with a stratified artifact deposit extending over at least an 8-meter long area. Lithic tools and flakes, Native pottery and colonial ceramics are distributed across this area, but the Native ceramic and lithic material appear consistently only at the bottom of the A horizon. In one of the STPs, a buried A horizon was visible. This consistent stratigraphic position suggests that the Native deposits were capped by later historic material, and were not heavily mixed by plowing. In contrast to other areas, the B horizon in this area was very cobble rich, and one test pit exposed a large boulder immediately below the modern ground surface. This might have been a visible landscape feature in the past. Soil may have been added to this area in the historic period to create this raised and unnaturally level area. While it did not contain the same types of artifacts, STP 120 (expanded to EU120) further

Figure 12. Plan view of EU 120 features. The historic trench fill has been removed and the pit feature that it cut through is visible in plan in the western half of the unit as well as below the trench fill. Large block on the north arrow = 10 cm in length.

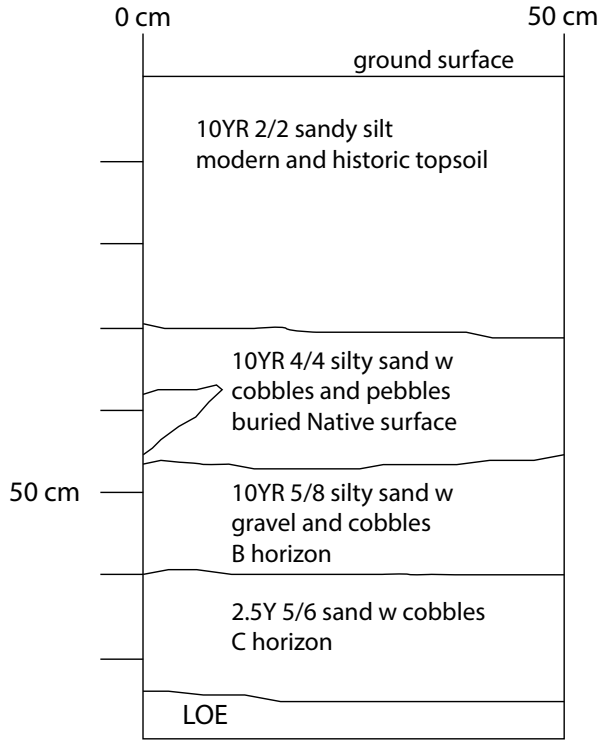

Figure 13. STP123 south wall profile.

south contains a charcoal rich pit that is a Native feature (Fig. 12).

This historic period material in the A horizon of the tent area STPs included some modern material related to the use of the event tent (beer bottle caps) and a scatter of historic domestic material such as ceramic fragments, dark green bottle glass, other vessel glass, and architectural materials such as nails, brick fragments, and window glass. The historic ceramics (Table 5) were predominantly redware and creamware, with smaller amounts of pearlware and other materials. The material dates to the late 18th/ early 19th century, making it roughly contemporary with the historic trash deposit identified in EU131, dating to the Emerson and Ezra Ripley periods. The absence of later ceramic types such as whiteware and yellow ware indicates that trash deposition stopped here by ca. 1820. The artifacts were distributed throughout the top soil, suggesting a low density broadcast trash scatter from the earliest period of occupation of the current house. This may have been a work yard. As the farm transitioned from a working farm to a more gentlemanly farm, trash deposition in this area stopped.

The archaeological significance of this area, however, comes from the discovery of Native ceramics, flakes, and tools in a consistent stratigraphic position in most of the test pits. These will be discussed from north to south.

STP 123 was one of the later test pits excavated in this area. In previous test pits, excavators had noticed that Native material was concentrated at the bottom of the A horizon, even when no soil different was observed, so in STP123 the topsoil was excavated in arbitrary 10 cm levels to test this observation (Fig. 13). The first 20 cm contained only historic material (cxts 85-86), but the 20-30 cm strata (cxt 87), which was not different in color or texture, included a number of Native artifacts including a piece of Native ceramic, four flakes and a piece of shatter, and a black rhyolite Levanna point that seems to have been reworked into a graver (Fig. 8; Shirley Blancke, personal communication from field examination). The next level (cxt 88) was a mottled soil with abundant cobbles and only Native artifacts (1 pc of ceramic and 2 flakes). This sat over a B horizon which was very cobble rich and rocky, unlike the B horizon soils on some other parts of the property. The artifact

Figure 14. Boulder in STPs 122 in the tent area. Large block on the north arrow = 10 cm.

distribution in this unit suggests that there is a buried Late Woodland ground surface in this area that is preserved, but not visibly different in this location from the early colonial ground surface that built up on top of it.

The next STP to the south, STP122, contained a mixture of historic period artifacts and lithic flakes in level 1 (0-20 cm, cxt 70) and level 2 (20-26 cm, cxt 71), although cxt 71 is dominated by Native material, containing only 12 historic period artifacts, compared to 10 Native ceramics, 5 flakes, and piece of shatter. Level 3 (26-32 cm, cxt 72) contained only lithic material (3 flakes, 1 pc of shatter). Like STP123, this area seems to have a topsoil that may be stratified (in terms of artifact context), then a buried Native occupation level below that.

STP122 was expanded 50 cm to the south to explore a large rock visible in the south wall of the STP. This boulder covered the whole of the 50 cm expansion (Fig. 14). Only level 1, the topsoil, covered the boulder (and not very deeply at its peak), suggesting that it was a visible landscape feature until the colonial period. Levels 2 and 3, the

Figure 15. Granite hammer stone from STP 122. Photograph by Melody Henkel; scale in cm.

predominantly Native strata, ran up to and abutted this boulder, suggesting that this was a living area situated against an exposed rock outcrop. This STP contained the densest concentration of Native material in the tent area: 12 pieces of ceramic and 30 lithics, including a possible hammer stone (Fig. 15).

STP58 was further east than the others in the tent area. Its profile was topsoil (0-18 cm) over a mixed A/B transition (18-30 cmbs), over subsoil. Level 1 contained historic material, but only 2 rhyolite flakes and no Native ceramics, suggesting that the dense area of Native occupation (possible house site) seen in nearby STP122 did not extend to this area.

STP121 was one of the first STPs excavated in this area. It had a modern topsoil (0-20 cm) and a buried surface (20-26 cmbs) that was visible in the profile, though both of these layers were excavated together as cxt 188. This context contained six Native lithics, including a gray rhyolite small stemmed point, and two Native ceramic fragments in addition to historic period material. This stratigraphy is very consistent with STPs 122 and 123, where a buried, predominantly Native deposit was identified at roughly 20 cm below the modern ground surface. The cobble-rich B horizon below the topsoil contained three additional flakes.

STP120 encountered 26 cm of homogenous

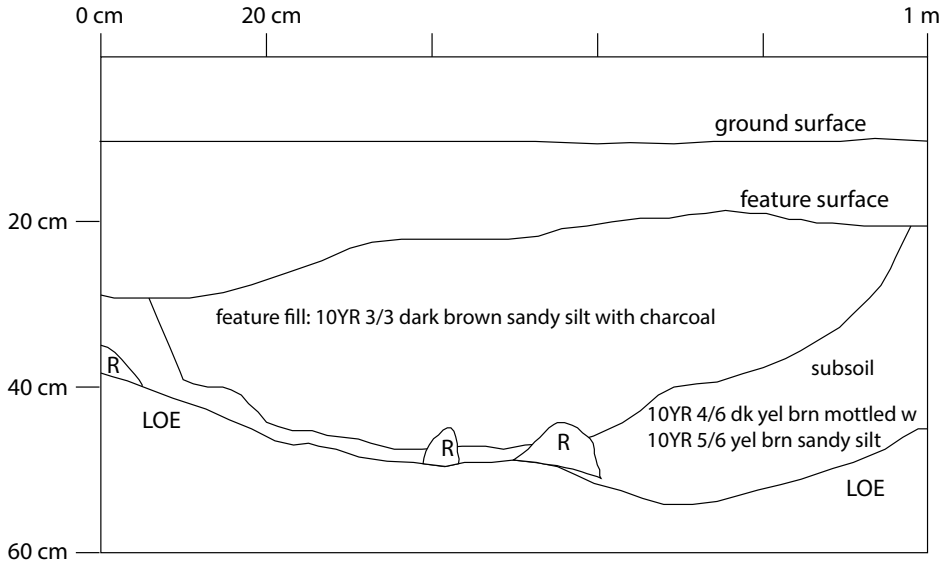

Figure 16. West bisect profile of the pit feature in EU120.

topsoil, with a feature visible after this layer was removed. This STP was expanded into a 1 x 1 m unit (EU120) with the STP as the SW quadrant. The feature proved to be a historic period trench feature (Fig. 12) which cut through an older, charcoal rich pit feature (Fig. 16). We took a flotation sample from the pit, and a sample for AMS radiocarbon dating from context 83 (sample #212536). The charcoal produced a date of 4070 radiocarbon years BP, or a calibrated date of 2836-2496 BC (see Appendix B), placing this in the Late Archaic period. The broad, bowl shaped, pit feature (cxts 83/93) contained only charcoal, uncharred seeds (interpreted at modern bioturbation), and two fragments of calcined bone. The topsoil and the soil in the trench (redeposited topsoil) contained a mixture of historic period artifacts, 15 Native lithics including a quartz point tip, and 4 additional fragments of calcined bone. Consistent with the Late Archaic date of the pit, there were no Native ceramic fragments in this unit.

Table 9. Charcoal from EU120. Analysis by Nicholas Zeitlin.

Sample	Context	Willow Count (%)	Oak Count (%)
2	67	8 (40%)	12 (60%)
3	82	8 (40%)	12 (60%)
4	83	13 (65%)	7 (35%)

Native artifact collection from the tent area

The Native artifact collection from the tent area varies in density across the area, but contained a similar range of lithic types (Table 6). Rhyolites (black/gray, red, and Melrose green) are the predominant lithic type. Quartzite is also present in all test areas except STP58, and quartz in three test areas. Other types are represented by single flakes/objects; there is a single flake of Pennsylvania jasper, and a flake very tentatively identified as Munsungen chert. The single piece of granite is a possible hammer stone. The profile of lithic types represented is generally similar to EU131 in the west yard, except that in EU131 Pennsylvania jasper was present in every level. In the tent area, there are multiple pieces of a fine grained red rhyolite which is not a common material elsewhere on the site. These may be example of the Saugus "jasper" rhyolite deposit. These differences in lithic types suggest that this site was occupied at a slightly different time from the site in the west yard, though both areas have multiple occupations starting in the Late Archaic period.

Tools (Fig. 8) in this area are a quartz point tip (EU120, cxt 65), a possible granite hammer stone (STP122, cxt 74), a black rhyolite Levanna point that may have been re-worked (STP123, cxt 87), and a gray rhyolite small stemmed point (STP121, cxt 188). The Levanna point is diagnostic to the Late Woodland period, and the small stemmed

Figure 17. View facing north of the alternate tree planting location (STPs 200 and 201) on the east side of the wooden fence. The Native deposits in Area 3, on the west side of the fence, do not continue into this area which has been more recently graded and landscaped.

points have a long time range beginning in the Late Archaic, and being replaced by other types later in some areas. The Concord Museum assigns their small stemmed points to the Late Archaic. Note that the number of flakes from this area (total excavation area of 2 sq m) was smaller than that from EU131 (1 sq m) or EU84 (1.5 x 1.5 m), though the number of tools recovered was higher (Table 6). This suggests that less tool making and resharpening took place here relative to those other areas.

There were 17 fragments of Native ceramic in the Tent Area (2 each in STP121 and 123, and 13 is STP 122). Most of these had only one surface preserved, but five had both surfaces. The body thicknesses of the pieces with two surfaces ranged between 7 mm and 11 mm (1 at 7 mm; 1 at 8 mm; 2 at 9 mm; 1 and 11 mm). None of the pieces had visible surface decoration, and no fragments were rims.

Charcoal analysis was conducted on flotation samples # 2, 3, and 4 from EU 120 due to high charcoal content allowing for robust sampling. All of these samples were from sections of the charcoal rich pit feature. Charcoal was sieved at the 2 mm level and 20 pieces of charcoal were randomly selected from each of the samples for wood species identification. Two species have been identified across all the samples; willow *(Saliceae Salix)* and oak *(Fagaceae Quercus)*. Both of these species are native to the local environment and were present through the native and colonial periods. While oak is a common wood to use for burning, willow is considered a poor burning wood. However, due to the proximity to the river on the property, it is reasonable to suggest that willow was an easily accessible wood resource.

The consistent presence of Native tools, flakes, and pottery fragments only in the lowest levels of the A horizon across this area suggests that this is the location of a Native house site that has been capped by colonial and early Federal period deposits, preserving the Native site relatively intact. Occupation of this area dates from the Late Archaic, represented by the charcoal rich pit in EU120 at the south, to the Late Woodland, based on the presence of a Levanna point in STP123. There were likely multiple re-uses of this area around an exposed boulder, with different configurations in different time periods. Because of the significance of these finds, we recommend that this area be avoided. The staff of the Trustees suggested an alternate tree planting location, which we tested with STPs 200 and 201. These STP are located east of the wooden fence, in a sloped area that has been affected by more modern landscaping (Fig. 17). These STPs contained no significant cultural material and no stratified deposits, and the Trustees used this alternate tree planting location for the trees planned for this area.

Buried Propane Tank

Repairs to the house's heating systems called for the installation of a buried propane tank immediately west of the main block of the house, north of the gift shop/office extension. There was a relatively constrained area where the tank could be placed, since it must be 10 feet from the house, but still screened from view because of historic district requirements. It also needed to be connected to the current inlet to the house. This connection to the building followed an existing electrical utility

Figure 18. South wall of STP220 showing modern topsoil, cellar excavate, and the buried ground surface. Plow scars are also visible on the floor of the STP. Large block on the north arrow = 10 cm.

trench. The excavation for the tank itself was 14 x 5 ft (4.3 x 1.5 m). This ground surface in this area rises up from the stone wall to the north towards the house. Some of this rise is artificial, created by piling the excavate from the house's cellar onto an older ground surface, as shown by both STPs (Fig. 18).

We placed two 50 x 50 cm test pits, STPs 250 and 251, at the east and west ends of the ideal tank location. Both STPs had a similar stratigraphic profile of a modern/historic topsoil with a low density of historical artifacts (approx. 0-25 cmbs), a thick layer of cellar excavate containing brick fragments (approx. 26 to 60 cmbs), and a buried ground surface from roughly 60-80 cmbs in both test pits. The buried ground surface contained some flakes (6-10 in each STP) and historic period artifacts in low density (nails, brick fragments, and a pipe bowl). This was likely the ground surface at the point the house was built ca. 1770. In STP250, plow scars were visible at the interface of the buried ground surface and the B horizon. In STP251, which contained a slightly higher number of historic period artifacts in the buried surface, the historic period artifacts and flakes were distributed throughout the level, suggesting that it was thoroughly mixed in the historic period, possibly also by plowing though no plow scars were visible in STP251.

This historic period artifacts in these units consist of low-density trash scatter, not a primary refuse area. These test pits did not contain the density or diversity of native artifacts seen in EU131, to the northwest (no Native ceramics, a smaller and less diverse lithic collection, no calcined bone). Since the deepest cultural strata were mixed in the historic period and no features were visible, our evaluation is that this would be a suitable location for the buried propane tank. The intact Native strata in visible in EU131 do not continue into this area.

Megan Sheehan monitored the excavation of the pit for the tank on June 17th, 2019. The area was excavated using a toothless bucket, and the operator followed the natural stratigraphy while maintaining a consistent depth across the entire area. The stratigraphy in the tank area was consistent with what we found in the STPs. This excavation method was utilized until a depth of 1.52 m (5 ft) was reached and all cultural layers were removed. Both of the STPs located in this area were exposed during the excavation. Plow scars were faint but visible at the interface between the buried A horizon and the B horizon. The plow scars went across the pit from east to west. A sample of ceramic sherds and other artifacts were collected from the back dirt.

Discussion and Conclusions

The test pits excavated in 2018-2019 identified two areas where there was low density, but not significant, artifact deposition in the historic period from the late 18th and early 19th centuries, the first period that the current house was occupied. These two areas, behind the main house at EU131 and south of the house in the event tent area, represent areas where domestic trash was distributed in sheet middens up to ca. 1820. This refuse distribution pattern was common in rural Massachusetts in the late 18th and early 19th centuries, and ended in the second quarter of the 19th century as the standards for neatness and orderliness around farm houses changed and people "improved" the landscape (Larkin 1994). This change at the Old Manse likely also corresponds with the transfor-

mation of the property from a working farm to a more gentlemanly rural property.

The truly significant finds from this season, however, were three areas (EU84 near the parking lot; EU131 west of the house; and the tent area) were Native deposits and features were preserved.

Summary by Area

The deposits in EU84 between the driveway and the parking lot represent a very specific, and likely short term activity: the final shaping or re-sharpening of stone tools. The 1.5 x 1.5 m unit contains 515 flakes or pieces of shatter in four primary lithic materials, all local, predominantly from the interface between the topsoil and the subsoil. This deposit did not continue into the surrounding test pits closer to Monument St., so comes from an activity that took place in a limited area. The date of this activity is unknown. The limited range of lithic sources, combined with the high flake density suggests that people worked intensively over a relatively short time period in this area. Multiple re-uses of the area might have produced a more diverse range of lithic types, spread over a broader area.

The tent area, where the highest number of Native ceramic fragments (17) and tools (3 projectile points and a hammer stone) were found, was probably the site of a Middle (1650-1000 BP or 300-950 AD) and/or Late Woodland (950-1500 AD) house, possibly built against a large exposed boulder. This date comes from the presence of ceramic fragments and a modified Levanna point, characteristic of the Late Woodland period. However, this area around the boulder had been used intermittently for a long time, based on a Late Archaic radiocarbon date (calibrated date of 2836-2496 BC) from a charcoal rich pit feature at the south end of the test area. The test pits here indicate that there is a buried ground surface preserved beneath fill added in the late Colonial or early Federal period which leveled the area. This preserved area extends for the length of the tent (8 m north-south), and an unknown distance to the west, towards the historic barn location. The preserved area does not continue east of the fence.

Finally, EU131 along the stone wall that forms the border between the house lot and the North Field represents another area where both Late Archaic and Woodland period occupation is evident. This excavation unit contained stratified deposits, including a buried ground surface, and part of a pit feature. The most notable features of this area are the evidence of long distance trade, based on the presence of Pennsylvania jasper, and of the intentional burning of animal bone, resulting in hundreds of fragments of calcined bone. Ethnographic information indicates that this practice may have been connected to beliefs about the appropriate treatment of animals that were shared throughout the Northeast, including the idea that animals had spirits and that appropriate hunting, butchering, and disposal practices were part of ensuring the success of hunting trips. The extent of the intact deposits around EU131 is not known, but they likely run to and under the stone wall to the north. Similar materials were found in mixed contexts in other STPs along the stone wall further towards the river.

The small flakes formed while finishing or resharpening tools are common across the site; however, cores and larger primary flakes are uncommon/absent suggesting that the initial process of shaping tools did not take place in any of the areas that were excavated. Ritchie et al. suggest that tools were made at longer term habitation sites, but were sharpened and maintained at smaller, special purpose sites such as camps for hunting and fishing (1990: 119). This pattern at the Old Manse suggests that the areas excavated to date are from these shorter term hunting and fishing camps, not from longer term residential sites where tools were being made. The range of tools present is also limited to a hammer stone and projectile points, one of which may have been later modified.

Time Periods Represented

Charcoal samples from EU131 and EU120 yielded Late Archaic (5000-3000 BP or 3000-1000 BC) radiocarbon dates (Appendix B). There is also evidence of Woodland period occupation based on the Late Woodland (1000-450 BP or 950-1500 AD) Levanna point and the presence of ceramic fragments (which occur throughout the Woodland period, beginning 3000 PB or 100 BC). The ceramics from the site are small and predomi-

Table 10. Counts and percentages of lithic materials by area.

	Material types														
	Quartz		Quartzite		Rhyolite, black/gray		Rhyolite, red		Rhyolite, green (Melrose)		Mylonite		Porphyritic andesite		
Area	**count**	**%**	**count**	**%**	**count**	**%**	**count**	**%**	**count**	**%**	**count**	**%**	**count**	**%**	
Driveway	1	5.3	0	0	5	26.3	1	5.3	11	57.9	0	0	0	0	
Parking lot	19	3.5	54	10.0	300	55.4	0	0	115	21.2	4	0.7	50	9.2	
Tent area	9	13.0	7	10.1	24	34.8	9	13.0	11	15.9	0	0	1	1.4	
West yard	22	13.6	20	12.3	30	18.5	2	1.2	36	22.2	0	0	0	0	
Propane tank	2	5.1	4	10.3	24	61.5	4	10.3	0	0	0	0	5	12.8	
Total (all areas)	53	6.4	85	10.2	383	46.1	16	1.9	173	20.8	4	0.5	56	6.7	
# of areas	5		4		5		3		4		2		3		

nantly undecorated, but an expert may be able to assign them to a more specific time within the broader Woodland period. Finally, charcoal from a buried ground surface in EU131 dated to the Late Woodland/Contact period (1455-1624 AD).

Herbster (2005: 32-33) discusses the relatively smaller number of known Early Woodland sites in New England and summarizes the debate over whether this drop in numbers of sites represents a period of population decline, or simply Early Woodland components being inaccurately identified to the Late Archaic period. In her summary, several sites were assigned to the Early Woodland based on radiocarbon dating, despite a lithic assemblage that was not diagnostic. The Old Manse radiocarbon dates, however, fall in the Late Archaic period, and thus do not add to the list of known Early Woodland sites. In all, the new data are consistent with the occupation periods evident from the points collected from the property that are in the Concord Museum collection and with Towle's excavations at the North Bridge. Both of these also identify periods of occupation in the Late Archic and Middle and Late Woodland.

Lithic Materials Represented

The Native lithic materials are broadly consistent across the site, with variations in the appearance/prevalence of some of the less common lithic types. The EU84 lithic working area draws on a smaller number of material, while the collection from the west yard is the most diverse. For the site as a whole (Table 10), black and gray rhyolites predominate, followed by Melrose green rhyolite. Quartzite is common and widely distributed, and quartz appears in all areas, but as a minority material. Other materials appear in some areas, but not others (red rhyolite, andesite, jasper, hornfels, and a possible piece of Munsungen chert from Maine). The small number of pieces of red rhyolite are very fine grained and may be from the Saugus "jasper"/ red rhyolite deposit, while the black and gray rhyolites could come from either the north or south side of the Boston basin (Marblehead or the Blue Hills). Blancke feels that the black and gray rhyolites commonly used in Concord came from Marblehead and Westwood, respectively, while the tan quartzite came from Westborough (1993: 246). The andesite, identified based on comparison to material in Barbara Leudtke's type collection at UMass Boston, is identified as coming from Rowley, MA. All of these types are local to Massachusetts and represent lithics that could have been gathered from their sources, or traded over short distances. Long distance trade is represented by the concentration of red and tan jasper, likely

															Total by area
	Jasper, red (PA)		Jasper, tan (PA)		Munsungen (ME) chert		Hornfels		Slate		Granite		Unidentified/ other		
	count	%	count	%	count	%	count	%	count	%	count	%	count	%	count
	0	0	0	0	0	0	0	0	0	0	0	0	1	5.3	19
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	542
	1	1.4	0	0	1	1.4	0	0	1	1.4	1	2.1	4	5.8	69
	33	20.4	2	1.2	1	0.6	6	3.7	8	4.9	0	3.0	2	1.2	162
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
	34	4.1	2	0.2	2	0.2	6	0.7	9	1.1	1	0.1	7	0.8	831
	2		1		2		1		2		1		3		

from Pennsylvania, all found in units in the west yard. Pennsylvania jasper seems to be characteristic of Middle Woodland period sites in this region (Ritchie et al. 1990: 32, 121).

Towle's lithics from the North Bridge site are identified and sorted somewhat differently (Fig. 19). Rhyolite (termed felsite by Towle) is still common, and most of it is fine grained black material (Towle 1984: 50) similar to what we found. Towle identified a small area where quartz was the predominant material (Area A), concentrated in just a few units (1984: 33). These high numbers of quartz fragments are not found anywhere on the Old Manse site. Towle also identified argillite, which we did not, as well as some hornfels and Saugus jasper/rhyolite (1984: 34-36). The Saugus jasper is probably equivalent to the fine grained red rhyolite found at the Old Manse site. Area F/G/K at the Old North Bridge site contained a Saugus jasper Levanna point. The highest concentration of red rhyolite from the Old Manse came from the tent area, where we also found a Levanna point (of black rhyolite). The use of this specific source material seems to date to the Late Woodland period at both sites.

Significance

The 2018-2019 work adds a significant amount of finer grained detail to what was previously know about this site from earlier excavation. The earlier excavations identified an intact Middle Woodland hearth west of the barn and broad areas where there was lithic material primarily in mixed/ plowed contexts. A Levanna point provided evidence of occupation into the Late Woodland period. The new work adds three more areas where Native deposits are intact and three additional radiocarbon dates. This work has indicated that occupation of this area extended back into the Middle or Late Archaic, and has added more detail about the lithic sources used. The discoveries of pottery fragments and calcined bone also provide evidence for a wider range of activities.

The significance of these areas can be understood in part in comparison to the North Bridge site, the best known ancient Native site in the immediate vicinity. Most of the deposits at the North Bridge site were disturbed by plowing, so artifacts were still present and spatially distributed in a significant way, but they were not in stratified deposits. The North Bridge site contained a Late Archaic component and a Late Woodland component that were spatially separate. Towle (1984) hypothesized that these were both short term camp sites (occupied for a few days) and that both components likely extended onto the Old

Prehistoric Artifacts by Area

	Area A		Area G		Area J		Area B,C,D,E		Area H, I		Total
Tools	11		10		2		1		0		24
Ceramics	5		23		0		0		0		28
Flakes:											
quartz	184		26		0		1		1		212
argillite	10		61		2		0		1		74
felsite	20		100		16		6		4		146
chert	10		4		0		2		1		17
other fine-grained	5		40		2		0		0		47
Total Flakes		229		231		20		9		7	496
Shatter:											
quartz	183		136		3		0		2		324
felsite	3		12		2		1		0		18
quartzite	0		5		0		0		0		5
Total Shatter		186		153		5		1		2	347
Fire-Cracked Rock		140		99		5		0		0	244
Total		571		516		32		11		9	1,139
% of Total		50.1		45.3		2.8		1.0		.8	100.0

Figure 20. Lithic material found at the North Bridge site (Towle 1984, fig. 11).

Manse property. This has proven to be true. While the two areas are recorded as separate archaeological "sites" today, in the past they were part of one river terrace and were used for the same kinds of activities.

Both Late Archaic and Middle and Late Woodland components are visible at the Old Manse as well. Two areas show evidence of repeated use from the Late Archaic through the Late Woodland period, and it is possible that both areas were used in the intervening periods as well. Rather than short term camps, these denser sites may represent longer term camps and repeated use of the areas, resulting in a buried, organically enriched ground surface in some locations. It is hard to compare the density of the deposits at the Old Manse and the North Bridge site, because we used 1/8 inch mesh for Native deposits and the North Bridge site used 1/4 inch mesh. However, Area A at the North Bridge site yielded 229 flakes and 186 pieces of shatter (total 405 lithics) in 176 sq ft (approx. 16 sq m) of excavation area. The Old Manse excavations covered only 13 sq m, but produced 831 flakes, pieces of shatter, and tools. This denser lithic deposit may indicate longer and more intensely used sites; however, some of the difference is certainly due to the screen sizes. The North Bridge excavations recovered 27 pieces of Native ceramic from all areas (A and F/G/K); the Old Manse excavations identified 29 pieces from our smaller area. None of the features at the North Bridge site could be conclusively dated to the period of Native occupation, while EUs 120 and 131 at the Old Manse both had charcoal rich pit features from the Late Archaic. In sum, while the activities that took place on Old Manse property are similar to what Towle sees at the North Bridge site (an area repeatedly reused for hunting and fishing camps), parts of the Old Manse property have areas where the sites are denser, possibly more intensely occupied, and better preserved. These areas of preservation are very archaeologically significant.

Recommendations

The fact that Native sites are preserved in multiple locations on the Old Manse property is extremely significant, and can be attributed to the long and careful stewardship of The Trustees and to the fact that the historic period layout of the property has been stable since the late 18th century. To be preserved, areas had to have never been plowed or disturbed by later activity that cut through or removed the existing soil layers. In this case, counterintuitively, Native habituation areas are preserved close to the house, probably because plowing was located in more outlying areas, leaving the ground immediately west and

south of the house preserved. South of the house, in the tent area, dirt seems to have been added to this area to create an artificially level surface during the early occupation of the house, capping the Native deposits in this area. West of the house, the proximity both to the building and to the stone wall resulted in an area that was never plowed (EU131).

In the tent area, these well-preserved deposits are quite shallow, just 20 cm (7 ½ inches) below the modern ground surface. This means that the Trustees need to be very careful about modern impacts in this area, including protecting the area from heavy machinery especially when the ground is wet and soft.

Because we were testing for very specific impacts such as tree planting, we did not place test pits in areas that were not going to be disturbed. Therefore, we do not know how far the preserved deposits in the tent area extend to the north, south, or west, for example, nor do we know the extent of the preserved deposits around EU131. This means that any future work will need its own testing.

The Trustees can now confidently extend their landscape interpretation back to 4000 years before the present. It may be helpful to frame this in terms of what was going on elsewhere in the world or the Americas at this time period; this is the age of the pyramids and Stonehenge, for example. The interpretation can also be quite personal and specific. Near the entrance drive, a few people sat and sharpened tools. In the tent area, there was probably a house, or at least a fire, against a large exposed boulder. Along the stone wall, people built a fire to dispose of animal bones in a correct and significant way by burning them. Around the same fire, they may have worked with stone tools made from material that came from Pennsylvania and reached here through many hand to hand exchanges, as well as stones gathered from local quarries.

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